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## **Navigating Projects with Cynefin and a Roadmap for Delivering Project Value**

Smart Practices

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## ABSTRACT

If the job of a Project or Program Manager is to deliver the value from a project, the task has been increasingly complicated by the varying definitions of value across projects and programs.

Customers realize that a large number of their projects don't deliver value; but find it difficult to articulate the value expected. It isn't that the customers don't know what they want, but the answer lies in being able to accurately recognize the challenge in the particular instance, and deploying the right PM toolset to address the specific ask.

A useful method to understand where the project resides in terms of complexity is to use the Cynefin framework. Each of the habitats in Cynefin demands a different approach from the PM; for example, a focus on defined benefits is misplaced in a 'Complex' Cynefin environment, where value is understood with each step. In such a case, Agile methods are much more suitable, but must be applied to the management of the project itself, and not just in its execution.

In this paper, we will dive in-depth into the various Cynefin habitats, understand the role the Project Manager must play in each to create and deliver value. We will also provide a Toolkit for PMs in each scenario - how they can use Agile methods, PMO resources, and to what focus and effect they should deploy these resources in the service of Value.

## INTRODUCTION

Project Managers and Program Managers have traditionally focused on delivering value as defined in the business case or program plan. Increasingly (as evidenced by the rapid growth of Agile methods) there is a broad realization in the IT community that value to the customer can vary; however, the guidance for project managers still tends to be fairly traditional.

This paper uses the Cynefin framework to provide Project Managers with a roadmap to identify the contours of value in a project, and helps them navigate to the value using a systematic approach. This paper also suggests a toolkit for Project Managers to use in each situation.

Using this approach, Project and Program managers are also able to communicate with stakeholders and clients in a structured manner, especially stakeholders who are focused on economic measures of value.

# DETAILS OF THE PAPER

## 1. Understanding and Defining Value in IT

What is value in IT services? Traditional definitions of Value have focused [1] on desired value and perceived value; the evaluation of the attributes that constitutes this value; and finally the alignment of project deliverables to these attributes.

As we know, this is far from being a perfect science. “When you look at the reasons for project failure, it's like a top 10 list that just repeats itself over and over again” [2]; the blame for much of these failures fall at the door of the project manager. However, it is a question worth asking – how will be Project Manager be able to anticipate the changing needs, the changing markets, and competitor moves even as the project evolves through its lifetime?

IT customers are famously known for changing requirements. There is a “I know it when I see it” appearance to IT requirements; one way is to attempt to lock down the requirements to a deeper and deeper level, and the other is to see if we can evolve IT project management to be able to respond to these changes.

As more and more large IT projects fail, the IT industry is asking – is Agile the answer?

## 2. Is Agile the panacea?

In the industry standard 12<sup>th</sup> Annual State of Agile Report [3] the primary reasons for adopting Agile is to accelerate delivery. A key component of this is the delivery of value via working code delivered in short iterations. In fact all top 5 reasons and the benefits come down to 2 (relatively) simple ideas: 1. Better align with business by being able to manage changes; and 2. Increase velocity at which value is actually delivered.



Fig (1) Ref [3]

In this new paradigm, there is value to the business in being able to show working software that does not meet business needs (there is discovery of what is valuable and what is not) but as we see in Fig (2), there is a strong belief that the organizational culture is at odds with the Agile ways of work.

### Challenges Experienced Adopting & Scaling Agile

From last year to this year we saw a decrease in respondents citing "organizational culture at odds with agile values" and "lack of business/customer/product owner availability" as challenges for adopting and scaling agile. Barriers that were cited more this year include "fragmented tooling", "inconsistent processes across teams" and "general resistance to change".



Fig (2) Ref [3]

Why should this be so? Surely, the two imperatives (1. Better align with business by being able to manage changes; and 2. Increase velocity at which value is actually delivered) are something that the entire enterprise can align to?

The answer to this question comes from how Project Managers are judged in project success. There is even a point of view that suggests (see Fig (3)) that among the benefits of adopting Agile, cost reduction is one of the

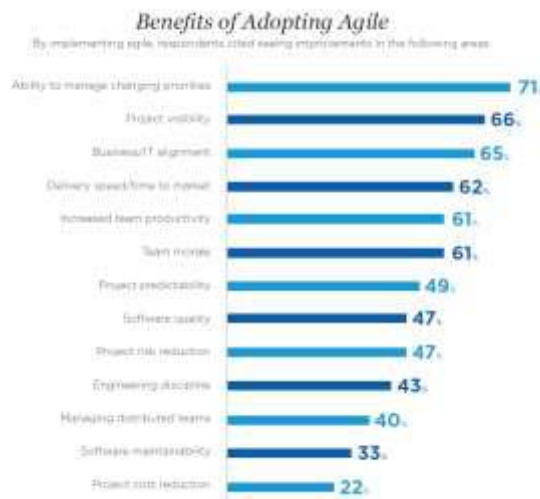


Fig (3) Ref [3]

least benefits- and for good reason! Agile often leads to an increase in project cost, if measured solely from a project funding / effort incurred perspective. The increase in value delivered is often harder to quantify; mistakes avoided seem to take on the air of inevitability, that the project was in any case slated to succeed. Also, if a large part of the funding allocated to a project or program is spent discovering what is not valuable, there will (rightly perhaps) be questions raised by the funding authority, who have a ROI view of measuring return on investment.

How can a Project Manager, in this situation, be able to articulate their stewardship of the project towards value?

### 3. The ask from Project and Program Managers

Project Managers implicitly understand that the root of this is the static lens that we are using in order to evaluate value. Cost (while part of the original iron triangle) is just but one measure of progress [4]; for scope and quality (except in a conformance to specifications perspective, not quality from a fitness to purpose measure) to be effective barometers to value, there is an assumption that the IT team or organization has the ability to capture these accurately.

What if this rigorous measurement of project success and value delivery is possible only in a certain set of projects? And in others, the nature of value changes depending on a set of outcomes? And in yet another, perhaps the value itself is discovered or uncovered via experiments?

The Cynefin framework [5] can be a good roadmap to answering this question.

### 4. The Cynefin framework



Fig (4) Ref [6]

Cynefin [5] (Habitat in Welsh) takes the view that there are limits to rationality; that in some cases, too much time and effort would be needed to accurately model a multivariate system. We often believe that our job (or the business analyst's job) is to enumerate the options and have business choose one of them. In an **ordered** system, we can identify cause and effect; several types of transaction processing or rule based systems are in this category. On the other hand, if causality (for example, how customers will react to a new user interface) may not be directly causal and is **unordered**.

Further, ordered systems can be **Simple or Obvious**, where we can state cause and effect directly; or **Complicated**, where cause and effect can be derived from formal analysis.

Unordered systems in turn, are split into **Complex**, where the cause and effect can be uncovered in hindsight via experiments; and **Chaotic**, where there appears to be no underlying cause and effect that can be derived or identified and used.

Finally, there is **Disorder**, where there is simply no structure. Hopefully very few IT projects are in this space,

## 5. Cynefin applied to projects, and lessons for Project Managers

Now, how can Cynefin be a useful guide to Project Managers? Each of the habitats, and the approach for the PM is enumerated below.

1. Obvious / Simple: This is the domain of detailed requirement documents, IT tests that assure that a conformance to quality will result in user value. The job of the Project Manager here is simply the Iron Triangle. A Sense – Comprehend – Respond approach is used.
2. Complicated: Here, domain experts and technology experts can help uncover the underlying causal relationships, and workshops are recommended to bring stakeholders together to identify the right requirements. Once these are correctly identified, they can be executed per the iron triangle, with the confidence that they will deliver value. Project Managers must adopt a Sense – Analyze – Respond approach.

Both Obvious and Complicated projects are cheaper to execute using Waterfall techniques, and can use cost as a measure of value.

3. Complex: This is the domain of experiments, A/B testing, and Agile really comes into its own here in delivering value. Since value is emergent and must be discovered via experiments, Agile provides the ideal testing ground, with frequent releases that can get feedback. Applying cost controls on scope will backfire, since the limited cost options simply cannot deliver the value without experiments. The Project Manager must play a key role in educating the stakeholders, else they will be seen as failing on traditional measures in Complex projects.
4. Chaotic: Often seen in startups, with multiple emerging platforms and technologies addressing a need, Project Managers can only Act – Sense – Respond. Cost measures to Value are useless here; Project Managers must prioritize response speed above all else to play in the Chaotic arena. This is also the domain of Lean Startup, and Pivots where there is no traction.
5. Finally, for projects in the Disorder habitat, the job of the Project Manager is to get the system to move Disorder into one of the above habitats.

## CONCLUSION

In this paper, we saw that defining and locking down the meaning of Value in IT services is not as straightforward given the constant evolution of business and markets; that Agile is a step in the right direction, but while a good guide to IT development, needs additional sense-making models and tools in order for PMs to be able to communicate value effectively to clients and business.

Of course there is resistance and challenges to this approach – it is our job as Project Managers to deploy the models and communication needed in order to offer sense-making to the business – one such model is Cynefin, which offers a way to distinguish between ordered and unordered systems, and to be able to identify which of the 5 Cynefin habitats the project resides in, and appropriately respond with the right project management and communication toolset to effectively manage the project.

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