Agile Project Management as a Multi-Level Resilience Antecedent

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Abstract The goal of this paper is to introduce evidence that an agile approach to project management could be a source of resilience at the individual, team and organisational levels in the current projectified environment. This article is designed as a review paper. The authors first discuss the trends and recent findings in projectification and then in resilience. In the continuation, the authors highlight the connections between these areas, which to date have not been widely discussed in existing literature, as well as where agile project management could be of great importance. Dependencies between projectification, resilience and agile project management are evident. Agile project management could be considered as an antecedent for multi-level resilience, however, empirical evidence supporting this claim does not yet exist, therefore the issue should be further investigated. Enough evidence has been collected to understand that it would be worth further investigating the dependencies between these concepts, as there is an opportunity to fill some gaps in existing academic knowledge and also create a hands-on practical contribution for contemporary organisations.

1   Introduction

Organisations nowadays operate in a highly volatile, uncertain, complex and ambiguous environment (Bennett & Lemoine, 2014). Due to global competition, dynamic opportunities and the high complexity of business processes, adaptation, flexibility and changes are inevitable for every contemporary organisation (Williams, 2005). Since steering these challenges is traditionally covered by project management experts, it comes as no surprise that reliance on projects is increasing and consequently the number of project-based workers is also growing (Maylor et al., 2006), which could have a negative impact on the resilience of individuals and organisations. Additionally, an awareness of the shortcomings of traditional project-based structures in the current dynamic landscape is becoming increasingly present among modern managers (Williams, 2005). Recently, new concepts and approaches to project management have emerged, of which agile and hybrid project management are gaining in importance. The question arises: *Can an agile way of managing projects be an antecedent for multi-level resilience?* The authors of this paper aim to answer this question with the help of a review of existing literature. The paper has been structured as follows: first, as a part of the introduction, the concept of projectification is introduced and the possible negative consequences of the phenomenon. Second, there is a brief summary of the existing research streams of resilience with a focus on organisational context. Third, the authors discuss agile project management (APM) as a possible antecedent of multi-level resilience, concentrating on non-software organisations and projects. Finally, the paper concludes with the authors' final thoughts and further research indications.

2   Projectification

The phenomenon of projectification was first studied in Midler's article on Renault (Midler, 1995), however, the process itself was certainly not a novelty at that point in time (Maylor et al., 2006). Nowadays, project-based work contributes to about one-third of all economic activities in advanced economies (Schoper et al., 2018). Consequently, both business and academic interest in projectification has grown tremendously and to date studies have gone far beyond the fields of industrial organisation and project management discipline. Although cited in the vast majority of projectification articles, Midler (1995) did not provide a clear definition of the phenomenon. Nonetheless, definitions of projectification have been outlined, often based on Midler's research, for example, Bredin and Söderlund (2011) define

projectification as *'a change of the organizational structure, slowly moving the firm into putting more emphasis on the project dimensions of the organizational structure, from strong functional units where projects have played a subordinate role, to projects playing at center stage with functional units acting as labor pools.'* (Bredin & Söderlund, 2011, pp.9).

Projectification was initially studied as a managerial approach, however, recent studies have investigated the phenomenon from several different angles. Jacobsson & Jałocha (2021) systematically categorised existing projectification studies and identified four main streams – first, projectification as a managerial approach (e.g. Midler, 1995; Wenell et al., 2017; Maylor & Turkulainen, 2019), second, projectification as a societal trend (e.g. Jensen et al., 2017; Auschra et al., 2019; Mukhtar-Landgren & Fred, 2019; Hubmann, 2021), third, projectification as a human state (e. g. Ekstedt, 2009; Jensen, 2012; Packendorff and Lindgren, 2014; Cicmil et al., 2016; Jensen et al., 2017), and finally, projectification as a philosophical issue (Jensen, 2012; Jensen et al., 2016; Barondeau & Hobbs, 2019). At the organisational (meso) level, the phenomenon is mainly perceived positively with some possible negative consequences (Bogacz-Wojtanowska & Jałocha, 2016; Henning & Wald, 2019), however, in general the negative consequences are outweighed by the positive. At a societal (macro) level, projectification is an unavoidable direction and has both positive and negative impacts. Projectification as a human state, however, is most commonly described as an oppressive discourse with extensive negative consequences for project workers (Jacobsson & Jałocha, 2021). In a projectified environment, workers are exposed to vulnerable situations – both individually and collectively (Cicmil et al, 2016). Project-based work has been found to have mostly negative consequences for individuals' well-being (e.g. Bråthen & Ommundsen, 2018), as it has been indicated that project-based workers face negative mental stress and sleep issues (Myrmæl & Alfredsen, 2018), career insecurity, inequality and unemployment (Brunila, 2011; Sage, 2016). Cicmil et al. (2016) argued that projectification leads individuals to inter alia, *'dependence on great expectations, follies and sensations; commitment to blank sheets, fresh starts and 'professional' performance, internalisation of honour/shame and personal worthiness, exhaustion, finiteness and the end of resilience.'* (Cicmil et al., 2016, pp.66). As a result of the negative consequences, both companies and individuals might be put at a certain level of risk, for example in relation to a negative impact on revenues gained (Ekstedt, 2009). However, to some degree, it is still possible for individuals to emancipate themselves from the oppressive conditions of projectification (Waring & Thomas, 2010).

3   Multi-level resilience

Given the challenges organisations and their members face nowadays, it is no surprise that interest in the concept of resilience has grown steadily over the last few years. The majority of existing literature conceptualises resilience at an individual level, however, team-level and organisational-level resilience are also common streams in resilience-related studies (Reatze et al., 2021). Individual-level resilience is most frequently defined as a capacity, capability or state-like ability to maintain a normal level of functioning under challenging circumstances and rapid recovery from adversity-caused setbacks (Hartmann et al., 2020). Similarly, team-level resilience is often defined as the capacity to recover from any possible threats to a team's well-being, such as conflicts, setbacks or failures (Chapman et al., 2020), and organisational-level resilience as an organisation's ability to resist disruption and recover from the consequences of adverse situations (Horne & Orr, 1998).

The positive outcomes of resilience are clear, as they have been researched considerably in the past. At an organisational level, resilience impacts performance, effectiveness, creativity and innovation. The outcomes of team-level resilience include team attitudes, behaviour and performance. Individual-level resilience impacts health and well-being, employee attitudes, behaviour, performance and success (Raetze et al., 2021).

In addition to the outcomes, resilience antecedents have also been a focal point of existing research. At the organisational level, financial and material resources are commonly studied antecedents of resilience (e.g. Burke, 2005), structural resources (e.g. Lampel et al., 2014), and human and social resources (e.g. Lengnick-Hall et al., 2011). Additionally, several studies have focused on strategies and practices of organisational-level resilience, for example, scenario planning (e.g. Hillmann et al., 2018), change management (Ates & Bititci, 2011), and robust strategic planning (e.g. Demmer et al., 2011) have been considered as sources of organisational resilience, while a link between organisational resilience and innovation strategies has also been investigated (e.g. Wojan et al., 2018). Furthermore, corporate social responsibility practices (e.g. Ortiz-de-Mandojana & Bansal, 2016), HRM practices (Bardoel et al., 2014), and certain leadership practices (Harland et al., 2005) have been analysed in relation to organisational resilience. Theantecedents of individual-level resilience are developing skills and competencies (e.g. Howard & Irving, 2014), positive emotions and attitudes (e.g. Cooper et al., 2013), positive relationships (Bardoel et al., 2014),

leadership and management (e.g. Ashby et al., 2013), and organisational context factors, for example, employee-oriented HR management practices (e.g. Cooke). Some scholars have also focused on cross-level antecedents, for example certain organisational factors could potentially impact team-level resilience (van der Beek & Schraagen, 2015) or leadership could be considered as a source of cross-level resilience (Norman et al., 2005; Hudgins, 2016). Nevertheless, empirical evidence on the impact of a single antecedent at multiple levels remains very scarce to date.

Resilience at all three levels can be a demanding goal to achieve in a contemporary projectified environment. As the number of project workers and project managers increases (Maylor et al. 2006), new challenges arise – this means that individuals, teams and organisations involved in the process of projectification could benefit from finding a project management approach that would enable resilience across all three levels.

4   Agile project management as a resilience antecedent

4.1   Expanding the applicability of APM

Due to the increase of project-based work, new ways of managing projects have emerged over time. APM was initially a solution for the turbulent environment of software development projects. Nowadays, since many non-software projects are facing very similar disruptive dynamics, APM is also being considered as a possible approach for other areas, since it has resolved similar issues within software development in the past (Ćirić & Gračanin, 2017). Deliberately or not, companies are implementing some APM practices, since their traditional and formalised project management approaches often fail to meet the challenges of an innovative project portfolio (Conforto et al., 2014). Even though the majority of existing literature related to APM remains within the software development domain (Fernandez & Fernandez, 2009; Conforto et al., 2014), some attempts at broadening the scope have been made and APM is now moving on to other industries. For example, APM has been studied as a possible approach to construction projects (Nowotarski & Paslawski, 2015), new product development projects (Conforto et al., 2014; Stare, 2014), manufacturing projects (Somers et al., 2015), and services projects (Ruler, 2015), to name just a few.

The main challenges for project managers today are improving communication, team and people management, and increasing emotional management, such as managing frustration, stress and disconnection (Ballesteros Sánchez, 2018; Digital.ai, 2021). The reported benefits of APM could help with just that, as many of them are connected through the first principle of the Agile Manifesto – 'Individuals and interactions over processes and tools' – such as an improvement in team collaboration, an increase in transparency, visibility and knowledge sharing, an improvement in focus, etc. Furthermore, increases in productivity levels, speed and quality, customer interaction, flexibility and coping with change are among the beneficial reported outcomes of APM (Gustavsson, 2016).

Organisations across all industries should consider these benefits of APM, especially when exposed to the potentially damaging challenges of projectification. APM is not only an efficient tool for handling projects but could also be considered as a possible antecedent of cross-level resilience. Over recent years, studies of resilience across all three levels have already been conducted, some of which have also researched how a single antecedent functions across multiple levels simultaneously (Raetze, 2021). Adoption of an agile approach to project management could possibly benefit those people and organisations that are facing projectification-related challenges. As a result of adopting an agile approach, perhaps even positive consequences of projectification at an individual level could be discovered, as this is currently an under-researched side of the phenomenon (Jacobsson & Jałocha, 2021).

4.2   Challenges of APM in non-software industries

Although companies in more traditional industries could benefit from adapting APM (Conforto et al., 2014), some challenges remain and should also be taken into consideration. Since the Agile Manifesto was created in the context of the software development industry, it is impossible for the entire spectrum of organisations to operate according to all principles (Gustavsson, 2016). The main challenges in adapting agile practices were identified as inconsistencies in practices and processes across teams, challenges with organisational culture which is often not in line with agile values, general resistance to change, lack of support and skills (Digital.ai, 2021). Furthermore, certain challenges, which are not typical for the software industry but are present in other industries, could be addressed with a hybrid approach (Conforto et al., 2014).

5   Conclusion

Projectification, resilience and agile project management are all relatively new concepts, with a lot of space for further research. To date, these concepts had been evolving and had been studied in parallel, therefore, connections between them in existing research are very rare. That said, however, dependencies between projectification, resilience and agile project management are evident. Through the literature review, the authors of this paper collected enough evidence to understand that this issue is worthy of further investigation, as there is an opportunity to fill some gaps in existing academic knowledge and also create a hands-on practical contribution for contemporary organisations.

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