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Agile Developments Place in a Fixed
Price and Outsourced World

Topics For Today

- What is an Agile Methodology?
- Why is Fixed Price still popular?
- Can I use Agile Methodologies to deliver a Fixed Price project?
- If so how?
- Does Outsourcing or Offshoring change the picture?
- Summary
- Questions

What is an Agile Methodology?

- There is no single "agile methodology";
- Agile methods are **adaptive** rather than **predictive**;
- Agile methods are **people-oriented** rather than **process-oriented**;
- The following are some characteristics of an Agile Methodology
 - They deliver software frequently;
 - Every release should work and be deployable to production;
 - The line between "design" and "development" is intentionally fuzzy;
 - Face to face communication is the dominant form of communication;
 - Business people and developers work closely together;
 - Simplicity, "the art of maximizing the amount of work not done", is an important design goal; and
 - The methodology expects, and supports, changes to requirements.
- Examples of Agile Methodologies
 - Extreme Programming, SCRUM, FDD etc.

Some Benefits of an Agile Methodology

- The customer is more likely to get what they need
 - Which may not be what they originally asked for or thought they needed.
- Early detection and cancellation of failing products;
- Improved control of a project; and
- Reduced dependence on individuals and increased flexibility;

Why is Fixed Price Still Popular?

- Typically Fixed Price also means **Fixed Scope**
 - The customer knows:
 - What They Are getting;
 - When they will get;
 - How much it will cost;
- Fixed price minimizes the risk of the cost of a projects failure being born by the customer
 - Typically managed through the use of penalty clauses;
- It is easier to manage
 - There is well defined project plan and scope of work ;
 - Adherence to milestones can be easily tracked; and
 - Reporting of progress to steering committees and stakeholders is simplified.
- Easier to manage from a competitive tender process
 - Easier to contract; and
 - Easy to engage with new vendors.

Organizational Culture is Important

- In the book “An Introduction to Agile Methods” Cohen and his fellow authors identified the following organizational characteristics as being key to the successful use of Agile methodologies.
 - The culture of the organization must be supportive of negotiation;
 - People must be trusted;
 - Fewer but more competent people;
 - Organizations must live with the decisions developers make; and
 - Organizations need to have an environment that facilitates rapid communication between team members.
- Lastly if the team size is more than 20-40 face to face communication becomes more difficult.

The \$40,000 Question

- Can I use an Agile Methodology to deliver a Fixed Price Project?

Yes! and **No!**

Why No?

- An Agile Methodology cannot typically be used to manage a Fixed Price engagement for the following reasons:
 - Fixed price typically means fixed scope and fixed timelines which is at odds with the Agile methodology;
 - Consistently changing requirements in a fixed price engagement means change management hell;
 - Stakeholder management from both a customer and vendor point of view becomes very problematic;
 - On large fixed price contracts unfixed scope is scary to the vendors as well
 - Where is the line between simple elaboration or real change drawn;
 - Estimation is much harder and often problematic thereby increasing risk;
 - The culture of the customers organization must support an agile process
 - This is hard to change during a competitive tender process;
 - Projects with large teams are not suited to agile development.
 - To many communication channels;

Why Yes?

How to Use Agile in Fixed Price Projects

- An agile approach is useful in the initial planning and validation phase of a fixed price contract:
 - It can be used to validate the accuracy of the requirements and scope;
 - It can also be used to confirm approaches to solving areas of high technical risk;
 - It can also be used to exercise the supporting infrastructure; and
 - It allows a quick exit point for both parties if any of the above don't stack up.
- Larger fixed price projects typically have multiple parallel work streams:
 - User Interface, Business Services, Data Migration and MIS work streams etc;
 - An agile approach can sometimes be used for work streams such as Data Migration or MIS.
 - It's not uncommon for these areas not to be fully specified at the beginning of a project;
 - Hence an allowance (agreed with the customer) is made within the project budget for their creation.

How to Use Agile in Fixed Price Projects Cont...

- Many development techniques championed by Agile methodologies can be and should be used on fixed price projects:
 - Test first development;
 - Creation of automated unit tests;
 - Continuous Integration;
 - Automation of functional testing; and
 - Automated Code Analysis;
- And the most important of all
 - **Refactoring**
 - Change happens on Fixed Price Projects Also!!!;
 - Having a code base that is easy to refactor mitigates this risk; and
 - Don't forget to choose tools that provide strong refactoring support.
- 'Iteration' can also be used effectively in Fixed Price Projects to minimize risk and deliver early functionality to the customer.
- **Important:** Factor the above in from the beginning, it is very hard and much more expensive to introduce the above once the project is underway.

Does Outsourcing or Offshoring change the Picture?

- Not really...
- Agile techniques can be used if the work is done in-house, offsite or offshore.
 - If done offsite or offshore agree the metrics that will be used to measure the deliverable with the vendor before coding starts. Then ensure there is a process and system in place to track them.
- If using an Agile Methodology to manage the Planning and Validation Phase or a deliverable in a work stream remember:
 - **The business and development team must be co-located so that communication is effective and efficient;**
 - That means one team has to travel.

Summary

- An Agile methodology can be used to manage the initial planning and validation phase of a fixed price project;
- In larger fixed price projects it can also be used to manage a deliverable from a work stream such as Data Migration or MIS for which initial requirements are incomplete;
- Agile Techniques can and should be used on fixed price projects:
 - Plan for and support refactoring from the start...change is inevitable even on fixed price projects.
- Delivering functionality iteratively is always a good idea.

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Questions?

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