## **Association for Information Systems**

# AIS Electronic Library (AISeL)

Rising like a Phoenix: Emerging from the Pandemic and Reshaping Human Endeavors with Digital Technologies ICIS 2023

**Practitioner-Oriented Research** 

Dec 11th, 12:00 AM

# Improving Digital-Enabled Strategic Agility with Enterprise Strategy SaaS Platform Affordances: A Manufacturing Perspective

Bradley James Kalgovas *TU Darmstadt*, kalgovas@ise.tu-darmstadt.de

Follow this and additional works at: https://aisel.aisnet.org/icis2023

#### **Recommended Citation**

Kalgovas, Bradley James, "Improving Digital-Enabled Strategic Agility with Enterprise Strategy SaaS Platform Affordances: A Manufacturing Perspective" (2023). *Rising like a Phoenix: Emerging from the Pandemic and Reshaping Human Endeavors with Digital Technologies ICIS 2023*. 7. https://aisel.aisnet.org/icis2023/practitioner/practitioner/7

This material is brought to you by the International Conference on Information Systems (ICIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in Rising like a Phoenix: Emerging from the Pandemic and Reshaping Human Endeavors with Digital Technologies ICIS 2023 by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

# Improving Digital-Enabled Strategic Agility with Enterprise Strategy SaaS Platform Affordances: A Manufacturing Perspective

Completed Research Paper

# **Bradley Kalgovas**

Technical University of Darmstadt Darmstadt, Germany kalgovas@ise.tu-darmstadt.de

#### Abstract

Strategic Agility allows organizations to rapidly respond to market movements and integrate these opportunities into their organization. Open Strategy, utilizing frameworks such as Objectives and Key Results, increases Strategic Agility by enhancing transparency and inclusiveness in strategy development and execution. However, leaders lack effective digital tools to rapidly align organizations at scale and track progress, especially when creating Strategic Agility. To address this, Enterprise Strategy SaaS Platforms (Strategy SaaS), a new breed of strategy software, is being developed to facilitate Digital-Enabled Strategic Agility (DESA). This research explores the enablers of Strategy SaaS adoption and its impact on DESA through two manufacturing cases using Integrated Affordance Theory. Results indicate Strategy SaaS enables organizations to sense, decide, coordinate, and act on their Open Strategy initiatives more effectively. However, it also requires additional enablers due to the business-led nature of implementation. The research contributes a tangible action plan for leaders to increase DESA.

**Keywords:** Digital-Enabled Strategic Agility, Managerial Actions, Open Strategy, OKRs, Enterprise Strategy SaaS Platform

#### Introduction

Improving organizational strategic outcomes has been a long-term focus of industry and academia (Weber & Tarba, 2014). Research has identified that developing Strategic Agility capabilities improves strategic outcomes as it is an effective way to sense, make decisions, coordinate, and act on new opportunities, integrating them into the core business (Tallon, Queiroz, & Coltman, 2022). However, in this fast-paced environment and without effective digital tools, practitioners find it challenging to achieve these outcomes (Sull, Sull, & Yoder, 2018; Tallon, Queiroz, & Coltman, 2022; Weber & Tarba, 2014). Digital-Enabled Strategic Agility (DESA) is focused on improving organizational outcomes through better development and execution of their strategy through digital enablement (Tallon, Oueiroz, & Coltman, 2022). This complements recent strategy research that a well-defined strategy alone will not achieve significant results; a set of strategic execution capabilities is also required to assist in implementing this strategy (de Oliveira, Carneiro, & Esteves, 2019; Sull, Homkes, & Sull, 2015). Specifically, to achieve strategic agility at scale, it must be embedded into the organization. Thus, to achieve the potential benefits of DESA, research should focus on the temporal flows of strategic processes and how organizations can direct processes in such virtuous ways over time (Sambamurthy, Bharadwaj, & Grover, 2003). Thus, research is needed on the specific management methods to develop and embed this capability into the organization, and the affordances of IS in enabling this (Tallon, Queiroz, & Coltman, 2022).

Managerial Actions are one of the key efforts that can be taken by leaders to improve an organization's ability to successfully develop and execute its strategy, and to improve its Strategic Agility (de Oliveira, Carneiro, & Esteves, 2019). Open Strategy is a new approach which requires managers to develop and execute strategy using transparency and inclusion (Whittington, Cailluet, & Yakis-Douglas, 2011). Organizations are increasingly adopting the framework of Objectives and Key Results (OKRs) to achieve their Open Strategy ambitions (Doerr, 2018; Morton, Wilson, & Cooke, 2020). The OKR methodology was originally designed for digital and software development, but enterprises across all sectors are now looking to leverage its benefits after its success at Intel and Google. More specifically, many resource intensive organizations, manufacturing being chief among them, have a history of adopting improvement methodologies, e.g., Lean, and can benefit from implementing Open Strategy planning and execution processes to improve their Strategic Agility (Kiewell, 2022).

The fact that leaders are struggling to build Strategic Agility and lack the digital tools which enable them to rapidly align organizations at scale and track progress, especially when implementing Strategic Agility, has not been lost on industry (McKinsey, 2022; Sull, Sull, & Yoder, 2018). Organizational leaders are demanding strategy focused software affordances that they can use in the form of Software as a Service (SaaS) which provides them the affordances to rapidly align and realign their organization to the strategy, provide visibility into the execution progress, and provide a working environment where the team members collaborate and make decisions to ensure that the work they do is connected and meaningful to the organization (McKinsey, 2022; Park, El Sawy, & Fiss, 2017). Unlike traditional Enterprise Resource Planning or Business Intelligence software, Enterprise Strategy SaaS Platforms (Strategy SaaS) is used heavily by the leadership team, implementation is coordinated by the business rather than IT, and SaaS is favored over on-premise solutions. Thus the demands of business leaders has resulted in the rapid increase in venture funding allocated to newly developed Digital-Enabled Strategy Execution tools (Wilhelm, 2020).

This research is motivated by the need to determine how organizations use the OKR framework to implement Strategy SaaS affordances, and develop and execute their Open Strategy initiatives, thereby improving DESA. The research extends Managerial Action literature by focusing on the efforts that leaders can make by implementing the organizational steering framework of OKRs, coupled with a Strategy SaaS implementation, to embed DESA into their organization. Thus, this research seeks to explore:

- 1. Why do organizations implement Strategy SaaS and how does the implementation afford the organization DESA capabilities?
- 2. What are the factors that affect the enablement of the organization and the individual to adopt Strategy SaaS affordances where the implementation is led by the business?

Through a case study approach with two manufacturers over 3.5 and 2.25 years respectively, coupled with interviews with 15 team members to reflect on the journey, we identified that 1) Strategy SaaS implementation is motivated by the affordances of setting high integrity strategic goals with a results focus, enhancing alignment between the function's goals, frequently updating plans in line with the agile environment, and a clear association between work and strategic goals; 2) Transformation Leadership is required to enable organizations to be ready for Open Strategy and Strategy SaaS implementation by focusing on the four domains of institutional, organizational, technological, and behavioral; 3) there are strong synergies between Open Strategy and Strategy SaaS affordances; 4) a Strategy SaaS implementation is different to normal system implementations as it is business led and thus requires more consistent focus for adoption; and 5) specific steps are required to initiate the journey for practitioners. Thus, our study provides a significant step in the development of DESA, Strategy Execution, and the affordances of SaaS.

#### **Literature Review**

# Digital-Enabled Strategic Agility enables an organization to improve their strategic execution capabilities

Building on the concept of Dynamic Capabilities, Strategic Agility has been identified as the primary way for an organization to respond strategically to disruptive, sudden, and often unanticipated market movements with efficiency and effectiveness (Sambamurthy, Bharadwaj, & Grover, 2003; Weber & Tarba, 2014). However, despite the espoused benefits, Strategic Agility has been an enduring and increasingly pressing challenge for organizations (Tallon, Queiroz, & Coltman, 2022). While the role of IS in enabling

organizational agility (Chakravarty, Grewal, & Sambamurthy, 2013) has been extensively researched, developing, scaling and maintaining Strategic Agility remains a challenge for many organizations. In addition, leadership research has identified that leaders need to develop strategic sensitivity, resource fluidity and leadership unity, but there is little guidance on how to practically scale these concepts across the organization, when organizations are operating in highly turbulent markets (Morton, Stacey, & Mohn, 2018).

DESA is the next frontier in Strategic Agility (Tallon, Queiroz, & Coltman, 2022). While it focuses on the use of IS to enable organizations to better respond to the environment and the organization's current needs, we extend this definition to examine how this can be achieved at scale. The existing research on Strategic Agility addresses the role of IS enablement in the creation of digital options, agility and entrepreneurial actions through the mechanisms of capability processes, entrepreneurial action processes and coevolutionary processes. However, there is a need for more guidance on how to build the capability processes on an ongoing and scalable basis (Sambamurthy, Bharadwaj, & Grover, 2003), especially in the context of rapidly changing strategy (Morton et al., 2017). Thus, the current research builds on the findings that more flexible IT and IT business spanning capabilities (Lu & Ramamurthy, 2011; Tallon & Pinsonneault, 2011) can improve organizational agility outcomes at scale (Limaj & Bernroider, 2022). Specifically, research is needed into how to generate and regenerate theses strategic processes into a virtuous cycle over time (Sambamurthy, Bharadwai, & Grover, 2003). We extend these findings by exploring where IS has a dominant presence in guiding the organization's strategy by examining how it achieves this through institutional, organizational, technological, and behavioral enablers (Tallon et al., 2019). Specifically, DESA is focused on how an organization can be led and guided through the use of IS to effectively improve its strategic awareness capabilities, such as scanning for emergent threats, forming a collective response through effective decision making and resource prioritization, and execution capabilities to act effectively and make the response a reality at scale (Tallon, Coltman, & Queiroz, 2020).

Accomplishing DESA requires IS enablement and the ability to connect the disparate parts of the organization. There is potential for it to become the full operating model for an organization consisting of strategy, structure, processes, and infrastructure (Tallon, Queiroz, & Coltman, 2022). The following factors have been identified as items that will shape the next frontier: ability to examine weak signals at the periphery, IT governance, and improvision (Tallon, Coltman, & Queiroz, 2020). Specifically, examining weak signals will enable organizations to sense these signals, giving them more time to act. However further research is needed to determine how to amplify the right weak signals (Pinsonneault & Choi, 2022). In addition, research is required on new governance mechanisms that combine the sometimes opposing concepts of disciplined autonomy, business convergence, permeable boundaries, and incremental financial commitments (Vaia, Arkhipova, & DeLone, 2022). Finally, the desire for improvision represents the ongoing need to sense and respond, where organizations can respond with speed and creativity (Levallet & Chan, 2018). The agile organization is the interlinking mechanism, aligning the four tenets of modular design, use of platforms, ability to interpret data, and ambidextrous digital culture (Grover, 2022). Our research extends this guidance by examining how Open Strategy and IS supports this ambition, providing organizations with the affordances to achieve this at scale.

## Open Strategy is a way to improve an organization's Strategic Agility

Leadership involvement is one of the most important factors in implementing an organizations' strategy (Mubarak & Yusoff, 2019). Specifically, strategy execution research has developed a set of Managerial Actions that operationalize the organization's strategy: 1) unfolding – the translation of strategy into a set of goals and actions which unify the organization, 2) coordination – the integration of management efforts and appointing of leaders so that employees can be mobilized, 3) communication – the information disseminated to employees about the strategy including items such as objectives, goals, actions, responsibilities, deadlines and results, 4) control and feedback – the results monitoring to ensure that the progress is on track and making adjustments to the plan as required due to changes in the internal or external environment, and 5) development of HR policies and employee competencies – those who are implementing the strategy should be supported by HR to promote the policies which support the development of these competencies (de Oliveira, Carneiro, & Esteves, 2019). This democratization of strategy by management has been captured in the term Open Strategy, which is focused on the principle that strategy should be developed and executed in a way that is transparent, where information about the strategy is visible and inclusive, and a diverse array of people are involved in the development and execution

of the strategy (Whittington, Cailluet, & Yakis-Douglas, 2011). Thus, it is critical leadership has the organizational framework to promote the development of these skills and scale them across the organization.

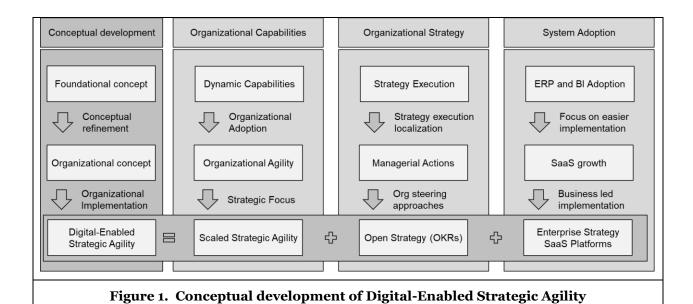
OKRs are a strategic execution framework which has been designed to help managers adopt an Open Strategy, and thus implement the Managerial Actions outlined above (Klopper et al., 2022; Whittington, Cailluet, & Yakis-Douglas, 2011). The framework was developed at Intel and popularized at Google as a way to rapidly align the organization around strategic goals (Doerr, 2018). A team's OKRs typically consists of 3 to 5 Objectives, which are vision statements outlining an organization's goals, and 4 to 5 Key Results (KRs) per objective, which focus on the optimal metrics that a team could realistically achieve in support of the Objectives (Comella-Dorda, Kaur, & Zaidi, 2019). The OKRs are nested such that a team's Objectives align with those of the teams above and below, and any KRs from the up-level team are divided among the teams below (McKinsey, 2022). However, the flow of OKRs is bidirectional as downstream teams can make suggestions to up-level teams. Furthermore, lateral teams can align OKRs across the organization. The OKRs are typically set for 90 days and then revised at the end of cycle for the next period (McKinsey, 2022). Our research is focused on the use of this methodology, coupled with the appropriate IS affordances to improve the organization's Strategic Agility.

# Strategy SaaS affordances are required to effectively steer Open Strategy transformations

IS has long been recognized as more than just an infrastructure; it is strategic and fundamental to longterm organizational success (Peppard & Ward, 2004). IS has been shown to adapt to emergent strategy as well as support strategic activities (Leonard & Higson, 2014). Specifically, Business Intelligence systems enable organizational agility in the presence of environmental (speed of change and unpredictably) and organizational (TMT energy and organization size) factors (Park, El Sawy, & Fiss, 2017). However, there is growing recognition that the role of IS is expanding to encompass direct development and dissemination of the organization's strategy to assist the organization in realizing its Open Strategy ambitions, called Digital Strategizing (Morton, Amrollahi, & Wilson, 2022). Venture capitalists and software developers alike have acknowledged the need for software and have created Strategy SaaS, defined as affording everything from setting the strategy, disseminating it, and tracking its progress throughout the entire organization. In particular, this new field of software focused on disseminating and tracking an organization's strategy has grown rapidly, often using OKRs as a core element of the platform (Wilhelm, 2020). These software platforms typically contain affordances which support the Open Strategizing processes of creating a onepage visual strategy map, frequent management dialogues, and performance data visualizations (Doeleman, van Dun, & Wilderom, 2022). Incumbents are increasingly adopting SaaS applications to assist in their organization's transformation (Sebastian et al., 2020), and procuring this software as a Strategy SaaS solution provides them with the affordances to rapidly accelerate their Open Strategy initiatives.

Organizational agility, through IS adoption, is affected by numerous institutional, organizational, technological and behavioral enablers through Integrated Affordance Theory which consists of the phases affordance existence and perception, actualization and effect (Tallon et al., 2019). Unlike traditional SaaS or system implementations, Strategy SaaS requires the leadership team to undertake transformational leadership and participate in the Strategy SaaS affordance enablement phases, and for a significant portion of the organization to adopt an Open Strategy approach (Morton, Wilson, & Cooke, 2020). Thus, the complexity of adopting this Strategy SaaS is not truly captured in existing research and requires investigation using Integrated Affordance Theory. Manufacturers are typically considered resource heavy industries, are users of SaaS, and have much to benefit from Open Strategy (Bajaj, Bradley, & Cravens, 2008; Kiewell, 2022). However, they have challenges in adopting digital technologies with respect to products, channels, and processes which includes digital software such as Strategy SaaS (Kiewell, 2022).

The current study is positioned at the nexus of research about Strategic Agility at scale, Open Strategy (OKRs), and Strategy SaaS adoption (see Figure 1). There is an increased need for organizations to successfully undertake Open Strategy by implementing OKRs. However, this cannot occur if management fails to enable Strategy SaaS or sufficiently enable agility in their organization. Thus, there is a need to focus on the specific Open Strategy orientation and affordances relating to Strategy SaaS, and the link to organizational enablers to Strategy SaaS adoption.



# **Research Context and Strategy**

While there has been extensive analysis of strategy execution in general, this does not address the complexity of implementing Strategy SaaS to enable Open Strategy, and the pathways to achieve DESA. Thus, the current research explores the goals and impacts of Strategy SaaS, as well as the factors to enable Strategy SaaS adoption. A multiple case study approach was adopted to focus on understanding the how and why. This method focuses on observing the real-life context where the researches have little control over the events they are studying (Campbell & Yin, 2018).

Manufacturers are often established organizations focused on the mechanized production of physical goods. The two manufacturers selected for the study are both financially successful at producing goods but shifts in the environment have forced them to focus on Open Strategy. Unlike born-digital firms such as Tencent, Amazon, or Alphabet, established organizations have the difficult task of adapting large parts of the organization and processes to new technologies (Sebastian et al., 2020; Tumbas, Berente, & vom Brocke, 2017). The inclusion criteria were 1. the organization had more than 300 employees, 2. had been in existence for more than 10 years, and 3. was actively engaged in adopting a Strategy SaaS solution as part of an Open Strategy initiative. Organization A manufactures aerospace products. It was family owned but now has expanded its ownership with outside capital. It originally purchased a Strategy SaaS 5 years ago, but did not find the alignment functionality sufficient, so it purchased a new Strategy SaaS system 3 years ago and has been satisfied with the additional affordances. The organization is run by an executive leadership team which provides overarching guidance, and a functional leadership which is charged with developing and operationalizing the nuanced strategy. It runs its OKRs using trimesters rather than quarters due to the nature of its manufacturing production flow. The research data collection began 3.5 years ago with the commencement of the sales motion and continued throughout the implementation.

Organization B chose to implement a Strategy SaaS system to enable its Open Strategy initiative 2 years ago. It is focused on the mining and production of ore to manufacture concentrates which are used in their customers' industrial manufacturing processes. The organization is run by a leadership team for the region which makes all the strategic decisions around optimizing production. This leadership team reports into a global leadership team for all the regions of the world. The leadership team consists of the Managing Director, all Site Directors, and relevant support team members. Each site team consists of the Site Director and team members that operate the equipment, and business improvement representatives. Larger sites may have additional layers of management. All the business improvement representatives allocated to the site are also part of the business improvement team and thus are allocated to two sets of OKRs. The organization sets its business objectives annually and then sets its OKRs as the quarterly increment of the annual strategy. The annual business objectives also feed up into a much broader rolling 5-year strategy. The data collection on Organization B began 2.25 years ago, 3 months prior to the decision to purchase the

system. Both organizations employed an external consulting organization to assist with the implementation of the Strategy SaaS (with Organization A, consulting expertise was procured with the second Strategy SaaS implementation). For both organizations, the management team led the decision to purchase the Strategy SaaS, and no IT involvement occurred in the purchasing decision (apart from the security assessment). The implementation was led by the Strategic Initiative team in Organization A and the Business Improvement team in Organization B. The business champion was the Managing Director of both organizations.

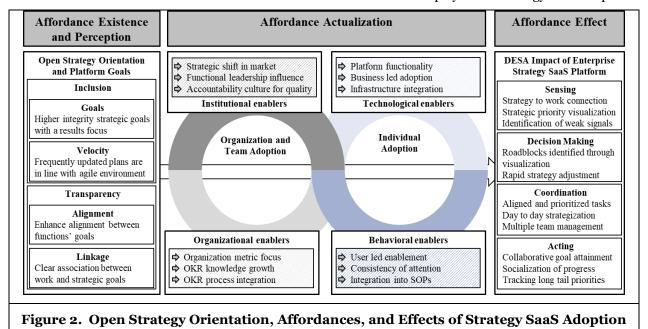
When a nuanced description of a phenomenon is required, semi-structured interviews are an appropriate way to gather the information, balancing rigor and consistency in responses (Trauth & Connor, 1991). The interviewees were selected to represent a broad cross section of the business and levels in the organizations. In the case of Organization A, an interview was also conducted with the external consultant to provide context of the organization's journey. The semi-structured interviews (see Table 1) focused on the adoption motivators, platform features, integration process, and the DESA outcomes that were realized. The interview duration ranged between 30 minutes to 1hr with an average length of 43 minutes. Probing questions were asked to understand the goals and affordances in detail, along with how the organization's enablement affected the affordances. In addition to the semi-structured interviews, data was collected from the point that the consulting company began interacting with Organizations A and B. The data consisted of the materials that were developed for the OKR procurement decision information (e.g., product materials, rollout plans), implementation materials (e.g., best practices, communication plan), OKR session notes and all subsequent meeting minutes and correspondence, OKR vendor roadmap, OKR usage and achievement statistics. In addition to this, the researchers had full administrative access to each organization's Strategy SaaS which they used to verify information on system usage and interviewees' adoption claims.

ID	Position	Team	Level	ID	Position	Team	Level
A1	Lead OKR Consultant	External	NA	B1	Maintenance Manager	Site Team	L2
A2	Director	IT	L2	B2	Site Improvement Manager	Site, Region Improvement	L2
A3	CFO	Finance	L1	В3	Acting Manager	Site, Region Improvement	L2
A4	Vice President	Strat Mgmt	L2	B4	Managing Director	Mgmt Team	L1
A5	Systems Specialist	Quality	L4	В5	Operations Strategic Manager	Site, Region Improvement	L2
A6	СВО	Business Management	L1	В6	Improvement Director	Region Site Improvement	L1
A7	Manager	Supply Chain	L4	В7	Manager	Corporate Comm	L1
				В8	Site Director	Site Team	L1
	Table 1. Overview of Cases						

Thematic coding was conducted using the stages of data reduction, data display, and conclusion drawing (Miles & Huberman, 1994). Following each interview, the data was transcribed, and the affordance and their perception (derived from Open Strategy Orientation), affordance actualization processes (using the agility enablers) and affordance effects (DESA Outcomes) (Tallon et al., 2019) were used as seed categories for the initial phase of data reduction. NVivo software was used for data display by consolidating the data into a tabular form and creating a hierarchy of nodes. The hierarchy was then discussed among the researchers and the organization, and individual adoption factors were further deconstructed into composite bins of institutional, organizational, technological, and behavioral enablement. Finally, conclusions were drawn by analyzing the casual flows and patterns that occurred between the perceptions, enablement and impact of the affordances. Although theoretical saturation was achieved after the thirteenth interview, subsequent interviews were conducted to further validate the nuances and linkages between the perceptions, enablement and impact of the affordances (Guest, Bunce, & Johnson, 2006).

# **Findings and Analysis**

The results are focused the Strategy SaaS affordances which enable the DESA capabilities. Figure 2 depicts the Open Strategy Orientation related to Strategy SaaS enablers which impacts the actual implementation, and the affordances received from the Strategy SaaS. Two loops were identified, one for the organizational and team adoption, and the other for individual adoption. The results provide further detail on how the DESA Affordances can be obtained and what role the enablement factors play in the Strategy SaaS adoption.



## Open Strategy Orientation and Platform Goals (Existence and Perception)

Manufacturers adopt Strategy SaaS in the pursuit of four main goals, the first two primarily support Open Strategy Orientation of Inclusion and the second two primarily support Transparency (see Table 2). The first is to achieve **higher integrity strategic goals with a result focus** through the use of OKRs. Manufacturers typically focus on producing output and finished goods, but focusing on outcome makes the goals more strategic in nature. Focusing on output ignores the rational for why they are important, which is an important employee motivator as "We really like the emphasis on outcome over output as this focuses on achievements over tasks" [B6]. This also makes the goals meaningful and objective "as we are trying to track and measure our performance in a more disciplined and process-orientated way instead of just a bunch of people coming up with numbers that we need to go track without really understanding it" [A5].

Many organizations have developed a planning cycle which follows traditional waterfall methods and want to ensure that **frequently updated plans are in line with the agile environment**. Organizations want a better process, more meaningful goals, regular tracking, and ability to revise as necessary as "The organization felt quite reactive as the leadership often developed five-year plans according to the global planning process timelines" [B4]. Many team members felt the current goal-setting process created significant challenges as the goals developed were quickly out of date, and they wanted to know that the tasks they were completing were orientated to the most relevant targets. In addition, many teams wanted to ensure that they were aligned on the right goals and had real-time access to the goals of other teams. Prior to the implementation of the Strategy SaaS, most teams did not have access to other teams' goals "unless they specifically asked for it" [B8]. Previously, the different divisions did not know if they were aligned, and they wanted clarity on how their goals aligned to the teams around them on a real-time basis.

Secondly there is a focus on developing a plan to **enhance alignment between the functions' goals**, especially in manufacturing where collaboration is required across functions to deliver on time as "For a long time, different areas had different priorities and goals weren't coordinated or aligned, which created

a lot of challenges for us. We felt that a technology solution that brought us all together was going to help solve this challenge by enhancing organizational alignment and unity" [A3]. This siloing was fostered by the organization's planning process. The goal was to implement a new system where all teams could develop the plan in alignment with each other and in relation to the organization's goals. This was a paradigm shift for Organization B as "one year all the sites had done their strategic planning before the leadership which doesn't help alignment down and across the organization" [B8].

The final goal is to make a **clear association between work and strategic goals** to ensure that team members know that their work is meaningful and impactful. Prior to the purchase of the Strategy SaaS, Organization B identified that urgent and not important items were often getting prioritized ahead of non-urgent and important items, resulting in the organization feeling like preventable issues were often only addressed when they became urgent and important. The organization also wanted to address the significant amount of time that team members were allocating to non-urgent and non-important items. Finally, the organization wanted to improve the metric that only 35% of the team members' time was focused on achieving the organization's strategic priorities. The organization was attracted to the 90-day period of the OKR methodology as "it is a really good period of time for being able to translate a grand plan into something that I'm going to do in a period of time" [B6]. The organization identified that Strategy SaaS was required given the frequency of the plan updates and the need for continuous alignment.

Category Focus Area		Description	
Goals (I)	Higher integrity strategic goals with a results focus	Manufacturing organizations are traditionally output focused and Strategy SaaS assists them in orientating on outcome	
Velocity (I)	Frequently updated plans in line with agile environment	Business changes and strategic shifts are occurring on a more regular basis and organizations need to adapt	
Align- ment (T)	Enhance alignment between functions' goals	Organizations want the Strategy SaaS to break down the silos, synchronize objectives, and effectively allocate resources	
Linkage (T)	Clear association between work and strategic goals	Team members should prioritize their time on strategic goals, and away from non-urgent and unimportant tasks	
Table 2. Open Strategy Orientation and Platform Goals			

I denotes Open Strategy Orientation of Inclusiveness while T denotes Transparency.

#### Institutional Enablers (Actualization)

Institutional Enablement is promoted by creating a culture which enables Strategy SaaS adoption (see Table 3). A **strategic shift** or the presence of a revised and/or updated strategy due to market movement is a strong motivator for Strategy SaaS adoption. Organization A identified that it was moving from a build to order company to one in which it developed custom products. This required a significant shift where "we are going to need more objectives, and more effort around market studies, sensing what's going on in the market, understanding our customers' needs. We're going to have to be more formalized in that" [A4]. The organization needed to adopt the Strategy SaaS as this new plan had not been socialized throughout the organization. This presented a challenge as "no one briefed us on the 2030 plan and there are no concrete actions that have been fed down from a departmental perspective" [A2]. The Strategy SaaS enabled this new strategy to be communicated to the organization. For Organization B, the key motivator was the continual changes that were developed globally that often made the five-year and annual business plan out of date, making product production challenging. They realized that they "needed a better process for keeping the business planning running. The current process often resulted in random outcomes with unexpected achievements and misses" [B4].

The **functional leadership influence** was instrumental in driving the strategic direction and the acquisition of the Strategy SaaS according to A1. Specifically, in Organization A, the Functional Leadership Team, one layer under the Executive Leadership, was responsible for realizing the strategy. However, for many, when they noticed the Executive Leadership's lack of involvement it demoralized them. For example, A2 noted that "the organization's maturity is low. The leadership should bring up the results and check them. If they don't look at results, why should we?" [A2]. A3 echoed this mindset as they identified that "we have gotten stuck in this 'this is the way we do things' kind of mindset, and we need to break through

that and accept the benefits and opportunities present in Strategy SaaS" [A3]. This culture is changing which is driven in part by the Strategy SaaS as "utilizing the platform helps assist us in changing our culture... from command and control to one more disciplined and focused on strategy development" [A6]. Thus, there is a virtuous loop as the Strategy SaaS was established to improve the organization's culture, but the Strategy SaaS's adoption is also influenced by the culture of the leadership. Across Organization A, the sentiment was that "We definitely perceive it as something useful, but we have not reached the full potential of the system as we are not mature in our organization" [A7]. To address this, that the Functional Leadership Team should drive "critical mass" [A4] onto the platform and make sure that the Leadership Team has the "appropriate skin in the game" [B4].

Finally, **accountability for quality** is a significant driver of adoption, especially when this is the focus for customers. Specifically, any system that requires inputting numbers based on judgment can have some issues because while "some of us are really honest and will enter the true status, others will put in updates that make the system look good" [B1]. When there is a lack of an accountability culture this can be challenging as "it just frustrates the hell out of me as it can feel like working in chaos with all these systems" [B2]. However, this culture was not found to permeate across all teams in Organization B. Specifically, B8 on another team identified that "we are numbers orientated so this isn't a problem for us. This has given the team the chance to hold themselves to account and update the team on what is happening" [B8]. Teams with a culture of accountability for quality found that the system was helpful in identifying early warning flags that they were unlikely to deliver the result on time (a key metric of quality). The organization was then able to recruit additional resources to help achieve the deadline. This also improved the culture of celebration within the organization. In fact, one manager used the engagement in the tool as way to identify team members who were not appropriate for the organization. "I've still got one manager who hasn't updated theirs all quarter and in reality, they are probably not the right person in the organization" [B8].

Category	Description	
Strategic shift in market	Strategic pivots requiring communication through SaaS promotes adoption	
Functional leadership influence	High maturity of the functional leadership and use of the Strategy SaaS in their decision-making fosters adoption	
Accountability for quality	The organization and team's culture focus on results increases adoption	
Table 3. Institutional Enablers		

#### Organizational Enablers (Actualization)

OKR and metric knowledge is crucial in building Organizational Enablement (see Table 4). The **metric focus of the organization** is an important driver of adoption of Strategy SaaS. Specifically, several members in the organizations identified that where the culture of their team or the organization did not have a metric orientation, this made the adoption of the system difficult. However, the system was helpful for some as it forced them to adopt a more metric focus than before. "The vast majority of our goals tend to be actions, because we didn't have enough good metrics to objectively measure the results. If we tried to measure profitability, right now, it'd be based on an unrealistic inventory number that's out of date and inaccurate, and our numbers would be all over the place" [A4]. However, the organization identified that this was "something new for us and something that we want to get into" [A3]. Some members of Organization B identified that the Strategy SaaS forced them to identify what success looked like. "Before we'd never taken the time to define success, so it was subjective. If you were lucky, it would be things like dollars/ton of product produced. However, more often than not, it was completed projects. That's a very crude measurement of success or progress. Now we try to give this a measurement" [B1].

The **OKR knowledge growth** was also an adoption driver. Specifically, one of the key tenets of knowledge that organizations needed to understand is the preference for outcome (business result) over output (business activity). For Organization A, "the first trial did not go well, and our second Strategy SaaS implementation was definitely more successful. Now we are getting better at the OKR process. We realize that we need to do something different to measure performance. That drove adoption of OKRs" [A6]. B3 who also confirmed that it required a substantial change in the way that the business measured its outcomes. Organization A had used another Strategy SaaS which had been replaced by the new Strategy

SaaS. Organization A identified that the second Strategy SaaS was much more focused on building the business knowledge, which was much more useful in fostering adoption. There is now strong acceptance in the business that "we absolutely believe in the OKR methodology and philosophy. It's terrific in creating organizational alignment, driving goals, and then measuring them. The way we used to do things was not effective. I absolutely believe having the right technological software solution is imperative."

In addition to the OKR knowledge, detailed understanding is required for **OKR progress integration** into the organization. This requires technical integration and the integration of the OKR process into the organization's business planning process. Many organization members found this challenging as it required determining how to integrate short-term planning to align with their long-term business planning requirements. The need for business integration is expressed by A6 who commented that "the coaching and mentoring, the regular retrospectives and realignments, helps the integration side. The integration has increased because of adopting the OKR process and the platform does augment some of that" [A6]. Organization B identified that it took consulting and some time "to understand the difference between Objectives and KRs, and to get it right, and to visualize how OKRs fit into the entire business planning process. I feel that we did end up with a strong linkage with the business plan" [B4]. One recommendation is "to explicitly map the whole business planning process with the OKR process included so that the why is clearly understood which further builds the case for change and commitment" [B4]. Finally, integration is affected by the teams' ability to make sacrifices and sometimes prioritize the company needs ahead of the existing trajectory planned for the team. A3 noted "I still feel that's our biggest challenge. As part of that OKR process, when it gets to the department or the organizational level, forces you to align to the top level organizational OKRs. I still feel that in the execution, the departments and the management in each department still prioritizes what's most important to them. It is that mindset of what affects me the most is my priority, not what organization feels is the top priority" [A3].

Category	Description		
Organization metric focus	Presence of reliable metrics for reporting enables Strategy SaaS adoption		
OKR knowledge growth	Development of knowledge about OKR pillars and process drives adoption		
OKR process integration	Business focused Strategy SaaS enhances fit with strategic planning process		
Table 4. Strategic Enablers			

# Technological Enablers (Actualization)

Technological Enablement is promoted by the drive of the organization to use the platform (see Table 5) is primarily fostered by the SaaS platform functionally. Organization A had implemented the original Strategy SaaS to manage its OKR process. However, the tool did not meet their requirements due to its inability to provide rollup and alignment views. In addition, the Strategy SaaS tool was primarily focused on OKRs and did not provide the level of engagement required. The second Strategy SaaS was the better technological solution as "the first Strategy SaaS did not really fit our business from a manufacturing engineering standpoint because it focused more on social interaction, rather than the process discipline and process interaction. It just wasn't a platform that fits our business. We searched for a second platform that fitted our organization better based on what we learned from the first platform. That's how we found the new Strategy SaaS, which is a lot more process orientated, has a lot more features that align with the way we run our business. We definitely saw a higher adoption rate with the new Strategy SaaS." Additionally, the nature of it being a cloud-based strategic application was noted by users as beneficial from a functionality perspective. For example, the phone integration was an improvement on many of the internal systems present in the company as "we didn't have that in our internal environment. It was nice not having to wait for a system that crunched the numbers on-prem and then produced a result. Having it out in the cloud was a lot quicker to work with" [A7]. Additionally, the nature of it being a SaaS solution made it easier to implement as "one of the attractions of SaaS is that it is going to be easier to implement from a corporate compliance perspective. It's much quicker and simpler. It's also much easier to get automatic upgrades and enhancements" [B6].

The technological enablers are also facilitated by the strength of the **business-led adoption**. In contrast to other system implementation, the Strategy SaaS implementation is led by the business and specifically

by the business executives. At noted that the implementation of the SaaS actually began with the "VPs of the organization and the executive leadership team identifying their 'big rocks', and then the platform was introduced and structured around these core priorities" [A1]. This demonstrates the nature of adoption, with the executives being the first users of the platform to track the priorities that they had set, before the rest of the organization had sessions where they aligned to the plan. For example, in both organizations, provisioning was done initially by people in the business, with little involvement from IT. This is in contrast to normal system implementations where "you design the processes, you configure the system, you put the training in place, you then have a transition into operations, and it moves into/within IT" [A2]. Additionally, the purchase decision in both cases was made without an involvement from the IT department; the Managing Director or CEO made the decision with the business executives, with the initial contact being made with the software and consulting vendors by the business improvement/strategic initiatives team within the company. Ultimately the benefit is that Strategy SaaS is great for experimentation as you can "throw it in and see how things pan out. Then based on actual adoption you can decide how much to integrate, pick out what's good and not, and carry on with it" [A2].

Infrastructure integration is a key component of technological enablers. Specifically, the Strategy SaaS can create additional platform overhead as "we've just gone through the project web app processes, centers of excellence, and many other systems. Those are new software and systems to use and when I first heard about the Strategy SaaS, I wasn't overly excited about having to adopt another one" [B2]. There is also additional work before the system can be integrated, often with updates in multiple systems and Excel workbooks required before the organization can use the Strategy SaaS as the source of truth of business performance information. The role of each of the different systems also needs to be revised and defined. For example, identifying that the Strategy SaaS is for OKRs and alignment of results across the organization, while other systems such as Microsoft Outlook, 365, and MS Teams are to enable "better collaboration among the organization and file sharing" [A7] will provide users with clarify and promote adoption.

Category	Description	
Platform functionality	Functionality aligned with business process discipline increases adoption	
Business-led adoption	Executive lead system purchase and adoption increase awareness	
Infrastructure integration	Technical integration of Strategy SaaS with existing apps increases use	
Table 5. Technological Enablers		

#### Behavioral Enablers (Actualization)

Behavioral Enablement is impacted by the user and the priority they attach to Strategy SaaS (see Table 6). **User-lead enablement** is the key to the behavioral enablers of Strategy SaaS as it enables the use of the tool. The approach taken by the consulting company for both Organizations A and B was to enable a community of users to attend OKR training provided by either the consulting company or the Strategy SaaS vendor. These participants were selected based on the team that they were in and the historic usage of that team member in the platform. The training was quite beneficial as the organization had "three representatives from the business present to the executive leadership team on how they use the Strategy SaaS" [A1]. The strength of the participant and the culture of the specific team is important in promoting adoption and enablement. One technologically-proficient team identified that "we were all pretty savvy with the software pretty quickly. First quarter, we were pretty good at jumping in and updating. And in the second quarter, we got much better at using workstreams to track our KRs" [B7]. On the other hand, another team leader felt challenged as he was "not a big social media user and so I am not open to constantly updating and letting people know where I am at. That doesn't come naturally to me" [A3].

Many members within both organizations noted that **consistency of attention** increases adoption. Initially there was significant attention from management and consequently from the rest of the organization. However, the support for the system following initial roll out declined as different priorities arose. In particular, use of the system fluctuated around the OKR cycle, with greatest use prior to and following the reset of the objective every 90 days. This is well expressed by B6 who noted "support for the system waxes and wanes. We are going and then a crisis comes, and people question if we can really sustain this. You've got to put a little bit more effort to keep it going for people to see and remind them

why they did it in the first place. And the fact that the priorities are still there, and will be there following the crisis, so therefore we need to preserver." [B6] Additionally, adoption fluctuated extensively within teams depending on the attitude of the team leader. "Adoption is to do with the leadership types as well. If I think about Person X in Region X, he is innovative and creative and so he had high adoption. Person Y in Region Y was very structured, and this system fitted well with that team. That's not common across all teams though and where that's not present, some teams have struggled" [A2].

The most important factor which affects actor enablement is the **integration of the platform into the standard operating procedures**. Many participants noted that the system presented "another thing I got to do" [A6]. It is important to make sure that the organization understands how to use the Strategy SaaS to add value. Organization A found that "the way the first Strategy SaaS implementation was structured resulted in it being another thing to be done and so the OKR adoption fell off. However, with the new Strategy SaaS, the OKR consultants assisted in ensuring that the KPIs and measurements were more tied to the business metrics. This improved adoption significantly" [A6]. However, some still felt the "burden in the same way", but when teams instantly saw "how they supported their organization's objectives and enjoyed the clarity then it did not feel like something extra that they had to do" [A7].

Category	Description	
User-led enablement	Functionality aligned with business process discipline increases adoption	
Consistency of attention	Continuing focus on OKRs, even in the face of crisis, promotes adoption	
Integration into SOPs	Orientating the Strategy SaaS around organizational objectives reduces the burden that it is just "one more thing to do"	
Table 6. Behavioral Enablers		

# Impact of Strategy SaaS (Effect)

The organization is able to improve its sensing abilities by connecting the strategy to the work, visualizing the strategy and associated information, and detecting weak signals (see Table 7). Firstly, the organization can foster strategy to the work connection by ensuring that everyone is able to understand the organization's priorities, even as market conditions change, by accessing the Strategy SaaS. "The system provides a methodology for sharing top level objectives with all employees through the platform" [A3]. Not only can all the objectives be shared through the Strategy SaaS, but the senior-level management's goals and objectives can be rolled down to the different levels of the organization as "when the leadership team comes up with an OKR, they can roll it down to make sure that the [Site A] team is doing what they described." [B5] The platform also enables the connection of strategy to work using the action item feature which can "automatically feed the progress of the action item into the KR which the manager can view" [B3]. The need for Strategy SaaS and the affordance that it creates is evident in the ability to roll goals and priorities through the organization, and also see the updated progress and assumptions in real time. Prior to Strategy SaaS, "someone might update PowerPoint or Excel but you would not know often where it is stored so it was not visible. With [Strategy SaaS] the ability to have the results achieved in the lower level shared with the top level in real time is really beneficial" [B8]. Additionally, as a unified platform, everyone has access to the results, enabling complete transparency. Secondly, the Strategy SaaS enables strategic **priority visualization** in real time. For example, "Rather than one person trying to update to everyone, for example like HR truing to give an answer on how everyone's going on a certain HR program, if each of the regional teams are updating theirs, then the information rolls up so that you can see that progress on the strategic plan" [B8]. The information display using functionalities such as a heatmap enables the organizations to have a real-time tactical view of how the strategy has been operationalized among the different teams. Therefore, each region can see the goals and priorities and how they change quarter to quarter, enabling the teams to align and support them. Finally, the **identification of weak signals** is an affordance of Strategy SaaS. Weak signals have been identified as often occurring in sales motions where shifts in customer demand can indicate future funding shifts that the organization needs to be aware of. The challenge is that prior to the implementation of Strategy SaaS these can be very challenging to read. "There are weak signals [coming from the environment] and sometimes we ignore the weak signals because they are not tracked. If you have an OKR, because everybody's laser focused on it, anything that's

a weak signal is noted." [A6] In addition, where organizations "have a business plan, which was design in the last quarter of last year, the assumptions can be six to twelve months old so OKRs accommodate anything, including any changes like from the environment." [B3] This happened when COVID impacted Organization B's hiring abilities. OKRs identified that there were challenges in gaining access to staff and the organization was able to undertake measures to try to minimize the impact.

The tool can also assist where **roadblocks are identified through visualization** and can assist in facilitating a fact-based discussion about the solution and associated decision making. For example, in Organization A, A5 identified that originally one department was responsible for a particular project, but then they realized it was "too slammed so they gave it to another team. As all the information and tasks were contained in the Strategy SaaS, they could break it up and reallocate with ease." [A7] In other examples, the absence of OKRs around an important strategic initiative is indicative of an area of attention as "we know by looking and you will see there's no OKRs as the people haven't even got that part of the organization set up yet" [A2]. External events can also be acted upon based on the fast strategy setting and revision that the system enables. For example, one key product for Organization A substantially increased in price so the focus of the product plant moved to optimizing for maximum volume rather than efficiently operating machinery. The use of Strategy SaaS enabled the business plan to change and be communicated and tracked in real time. This real-time update of information becomes a source of truth that is sometimes updated daily for A7. This then enables the team to pivot their priorities as necessary. meeting and discussing "these priorities twice a month in contrast to before where the assumptions around the business plan could be 6 to 12 months old. We are now able to accommodate changes in the market what's the production and safety priorities and how have they changed?" [B6].

The Strategy SaaS enables the organization to align and prioritize tasks across silos. For example, the IT department was examining how to implement a barcoding initiative across multiple business areas. Historically they had found it very challenging to obtain resources from the business areas to complete the initiative. However, due to the heavy IT component, the leadership team expected the IT Department to lead the initiative. With the use of Strategy SaaS, "we can see those objectives appearing in those different areas. The IT Department now has visibility of the warehouse team as they have an objective to get barcoding done. They're now assigning resources to it and starting to prioritize it. From an IT perspective, we can then start aligning, resourcing, and facilitating a lot better because we've now got the visibility and the priorities have finally filtered down" [A2]. Strategy SaaS can also be used for day-today strategizing of tasks and can be used in leadership meetings where the meeting is structured around the Strategy SaaS. For example, "first thing I do in a Zoom meeting is pull up the alignment chart, review the CEO's objectives, and then I go into the team's objectives with the manager. We go through each objective, analyze the supporting KRs, and I ask if there are any updates. That's how those meetings are conducted". In addition, the action item tracker can be used for personal and team-based workstreams. Individuals within teams can track and push anything they did not achieve to the next day. This is then displayed so the team can understand the progress and plan the next day accordingly. Finally, the tool also enables users to manage multiple teams, which is important for decision makers. Strategy SaaS can aggregate results across multiple teams, giving the decision maker the ability to make real-time decisions which would not otherwise be easily achievable. "The roll up I really like. What has impressed me is that multiple teams all working towards the same result rollup together. For example, with the transformation plan you can all update separately, while the leadership team have a view of how we are progressing as a composite of the parts" [B7]. Traditionally, these decisions of how much to contribute to each corporate objective had been decided by the team itself, often with lose alignment to the corporate goal. The Strategy SaaS can also assist in the coordination of the teams as "a lot of teams are not very clear how we actually get there. Unless it's obvious, then the mini planning tool within the platform, is really useful. I can put together a project plan, and prompt the discussion of how to get to there." [B1]

Strategy SaaS can improve the organization's ability to act. For example, Organization B was focused on the improvement of a particular plant. The Strategy SaaS enabled **collaborative goal achievement** through the discussion of the goal in the platform. "The OKRs, comments and updates, have improved our business reviews which weren't as collaborative before. Before, a project that required all three leads would have been discussed ad-hoc and individually. Now we have discipline and efficiency" [B2]. The tool also fosters collaboration due to the linkage and storage of documents. For example, from the tracking of goals, one division in Organization B identified that it was not performing as well as another division. After approaching the better performing team and identifying some improvements, the team "was able to learn

from them as they could help us" [B3]. Strategy SaaS can also improve the socialization of progress, promoting the celebration of success and the improvement of employee morale. Organization A found this extremely valuable as "I definitely feel the biggest value is the community aspect of how you socialize the OKRs. They tell us where things stand and you're getting constant inputs. That socialization and communication aspect would not exist without the platform" [A3]. Previously, goals and progress were often lost in the layers of management reporting or changed meaning as they passed through the different layers of the organization. Strategy SaaS enabled the team members to view the progress of their own and other teams. This improved the organization's ability to celebrate success as "we are able to look back and realize how much we are achieving and celebrate that. This additional structure has helped with employee morale" [B7]. Finally, the Strategy SaaS system can assist with tracking the long tail of priorities that are present in an organization. This appears to be important to manufacturers as they often have non-urgent but important things to be done in the area of continuous improvement. The Strategy SaaS tool enabled them to ensure that these initiatives were not forgotten or unnecessarily deprioritized. For example, one initiative about a plant upgrade identified that "20 years ago, you just got the feeling that the leadership never knew Plant X was in need of an upgrade, but now we have it on our OKRs and because we have an improvement representative responsible for these KRs he's been asked about progress on a regular basis and so there is pressure, leadership attention, and gentle nudges to move it along" [B5].

Category	Focus Area	Description			
Sensing	Connect the strategy to work	All teams can access the priorities and align actions			
	Strategic Priority Visualization	Tactical views of progress against priorities and goals			
	Identification of weak signals	Amplification and tracking of customer demand signals			
Decision Making	Roadblocks identified through visualization	Visualization of progress against goals identified facilitates fact-based discussion and corrective decisions			
	Fast strategy setting and revision	Rapid receipt of information enables strategy pivots in real time and SaaS becomes source of truth for priorities			
Co-ord-	Aligned and prioritized tasks	Able to allocate resources with certainty of commitment			
inating	Day-to-day strategization	Standing meetings structured around priorities in SaaS			
	Manage multiple teams	Aggregation of results and progress across teams			
Acting	Collaborative goal attainment	Aligning teams to share knowledge on progress			
	Socialization of progress	Sharing of progress and celebrating across teams			
	Tracking long tail priorities	Ensuring that long-term activities are not forgotten			
	Table 7. Affordances of Strategy SaaS				

# **Discussion**

Organizations need DESA as the primary response capability to external market trends, internal dynamics, and technological developments. Our research confirms that this capability can be enabled through Open Strategy initiatives and Strategy SaaS. Prior research identified weak signals, IT governance, and improvision as three factors that develop an organizations' DESA (Tallon, Queiroz, & Coltman, 2022). Our findings extend and provide guidance for practitioners, arguing Open Strategy and Strategy SaaS implementation fosters the development of these factors, along with an increased focus on setting high integrity strategic goals with a results focus, enhancing alignment between the organizations' functional goals, alignment with the agile environment velocity, and a clear linkage between work and strategic goals. In addition, by examining this research in the context of the manufacturing industry, it provides guidance to practitioners who are not located in sectors traditionally associated with digital offerings.

Transformation Leadership enables organizations to be ready for Open Strategy and Strategy SaaS implementation (Doeleman, van Dun, & Wilderom, 2022; Morton, Wilson, & Cooke, 2020). Existing Strategy Execution research identified that leaders require clarity on the Managerial Actions they need to take (de Oliveira, Carneiro, & Esteves, 2019) to make strategy a reality. Our research confirms OKRs is an effective framework for leaders and managers to execute their Open Strategy. It also provides guidance to

practitioners on the four domains of enablement to facilitate organizational and individual adoption of Open Strategy initiatives and Strategy SaaS. These four enablers are: 1) institutional enablers (the ability to adapt to required strategic shifts), 2) organizational enablers (appropriate OKR knowledge and procedural understanding), 3) technological enablers (the ability to integrate the SaaS into the existing infrastructure), and 4) behavioral enablers (individual team members see value in Open Strategy and Strategy SaaS).

This research shows that there is a strong synergy between Open Strategy and Strategy SaaS. Open Strategy's defining pillars are transparency and inclusion across both development and execution of the strategy (Whittington, Cailluet, & Yakis-Douglas, 2011). Specifically, the following practices are required to effectively enable the Open Strategy: one-page visual strategy map, frequent management dialogues, and performance data visualizations. Our results indicated four additions and/or modifications to this: 1) frequent management dialogues bifurcated into team meetings and enhanced one on one discussions, 2) the one-page visual strategy map was further specified as a one-page visual for organization priorities, 3) an additional element of mass alignment be added to include other teams' priorities beyond the leadership team, and 4) workflow boards be added as a way of managing the execution of the priorities (see Figure 3)

Transparency Inclusion One Page Org Strategizing/ **Priorities** Mass Goal Alignment **Team Meetings** Steering/ Enhanced 1 on 1 discussions Workflow Performance Visualization boards Figure 3. Interplay between Open Strategy and Strategy SaaS

This research also provides managers with specific actions to implement Strategy SaaS. While IS adoption has been studied extensively (Rahman & Subriadi, 2022), Strategy SaaS has different requirements to normal IS implementation where "you design the processes, configure the system, put the training in place, transition into operations and over to IT. Instead the adoption was led by the business" [A2] This research provides insights to practitioners on the enablement dimensions to promote organizational and individual adoption. With Strategy SaaS, team members must know how to use the platform and also develop a strategic mindset. This presents an additional challenge for system implementation. However, once the mindset is obtained, the affordances act as a self-reinforcing loop, enabling the organization to continue building momentum with the Strategy SaaS. Nevertheless, even with the best of intentions, the motivation for continued use can drop off due to the competing business as usual tasks. Thus, the goals of using the Strategy SaaS must be clearly articulated to motivate use.

Finally, this research provides guidance on the specific steps for organizations to initiate their journey. The first step is to educate the organization on Open Strategy and its benefits. This ensures that the teams and individuals can familiarize and obtain information on frameworks such as OKRs before being introduced to Strategy SaaS. The second step is to implement governance mechanisms to define success for the Open Strategy and Strategy SaaS initiative. This newly established governance is useful for determining the appropriate Strategy SaaS. Key criteria to consider in purchasing Strategy SaaS is the goals and affordances, as well as its alignment to the organization's processes. This helps the organization maintain focus when there are other priorities that distract them from achieving their strategic priorities and using the system. The next step is to determine the goals of every team, starting with the leadership team. The alignment

needs to occur vertically as well as horizontally. The final stage is to embed the OKR process and Strategy SaaS into the existing processes of the organization, particularly the planning and reporting processes.

Notwithstanding the research's contributions, this study is not without limitations. Firstly, this study was exploratory in nature, which reduces the study's generalizability. Furthermore, the findings require further testing in other sectors, and with other types of companies, before they can be generalized. Secondly, the subjective nature of the questions asked, the theoretical concepts used to guide the interviews, and the choice of coding categories resulted in biases introduced by both the participants and the researchers. The researchers encourage future research to validate the findings. Finally, further research should focus on creating a more comprehensive model of Open Strategy and the role of IS in enabling this.

#### **Conclusion**

Strategy SaaS demand is expected to increase due to the intensifying need for DESA. This study contributes significantly to the strategy execution literature, as existing literature undervalues the complexity inherent in scaling an Open Strategy across an organization using Strategy SaaS. Contributions include identifying the specific goals and dimensions to promote enablement of Strategy SaaS. The findings provide guidance on promoting Open Strategy, and how managers can impact Strategy SaaS adoption and DESA. This research provides motivation for scholars to explore how the Strategy SaaS is used in Open Strategy.

# Acknowledgements

The author acknowledges the mentorship of Dr. A. Benlian, Dr. C. Wendt, and Dr. L Müller in this research.

#### References

- Bajaj, A., Bradley, W. E., & Cravens, K. S. (2008). SAAS: Integrating systems analysis with accounting and strategy for ex ante evaluation of IS investments. *Journal of Information Systems*, *22*(1), 97-124.
- Campbell, D. T., & Yin, R. (2018). Case study research and applications: Design and methods. In: California: SAGE Publications.
- Chakravarty, A., Grewal, R., & Sambamurthy, V. (2013). Information technology competencies, organizational agility, and firm performance: Enabling and facilitating roles. *Information Systems Research*, 24(4), 976-997.
- Comella-Dorda, S., Kaur, K., & Zaidi, A. (2019). Planning in an agile organization. *McKinsey Quarterly*, 15(42), 1-5. <a href="https://www.mckinsey.com/business-functions/mckinsey-digital/ourinsights/planning-in-an-agile-organization">https://www.mckinsey.com/business-functions/mckinsey-digital/ourinsights/planning-in-an-agile-organization</a>
- de Oliveira, C. A., Carneiro, J., & Esteves, F. (2019). Conceptualizing and measuring the "strategy execution" construct. *Journal of Business Research*, *105*, 333-344.
- Doeleman, H. J., van Dun, D. H., & Wilderom, C. P. (2022). Leading open strategizing practices for effective strategy implementation. *Journal of strategy and management*, 15(1), 54-75.
- Doerr, J. (2018). Measure what matters: How Google, Bono, and the Gates Foundation rock the world with OKRs. Penguin.
- Grover, V. (2022). Digital agility: responding to digital opportunities. *European Journal of Information Systems*, 31(6), 709-715.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, *18*(1), 59-82.
- Kiewell, D. (2022). Getting digital transformation right in resource-heavy industries. *McKinsey Quarterly*. <a href="https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/getting-digital-transformation-right-in-resource-heavy-industries#/">https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/getting-digital-transformation-right-in-resource-heavy-industries#/</a>
- Klopper, J., Kalgovas, B. J., Borgman, H. P., & Benlian, A. (2022). Digital Transformation Normalization: Using Managerial Actions to Effectively Execute Digital Business Strategy.
- Leonard, J., & Higson, H. (2014). A strategic activity model of Enterprise System implementation and use: Scaffolding fluidity. *The Journal of Strategic Information Systems*, 23(1), 62-86.
- Levallet, N., & Chan, Y. E. (2018). Role of Digital Capabilities in Unleashing the Power of Managerial Improvisation. *MIS Quarterly Executive*, 17(1).
- Limaj, E., & Bernroider, E. W. (2022). A taxonomy of scaling agility. *The Journal of Strategic Information Systems*, *31*(3), 101721.

- Lu, Y., & Ramamurthy, K. (2011). Understanding the link between information technology capability and organizational agility: An empirical examination. *MIS Quarterly*, 931-954.
- McKinsey. (2022). In Building a "digital operating rhythm" with OKR software.
- Miles, M. B., & Huberman, A. M. (1994). *An expanded sourcebook: Qualitative data analysis, 2nd.* Sage Publications, Inc. <a href="https://doi.org/citeulike-article-id:963383">https://doi.org/citeulike-article-id:963383</a>
- Morton, J., Amrollahi, A., & Wilson, A. D. (2022). Digital strategizing: An assessing review, definition, and research agenda. *The Journal of Strategic Information Systems*, 101720.
- Morton, J., Stacey, P., & Mohn, M. (2018). Building and maintaining strategic agility: an agenda and framework for executive IT leaders. *California Management Review*, 61(1), 94-113.
- Morton, J., Wilson, A., Galliers, R. D., & Marabelli, M. (2017). Open strategy and IT: A review and research agenda.
- Morton, J., Wilson, A. D., & Cooke, L. (2020). The digital work of strategists: Using open strategy for organizational transformation. *The Journal of Strategic Information Systems*, 29(2), 101613.
- Mubarak, M. F., & Yusoff, W. (2019). Impact of strategic leadership on strategy implementation. *British Journal of Management and Marketing Studies*, *2*(1), 32-43.
- Park, Y., El Sawy, O. A., & Fiss, P. (2017). The role of business intelligence and communication technologies in organizational agility: A configurational approach. *Journal of the Association for Information Systems*, 18(9), 1.
- Peppard, J., & Ward, J. (2004). Beyond strategic information systems: towards an IS capability. *The Journal of Strategic Information Systems*, 13(2), 167-194.
- Pinsonneault, A., & Choi, I. (2022). Digital-enabled strategic agility: it's time we examine the sensing of weak signals. *European Journal of Information Systems*, 1-9.
- Rahman, A., & Subriadi, A. P. (2022). Software as a service (SaaS) adoption factors: individual and organizational perspective. 2022 2nd International Conference on Information Technology and Education (ICIT&E),
- Sambamurthy, V., Bharadwaj, A., & Grover, V. (2003). Shaping agility through digital options: Reconceptualizing the role of information technology in contemporary firms. *MIS Quarterly*, 237-263.
- Sebastian, I. M., Ross, J. W., Beath, C., Mocker, M., Moloney, K. G., & Fonstad, N. O. (2020). How big old companies navigate digital transformation. In *Strategic Information Management* (pp. 133-150). Routledge.
- Sull, D., Homkes, R., & Sull, C. (2015). Why strategy execution unravels—and what to do about it. *Harvard Business Review*, 93(3), 57-66.
- Sull, D., Sull, C., & Yoder, J. (2018). No one knows your strategy-Not even your top leaders. *The Strategic Agility Project*, 7.
- Tallon, P., Coltman, T., & Queiroz, M. (2020). Call for papers: Digital-enabled strategic agility: The next frontier. *Eur. J. Info. Sys*.
- Tallon, P. P., & Pinsonneault, A. (2011). Competing perspectives on the link between strategic information technology alignment and organizational agility: insights from a mediation model. *MIS Quarterly*, 35(2), 463-486.
- Tallon, P. P., Queiroz, M., & Coltman, T. (2022). Digital-enabled strategic agility: The next frontier. In (Vol. 31, pp. 641-652): Taylor & Francis.
- Tallon, P. P., Queiroz, M., Coltman, T., & Sharma, R. (2019). Information technology and the search for organizational agility: A systematic review with future research possibilities. *The Journal of Strategic Information Systems*, 28(2), 218-237.
- Trauth, E. M., & Connor, B. (1991). A study of the interaction between information technology and society: An illustration of combined qualitative research methods. *Information Systems Research*.
- Tumbas, S., Berente, N., & vom Brocke, J. (2017). Born Digital: Growth Trajectories of Entrepreneurial Organizations Spanning Institutional Fields. ICIS,
- Vaia, G., Arkhipova, D., & DeLone, W. (2022). Digital governance mechanisms and principles that enable agile responses in dynamic competitive environments. *European Journal of Information Systems*, 31(6), 662-680.
- Weber, Y., & Tarba, S. Y. (2014). Strategic agility: A state of the art introduction to the special section on strategic agility. *California Management Review*, *56*(3), 5-12.
- Whittington, R., Cailluet, L., & Yakis-Douglas, B. (2011). Opening strategy: Evolution of a precarious profession. *British journal of management*, 22(3), 531-544.
- Wilhelm, A. (2020). Why is everyone making OKR software? <a href="https://techcrunch.com/2020/01/21/why-is-everyone-making-okr-software/">https://techcrunch.com/2020/01/21/why-is-everyone-making-okr-software/</a>