
The Paradox of Agility: Reduce Formalization? Introduce Formalization!



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Agile concepts become increasingly popular, given their ability to adapt to a turbulent environment. Hence, they are implemented in various organizations and industries. In this context, complete flexibility and the abolition of formalization in terms of rules, procedures, and instructions are often seen as the Holy Grail for success. Having said this, the following article identifies a paradoxical aspect of agility: The decrease of formalization of some aspects goes along with an increase of formalization of other aspects. Furthermore, we differentiate between two forms of formalization: a coercive, agility hindering and an enabling, agility supporting formalization. We state that in the case of agile adoption, the reduction of coercive formalization leads to an increase in enabling formalization. Building on insights from four case studies, we derive five propositions regarding formalized aspects in the context of agility. Then, we develop a model that links the type and level of formalization to four different types of organizations.



agile organizations, organizational design, agile adoption, coercive formalization, enabling formalization, formalized aspects

Das Agilitäts-Paradox: im Spannungsfeld zwischen abnehmender und zunehmender Formalisierung

Agile Unternehmenskonzepte werden durch die hohe Anpassungsfähigkeit an turbulente Umweltbedingungen zunehmend bekannter und in verschiedensten Unternehmen und Branchen implementiert. Damit einher geht häufig die Erwartungshaltung von vollkommener Flexibilität sowie der Abschaffung von jeglicher Art von Formalisierung im Sinne von Regeln, Prozeduren und Anweisungen. Dieser Artikel zeigt jedoch eine paradoxe Seite der Agilität auf: Eine Reduktion der Formalisierung in manchen Bereichen führt zugleich zu einer vermehrten Formalisierung in anderen Bereichen. Zudem werden zwei Arten von Formalisierung unterschieden: coercive, Agilität einschränkende, und enabling, Agilität fördernde Formalisierung. Es wird dargelegt, dass bei dem Wandel hin zur agilen Organisation eine Reduktion von einschränkender Formalisierung sowie ein Anstieg an fördernder Formalisierung beobachtet werden kann. Ausge-



hend von den Erfahrungen aus vier Fallstudien werden fünf Annahmen zur Bedeutung von formalisierten Bereichen im Kontext der Agilität aufgestellt. Darauf aufbauend wird ein Modell entwickelt, welches einen Zusammenhang zwischen Art und Ausprägungsgrad von Formalisierung sowie vier Organisationstypen herstellt.

agile Organisationen, Organisationsdesign, agile Transformation, coercive formalization, enabling formalization, formalisierte Aspekte

1. Introduction

In times of increasing complexity and environmental turbulence, organizations are expected to be flexible and adaptable (*Schreyögg/Sydow* 2010). Therefore, new organizational forms (NOFs) are emerging continuously. A large body of literature examines the prevalence, features, and emergence of NOFs (e.g. *Bogaert et al.* 2016; *Child/McGrath* 2001; *Daft/Lewin* 1993; *Knudsen/Eriksen* 2002). Additionally, previous research offers a great variety of labels of NOFs (e.g. *Abareshi et al.* 2011; *Palmer et al.* 2007; *Schreyögg/Sydow* 2010). Even though a widely recognized definition of NOFs is still missing (i.e. *Palmer et al.* 2007; *Romanelli* 1991), it is minimal consensus that NOFs differ from the previously dominant bureaucratic organizational form. This is reflected in increased environmental interactions, which result in higher adaptation and change rates, as well as decentralized goal setting and distributed power (*Child/McGrath* 2001). The desired flexibility even makes some organizations endeavor to develop an organizational form that is agile, i.e. changing their form continuously.

In particular, agile methods (initially used in software development) have already gained acceptance in organizations of all sizes and across industries (*West/Grant* 2010). It is even argued that agile adoption has become a management trend varying in the organizations' level of serious intentions to implement new strategies (*Cram/Newell* 2016). These new approaches are reflected in changes in the organizational design, i.e. a move from a mechanistic to an organic design (*Sherehiy et al.* 2007). This organic design is described by a flatter hierarchical order, less precise division of labor, and a lower extent of formalization, i.e. fewer rules and procedures. This approach is said to support flexibility, innovation, and adoption to change - and therefore, is proposed to be a suitable design for agile adoption (*Sherehiy et al.* 2007).

While observing agile organizations in practice, the question arose, 'Could an agile organization exist without any formalization – defined as "written rules, procedures, and instructions?' (*Adler/Borys* 1996, 62)'. Hence, the present conceptual paper discusses the following research question: Does agile adoption automatically go hand in hand with the abolition of formalization? To answer this question, we further ask: Isn't it the case that other aspects are becoming more structured and formalized instead? Our reasoning is enriched with insights of four multiple case studies. Through our research and case studies, we found that a high level of formalization indeed accompanies agility. Also, depending on the formalized aspect, organizations undergo different kinds of organizational forms while moving towards agility.

This article is structured as follows: After a brief overview of organizational designs and agility, we discuss the proposition that agile adoption comes with both a reduction and an increase of formalization - depending on the aspect. Finally, we present a roadmap for ag-

ile transformation by providing a two-dimensional model that enables classification and derivation of proper guidance for organizations.

2. Theoretical foundation

The concept of agility arose from the manufacturing industry's need for supply chains to be nimbler and more flexible (Gunasekaran/Yusuf 2002). Since the early 1990s, agility was adapted for organizations in the mainstream business literature (Conboy 2009; Harraf et al. 2015), and the concept of organizational agility emerged. Still so far, there is no consistent typology or theory of organizational agility (Singh et al. 2013). Most definitions embrace the core characteristics of agility: flexibility and adaptability (Sherehiy et al. 2007). Conboy and Fitzgerald (2004) define agility as “the continual readiness of an entity to rapidly or inherently, proactively or reactively, embrace change, through high quality, simplistic, economical components and relationship with its environment” (p. 40). This focus on the environment also includes creating customer value by interacting with the customer regularly (Goldman et al. 1996; Highsmith/Cockburn 2001). In general, agility is an organization-wide concept that embraces all levels of an organization (Harraf et al. 2015). Hence, it is described as a process rather than a constant organizational state (Alzoubi et al. 2011; Lui/Piccoli 2007).

Agile adoption, thus, needs an organizational design that supports flexibility, fast changes, and customer integration. While a mechanistic design is aligned to support routine tasks by relying on centralization, standardization, and hierarchy; an organic design comes along with high levels of decentralization, autonomy, and flexibility (Burns/Stalker 1961; Sherehiy et al. 2007). An organic design is typically characterized by flat hierarchies. This implies less authority and control, fewer rules and procedures, flexible and shared tasks, individual responsibilities, and decentralized knowledge (Nerur et al. 2005). Thus, agile organizations are associated with an organic design since it supports the characteristics of agility, i.e. flexibility and adaptation (Sherehiy et al. 2007). In practice, however, there are also approaches where agile methods are integrated into a mechanistic design in order to benefit from the advantages of both agile and mechanistic designs. Even though traditional and agile methods are seen as entirely different approaches (Boehm/Turner 2005), hybrid organizational forms emerge.

As mentioned above, mechanistic and organic designs differ especially concerning hierarchy (e.g. Diefenbach/Sillince 2011), specialization (e.g. Crocitto/Youssef 2003), and formalization (e.g. Adler/Borys 1996). Focusing on formalization, Adler and Borys (1996) identify two distinct types of formalization within bureaucracies: a coercive and an enabling type. A coercive formalization can lead to an unequal distribution of power. In contrast, enabling formalization can support flexibility, transparency, and a broader skill set of employees. As a consequence, Adler and Borys (1996) associate the organic design with the enabling type but with a low degree of formalization. This leads us to our research question: Does agile adoption – realizable in an organic design – necessarily lead to the abolition of formalization?

Scheller (2017) shows that practitioners' how-to manuals often emphasize that agility does not stipulate any rules or plans but rather evolves organically based on a particular mindset. However, our exploratory research on agile adoption reveals various rules and regulations. Thus, we argue first that within agile organizations, formalization is still observable. Second, we propose that the formalized aspects are different from the aspects

seen in traditional mechanistic designs. Third, we emphasize that the type of formalization being deeply embedded in agile organizations is enabling formalization.

3. Towards agility: Reducing and introducing formalization

In the following section, we examine our thesis in light of anecdotal insights from four case studies.

Case selection

We conducted a qualitative multiple-case study approach to describe the change in formalization in the process of agile adoption. As qualitative research methods are particularly useful for investigation processes, we use a multiple-case study to gain a deeper understanding of processes through cross-case comparison (Eisenhardt 1989; Miles/Huberman 2009; Yin 2014). Using Patton (1990), the case selection purposefully involved two extreme, polar opposite cases and two typical cases. The four identified German companies are highly different in the number of worldwide employees, the industries in which they operate, and the degree of agility of their processes (Table 1).¹

Organization	A	B	C	D
Sector	Consulting	Education	Water	Heating Technology
Founded in	2013	2001	1872	2016
Employees (world-wide)	24 (2019)	14 (2019)	7,830 (2018)	70 (2020)
Agile Methods	Scrum, OKR, Kanban	Kanban	Scrum, OKR, Working out loud	Scrum
Number of Interviewees	8	11	6	4

Table 1: Overview of organizations in our multiple-case study

Case description

Organization A is a small consulting company that is organized in a holocratic way and characterized by being open towards the implementation of new methods. In contrast, the non-profit organization B aims to work in an agile way, but it is continuously struggling with responsibilities, decision-making processes, and allocation of tasks. In organization C, individual agile teams work within a very formal organizational structure. Organization D is an agile start-up that is restricted by its close cooperation with a traditional parent company. It is planned that the parent company will begin adopting agile in 2020.

1 Two companies in the study are part of the project “AgilHybrid”. “AgilHybrid” is financed with funding provided by the Federal Ministry of Education and Research and the European Social Fund under the “Future of work” program.

Data collection and analysis

Overall, we conducted 29 interviews between March and June of 2019. Trying to understand each case individually, we adapted the interview guideline in the course of data selection. The questions were open-ended to motivate the interviewees to talk freely about their experiences regarding agility in their organization (Yin 2014). Data collection and analysis were carried out at the same time. This allows us to consider the characteristics of the cases, especially those that were unknown at the time the study was designed (Miles/Huberman 2009). After transcription, the relevant text units (words, phrases, sentences) were coded, sorted, and recombined (Miles/Huberman 2009). Cross-case comparisons led us to five propositions emphasizing that agile adoption goes hand in hand with a change in aspects that are formalized.

Proposition 1: The abolition of hierarchical positions requires the formalization of roles.

As formalization can be defined as an element of hierarchical structure (Jansen *et al.* 2006), one could assume that flat hierarchies come along with a general reduction of formalization. However, the abolition of traditional hierarchical structures leads to the need for a formalization that replaces the lack of leaders (West/Grant 2010).

Organization A, for example, is organized holocratically and uses circles to structure their work. Each circle defines a mission and clarifies the required roles as well as communication channels. Circles relate to each other by discussing their demands and by assisting other circles. Inside a circle, there are several roles: The mission owner makes sure that the mission of a circle is fulfilled, offers resources, and collects the results. The process moderator increases the efficiency of the team. Besides the implementation team, there is the project communicator who acts as an interface between the circle and the environment. Instead of clear hierarchical positions, there are specific roles with clearly defined goals. However, these roles are not related to specific persons, as the members can engage in different roles in different circles.

If hierarchical positions are abolished, but new roles are not clearly defined, several problems can occur. We observed at organization B that team members were unsure of what to do because of overworked employees due to a high degree of task switching that occurs when there is a lack of understanding of the team's mission. High rates of organizational change increase uncertainty since there are fewer structures that can be relied on during times of organizational turbulence. In addition, there is a danger of focusing on fulfilling urgent needs while neglecting long-term objectives. Some employees at organization B expressed a desire for clear structures and areas of responsibilities.

Concerning role definition, organization C shows aspects of both organizations A and B: One interviewee reports that on the one hand, they use roles (for example the role of product owners), but on the other hand they are not clearly defined and fully assigned to the team members yet.

Our observations led us to the conclusion that formalization in role definition is a precondition for the effective collaboration of members in an agile organization. It provides a structure of responsibilities in the absence of formal hierarchies. There are also roles in hierarchies, but they are linked to positions and power. In organic designs with flat hierarchies, we observed a definition and formalization of roles which are often informal or non-existent in hierarchies. Therefore, roles become more transparent and explicit. Never-

theless, especially in holocracies, flexibility remains, as roles can be adjusted easily and, therefore, are supporting fast and flexible changes and adaptation. However, the roles should be questioned and redefined continuously.

Proposition 2: The empowerment of employees requires the formalization of decision-making processes.

The abolition of traditional hierarchical structures and the focus on teams also change organizational decision-making (*Cockburn/Highsmith* 2001). In traditional organizations making decisions resides with top and middle management. Indeed, single decision-makers often must base their decisions on selective and fragmentary information. In contrast, self-organized teams receive diverse information and can decide context- and content-dependent (*Oestereich/Schröder* 2017). However, the absence of formal leaders transfers the choice of the decision-making process and practices to teams. To avoid disorder, these teams rely on self-chosen rules in defined practices and processes according to the character of a decision (e.g. periodic, spontaneous, follow-up) (*West/Grant* 2010).

At organization A, decision-making authority is bound to roles in a circle and, therefore, independent of individual people. For organizational decisions, experts deal with a problem at first. Then all members are informed and can put in their veto. Depending on the specific situation, different decision-making practices exist. One of the most important tools is a consultative but individual decision. Thereby one person is responsible for a decision but consults experts as well as people affected by the decision beforehand.

Organization D, however, shows formalization in other aspects. While some team members experience high levels of decision-making freedom, other team members state that they are tied to the hierarchical structures of the parent company. In this case, speed and flexibility are restricted, and therefore decision-making processes limited.

Concerning organization B, it is defined that most of the decisions are made by the whole team. Additionally, decisions can be questioned and revised at any time. However, there are no processual structures concerning the decision-making process itself. Hence, many interviewees perceived these processes during team meetings as too long, stressful, and pointless. This is since they often cannot find a consensus and decisions are being postponed. As a consequence, many employees explicitly ask for more formalization. We also observed that the lack of regulation can lead to demotivation, dissatisfaction, and a higher labor turnover rate.

We propose that formalization is essential for decision-making processes. Without guidelines, such processes can be experienced as exhausting and counterproductive. By transferring decision-making authority to employees, the autonomy of teams increases. Employees decide, for example, what tasks are designed to whom and which methods are used. However, this process needs to be formalized in order to make sure that all tasks are included. Likewise, other aspects, such as which decision-making practices are used in which situation or setting time and place for decision-making should be formalized.

Proposition 3: The strong focus on teams requires the formalization of collaboration.

Organizations that seek to be agile often apply agile methods that structure how groups of people work together. Even though most methods are developed in the field of Agile Software Development, a great variety of methods exist for manufacturing or service processes

(Gunasekaran/Yusuf 2002). Methods mentioned in our case studies of organizations A, C, and D are the best-known method Scrum, Objectives, and Key Results (OKR), and working out loud.

By implementing such methods, some aspects become regulated that have not been structured before. Scrum, for example, defines fixed roles (Product Owner, Developers, Scrum Master) and schedules meeting formats like Sprint Planning, Daily Scrum, Sprint Review, and Sprint Retrospective. Hence, every team member occupies a specific role and must participate in various weekly events. Moreover, the way how to accomplish a task is highly regulated, especially in the form of timeboxing. According to the Scrum Guide, within one sprint, a finished product-increment should be produced. Thereby, every sprint shall be of the identical time interval; at a maximum of one month. In traditional working environments, there are also project deadlines. The critical difference, however, lies in the short iterations, distributed responsibilities, and events that structure the working styles differently.

In organization D, Scrum is used alongside other agile methods. The processes are clearly structured for all team members. One interviewee points out that due to the agile way of working, he still worked in a structured and, at the same time, a flexible way.

Our observations of organization A reveal how employees manage agile methods that come along with a strong formalization. In case they experienced highly formalized methods as a constraint to values such as freedom, they reflect on implementing alternatives or adapting present processes. In conclusion, methods can be chosen and adapted according to the need for formalization.

We propose that agile methods like Scrum reveal a high formalization in “new” aspects as they, for example, regulate the time, communication, responsibilities, and priorities. However, as flexibility is an important value in agile adoption, employees are empowered to adjust agile methods to their specific needs.

Proposition 4: The focus on transparency requires the formalization of intra-organizational communication.

As teamwork is an important aspect of agility, communication is essential to agile adoption (Cockburn/Highsmith 2001). Although several agile methods emphasize bringing people together and brainstorming offline, especially young organizations change from face-to-face to digital communication (Tuczek *et al.* 2019). This enables asynchronous and geographically distributed work, but it may lead to distance and may impede to build trust and a feeling of belongingness (Tuczek *et al.* 2019).

In holocratic organizations like A, each circle must communicate its progress and current to do's through a defined digital communication tool. Such digital tools are also used for task allocation and work in progress so that colleagues can jump in or give advice on content. Thus, employees can work mainly in home-office while being informed about the organizations' life at the same time. On-site, circles can invite other organizational members as visitors. This ensures that employees who want to submit a request to a circle know about contact persons and the current state of affairs. However, some employees reported that constant availability and extensive access to information can be perceived as overwhelming. To support and protect their members from an informational overload, organization A implemented regulations concerning the use of communication tools. So, they defined communication rules, including what tool should be used in what situation,

manner, and at which time. Furthermore, they emphasize essential values like trust and estimation.

Organization B, however, fosters analogous communication, like weekly team meetings, but there seem to be deficits regarding a formalization beyond these activities. Insufficient communication resulting from missing structures, methods, and inconsistent use of tools can lead to a lack of trust and, therefore, to a missing basis for collaboration. Therefore, agile work practices require a frame of rules for communication to foster teamwork.

In conclusion, we propose that the formalization of communication, both virtually and on-site, is necessary. Thus, trust among organizational members and transparency can be developed and maintained in agile organizations with decentralized decision-making processes. The introduction of communication tools and methods formalizes such processes. This continuous communication also reduces the amount of documentation since information is shared directly and broadly. Therewith, the requirements for communication are at least comparable with the duties of documentation in traditional bureaucracies.

Proposition 5: The focus on the external environment requires the formalization of inter-organizational interaction.

As integrating customers in processes is an important aspect of working agilely (*Hightsmith/Cockburn* 2001; *Nerur et al.* 2005), certain arrangements concerning communication and collaboration are required.

To appreciate customers and their requirements, organization A tries to implement software applications and methods that their customers use in order to understand the difficulties they face. Hence, they attempt to gain a better basis for consulting them. These new software applications and methods go along with several written rules, procedures, and instructions. Therefore, by adapting to the customer, formalization is prevalent.

Because roles are not defined clearly, and areas of responsibilities are not always assigned, at organization B, the communication with the organizational environment can hold problems such as redundant or missing communication with their customers. This leads to frustration among the employees but also negatively influences stakeholder communication.

We propose that the integration of customers leads to the formalization of new aspects, such as customer communication and choice of communication and collaboration tools. Thereby, clear rules for communication and collaborations are important aspects. Agile organizations need to integrate those requirements into their structures.

4. Results: A roadmap towards the agile organization

Our five propositions show that moving towards agility is not accompanied by an absolute reduction of formalization. We instead observe a shift in aspects that are formalized, such as role definition, (team) collaboration, and intra- and interorganizational communication. At the same time, the reduction of hierarchy goes hand in hand with the formalization of decision-making processes. The fact that organizations differ in aspects of formalization leads to a two-dimensional model of organizational transformation towards agility. Thereby, we identify four types of organizational forms: bureaucracy, chaos, hybrid, and agile (*Figure 1*).

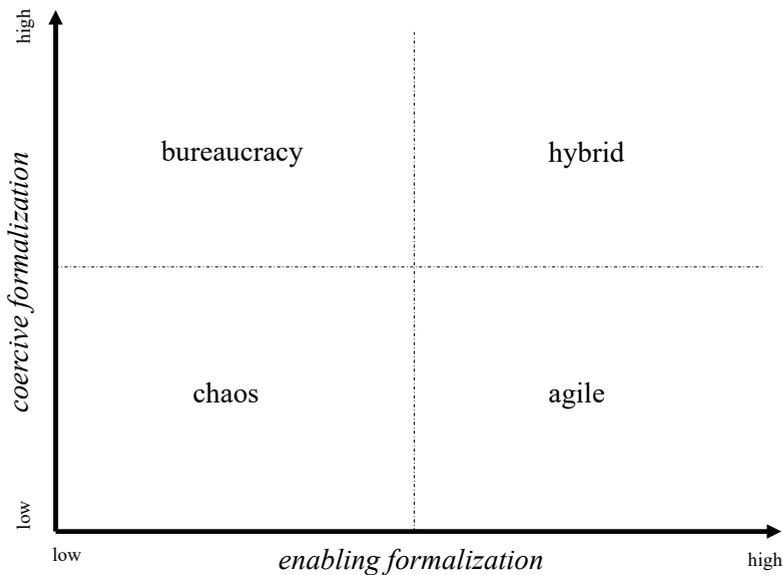


Figure 1: Model of organizational forms depending on the aspect of formalization

While in *bureaucracies*, aspects in terms of hierarchical frameworks or inflexible task assignments are formalized, agility enabling formalization is low. Therefore, formalization is predominantly coercive. In contrast, *agile* organizations are characterized by a higher level of formalization of aspects such as role definition, rules of communication, or decision-making by using agile methods. Even though those aspects are formalized, this kind of formalization enables organizations to stay flexible: The definition of roles can be changed easily, decision-making processes include all organizational members while at the same time providing a well-regulated process. Agile methods like Scrum provide a framework that grants stability to the employees but leaves room for flexible product development. Therefore, we define this type of formalization as enabling. It could be argued that in bureaucracies, some of these processes are formalized, too. However, positions, decision-making processes, or the rules for collaboration are deeply rooted in the hierarchical order as the supervisor bears responsibility.

Furthermore, we suggest two additional organizational forms: *Chaos* defined by low levels of formalization in general and a *hybrid* organizational form, i.e. agile methods and principles including their rules are integrated into existing structures resulting in high levels of both enabling and coercive formalization. In this case, some departments of an organization integrate agile methods even though the traditional organizational hierarchy is still present.

In conclusion, an agile organizational form provides an optimal way for today's organizations in turbulent environments. However, if bureaucratic organizations strive for more flexible structures, a transition is needed. In our model, the organizational forms *chaos* and *hybrid* represent transitional stages in the process of agile adoption, which is illustrated by the arrows in Figure 2. Based on our observations, we identify two possible ways of transition. We argue that organizations either abandon existing structures radically, resulting in a state of chaos until necessary processes are formalized out of need. Alternatively,

they can also choose an approach where agile methods are integrated into existing structures resulting in a hybrid organizational form.

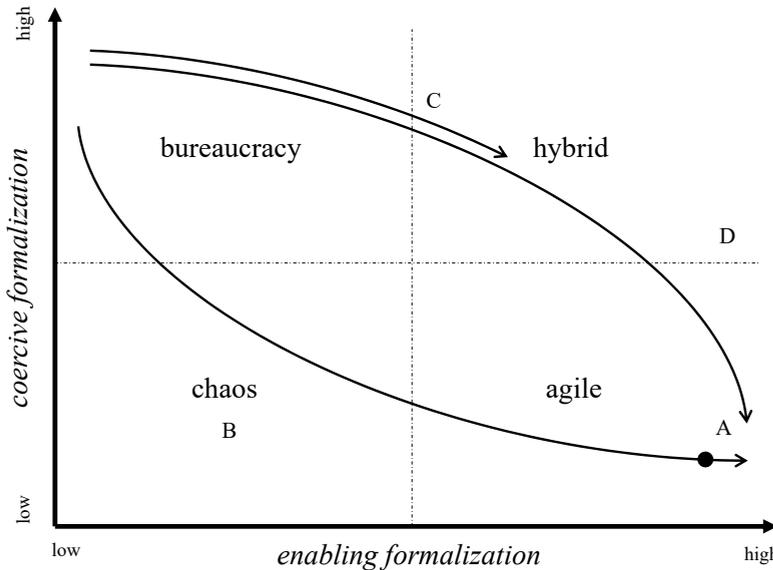


Figure 2: Classification of our case studies into the model of agile adoption

This model allows a classification of our observed organizations and is a roadmap towards agility. Organization A shows a high level of enabling formalization while at the same time, coercive formalization is hardly existent. Thus, organization A can be classified as an agile organization. Within organization B, we observed neither high levels of enabling nor coercive formalization, and therefore organization B is located in the field of chaos. Organization C is characterized by high coercive formalization while starting the process of implementing forms of enabling formalization. Organization D is working agilely with a high level of enabling formalization but is restricted by the coercive formalization of the parent company.

5. Discussion

Our conceptual paper shows that agile adoption does not go along with the total abolition of formalization but rather shows formalization of new aspects. It addresses the gap in the literature regarding formalization in agile organizations. Therewith, our paper contributes in the following ways.

First of all, we provide a two-dimensional model that allows the classification of organizations on the basis of the degree and type of formalization. Therefore, we define organizational forms as *bureaucratic*, *agile*, *hybrid*, and *chaos*. In this context, we also describe two possible ways of agile adoption.

Furthermore, it offers a different perspective on agility. Contrary to the assumption that agile adoption goes along with a reduction of all formalization, we observed many aspects that become highly formalized instead. Hence, enabling formalization is revealed as an important aspect of agility. Basing our argumentation on *Adler and Borys (1996)*, who iden-

tified two types of formalization in bureaucracies, we transferred the concepts of enabling and coercive formalization to organic designs. On the basis of five propositions, we show that enabling formalization is embedded in agile organizations.

We also enhance the typology of organizations introduced by *Adler and Borys (1996)*. In accordance with them, we identified enabling formalization prevalent in an organic design. However, while *Adler and Borys (1996)* state that the organic design displays a low degree of any type of formalization, our conceptual paper suggests to differentiate between aspects of reduced formalization and aspects of extended formalization.

The question arises of why a special kind of formalization is experienced as enabling and another as coercive. One reason may lie in the concept of psychological safety formalization could offer. Thereby, this concept describes the expectations of organizational members about the consequences of risk-taking at their workplace (e.g. *Edmondson 1999*). In an agile organization, members benefit from the freedom to choose their place of work, their working time, and to a certain extent, their tasks. Likewise, employees can decide about issues of career and development as they can take on responsibility in specific roles. This autonomy can result in high job satisfaction. On the other hand, organizational members may also appreciate the high level of formalization that comes along with agile adoption as it prevents a loss of orientation and provides help to prioritize tasks and to foster self-control.

At last, our insights are in line with the findings of *Diefenbach and Sillince (2011)*, who analyzed the aspect of hierarchy compared in mechanistic and organic designs. The authors (2011) concluded that organic designs do not display a complete reduction of hierarchy, but a different kind of it: informal hierarchy.

Limitations and future research

We are aware of the fact that the proposed model can only serve as a rough orientation and that more subtle analysis is required. This claim is supported by the fact that our paper is based on anecdotal insights of four case studies. Without theory building, our case study approach cannot guarantee robust, generalizable, and testable findings (*Eisenhardt/Graebner 2007*). Complementary to theory building, quantitative approaches could enhance the generalization of our findings and test our arguments.

Further research could support our arguments by observing several organizations of different sizes in different fields during the process of agile adoption. In doing so, additional stages during the transformation process could be examined. More profound research on the question of why and under which circumstances formalization can be experienced as enabling or coercive, e.g. depending on psychological safety, is required.

Managerial implications

As agile adoption can be seen as a currently prevalent hype, it is a highly controversial topic. However, a precondition to a successful organizational change process is to avoid unrealistic perceptions and anxiety. Our conceptual paper contributes to managerial practice as it overcomes the assumption that agile adoption goes along with the abolition of formalization. This wrong assumption has two contradictory consequences: First, managers emphasizing the necessity of hierarchies, leaders, and structure could resist agile adoption. Second, managers welcoming a new kind of freedom enthusiastically could be-

come disappointed. To prepare organizations for an agile adoption they, thus, require realistic suggestions.

With our model, we provide a possibility for self-classification of organizations, which enables the deduction of recommended actions in agile adoption. For example, organization B could reduce the state of chaos by formalizing e.g. decision-making processes. In contrast, organization C could reach the agile form by optimizing agile processes while at the same time reducing hierarchical formalization. Organization D is already working agilely and only restricted by the bureaucratic organized parent company. This state could change as soon as the parent company starts the planned change process towards agility.

6. Conclusion

Despite the increasing importance of agile adoption and the prevalent assumption that this transition goes along with a reduction of formalization, there has been surprisingly little research into the link between formalization and agility. We address this gap by providing a conceptual paper based on anecdotal insights of four case studies. Our insights reveal that agile adoption leads to a change in the aspects that are formalized. Furthermore, we can show an increase in an enabling type of formalization and a decrease in a coercive type of formalization. In conclusion, these findings suggest that analyzing the aspects and type of formalization provide precious insights on agility research and are worthy of further consideration.

References

- Abareshi, A., et al.* (2011): ICTS – New Organizational Form linkage in the Australian Context: Theoretical model and research instrument, in: *Journal of Information Systems and Technology Management*, Vol. 8, No. 3, p. 515–538.
- Adler, P. S./Borys, B.* (1996): Two types of bureaucracy: Enabling and coercive, in: *Administrative Science Quarterly*, Vol. 41, No. 1, p. 61–89.
- Alzoubi, A. E. H., et al.* (2011): Factors associated affecting organization agility on product development, in: *International Journal of Research and Reviews in Applied Sciences*, Vol. 9, No. 3, p. 503–515.
- Boehm, B./Turner, R.* (2005): Management Challenges to Implementing Agile Processes in Traditional Development Organizations, in: *IEEE software*, Vol. 22, No. 5, p. 30–39.
- Bogaert, S., et al.* (2016): Organizational Form Emergence. A Meta-Analysis of the Ecological Theory of Legitimation, in: *Journal of Management*, Vol. 42, No. 5, p. 1344–1373.
- Burns, T./Stalker, G. M.* (1961): The management of innovation, in: *Journal of Marketing*, Vol. 62, p. 42–54.
- Child, J./McGrath, R. G.* (2001): Organizations Unfettered. Organizational Form in an Information-Intensive Economy, in: *Academy of Management Journal*, Vol. 44, No. 6, p. 1135–1148.
- Cockburn, A./Highsmith, J.* (2001): Agile Software Development: The People Factor, in: *Computer*, Vol. 34, No. 11, p. 131–133.
- Conboy, K.* (2009): Agility from First Principles: Reconstructing the Concept of Agility in Information Systems Development, in: *Information Systems Research*, Vol. 20, No. 3, p. 329–354.
- Conboy, K./Fitzgerald, B.* (2004): Toward a Conceptual Framework of Agile Methods: A Study of Agility in Different Disciplines, in: *Proceedings of the 2004 ACM workshop on Interdisciplinary software engineering research*. ACM, p. 37–44.

- Cram, W. A./Newell, S. (2016): Mindful revolution or mindless trend? Examining agile development as a management fashion., in: *European Journal of Information Systems*, Vol. 25, No. 2, p. 154–168.
- Crocitto, M./Youssef, M. (2003): The human side of organizational agility, in: *Industrial Management & Data Systems*, Vol. 103, No. 6, p. 388–397.
- Daft, R. L./Lewin, A. Y. (1993): Where Are the Theories for the “New” Organizational Forms? An Editorial Essay, in: *Organization Science*, Vol. 4, No. 4, p. i–vi.
- Diefenbach, T./Sillince, J. A. A. (2011): Formal and Informal Hierarchy in Different Types of Organization, in: *Organization Studies*, Vol. 32, No. 11, p. 1515–1537.
- Edmondson, A. (1999): Psychological safety and learning behavior in work teams, in: *Administrative Science Quarterly*, Vol. 44, No. 2, p. 350–383.
- Eisenhardt, K. M./Graebner, M. E. (2007): Theory building from cases: Opportunities and challenges, in: *Academy of Management Journal*, Vol. 50, No. 1, p. 25–32.
- Goldman, S. L., et al. (1996): *Agil im Wettbewerb. Die Strategie der virtuellen Organisation zum Nutzen des Kunden*, Berlin Heidelberg.
- Gunasekaran, A./Yusuf, Y. Y. (2002): Agile manufacturing: A taxonomy of strategic and technological imperatives, in: *International Journal of Production Research*, Vol. 40, No. 6, p. 1357–1385.
- Harraf, A., et al. (2015): Organizational Agility, in: *The Journal of Applied Business Research*, Vol. 31, No. 2, p. 675–685.
- Highsmith, J./Cockburn, A. (2001): Agile Software Development: The Business of Innovation, in: *Computer*, Vol. 34, No. 9, p. 120–122.
- Jansen, J. J. P., et al. (2006): Exploratory Innovation, Exploitative Innovation, and Performance: Effects of Organizational Antecedents and Environmental Moderators, in: *Management Science*, Vol. 52, No. 11, p. 1661–1674.
- Knudsen, T./Eriksen, B. (2002): The Architecture of New Organizational Forms, in: *Research Part of the Project 01 within the LINK Research Program*, sponsored by The Danish Social Science Research Council.
- Lui, T.-W./Piccoli, G. (2007): Degrees of Agility: Implications for Information Systems Design and Firm Strategy, in: *Desouza, K. C. (Ed.): Agile Information Systems*, Burlington, p. 122–133.
- Miles, M. B./Huberman, A. M. (2009): *Qualitative Data Analysis: An expanded Sourcebook*, 2. Ed., Thousand Oaks, CA.
- Nerur, S., et al. (2005): Challenges of Migrating to Agile Methodologies, in: *Communications of the ACM*, Vol. 48, No. 5, p. 72–78.
- Oestereich, B./Schröder, C. (2017): *Das kollegial geführte Unternehmen. Ideen und Praktiken für die agile Organisation von morgen*, 1. Ed., München.
- Palmer, I., et al. (2007): New Organizational Forms: Towards a Generative Dialogue, in: *Organization Studies*, Vol. 28, No. 12, p. 1829–1847.
- Patton, M. Q. (1990): *Qualitative evaluation and research methods*, 2. Ed., Newbury Park, CA.
- Romanelli, E. (1991): The Evolution of New Organizational Forms, in: *Annual Review of Sociology*, Vol. 17, No. 1, p. 79–103.
- Scheller, T. (2017): *Auf dem Weg zur agilen Organisation. Wie Sie Ihr Unternehmen dynamischer, flexibler und leistungsfähiger gestalten*, München.
- Schreyögg, G./Sydow, J. (2010): Organizing for fluidity? Dilemmas of new organizational forms, in: *Organization Science*, Vol. 21, No. 6, p. 1251–1262.

- Sherehiv, B., et al.* (2007): A review of enterprise agility: Concepts, frameworks, and attributes, in: International Journal of Industrial Ergonomics, Vol. 37, No. 5, p. 445–460.
- Singh, J., et al.* (2013): Organizational agility: What it is, what it is not, and why it matters, in: Academy of Management Proceedings, Vol. 1, p. 1–40.
- Tuczek, H., et al.* (2019): Agile Leadership 4.0 - Digital Network Intelligence, in: Oswald, A./Müller, W. (Ed.): Management 4.0: Handbook for Agile Practices, 3. Ed., Norderstedt, p. 80–110.
- West, D./Grant, T.* (2010): Agile Development: Mainstream Adoption Has Changed Agility. Trends in Real-World Adoption of Agile Methods, in: Forrester Research.
- Yin, R. K.* (2014): Case Study Research: Design and Methods, 5. Ed., Thousand Oaks, CA.

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