RESEARCH: SUMMARY SERIES

The agility construct on project management theory

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KEYWORDS

- Agile project management
- Agility construct
- Agility performance
- Frame semantics

Article highlights:

The article provides an insight into usage of the term agile project management and presents a definition of the construct of agility in the discipline of project management. It also describes a method to help senior leaders understand the concept of agility to support organisational transformation.

What does the paper cover?

Whilst agile project management is becoming more accepted in mainstream project management literature, there is no agreed definition of the term agility, resulting in varying application and interpretation. The differing definitions generate imprecision and inconsistency in the use of the construct of agility in project management theory and practice. This has an impact on the measurement and assessment of practices, tools and techniques designated as agile, and consequently in theory building.

This paper provides a definition of the construct of agility to ensure further research can be grounded in common understandings.

Methodology:

Using a systematic literature review and a frame semantic analysis, key elements of the agility construct for project management theory were identified. Project literature was selected from a range of industry sectors, and differing degrees of innovation and complexity, to ensure a representative sample.

To test the theoretical construct, a survey with 171 participants was carried out in the state of São Paulo, which is considered the most industrialised state in Brazil, and a factor analysis was applied to the results.

Research findings:

Definition: A proposal for a complete definition of agility, considering all the elements of the frame semantics technique is:

Agility is the project team's ability to quickly change the project plan as a response to customer or stakeholder needs, market or technology demands in order to achieve better project and product performance in an innovative and dynamic project environment.

This supports the assumption that agility is not a characteristic of a practice or method. Therefore, using terms such as agile practice or agile methods would not be adequate. Understanding agility as a team's performance is important to provide a more comprehensive view of the agile methods, practices and tools disseminated in the agile project management approach. This understanding is critical to ensure consistency in application and to provide a theoretical background toward the definition of a research agenda to investigate the impact of agility in project and product performance, and in other areas of an organisation.

Methods: The frame semantics approach was useful to develop a complete definition and to identify potential variables to empirically test the proposed definition. Therefore, scholars and practitioners could use this method to create or improve current definitions in project management literature.

Overall findings: The results offer a new perspective to understand agility as a core construct for an agile project management approach and to advance project management theory. The findings raise three main implications for advancing theory and practice:

1. Agility should be considered a project team's performance and not just an adjective of a certain practice or method, e.g. agile methods.

2. The agility performance can be measured within a combination of two main factors: ability to rapidly change the project plan, and active customer involvement.

3. Agility as a team's performance indicator has different levels. It would be relevant to investigate how different levels of agility are influenced by internal and external factors, and how these levels might impact project results.

Limitations of the research: The research created a robust definition of agility but did not explore the implications and the relationship of agility with other constructs. A research agenda using additional variables could support new ideas on how to evaluate the impact of agile methods in product development performance, evaluate the use of agile methods in different business and project environments, and validate the use of combined (hybrid) methods.

Opportunities for further research: The authors suggest:

- testing a broader sample to include organisations from different industry sectors and from different countries;
- including complementary research methods, such as longitudinal data collection and analyses over a period of time in projects under development;
- investigating additional elements of the agility construct to further explore the causal relationship with project outcomes;
- developing additional variables to explore this phenomenon in more detail, and to cover all frame semantic elements.

Conclusions:

This paper contributes to fill the gap of not having a clear and complete definition and understanding of the agility construct and its role in project management theory. By improving the understanding of this construct, scholars will be able to advance empirical investigations and the measurement of agility in different project management contexts with a diverse set and combinations of practices, tools and management approaches.

Significance of the research:

For project managers: An informed definition of agility for project management is provided, specifically based on the performance of a project team.

For researchers: The research provides a starting point for further areas of theory development and investigation.

Comment from the authors:

Since this article was published in 2016 the use of agile methods and practices has grown exponentially. Organisations seek to develop agility as a strategic competence, and this goes beyond the IT industry. However, performance and business results will not be improved by simply adopting an agile practice or agile method. Organisational structure, team characteristics, culture, communication and decision-making dynamics are all factors that affect the ability of an organisation to be truly agile. So, the first step for those who have deliberately embarked on this agile transformation journey is to understand what agility means, for their business strategy, their governance, their processes, portfolio of projects, and, most importantly, what it means for their teams. Without a robust method to define and break down agility, the organisation will not be able to strategise its transformation, focus on the key factors to become truly agile, measure results and continuously improve their work environment, management processes, and boost team performance.

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Complete article

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Glossary:

Agile project management: An approach based on delivering requirements iteratively and incrementally throughout a project life cycle.

Frame semantics: A linguistic methodology where the meaning of a word can be described by means of a semantic frame, i.e. a set of related concepts that represents a global pattern of commonly understood knowledge.