Perceived Agile projects success rate through rolling wave planning

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ABSTRACT: Software projects or products are intended to provide value the end users in short span of time .When it comes to measuring success rate of projects agile projects always fare compared to waterfall projects . The main reason behind success rate of agile projects are due to focus on rolling wave planning throughout the project
KEYWORDS: Agile Success rate,Agile planning
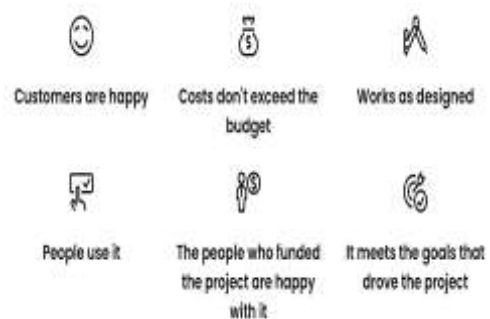
I. INTRODUCTION

Estimating and planning is critical for any software development projects as it planning helps to determine when to plan for marketing campaigns ,end user training .On the other side estimating determines investment decisions .We will consider starting a project if it takes 6 months and 100,000 dollars bur will not even start the project if takes 3 years and 1 million dollars.

Planning is difficult ,In water fall way all plans are put together during the start of the projects and Development Team thinks that plan will not be flawed .However in the software world we all know plans change due to many risk factors.

In agile way of planning is ana attempt to find an optimal solution to the question, what will it cost to build the software many resources, and what time liens .however once the plan is made ,it will be revisited in regular intervals .As we discover things ,they affect our plans we replan during the course of project. It does not mean that we will change the deployment date, we can drop a feature ,we can add people to the project so on.

Why traditional planning fails
The Project Management Institute states that six factors that must be met for a project to be successful.

Why the experts say project fail?
Forrester
- Poorly defined applications (miscommunication between business and IT) contribute to a 66% project failure rate, costing U.S. businesses at least $30 billion every year.

Meta Group
- 60% – 80% of project failures can be attributed directly to poor requirements gathering, analysis, and management.

Gartner
- 50% are rolled back out of production.
- 40% of problems are found by end users.

Carnegie Mellon
- 25% – 40% of all spending on projects is wasted as a result of re-work.

Dynamic Markets Limited
- Up to 80% of budgets are consumed fixing self-inflicted problems.

Is more upfront planning and analysis the solution?
The natural tendency in traditional, 20th century project management practice is to attempt to reduce risk through more planning, user research, requirements analysis and definition. Unfortunately, the these activities just create a false sense of security that the future solution is truly

knowable through extensive analysis, definition and planning. In the current Digital world users requirements change everyday, things that excites today will become a common feature in 6,12,24 months .

In waterfall Team spend a lot of time doing requirements and design upfront and leave no room for change (which are tracked as Change Requests and you should have good reasons for that). Thus, it is very likely you are going to upset your stakeholders because you do not give them what they want. Also, the business nowadays changes really fast. The company must react quickly to demands or will be out of the market soon.

For agile projects, the team works on things that have highest priority that they know of. The priority changes very frequently after iterative demo with the stakeholders. The culture promotes changes. Thus within the an expected time frame/budget, if you do it right, the stakeholders always get what they want because they have the power to influence on your priorities.

Using traveling in your car as a metaphor, a waterfall mindset often sees a project as taking a specific road to a specific destination. When there is an obstacle in the road, like for example a temporary road closure, they wait for the road to be fixed before continuing, maybe throwing more resources at it to fix it faster.

An agile mindset is more like following a GPS. If there is a temporary road closure, they find a detour, **avoiding** the obstacle rather than trying to resolve it.

Which approach do you think is going to get you to your destination faster?

Agile is about constantly correcting yourself, expecting that you know the least at the time of planning, rather than trying to have the perfect plan. Inherently, that means there is more feedback, more regularly than in traditional waterfall projects.

II. AGILE WAY OF DEVELOPMENT

- Development happens in short cycles of two to three weeks. Demo the changes to the end users get feedback, and then assess what to do next. Ultimately if you've chosen the wrong solution you have only lost 2-weeks instead of months.
- Deploy the most valuable features deployed to the end users in short cycles (say every 3 weeks)
- Replanning happens at different levels - Planning happens at release level (Every 3 months for example), Iteration level and daily planning.
- Plans are validated at regular intervals -if the release plan is outdated ,update it
- Transparency -Communicate the actual status of progress to the business people and Leadership
- Prioritize the most valuable feature over when it comes to development
- Estimation is a Team activity-Whole team participates in estimation and stands for the success of the goal
- Team is authorized to take local decisions which helps the to take the right decision for the success of the projects
- Team reflect in regular intervals and make necessary improvements in process and Tools if needed
- Regular communication between development Team and business people
- Determine the priority of each features with help of business and develop in ranked order

III. HOW SUCCESS IS AGILE

Various studies been conducted on different software projects and below noted is the data suggests agile projects success rate is high.

Study	Measurement	Success rate
Kisielnicki and Misiak (2017)	1. ROI	1. Agile: 50%; Waterfall: 20%
	2. Reducing process cycle time	2. Agile: 93%; Waterfall: 20%
	3. Process improvement	3. Agile: 70%; Waterfall: 10%
	4. BI adding value	4. Agile: 53%; Waterfall: 0%
Ambler (2018)	1. Successful	1. Agile: 39%; Waterfall: 11%
	2. Challenged	2. Agile: 52%; Waterfall: 60%
	3. Failed	3. Agile: 9%; Waterfall: 29%
The Standish Group (2014)	1. Successful	1. Agile: 39%; Waterfall: 11%
	2. Challenged	2. Agile: 52%; Waterfall: 60%
	3. Failed	3. Agile: 9%; Waterfall: 29%
Serrador and Pinto (2015)	1. Project efficiency	1. A direct positive correlation between success and Agile
	2. Stakeholder satisfaction	2. A direct positive correlation between stakeholder satisfaction and Agile

Perceived Project Success Rates

CONCLUSION

Frequent planning helps agile projects to fair well in complex situations .Agile works best in projects where there is some level of uncertainty that requires a more flexible and adaptive approach and creativity and innovation to maximize the business value of the solution is important

A plan-driven approach (what many people loosely call "Waterfall") works best in where there is a relatively low level of uncertainty and predictability is important.

Failures typically happen when you try to force-fit a project to a methodology that doesn't fit. For example, if you try to use a plan-driven methodology for a project with a very high level of uncertainty, the result is likely to be problematic.

Many people will still assert that up-front design and requirementsdefinition is required toreduce the risk of project failure. The question is how much is needed in a complex environment?

Complex environments require experimentation instead of de-risking outcomes through requirements gathering. Scrum works very well in complex environments by using Sprints and building a collective knowledge within the whole team of, not only what the requirements are, but what it takes to actually deliver on them. This combined knowledge – creating lightweight documentation in the form of User Stories, plans formed each Sprint, the experience of delivery, assessment of outcomes each Sprint and then using that total experience to input into what todo next Sprint – is what improves delivery success in complex environments. In a 21st century product development world, change is the only certainty. A whole team, working collaboratively in short work cycles and collaboratively running small experiments, improves a team's ability to be successful. Being more effective in collecting requirements will never achieve this outcome.

REFERENCES

[1]. Agile Estimating and Planning -mike cohn

[2]. https://standishgroup.myshopify.com/Industry Data

[3]. https://pwc.relayto.com/e/insights-and-trends-ox3tp7cx

[4]. https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/agile-resilience-in-the-uk-lessons-from-covid-19-for-the-next-normal

[5]. Agile Project Management with Scrum-KenSchwaber