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PMI MUMBAI CHAPTER JOURNAL

PRAKALP

VOL 19
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JAN 2016

PMConclave 2015-16 Special

Innovation and Project Management

PMCONCLAVE 2015-16

an initiative by PMI MUMBAI CHAPTER

Academic Partner SVKM'S NMIMS Deemed to be UNIVERSITY

Highlights Inside

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PMI MUMBAI CHAPTER JOURNAL PRAKALP
PMConclave 2015-16 Special

Contents

VOL 19, ISSUE 5, JAN 2016

pg / 04 PMConclave 2015-16 Highlights

The Voices

pg / 02 PMI Mumbai Chapter Team

pg / 03 From President's Desk

pg / 04 Letter from the Editor

Snapshots

pg / 37 PMP Exam Preparation - Cost Questions

pg / 42 Project Management Word Search

pg / 43 Testimonials from Mumbai Chapter Students

pg / 44 PMPCE Course Schedule - Year 2016

pg / 48 Mumbai Chapter Activities

PMCONCLAVE - TECHNICAL PAPER WINNER

pg / 14 Maximizing Business Value HOW?? To WOW!!
By Priya Patra
The winner of Technical Paper at PMConclave 2015-16

pg / 21 HOLACRACY - Democracy In Project Mgmt
By Rajesh Kumar Mudiakal

pg / 24 Is there any Innovation happening in Agile?
By Rahul Sudame

pg / 32 In Pursuit Of The Fourth "I" Ultimate Business and Project Management Strategy
By M.K. Ramesh, PMP &
Debasis Chakrabarti, PMP

The Team

VOL 19, ISSUE 5, JAN 2016

PMI MUMBAI CHAPTER

VISION

To become a recognized leader in Project Management for transformation and growth

MISSION

Provide a platform to share knowledge and innovative project management practices

Collaboration with PMI components

Uphold and inculcate Ethics and Values in Project Management Profession

Nurture relationship with Corporate, Government, Academia and NGOs

Empower volunteer leaders, members and society thereby enhancing quality of life

PUBLICATION AND MEMBERSHIP

Prakalp is published monthly by the Project Management Institute Mumbai Chapter. The mission of Prakalp is to facilitate the exchange of information among professionals in the field of project, program and portfolio management., provide them with practical tools and techniques and serve as a forum of discussion of emerging trends and issues. All articles in Prakalp are the views of the authors and not necessarily those of PMI Mumbai Chapter.

PMI MUMBAI CHAPTER

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Prakalp welcomes your articles, project success stories and/or suggestions.

Please contact info@pmimumbaichapter.org or prakalp@pmimumbaichapter.org

From President's Desk

Hi friends,

At the outset, wish you all a very prosperous and happy 2016!!!!

Welcome again this new edition of "Prakalp" for Jan-2016.

Having deliberations on "Innovation and Project Management in PMConclave 2015-16 in Dec-2015, all us can now look forward one of the most important dimensions of our work – Innovation!!!

If innovation is all about converting an idea into reality, the project and/or program management is all about increasing capability of an organization by converting ideas into product or service. However, that realization of business value can only be availed by the organizations after implementing it successfully.

Organizations must have Discovery, Invention and Innovation as three key aspects of its long term strategy for sustaining in the business and thereafter flourishing in the business. Project and/or Program management is an engine for implementing new products and services within an organization. But what brings value is the successful implementation of the product or service to realize the benefits. Innovation brings value to organizations by enabling organizations with a competitive edge, by increasing return on investment drastically, and increasing "Business Value" rapidly.

With start of "Make in India", "Smart Cities" and "Startup India" initiatives by the Central Government, a plethora of opportunities will be there to build in innovative product and services. There will be need to use innovative, dynamic and flexible project management frameworks to ideate new product and services and implement them successfully.

Such paradigm shift will bring significant value as a part of your role as project or program manager and benefit yourself, your organization and our nation!!
I am sure that you all will find this release very relevant to you profession and will add value as you build and roll out innovative product or services.

With Warm regards,

MR. D. Y. PATHAK, MBA, PFMP, PMP, CISA
President

president@pmimumbaichapter.org

Letter From Editor

Dear Friends,

With great pleasure, we present to you the no. 02 (2014) Journal of Management & Technology. As always, we highlight the effort of Pedro Leopoldo Foundation to offer this scientific contribution to a significant number of students of Management Science in Brazil and several other countries.

Given the editorial policy of this journal, we have strived hard in attracting articles that meet the purposes of diversity of topics covered, as well as the origins of the contributions and methodologies used in the scientific productions. It is not always easy to reconcile these three purposes.

The practice of publishing an academic journal is a noble, but challenging activity. It incorporates the implementation of the policies and purposes of the Editorial and Scientific board regarding the inclusion of the journal in databases of Directories and Indexes of impact as well as the observation and correction of details about judgment and decisions on articles in relation to complying to the fundamentals theoretical, methodological and writing requirements. Notwithstanding this, the most significant difficulty has been the delay in the delivery of assessments, which creates some problems in the management of the journal. The evaluation of papers is a contribution of great relevance to editorial quality and the management of any journal. The ANPAD, concerned with the development of scientific publication in Brazil, will promote in the next September the VI Brazilian Meeting of Scientific Editors in the areas of Administration, Accounting and Tourism 2014, including in theevent the roundtable: "How to I prove the Review Process - Quality versus Celerity? ". It appears, therefore, that the subject is comprehensive and relevant.

We would like to thanks all our reviewers that despite their many activities, have met the designations of this editorial.

MR. BAIJU MEHTA, PMP, CISA, ITIL, PRINCE2
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PMCONCLAVE 2015-16 Highlights - Day 1

PMI Mumbai Chapter Team

Dr. Jayant Gandhi, Dean MPSTE lighting the lamp to inaugurate the PMConclave 2015-16

D.Y. Pathak, President of PMI Mumbai Chapter, lighting the lamp to inaugurate the PMConclave 2015-16

PMCONCLAVE 2015-16 Highlights - Day 1

Dr. Vandana Sonwaney - Director SIOM Nashik lighting the lamp

R.V. Joshi lighting the lamp. With D.Y. Pathak, Dr. Jayant Gandhi, Dr. Sharad Maisekar and Vandana Sonwaney

Dr. Vandana Sonwaney addressing delegates. With Shruti Pandit, MOC and Baiju Mehta, PMO

Mr. Rajendra Muthye with participants in his workshop 'Innovation Made Simple'

Mr. Rajendra Muthye

Dr. Vandana Sonwaney being felicitated by Baiju Mehta

PMCONCLAVE 2015-16 Highlights - Day 1

Student of MPSTE - PMI Mumbai Chapter Branch

D. Y. Pathak addressing the participants

'Analytical and Creative Problem Solving' Workshop by Mr. V. Prasanna

Networking break

Delegates

Dr. Hemjith Balakrishnan

Mr. Balaji Ramadurai

PMCONCLAVE 2015-16 Highlights - Day 1

Deligates at Registration desk

Mr. Ahmed Ashfaque, Vice President and D.Y. Pathak, President of Mumbai Chapter with Mr. Prakash Seernani - CIO - BFSI

Dr. Jayant Gandhi delivering the Keynote

Prof. Pradeep Pendse, Dr. Anuja Agarwal and Prof. Seshardri

Winner of Technical Paper, Priya Patra being felicitated by Mr. R.V. Joshi

PMCONCLAVE 2015-16 Highlights - Day 2

Mr. Jayaram B G being felicitated by Mr. Ahmed Ashfaque

Dr. Sachin Deshmukh taking on Bigdata

MOC Shruti Pandit Welcoming Deligates

Mr. Girish Kamat, President of PMI Pune Chapter with Mr. Prakash Seernani and

Mr. Jayaram B G
AVP & Head PMCOE, Infosys

Dr. Anuja Agarwal
Associate Dean NMIMS MPSTME

Dr. Anuja Agarwal being felicitated by Mr. Manoj Sarasappan

PMCONCLAVE 2015-16 Highlights - Day 2

Mr. Prakash Seernani

Prof. Pradeep Pendse

Deligate asking a Question

Dr. Radhakrishna Pillai enlightening on 'Chankya and Project Management'

PMCONCLAVE 2015-16 Highlights - Day 2

CEO of A3 RMT Pvt. Ltd. Dr. Shrikant Parikh talking on Project Management of High Tech Young Companies

Mr. Ahmed Ashfaque

Panel Discussion - "Challenges of Managing Innovation Project" Mr. Prakash Seernani, Mr. Suresh Rajan, Mr. Rajeev Kumar, Prof. Seshardri and Mr. Rakesh Gupta

Mr. Rakesh Gupta being felicitated by Baiju Mehta

Prof. V. Seshadri being felicitated by Baiju Mehta

Mr. Rajeev Kumar being felicitated by Baiju Mehta

PMCONCLAVE 2015-16 Highlights - Day 2

Mr. Prakash Seernani being felicitated by Mr. Baiju Mehta

Mr. Roji Philip being felicitated by Mr. Baiju Mehta

Mr. Prakash Seernani, Mr. Suresh Rajan, Mr. Rajeev Kumar, Prof. Seshardri and Mr. Rakesh Gupta with Mr. Baiju Mehta and Mr. Roji Phillip

Mrs. Ritu Jain being felicitated by Mr. R. V. Joshi

Mrs. Darshana Padghane being felicitated by Mr. R. V. Joshi

Student of MPSTE - PMI Mumbai Chapter Branch with Mr. Baiju Mehta, Prof. Seshadri, Mr. Pathak, Mr. Bharat Bhagat and Mr. Tejas Sura

PMCONCLAVE - TECHNICAL PAPER WINNER

Maximizing Business Value HOW?? to WOW!

Priya Patra
Sr. Manager – Projects, IGATE Global Solutions

In discussing the 200,000 taste tests that led to the change in formula, the Coca-Cola web site says, "What these tests didn't show, of course, was the bond consumers felt with their Coca-Cola — something they didn't want anyone, including The Coca-Cola Company, tampering with."

The past decade has seen fundamental change in industries like

1. Telecommunications
2. Postal mail
3. Marketing
4. Television / Entertainment
5. Music / Entertainment

The foundation upon which these industries were built shifted and they experienced profound disruption as the result of how digital technology has been leveraged.

This trend towards digital disruption has accelerated. In order to maintain relevance, businesses must encourage innovation and agility.

The Project Management profession is transforming from mere delivery of projects that conform to PMI's traditional "triple constraint," to the delivery of projects with business value.

The generation of business value requires agility innovative thinking and innovative action.

Let's consider how the combination of innovation and agility can produce business value?

How can we align service delivery through ideation, build, launch, support, and IT operations to maximize business value?

PMCONCLAVE - TECHNICAL PAPER WINNER

"The value of an idea lies in using of it"
-Thomas A Edison

How can a Project Manager be a change agent?

Could the driving of change be the new Project Management for innovative and disruptive transformation?

Introduction

In early 1985, a team of high level executives, analysts, and marketers secretly plotted what would be remembered as one of the greatest market blunders of the 20th century. For fifteen consecutive years, Coca-Cola had watched as its flagship product lost market share to non-cola products and to its chief competitor, Pepsi.

The company had not been idle. Coca-Cola was plotting a change in formula based on the preferences of nearly 200,000 consumer taste tests. On April 23rd, the company launched its new product, which would replace the existing Coca-Cola, a product, which had remained unchanged for nearly a century. Here was an intelligent risk, which had science in its corner. The company was looking to regain industry dominance, and consumer loyalty.

The backlash was incredible. Coca-Cola's consumer hotline saw a three-fold increase in complaint calls, jumping to nearly one thousand five hundred calls each day. It didn't stop there; people complained vehemently to any Coca-Cola employee they had access to. Security guards and neighbors were seemingly held personally responsible for the company's change in formula. The CEO received derisive letters, one addressed to "Chief Dodo, The Coca-Cola Company."

Coca-Cola had intended to disrupt the soft-drink industry and regain market dominance. They ultimately succeeded, but not in the way they had intended. Within seventy nine days of New Coke's launch, Coca-Cola reintroduced the original formula under the name "Coca-Cola Classic." This announcement resulted in two major news networks covering the story, and front page coverage on nearly every major newspaper. Coca-Cola Classic enjoyed higher sales than ever, and the company cemented its position of dominance in the soft-drink industry.

This is a story that demonstrates a calculated risk, gone awry, followed by a nimble response, which allowed the company to capitalize on its earlier mistake, and gain the sort of dominance it sought, almost by accident. Coca-Cola's successful innovation was not in the reformulation of its product, but rather in its agility in responding to a massive consumer backlash. What could we learn from the New Coke Story?

SUCCESS OF A PRODUCT DEPENDS ON ITS BUSINESS VALUE.

Wikipedia defines Business Value as "…an informal term that includes all forms of value that determine the health and well-being of the firm in the long-run" and notes that it goes beyond purely economic value.

The "New Coke" story demonstrates product failure emerging from a low value proposition and a lack of consumer readiness. In discussing the 200,000 taste tests that led to the change in formula, the Coca-Cola web site says, "What these tests didn't show, of course, was the bond consumers felt with their Coca-Cola — something they didn't want anyone, including The Coca-Cola Company, tampering with."

PMCONCLAVE - TECHNICAL PAPER WINNER

Digital Disruption and Customer Experience Management:

GARTNER's 2015 research paper says “Customer Experience management is the new battlefield”. As change builds upon change, certainty becomes increasingly elusive. Today's rate of change demands agility and innovation in product development and enhancement efforts. Organizations which fails to innovate and fails to focus on enhancing customer experience won't be competitive. This isn't about building the future; rather it is a focus on what customers need next.

A Customer experience journey map includes:

- Customer Identification
- Customer Acquisition
- Customer Development
- Customer Retention
- Customer Growth

Customer Experience Management Journey map:

Aligning the product lifecycle with the customer experience journey map is valuable, and requires an examination of product acceptance. Research indicates that when customers are involved in creating product ideas, their acceptance of new products increases. In 2011, LEGO introduced crowdsourcing to its product development strategy with “Cuusso,” which invites users to submit and vote for new LEGO set ideas. If an idea gets 10,000 votes, it is reviewed and deployed for production. Cuusso revitalized LEGO's suffering market and today LEGO enjoys unprecedented success.

Who else crowdsources its product development? General Electric! In 2014 GE launched their First Build initiative, an online community where people submit design ideas for home appliances. First Build provides, space, tools and resources so that submitted ideas are prototyped. Once the prototype is evaluated, new products are produced on a small scale and consumers provide focused feedback, which guides the final design.

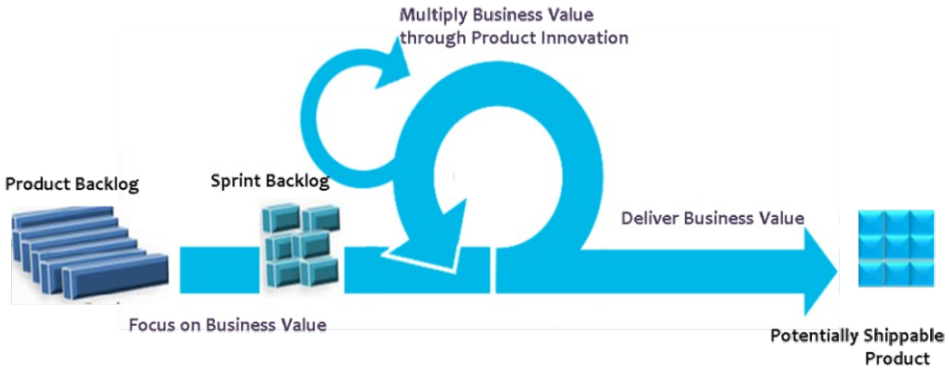
“The Secret to success is to use technology to bring customers closer, not chase them away”

Customer Development and Retention requires businesses to focus on customer experience through service, delivery, and support. Cost reduction isn't enough; rather businesses must use every interaction with a customer to generate value. According to the Harvard Business School, a five percent increase in customer retention can result in profit growth of between twenty five and ninety five percent.

Customer Growth: Developing and expanding your customer base is vital. In May of 2015, Coca-Cola launched the e-commerce

campaign "Share a Coke," which enabled consumers to order personalized Coke bottles online. So far, 500,000 eight ounces bottle have been sold at the price of $5 each.

Agility – Product Innovation –Business Value x N Model

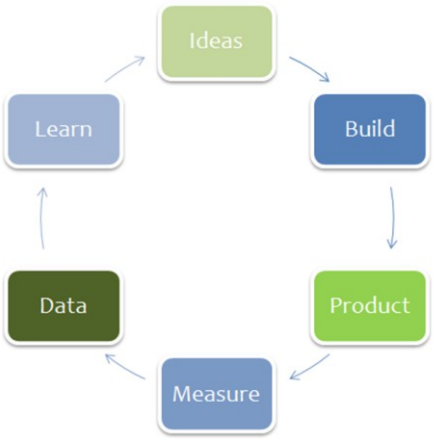


Business Value x N Model

Agile methodologies are designed to deliver business value. In fact, Product Innovation, with agile, can amplify business value. Consider sprint planning where features from the product backlog are prioritized and moved to the sprint backlog. The business manager focuses on business value and delivery of a potentially shippable product at the end of the sprint or iteration. Each subsequent iteration either builds on or further optimizes the business value. What follows are some tools and frameworks that enable this model.

Lean Startup - A startup is a temporary sub-organizationwhich experiments with and implements new business models. Applying lean thinking, results in models being validated by real users while committing minimal resources. It is based on the "Build – Measure – Learn"cycle.

Minimum Viable Product (MVP) is the product that provides highest return on investment vs risk. It is that version of the product that enables the full turn of the Build – Measure- Learn loop with a minimum amount of effort and least development time. Its goal is to test the fundamental business hypotheses.



Business Value x N Model

It was in July 2013, I was called in to manage / salvage a so called "situation". We were configuring workflows for on-boarding of suppliers, using a SaaS product from a third party vendor.

Our workflows were complex and had multiple steps. Over the years we had added business specific parameters, leading to spaghetti configuration parameters and code. The implementations were complex, erroneous and the lead time to release a workflow was one month. We spent one week on user training and three weeks post production support. Our customer experience was not great and we were losing customer base to other modes of on-boarding, sometimes manual. We needed to simplify and standardize our workflows. Who else could provide us the right inputs? None other than our customers!

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We presented our first MVP the workflow design as a mockup; we launched MVP 2, a working demo of the same to a pilot group of users two days later. There were daily feedback sessions; and we would release a MVP every two days. We validated our learnings and improved on the workflow iteration on iteration. After five MVPs and at the end of one month we rolled out a workflow which was simplified and loved by our users. We could cut down the time for our subsequent implementations from 1 month to 3 weeks, training and post production support to 1 week. Not only was that implementation a success, it also increased our customer stickiness.

FASTWORKS is a framework developed by General Electric and Eric Ries based on the lean startup principles of think simply, test quickly and move immediately.

> **"If you are not embarrassed by the first version of your product, you have launched it too late"**
> ***- Reid Hoffman***

In 2013, General Electric began implementing **FASTWORKS,** where employees pitch product ideas. The best ideas are developed by their original teams, who demonstrate viability through tests and continuous user interaction. This process results in an MVP directed by customer feedback. In January of 2013, GE developed a French door MVP for their high end Monogram line of refrigerators. Customers said the color was too dark and the lighting was inadequate. GE made revisions and in August 2013 customers indicated that they liked the product. In Jan of 2014, GE built 75 units, which have met with customer approval and GE expects to launch version ten in late 2015. GE has moved away from the traditional strategy of revising products every 5 years, and today they revise every year. The FASTWORKS program has enabled GE to leverage speed as a competitive advantage along with their open and collaborative interaction with customers.

MVP need not necessarily mean a minimally featured product; it is a means to get early feedback. In my "Workflow Implementation "project our first MVP was a mockup. In 2007, Dropboxreleased a 3m screencast published on Hacker news. The screencast provided early adopters a preview of the Dropbox experience. The video served asan MVP, which validated Drew Houston's belief that his development efforts would yield a product with customer demand.

Google Design Sprints – This framework, developed by Google Ventures is a 5 day sprint as outlined below:

Day 1 – **Understand –**the team delves into the problem through competitive analysis, strategy exercises and research.

Day 2 – **Diverge –** Rapidly develop as many solutions as possible

Day 3 – **Decide –** Choose the best design and make a user story

Day 4 – **Prototype –** Quickly build a solution and solicit user feedback

Day 5 – **Validate –** users access prototype and communicate what works and what does not

Cap Gemini's "Co-innovation Labs" brings developers and customers together to co-create solutions that solve their customers' problems. Co-innovation Labs rely on two day hackathon sessions for rapid Ideationand crowdsourced solutions to create MVPs.

To be successful, these business ideas require meticulous project / product and program management. What would have happened in Capgemini's Co-Innovation Labs if the actors were not focused? Would a two day MVP be possible? Without Project management these efforts would fail.

PMCONCLAVE - TECHNICAL PAPER WINNER

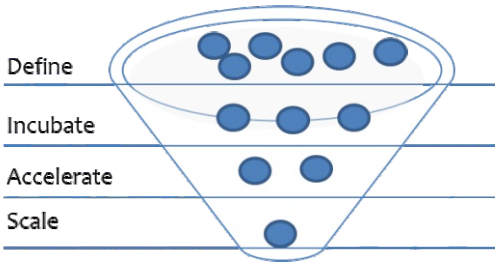
Disciplined program and project management are required for a successful blending of technology, focused innovation, agility and customer experience management. Without the Project Manager not only does a company fail to maximize business value, they may well fail to deliver any value.

In a true agile manner when I retrospect on my experience and learnings of the "workflow implementation "project as a project manager I:

Catalyzed the team to Introspect as well as extrospectto understand customer pain points.

Prioritized ideas which could create the painkillers, In this case we used the innovation funnel to Define- Incubate-Accelerate and Scale ideas.

Observed customer reaction, collect feedback and communicate back to stakeholders and team through effective communication.



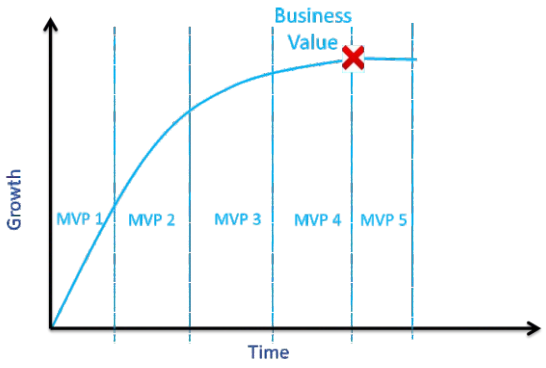
Innovation Funnel

Measured learnings and incrementally build value based on the learnings.

Monitored risks arising due to changes in the SaaS product, which we were configuring. We had a scheduled release of the SaaS product after we had built our third MVP. To mitigate the risk, the vendor was involved in the customer feedback sessions to align the release to the MVP. This helped us to accelerate the creation of our third MVP and amplify value.

The above leads to the essential components of project management as explored below:

Strategic Planning: Innovation projects are evaluated for GO or KILL decisions. Manager must prioritize innovation with the most promise for profit and ideas that are aligned to the business objectives, resources must be allocated where they can make the biggest difference.



Communication: As agility and innovation gain in importance, project managers will need to focus on being proactive based on market trends, changes in technology and customer expectations. Communication must include upper and lower layers of the organization, as well as customers and third party vendors in order to minimize surprises.

Monitoring and Tracking: A Project manager's role is to manage the fuzzy end of innovation. While creating MVPs learnings / value is to be measured, when the value yields diminishing results, they must correct, or stop "non –value added" projects. It is imperative that these assessments be done quickly, which will expand the focus of Project Managers beyond the "iron triangle" of scope, schedule and budget, so that they are managing for value.

Risk Management: Rapid changes in technology and requisite expertise constantly impact requirements. Thus, scope creep is a constant threat, and unanticipated opportunities may suddenly appear. Risk identification, monitoring, and response, is essential to mitigate damage and capitalize on opportunities.

Change Management: Change management is essential to organizational agility and the ability to adapt to new business scenarios, technologies, and customer sentiments. Change management is responsible for project success and change acceptance is part of that success. Thus, change needs to be communicated to users, and competing interest must be addressed to ensure successful adjustment and adoption within the organization.

Looking Forward

Now that we have learnt about the market dynamics, how it relates to digital disruption, customer experience and tools and frameworks to achieve superior customer experience, it is just a matter of visualizing and connecting "How ideas to generate WOW customer and stakeholder experience?" To summarize:

1)Improve co-creation:Foster increased customer participation.
2) Design Better: Focus on designing the customer experience.
3) Show…don't tell: Provide customers with regular access to developing products for feedback and practical improvement.
4)Be led by the customer needs not by Technological possibilities.

These principles will WOW customers and project sponsors. Customer retention and growth will improve, business value will be obvious, and profits will grow as customers become fans.

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PMCONCLAVE - TECHNICAL PAPER ENTRY

HOLACRACY
Democracy In Project Management

Submitted for PMConclave 2015-16

Rajesh Kumar Mudiakal
SAP Project Manager

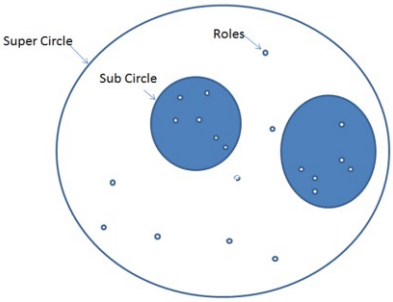
Abstract

What would be the reaction of Senior Director of a company on being told that he has to give up all his powers from the next day and would be treated on par any other employee in the company? The natural response would be that of resentment and this could even result in employee attrition. At the same time a junior executive whose ideas used to get stifled by his seniors more often than not, would relish such situation where his voice will be heard. This is the kind of situation Holacracy would bring in to table. Holacracy is similar to democracy or communism in management, which empowers every employee and removes power centres within the organization. But though it is democratic,there canstill be hierarchies. But individuals are replaced by group of individuals as circles and the job profiles are replaced by floating roles. It brings in transparency and also bring inmore people in decision making process. Though we cannot discount its benefits, there are apprehensions about the practicality and universal adoption of this method. This paper examines this revolutionary concept of management and how it can be applied to Project Management.

Holacracy operates on a principle of self-organization or self-management where there are no bosses who dictate the decision from the top. It works on the principle of distributed authority. This approach of management was founded by Brian Robertson and Tom Thomison in 2007. Holacracy is derived from the Greek term Holon which means 'whole' or self-contained autonomous units.

According to the founders, Holacracy works like an operating system where decision making is distributed among various circles. Each circle is self-organizing group with people performing various roles. There will not be fixed job descriptions or job titles. The traditional job descriptions make the way for roles. These roles are flexible and keep on refining. A person can take multiple roles in same circle or be part of multiple circles. Also the roles are not fixed forever and can be changed as per the decision during governance meetings. Each decision is made in democratic way with no hierarchy within the circle. Each circle is led by a lead link. But the difference here is that the lead linksareequal to any other team member and has no authority over the team members. Lead link has the responsibility to assign the roles to its team members and represent the combined roles of a circle.

The governing rules and processes are defined in Holacracy constitution, which is frequently refined in multiple iterations through governance meetings. Authority and decisions are distributed to team rather than centralized decision making in traditional way of management.Though there are no hierarchies within the circle, there could be hierarchy of circles, with a super circle encompassing different sub circles. The various circles can be linked to each other in hierarchical or exist in parallel. There isa role called rep link who is nominated to be part of another related circle, to ensure that there is greater synergy across various circles.



The examples of roles could be:

- Brand Design
- Product delivery
- Marketing
- Developer
- Secretary Etc.

The tactical and governance meetings are held at regular frequencies to address governance and process related issues and constraints. The Governance meetings take care of issues pertaining to roles, authority, powers etc. The Tactical meetings address project updates, checklists of last week, project matrices and tensions.

A shared space known as corkboard is used for monitoring operational tasks. Shared space can be physical board, intranet or excel sheet. The various rules and governing structures are laid out in holacracy constitution. The decisions are made through an integrative decision making process where a facilitator coordinates the process, which involves a proposal followed by reaction round where the immediate reaction of the other circle members are sought. A Decision is made if there are no objections to the proposal. If there are objections, they are discussed and until a consensus is arrived at. If there are no proposals from any member, a group decision is made through exploring various points of views with each member of the circle. Each point of view or objections are discussed thoroughly before taking final decision. Here it differs from typical democracy where decisions are made based on majority vote that even the minority views also heard and incorporated, if they are valid points.

Case Study

The most popular case study for Holacracy Model is Zappos. Zappos started the process of transition in to Holacracy in 2013 and met with initial resistance from a section of the employees. The transition resulted in Chaos in the initial phase where the employees were confused about the structure and the changes. One year was the targeted time for completely moving into holacracy. But the pace of change was not up to mark. The Company's MD Tony Hseih had to give an ultimatum to his employees to embrace the new way of functioning or leave the company with severance package. 14 % of the employees chose to take the package and leave the organization. The key challenges were to align the employees to the new structure, defining proper roles, design of salary structure based on roles, fear of losing jobs etc. But the resolve and belief of the leaders of Zappos is taking it through the transition despite the obstacles.

Holacracy in Traditional Waterfall Project Management

There is a genuine fear among practitioners about whether the project managers will be abolished or diluted in the new structure of Holacracy. This fear is baseless as the projects still have to be managed and alsothe project Management skills and methodologies are still be required. In traditional waterfall project Management, the project Manager has absolute authority of decision making pertaining to the project and there is a reporting relationship between project team and Project Manager. So a bad project Manager can spoil a project despite the good work by the team and many times the great ideas from the team members are blocked by managers and also there can be situations where team members fear to express themselves. Holacracy provides solutions to this. The difference here is that the project Management might not be done by a single person and also the project manager will just be one of the roles within a project circle. There can be single or multiple roles which cover the entire activities of project management and also the project manager role will not have absolute authority over the decision making. For example, Creation of initial project plan could be one role; there can be other roles for activities like monitoring, conducting status meeting etc. The advantage with the holacracy is that the project management tasks are getting distributed among various team members and thus ensuring greater participation of all team members in the process. The risks and escalations called 'Tensions' are managed through tactical meetings in a democratic manner. New roles are created and the existing roles are reworked based on the changing realities of the project through governance meeting. For example, in a complex project suppose new risk occurs which requires closer monitoring and set of activities which were not part of original project plan. In such cases, the flexibility which Holacracy provides will be of help. Holacracy constitution itself provides the provision of creation new roles as per the changing conditions. So the management structure will be up to date with the changing realities. The distributed authority helps in ensuring that there is greater dialogue and brainstorming while tackling various problems as more people are involved in decision making. All team members are given equal chance to speak at tactical meetings and governance meetings. So the project management decisions will be based on group intelligence rather than the intelligence of a particular person. Empowering every individual ensures that there is optimum utilization of capabilities of all team members. Also there will be free flow of information across various team members and ideas will not get stifled by managers.

Holacracy in Programme Management

Holacracy gives a framework for programme management scenarios as well, where the multiple teams and projects can be interlinked through sub circles, super circles with the highest circle hierarchy level forms the programme management layer. The sub project circles are linked among each other and to programme management circle through rep link role. Rep links are elected by each circle. The Rep links ensure that the tensions and point of views of various project teams are heard at a higher level of decision making circle and ensure integration of projects aligning to the programme objectives.

Holacracy in Agile Project Management

Holacracy perfectly blends with agile environments. Holacracy itself has an agile governance model, which is refined through multiple iterations. Holacracy gives extra edge to agile project management methodology. Agile methodology is also working with self-organised teams. But typical agile organization structure lacks proper administrative and decision making framework. This gap can be fulfilled by Holacracy. Each scrum team can be treated as a circle with roles like scrum masters, developers etc. These two frameworks can complement each other to enhance each other's capabilities. Holacracy also gives a solution to inter-play between different agile/scrum teams working within the project and across different projects under same program. One of the key which is missing in agile methodology is risk management, which get addressed through tactical meetings in Holacracy. But there is need for creating a hybrid model of agile methodology incorporating holacracy structure in to agile framework. Ternary software Inc had successfully adopted holacracy for their agile development teams. Holacracy helped Ternary to have better communication and decision making within the agile teams and across multiple teams through double linking through rep links.

Conclusion

Holacracy as concept that holds a lot of promise and can revolutionise the project management and Management in general. But how it is implemented and introduced in to the current system is very much important. A sudden switch to new concept can create employee dissatisfaction, chaos and attrition like Zappos experienced.A phased introduction of change starting from some projects or some specific areas would be better option rather radical change altogether. The centre theme of Holacracy is empowerment of employees. So it is important that employees are aligned to the concept and their insecurities are understood and addressed. If this is not happening, Holacracy will create 'holes' in the organization with employee attrition. Also the holacracy deals with only internal re-organization, but specific guidelines are missing on how to deal with external stakeholders like partners, customers, vendors etc. So there is need for expansion of the concept to encompass wider ecosystem.

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About the Author

Rajesh Kumar Mudiakal is currently working as SAP Project Manager with one of the Big 4 Auditing and Consulting firms. He has an overall Experience of 19 years in areas like IT, Manufacturing and Project Management. He has completed M.S in Mechanical Engineering from University of Bristol in UK and an Executive Certification in Strategy Consulting from Columbia Business School, USA. He was a recipient of prestigious Commonwealth DFID shared scholarship at the University of Bristol, UK. His Professional Certifications include PMP and Prince2 in Project Management, ITIL V3 and ISEB in software testing and SAP Certification in Solution Consulting. His areas of interest are Project and Program Management, Strategy Consulting, Risk Management, Agile project Management and SAP Consulting. He has been part of Final Judging Committees at American Business Awards and International Business Awards for Information Technology categories in 2014 and 2015. He has published papers at PMI National Conference at Hyderabad in 2014 and at International Conference of Management at JNU Delhi in 2014.

PMCONCLAVE - TECHNICAL PAPER ENTRY

Is There any Innovation Happening in AGILE?

Submitted for PMConclave 2015-16

Rahul Sudame,
Persistent Systems

Abstract

Agile Project Management methodology is getting wider acknowledgement and adoption in the last few years. Even though Agile Manifesto was signed in 2001, actual adoption of Agile started getting recognition approximately since 2006 and started becoming mainstream methodology since 2010. In this context, it would be worthwhile to check if Agile as a project management methodology is also evolving or not.

This paper will talk about innovations happening in the field of Agile in the last few years and how the picture looks like going forward. It would cover new trends in the field of Agile and how the field of project management is adapting to it. Agile is resulting in lot of changes in roles of different stakeholders and team members and the paper would present some of these changes experienced by the author. It would also cover new tools& techniques emerging to manage projects effectively. As Agile is scaling across large organizations, it is not enough to have conventional Scrum teams with just 7-9 team members. This is resulting in lot of new scaling frameworks (like SAFe, DAD, LeSS etc.) getting generated. The organizations are also trying out lot of new things like choosing best practices from different Agile methodologies like Scrum, Kanban, XP, Lean etc. The paper would cover such trends and innovations in the field of Agile, which would help readers to understand how the field of Agile is evolving since the last few years and how the future looks like.

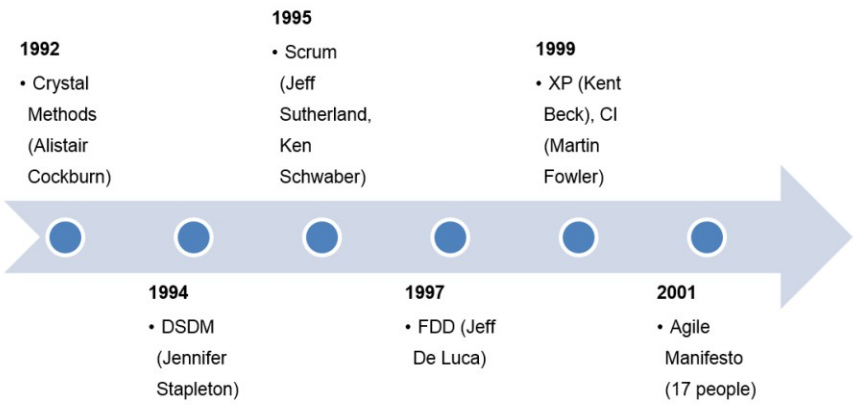
Amol, a young and bright Project Manager was having a conversation with Mahesh (Director of a product development company) regarding an Agile Project Manager opening in Mahesh's company. Mahesh asked Amol, "Hey Amol, you have mentioned in your resume that you have worked on Agile projects. How is your experience of applying Agile for large programs, using scaling frameworks?"

Amol said, "Well, uh, um, I have a Scrum Master in my team, who talks with Scrum Masters of other teams, part of the same program". After listening to this Mahesh said, "My dear friend, the world of Agile is evolving rapidly and moving beyond the conventional practices".

Have you come across any such scenarios, where your friends mention lot of new jargons in Agile context, which leaves you baffled? Agile has now become a mainstream methodology for managing projects and that is resulting in lot of new terminologies. In this context, it is important for all Project/Program Managers and other stakeholders to understand the new developments in Agile space.

Evolution of Agile

Even though iterative development processes existed for many years, the real momentum started after Agile manifesto was signed in 2001 and now Agile is the de-facto methodology at many places.



Evolution of Iterative processes

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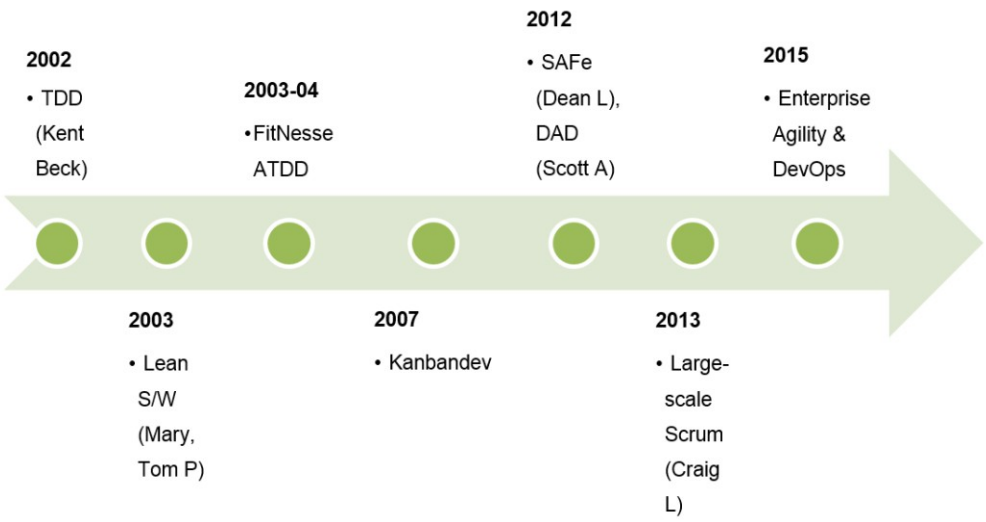

Evolution of Agile Methodology

Let's go through some of these advances in the Agile field in the subsequent sections.

OpenSpace Agility – 'Invitation' instead of 'Mandate'

As Agile started becoming popular, many organizations started 'imposing' Agile on their teams with the expectation of Faster – Cheaper – Better results. This mandate can sometimes work against the culture we would like to build. Hence, OpenSpace Agility [3] technique recommends 'inviting' the team members to get involved. It incorporates the power of invitation, Open Space, passage rites, game mechanics, storytelling etc. for building the right environment.

The key events mentioned in the passage rites are:

- A Beginning: An Open Space meeting
- The Middle: With experimentation, play, and storytelling
- The End: An Open Space meeting

This concept highlights importance of building right culture which would encourage team members to opt-in to practice Agile.

Scaling Agile across the Enterprise

One of the very visible innovations in the space of Agile is evolution of scaling frameworks. As enterprises are trying to adopt Agile for large programs which can consist of hundreds of team members, standard Scrum guideline of a team consisting of 7 to 9 members is not enough. This resulted in different frameworks to solve this scaling need.

Scaled Agile Framework

Scaled Agile Framework (SAFe) [4] presented by Dean Leffingwell proposes Kanban practices at Portfolio level for defining Strategic Themes and Business Epics. Program Layer recommends building Agile Release Train (ART), which is an ongoing release mechanism based on 'Develop on Cadence' and 'Release on Demand' principle. Team layer consists of application of Scrum practices across multiple teams involved in the ART.

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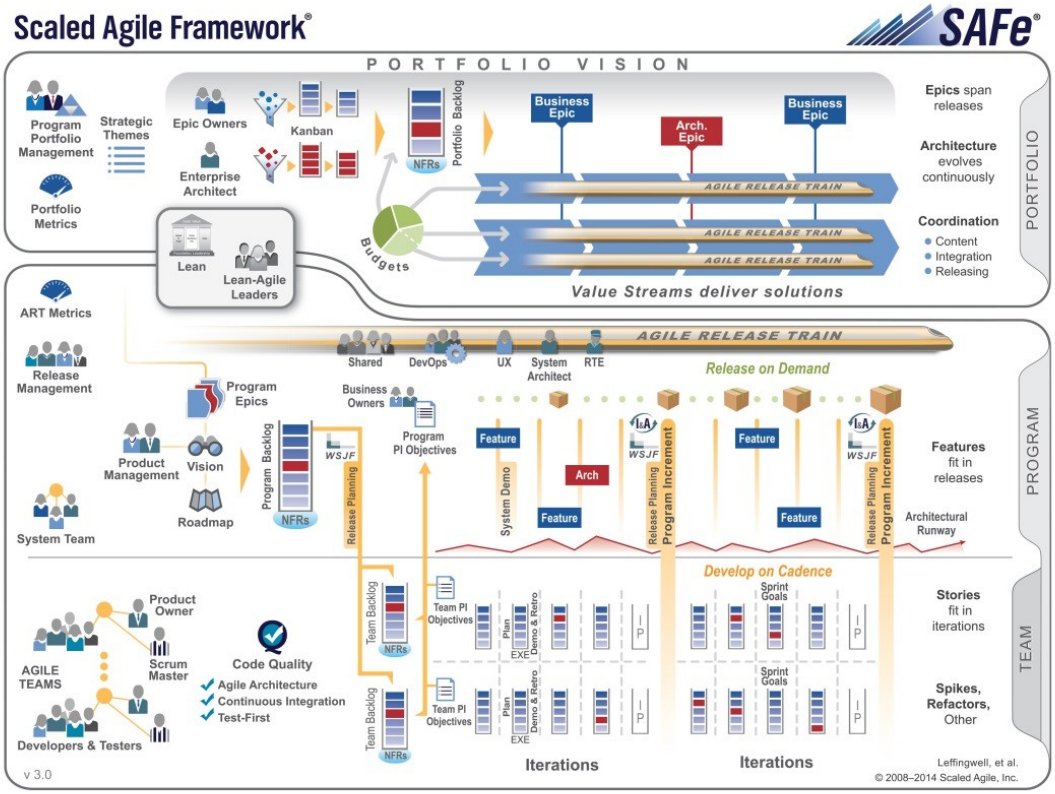
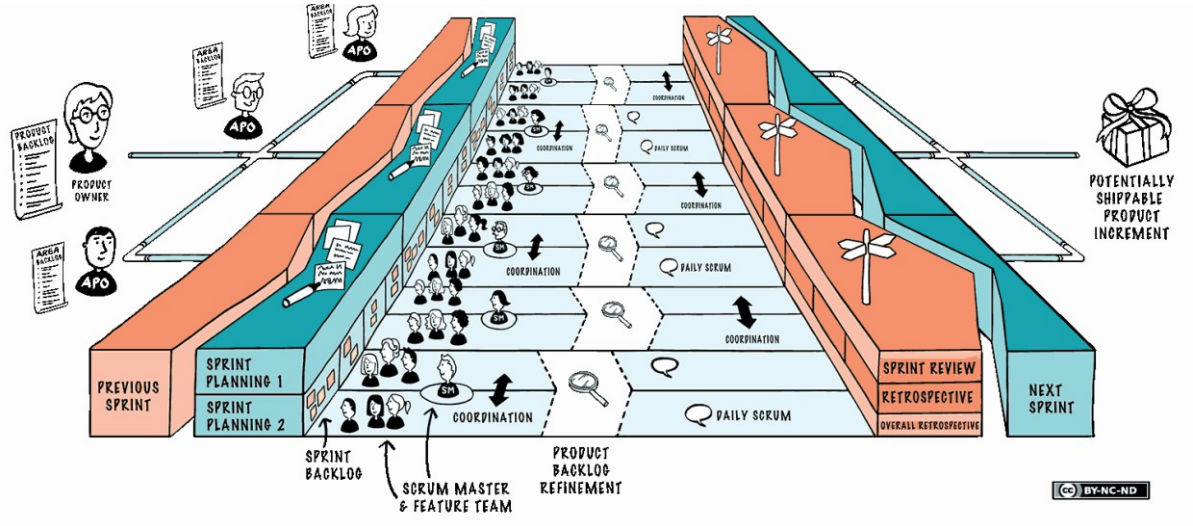


Scaled Agile Framework

Large-Scale Scrum (LeSS)

LeSS [5] built by Craig Larman & Bas Vodde presents a framework that extends Scrum with scaling rules and guidelines without losing original values of Scrum. It focuses on presenting a simple mechanism which ensures that core aspects like Transparency, Empirical Process Control, Iterative development and Self-managing teams are maintained even during the scaling process.



LeSS Huge

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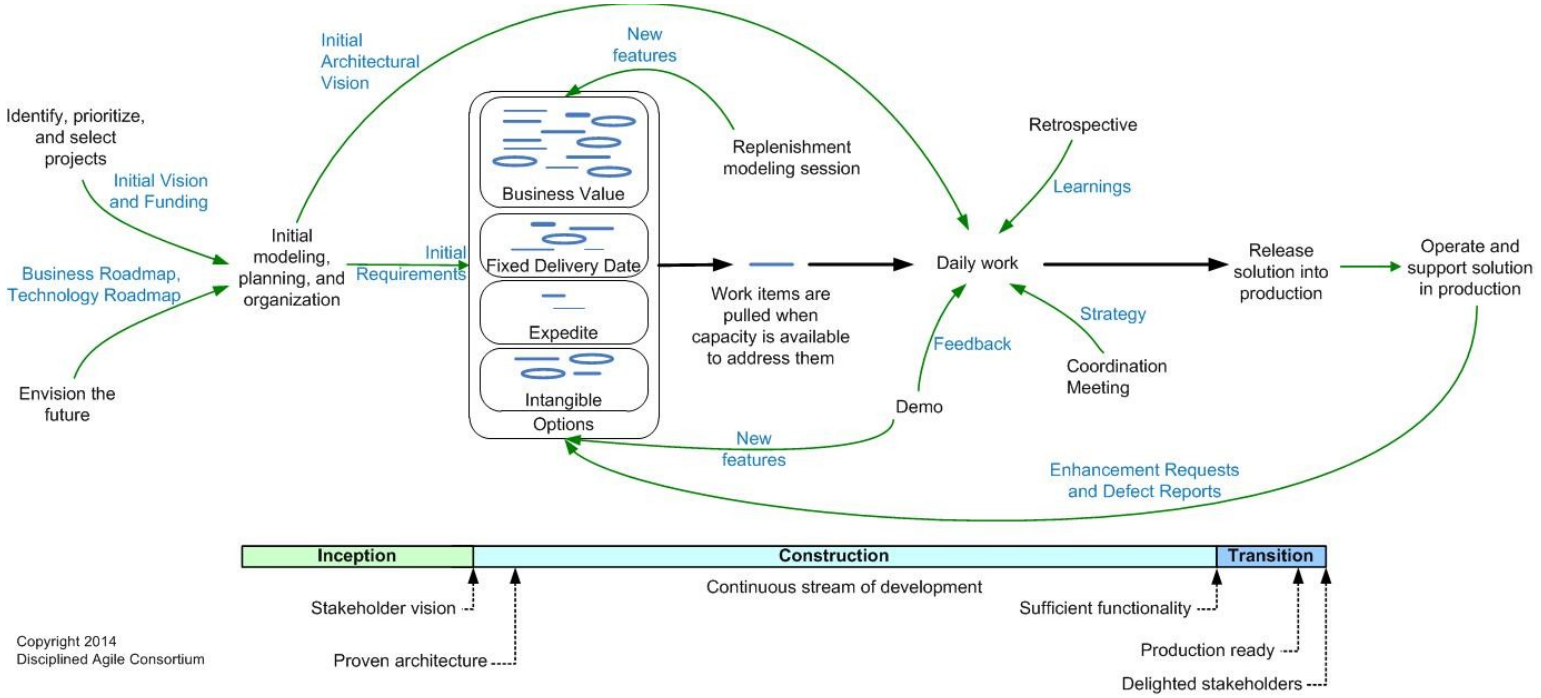
Disciplined Agile Delivery (DAD)

Disciplined Agile 2.0[6] process decision framework supports simplified process decisions around incremental and iterative solution delivery. Built by Scott Ambler, it recommends using Scrum, Agile modelling, lean software development and other practices as suitable for the project.



Disciplined Agile Delivery Framework

Descaling!

Apart from the above mentioned frameworks, there are few more scaling frameworks like Scrum at Scale, Nexus, Evo, Spotify "Model" etc. This is also creating confusion amongst Agile practitioner community and hence a fundamental discussion has started that we need to descale Agile and go back to the basics.

Combination of Agile Practices

One of the common practices now-a-days is to cherry-pick best aspects of different Agile frameworks and using them at different stages of the project. For example, in some of our projects we are following Scrumban[7], which uses best practices of Scrum & Kanban, along with Lean principles.

Using Scrum during development/testing phase and using Kanban once the product maintenance phase starts is also another common pattern. Some of my teams use TDD & Pair Programming from XP and rest of the process as per Generally Accepted Practices of Scrum (GASP).

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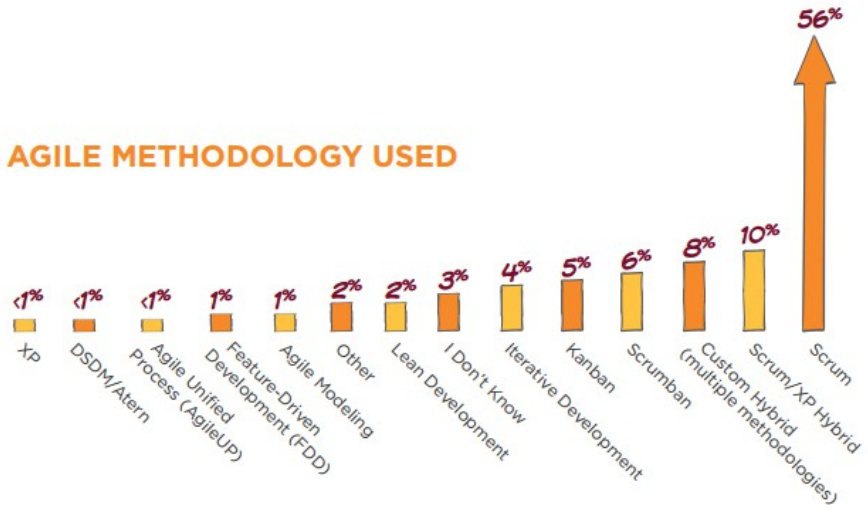
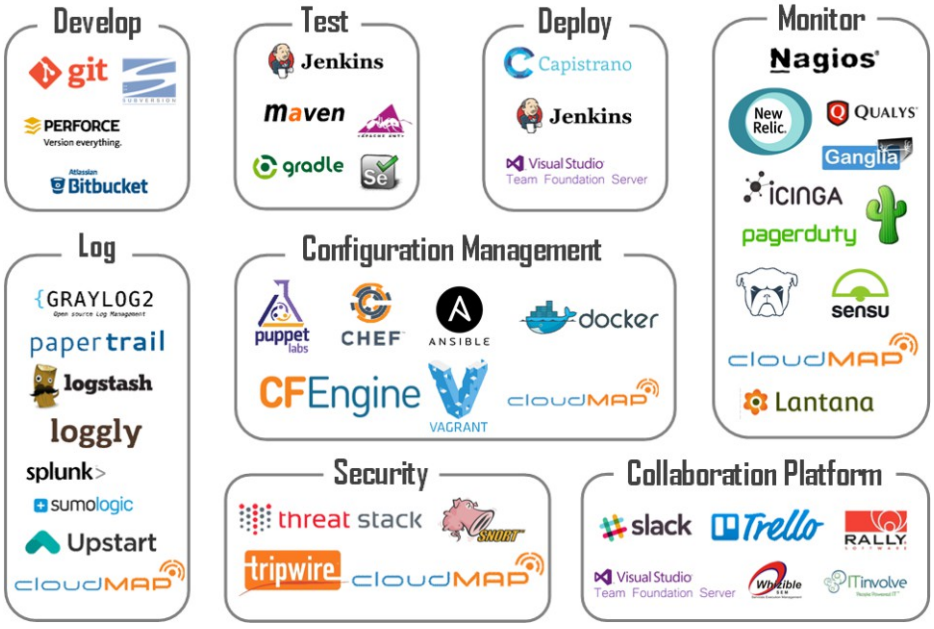


Adoption of different Agile methodologies

DevOps

Most of the organizations are realizing that to take full advantage of Agile, they need to have better alignment of Dev/Engineering and Operations/IT teams, which is resulting in advancements in DevOps field. DevOps field is expanding very rapidly and lot of innovations in terms on tools, processes and roles/responsibilities are happening currently. Many tools for Continuous Integration, Continuous Deployment, Monitoring, configuration management, logging, collaboration are emerging and adoption of these tools is also increasing significantly. Integration tools & techniques are being built for different environments and have become an integral part of the Agile ecosystem.



DevOps Tools Ecosystem

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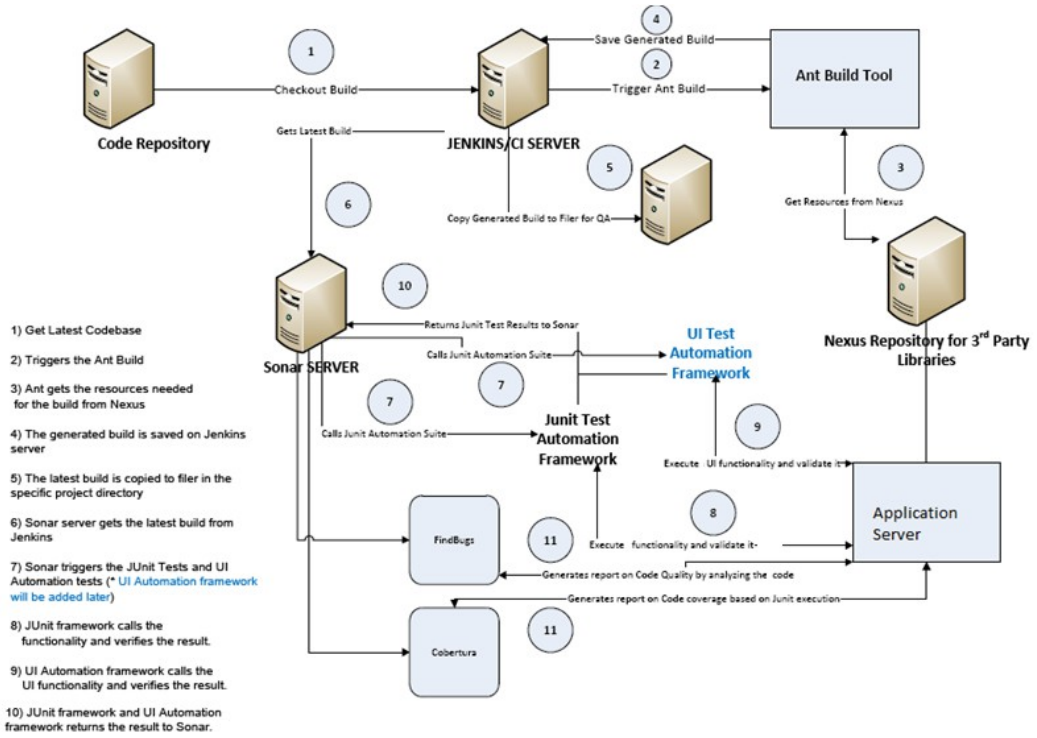
I have been working with DevOps environment for few years; we started with setting up Continuous Integration server and automated builds. The next step was building a workflow involving various engineering tools, as presented in the figure below. The current trend is to usecontinuous deployment tools like UrbanDeploy & Configuration management tools like Chef, Puppet, which supports Continuous Delivery rather than just Continuous Integration.



Continuous Integration Environment

Evolution of Roles & Responsibilities

As the field of Agile is changing rapidly, rolesand responsibilities of different team members are also changing. Many roles are even becoming 'Victims of Agile', where they are forced to change their way of working or become obsolete.

Project Manager / QA Manager / Functional or People Manager

Since Scrum does not explicitly mentions Project Manager as a role and Agile endorses self-managing teams, role of Project Manager is getting questioned. In one of my project, the Project Manager is now playing multiple roles since he is not the single authority on project estimations, planning & tracking. In some cases PMs are taking Scrum Master Role, in other cases they are taking up role of Product Owner, Program Manager or Release Train Engineer.

Testing Team

Testing team members are going through lot of changes in Agile environment. I am seeing people with strong opinions are questioning separate role of QA team, since Agile does not recommend Dev sub-team or QA sub-team as independent entities. The processes such Test Driven Development, Acceptance/Behavior Driven Development and Automation (at Unit, API or Feature level) are further fueling this discussion. One another change is, now in most of the environments QA team members are expected to be multi-skilled, where they need to know Automation, Performance or Security testing apart from conventional manual testing.

Business Analysts

Business Analysts are also going through lot of changes, since now they need to build the requirements in terms of Epics & User Stories instead of detailed Functional Specification Document (FSD) or Business Requirements Document (BRD). In many cases, BAs are expected to transition to Product Owner role. The time commitment from BA team is also high in Agile environment.

Architects

In many organizations, Enterprise Architect, System/Solution/Application Architects have been working on elaborate Design phase which resulted in Architectural Blueprint, High level Design, Low Level Design etc. and multiple cycles for approving these documents. Suddenly lot of these things is getting challenged due to Emergent Design concept and iterative nature of the process. This is creating a tussle between Adaptability (of Agile) and Predictability (or waterfall) which is impacting the way Architects have been working conventionally.

Agile in different environments

Once Agile started gaining traction; many different types of businesses started practicing Agile. Some business areas like eCommerse, Internet companies, Web or mobile application development companies have been quick to adopt Agile due to nature of their business. But I have worked on adopting Agile in domains such as Banking, Healthcare and Storage/Networking/Virtualization as well, which were initially considered as out of Agile scope, since it involves lot of design &statutory / compliance needs, large planning and verification cycles etc. Organizations are now realizing that providing incremental value to the customer is important in the current era, irrespective of the domain or type of the organization (e.g. Product based, Services based or Startup).

Similarly Agile is now practiced in all different types of technologies like web application development (e.g. Java or .Net), Open source (e.g. Drupal), Mobile Application development (Android / iOS / Hybrid) or SMAC (Social, Mobile, Analytics, Cloud). The rapid change in technology landscape is in-fact making Agile an obvious way of managing projects.

Ecosystem around Agile

As the field of Agile is evolving, it is creating a huge eco-system around it. Let's look at some of the elements of this eco-system.

New Business Opportunities

Agile has generated lot of new business opportunities for different organizations. Some organizations have emerged primarily due to Agile environment. Many organizations are developing tools (like Agile Project Management Tools, DevOps/CI-CD tools) and platforms required for Agile environment. Many organizations provide Training or Coachingto Agile teams. Some organizations have built Agile Practice / Center of Excellence, having Agile skilled professionals to work within the organization or to work with the customers.

New Roles

Agile is generating new roles and opportunities for many different people. New roles like Release Train Engineer (who facilitates entire Agile Release Train in Scaled Agile Framework), Area Product Owner (Specialist who focuses on customer-centric area as per LeSS), Epic Owner, DevOps / Systems Engineer etc. are emerging rapidly. Agile Coach role is also being leveraged by many organizations to streamline their Agile adoption in standardized way across the organization.

New Certifications

With new frameworks coming into existence, many new certifications and associated services (like training etc.) are emerging rapidly. Certifications like PMI-ACP, CSP, CSC, SAFe Program Consultant, SAFe Agilist, Scrum.org, ICAgile, LeSS, DAD certifications are getting introduced through different forums.

Alignment with compliance needs

Since organizations are adopting Agile and at the same time they need to manage their compliance needs, lot of efforts are being made to align compliance needs of standards such as CMMi or ISO with Agile/Scrum environment. On one hand, the compliance standards and audit process is improving, where it recognizes iterative process and aligns its documentary evidence needs accordingly. On the other hand, the field of Agile is also maturing on handling these compliance aspects and still follows the core Agile principles.

Case Study

I would like to present a Case Study where a big software enterprise is taking advantage of latest developments in Agile environment for delivering iterative value to its customers.

Some of the Agile practices of this environment:

- Scaled Agile Framework for aligning different Business Units with common standards.
- Tools like UrbanDeploy to facilitate DevOps environment and collaboration between IT and Engineering teams.
- Continuous Integration environment which integrates Code repository, CI (Jenkins), Automated build (Maven), Auto-deploy, Automated code quality check (Sonar), Unit Testing (Junit) and Build Verification Tests (Selenium).
- Executable specifications provided by Product Owners in form of FitNesse decision tables.
- Effective usage of collaboration tools like WebEx, Confluence Wiki and Teleconference etc.
- Organization-wide Agile Community of Practice, which supports various teams in adopting Agile.
- Integration of Requirement management tool with Agile Project Management Tool and Test execution tool.

Summary

The field of Agile is evolving very rapidly and innovations in different aspects are happening continuously. Since the word Agile evolved in 2001, there are many developments happening and it is impacting the field of Project Management as well in significant manner. Innovation in various Tools (like DevOps tools), Integration of existing tools; evolution of various Scaling Agile frameworks and alignment of Agile with compliance standards is not a future trend anymore. Roles and responsibilities for many people are changing in Agile environment. Existing roles and old way of working is getting challenged and new roles are evolving continuously. Agile is even generating lot of new business opportunities for many organizations and individuals.

Agile has become mainstream methodology, hence future of Agile is going to involve different practical experiences and tailoring of methodology accordingly. The current trend of DevOps ecosystem and Scaling is going to stabilize soon and more such new advancements will continue to evolve. Smart project managers and other stakeholders should analyze these changes and should prepare themselves for a grate Agile future unfolding in front of us every day!

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PMCONCLAVE - TECHNICAL PAPER ENTRY

In Pursuit Of The Fourth "I"

Ultimate Business and Project Management Strategy

Submitted for PMConclave 2015-16

M.K. Ramesh, PMP **Debasis Chakrabarti, PMP**

Abstract

Strategic Business Management has two components: Strategy Formulation and Strategy Implementation. Projects (and Programs) are subsets of the Portfolios aligned towards meeting strategic business objectives. Thus effective leadership in project management more than often depends on two similar components: Invention and Innovation. While invention could be a unique or novel device, method, composition or process, innovation is the application of better solutions to meet existing or new project requirements and/or needs and as an extension- strategic business requirement. In this article, with the help of theory, literature and real life examples, the authors try to explain innovation in construction projects while differentiating the same from invention. The article also discusses another I-word that is improvisation, which some consider as a "bridge over difficulties"'. It is not uncommon for even experienced managers to often confuse between the three "I" s.While managing the triple constraints might be viewed as the immediate measure of project success (or failure) the ultimate success in a project (and thereby program, portfolio and business as a whole) depends on the project leadership acting as effective change agents guiding the project through a process of betterment. The process of moving from the existing state to a better state is the definition of improvement. The authors consider "improvement" the fourth "I" and advocate its continuous pursuit as the cornerstone of the ultimate sustainable business strategy.

Strategy sets the route for a business to reach its goals. Out of the three basic forms of strategy, **Corporate Strategy** deals with broader issues including competitive environments, long term goals, structuring the organization in Strategic Business Units (SBU) etc.; **Business strategy** as a subset of corporate strategy is more focussed towards competing in a particular market or industry. Business has many functions and **Functional Strategy** deals with decisions according to those functional lines. Decisions, as we know, are all about choosing one alternative over other available alternatives. Prioritization (based on strategy) therefore plays a vital role in decision making for an individual, for an SBU or for an organization.

Organizational strategies and priorities are therefore linked and have relationships between portfolios and programs as well as between programs and individual projects. Projects are often utilized as means of achieving an organization's strategic plan. PMBOK® lists various reasons behind authorization of a project such as market needs, customer request, technological advances, legal requirements etc. One of the key reasons is strategic opportunity/ business needs. PMBOK® recognizes projects, within programs or portfolios, as a means of achieving organizational goals in the context of a strategic plan.

Situation Analysis is the starting block of strategic planning. Situation Analysis enables an organization to evaluate itself regarding its capabilities vis-à-vis the market opportunities and business needs. This leads to **Strategy Formulation**. However, even the best formulated strategy will lead to nothing unless it is correctly implemented. Here lies the importance of **Strategy Implementation**.

Projects (and Programs) as subsets of the Portfolios aligned towards meeting strategic business objectives are often part of strategy implementation. Thus project managers should know how their projects are aligned with the broad business strategy. This knowledge would guide them to think beyond mere management of the triple constraints. Effective leadership in project management goes beyond the routine, and thus acts as change agent. Pursuit of betterment makes the effective project management leaders to think out of the box, and become inventive and innovative.

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Invention and Innovation- The Two "I"s

While many project professionals consider themselves inventive and/or innovative, the fact is most are confused between the two.

As per Wikipedia definitions, an **invention** is a "unique or novel device, method, composition or process. The invention process is a process within an overall engineering and product development process. It may be an improvement upon a machine or product, or a new process for creating an object or a result".

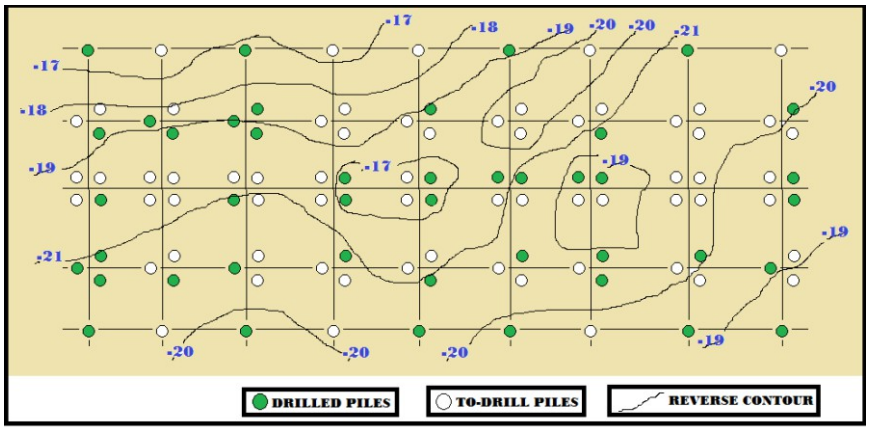
Innovation on the other hand is "a new idea, more effective device or process. Innovation can be viewed as the application of better solutions that meet new requirements, in articulated needs, or existing market needs."

Mankind has history of inventions across all kinds of domains including, physical and medical sciences, information technology, telecommunications, entertainment…the list is endless. Two most common examples of invention in construction industry is the concrete vibrator, which replaced the ineffective manual "poking" and the concrete pump that facilitated ease of concreting at heights or at other places with limited access. Another example of the results of innovation in construction could be the transition from traditional chain and compass survey methods to the use of theodolites and levels and then to modern day GPS survey using satellites.

A Real Life Experience

About 25 years back, one of the authors of this article was working as a site engineer constructing an industrial building on a filled up area. The raft foundation was to rest on about 200 cast in situ RCC piles. Six piling rigs were at work drilling 600 mm diameter holes of varying depths till they reach the undulated rocky strata below. Then there were hectic activities for each hole: withdraw chisel and accessories, lower pre-fabricated steel cage, weld the next cage, lower the tremie, pump out the bentonite and pour concrete before the sides collapsed! There was not much time available between boring and concreting, so quite a bit of prefabricated reinforcement cage had to be cut off every time resulting in high scrap generation. There was no way to do predict the depth so as to plan the cage length accordingly.

One day the young site engineer had a spark. He wrote down the depth of each completed piles on the pile footprint drawing pasted on the wall. Then he connected the equal depths, somewhat similar to a typical contour map with the difference that instead of elevation, this "reverse contour" indicated depths. From that day all he had to do was to check the nearest contour line next to a new bore and (barring local undulation errors) he was able to predict the depths. This resulted into big savings for the company by means of scrap reduction. Eventually the general manager asked the site engineer to prepare a report which was circulated in the company as part of its training manual. It was also an important milestone in the site engineer's subsequent career advancement.



Sketch : Reverse Contour Innovation (c) Ramesh MK & Chakrabarti D, 2015

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In a recent article innovation and change specialist Braden Kelley had stated: "invention is coming up with a great idea, but innovation is the act of introducing that invention successfully to the world. Innovation is truly about transforming the useful seed of an invention into something valuable that ultimately achieves wide-scale adoption."

Hence this real life incident can be considered as an innovation: where the application of a new idea met the project requirement. The reverse contour itself can be considered as a small invention at that point of time, as far as that particular company was concerned.

Improvisation: The Third "I"

We go back to Wikipedia definitions and find that improvisation is "the process of devising a solution to a requirement by making-do, despite absence of resources that might be expected to produce a solution".

There is an Indian word called "Jugaad". The concept of Jugaad is focussed towards achieving immediate result employing short cuts. The photograph shows one such Jugaad: in absence of required scaffolding, ladder, man lift and concrete pump a backhoe loader is used to lift workmen, equipment and concrete for pouring. Such improvisations gave immediate result, which was the prime objective in this case, but there were serious compromises with quality and safety standards.

Pic : Jugaad Improvisation (c) Ramesh MK & Chakrabarti D, 2015

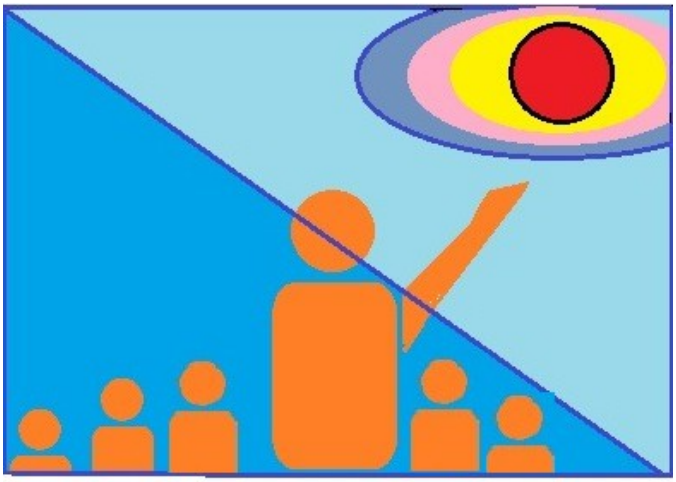
Interestingly, in this example of improvisation too there was an idea and its implementation. In fact there is a school of supporters of "Jugaad approach" to frugal and flexible innovation as an alternative to the old formula of sustained innovation efforts by expensive R&D and structured innovation processes. Critics of improvisation argue that innovation need not always be expensive and time consuming. The "reverse contour" could prove a point.

Whether Improvisation would qualify as innovation therefore remains a subject of debate with both its supporters and critics having their own points of view. Yet, it is not uncommon in the construction industry to go for such improvisations.

PMCONCLAVE - TECHNICAL PAPER ENTRY

Improvement – The Fourth "I"

Question: Why would project managers go for one or more of the three 'I's?
Answer: In pursuit of improvement.



Pursuit of Fourth "I" (c) Ramesh MK & Chakrabarti D, 2015

For one last time we refer Wikipedia and find that improvement is the "process of moving from one state to a state considered to be better, usually through some action intended to bring about that better state."

Quality of life for mankind improved through centuries of invention and innovations. In the context of project management, even the run-of-the-mill project manager tries to improve by managing the triple constraints to save time and cost and by remaining within specifications.

Leaders in project management think beyond the triple constraints. Employing innovative practices, they take their projects from the existing state to the desired state. They identify, encourage, nurture and utilize the change drivers that are pro-change stakeholders. They face resistance to change from some stakeholders and adopt innovative tools to manage such resistors.

One such tool could be 'generation, development and maintenance of trust' to manage stakeholders.

There are countless other improvement tools. Deming's PDCA cycle, Value Engineering, Kaizen - continuous small improvements or the all-encompassing Business Process Engineering, Total Quality Management to the more recent Agile Practices are all innovations aimed towards improvement. The PMI itself could qualify as a giant innovation towards improved project management; and PMBOK®s with their revisions as guidelines for continuous improvement.

Specifically for construction projects, PMBOK® can be considered as an invention; and the process of adding new knowledge areas such as Stakeholder Management as innovation. Development of Practice Standards to describe the use / application of PM tools and techniques specifically for construction industry can be seen (though not as Jugaad) as the result of improvisation of PMBOK®.

Finally the Construction Extension to the PMBOK® Guide brought in by the Standards Committee to meet the specific needs of Claim Management, Project Financing and HSE Management as unique requirements for the construction sector can be considered as a new invention aimed towards improvement in construction project management.

Conclusion: Pursuit of The Fourth "I"

A project manager and her/his team use one or more such improvement tools along with their own innovative ideas. The improvements achieved add value to the program and in turn to the portfolio. Success in portfolio management contributes to the organisation's business strategy.

Project Manager as a change agent analyses the current status or the situation, and then formulates and implements his/her own functional strategy to achieve improvement. Thus within the project boundarys/he follows the same steps of strategic management as explained in the beginning of this article. Continuous innovation aimed towards continuous improvement in a project thereby acts pivotal to the success of functional strategy and finally to business strategy.

To borrow the words of Braden Kelley again: "Continuous innovation requires that innovation is placed at the center of the organization and that all parts of the organization are changed to support it. To effectively place innovation at the center of the organization, people must know what innovation is, what it looks like in their organization and how they can contribute".

Once this realization dawns, people come to understand that to remain competitive, there has to be continuous improvement in all parts of the organization including the part they represent, however miniscule that might be. To be a successful change agent in the true sense, a project manager must help to incorporate this realization into every member of his team, and try to do the same with every stakeholder.

Work psychologist T. Sue points out that the pursuit of improvement need not be always linear, that is, invention followed by innovation. At times improvisation as a temporary bridge over the river of current difficulties might lead to a more stable innovative thought process, which then results into an invention. However, irrespective of the path chosen, improvement remains the ultimate goal as the sustainable strategy to remain abreast of the competition, and more often than not, the ultimate survival tool for a project and for a business as a whole.

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M.K .Ramesh, BE (Civil Engineering), MBA, PMP, has over 30 years of experience in managing the construction of sub-stations and transmission lines for organizations operating in India's energy sector. He has managed projects of various capacities, which also include experience in consultancy project work in the Middle East & Africa. He is a member of PMI Mumbai Chapter.

DebasisChakrabarti, BE (Civil Engineering), MTech (Operations), PMP, has over 29 years of experience, mostly in construction of infrastructure projects in India, the Middle East & Africa. He is also a faculty of Supply Chain Management in a B-School, and a consultant faculty in an eLearning Organization. He also volunteers for his chapter as a trainer for PMP aspirants. He is a member of PMI West Bengal Chapter.

PMP Practice Questions

Cost Management

 # 1. You have two possible projects to manage, but you can only choose one. Project MKTG is worth $23,000, while Project SALESPTR is worth $25,000. Management elects to choose Project SALESPTR. Which one of the following is the opportunity cost of this choice?

1. $23,000
2. $27,000
3. $50,000
4. $4000

 # 2. You are a project manager of a project. Till today you have actually completed $34,000 of work, but based on the cost plan it should be $50,000. What is percentage Schedule Variance (SV) in this case?

1.-32%
2.-16%
3.32%
4.None of the above

 # 3. Your project has a budget of $240,000 and is expect to last for 1 year, with the work and budget spread evenly across all months. The project is now in the fourth month, the work is on schedule, but you have already spent $120,000 of the project budget. What is your COST Variance in this case?

1.-$40,000
2.$40,000
3.$240,000
4.$56,000

 # 4. Your project has a budget of $10,000 and is expect to last for 1 year, with the work and budget spread evenly across all months. Right now CPI is 0.8. What is Variance at Completion in this case?

1.-$2,500
2.$10,000
3.$12,500
4.$12,000

 # 5. The PV = $250, the AC = $350, and the EV = $200. Calculate the Cost Variance.

1. -$150
2. $150
3. -$50
4. $50

 # 6. The tools and techniques used in the process of Determine Budget includes all but

1. Cost Aggregation
2. Cost of Quality
3. Expert Judgement
4. Historical Relationships

PMP Practice Questions Contd.

Cost Management

 # 7. Which of the following output of Determine Budget process is not used as an input in the Control Costs Process?

1. Project Funding Requirements
2. Cost Baseline
3. Both A & B
4. None of the above

 # 8 One common way to compute estimate at completion (EAC) is to take the budget at completion (BAC) and:

1. Divide by SPI
2. Multiply by SPI
3. Multiply by CPI
4. Divide by CPI

 # 9. If earned value (EV) = 350, actual cost (AC) = 400, planned value (PV) = 325, what is cost variance (CV)?

1. 350
2. -75
3. 400
4. -50

 # 10. The customer responsible for overseeing your project asks you to provide a written cost estimate that is 30 percent higher than your estimate of the project's cost. He explains that the budgeting process requires managers to estimate pessimistically to ensure enough money is allocated for projects. What is the BEST way to handle this?

1. Add the 30 percent as a lump sum contingency fund to handle project risks
2. Add the 30 percent to your cost estimate by spreading it evenly across all project activities
3. Create one cost baseline for budget allocation and a second one for the actual project management plan
4. Ask for information on risks that would cause your estimate to be too low

 # 11. All of the following are outputs of the Estimate Costs process EXCEPT:

1. An understanding of the cost risk in the work that has been estimated
2. The prevention of inappropriate changes from being induded in the cost baseline
3. An indication of the range of possible costs for the project
4. Documentation of any assumptions made during the Estimate Costs process

 # 12. A cost performance index (CPI) of 0.89 means:

1. At this time, we expect the total project to cost 89 percent more than planned
2. When the project is completed we will have spent 89 percent more than planned
3. The project is only progressing at 89 percent of the rate planned
4. The project is only getting 89 cents out of every dollar invested

 # 13. A schedule performance index (SPI) of 0.76 means:

1. You are over budget
2. You are ahead of schedule
3. You are only progressing at 76 percent of the rate originally planned
4. You are only progressing at 24 percent of the rate originally planned

PMP Practice Questions Contd.

Cost Management

 # 14. Which of the following is NOT needed in order to come up with a project estimate?

1. A WBS
2. A network diagram
3. Risks
4. A change control system

 # 15 A cost baseline is an output of which cost management process?

1. Estimate Activity Resource
2. Estimate Costs
3. Determine Budget
4. Control Costs

 # 16. During which project management process group are budget forecasts created?

1. Monitoring and controlling
2. Planning
3. Initiating
4. Executing

 # 17. Project setup costs are an example of:

1. Variable costs
2. Fixed costs
3. Overhead costs
4. Opportunity costs

 # 18. Your project has a medium amount of risk and is not very well defined. The sponsor hands you a project charter and asks you to confirm that the project can be completed within the project cost budget. What is the BEST method to handle this?

1. Build the estimate in the form of a range of possible results
2. Ask the team members to help estimate the cost based on the project charter
3. Based on the information you have, calculate a parametric estimate
4. Provide an analogous estimate based on past history.

 # 19. A manufacturing project has a schedule performance index (SPI) of 0.89 and a cost performance index (CPI) of 0.91. Generally, what is the BEST explanation for why this occurred?

1. The scope was changed
2. A supplier went out of business and a new one needed to be found
3. Additional equipment needed to be purchased
4. A critical path activity took longer and needed more labor hours to complete

 # 20 You are the project manager for a railroad construction project. Your Sponsor has asked you for a forecast for the cost of project completion. The project has a total budget of $80,000 abd CPI of .95 . The project has spent $25,000 of its budget so far. How much more money do you plan to spend on the project?

1. $59,210
2. $80,000
3. $84,210
4. $109,210

PMP Practice Questions Contd.

Cost Management

 # 21 You are managing a project with a total budget of $450,000. According to the schedule, your team should have completed 45% of the work by now. But at the latest status meeting, the team only reported that 40% of the work has actually been completed. The team has spent $165,000 so far on the project. How would you best describe this project?

1. The project is ahead of schedule and within its budget.
2. The project is behind schedule and within its budget.
3. The project is ahead of schedule and over its budget.
4. The project is behind schedule and over its budget.

 # 22 You are managing a project with an EV of $15,000, PV of $12,000, and AC of $11,000. How would you BEST describe this project?

A. The project is ahead of schedule and within its budget.
B. The project is behind schedule and within its budget.
C. The project is ahead of schedule and over its budget.
D. The project is behind schedule and over is budget.

 # 23 You are managing a project with AC = $25,100 , ETC = $45,600 , VAC = -$2,600, BAC = $90,000, and EAC = $92,100. Your sponsor asks you to forecast how much money you expect to spend on the remainder of the project. Which is the BEST estimate to use for this forecast?

1. $45,600
2. $87,400
3. $90,000
4. $92,100

 # 24 You are managing a project with a schedule performance index (SPI) of 1.07 and a cost performance index (CPI) of .94. How would you BEST describe this project?

1. The project is ahead of scheule and within its budget.
2. The project is behind schedule and within its budget.
3. The project is ahead of schedule and over its budget.
4. The project is behind schedule and over its budget.

 # 25 You are the project manager for a railroad construction project. Your sponsor has asked you for a forecast for the cost of project completion. Which of the following is the BEST metric to use for forecasting?

A. EV and AC
B. SV and CV
C. ETC and VAC
D. SPI and CPI

 # 26 You have been asked to select between three projects. Project A has a net present value of $54,750 and will take six months to complete. Project B has a net present value of $85,100 and will take two years to complete. Project C has a net present value or $15,000 and a benefit-cost ratio of 5:2. Which project should you choose?

1. Project A
2. Project B
3. Project C
4. There is not enough information to decide.

PMP Practice Questions Contd.

Cost Management

 # 27. You've been hired by a large consulting firm to evaluate a software project for them. You have access to the CPI and EV for the project, but not the AC. The CPI is .92 and the EV is $172,500. How much money has actually been spent for the project?

1. $158,700
2. $172,500
3. $187,500
4. -$187,500

 # 28. A project is estimated to cost $ 50,000 with a timeline of 50 days. After 25 days, the project manager finds that 50% of the project is complete and Actual costs are $ 50,000. What is the Cost Performance Index (CPI) ?

1. The CPI is 1.5
2. The CPI is 1
3. The CPI is 2
4. The CPI is 0.5

 # 29. You have just taken over a project from another project manager. Incomplete information is available to you on the project status. You have been told that the cost performance index (CPI) = .92, the earned value (EV) = $322,000 and the planned value (PV) = $180,000. What is the actual cost (AC) for the project?

1. $195,652
2. $211,957
3. $296,240
4. ,$350,000

 # 30. You are working on a project to be completed in 24 months and the total cost of the project is 200,000 USD. Twelve months have passed and 110,000 USD has been spent, and 60% of the work has been completed so far.
Find the To Complete Performance Index (TCPI) for this project

1. .89
2. 1.89
3. .60
4. .70

Project Management Word Search

Ğ	X	U	U	J	Y	H	O	M	T	L	I	W	Z	U	J	L	B	F	M
G	J	H	L	G	A	P	X	S	H	D	S	O	N	O	E	X	F	G	A
E	K	A	B	P	W	C	A	B	A	R	Q	X	A	J	Y	L	G	G	T
S	V	L	V	J	Y	R	E	V	I	L	E	D	A	S	Y	W	M	R	H
M	R	C	I	K	C	I	K	N	K	N	L	Q	Z	E	O	H	G	N	U
K	V	O	Q	F	N	T	Z	O	O	C	C	D	X	T	K	C	C	Q	J
M	B	L	X	Z	E	I	E	I	M	I	U	A	N	P	C	N	Z	T	Q
Z	X	N	O	X	G	C	R	T	P	B	S	C	H	E	D	U	L	E	Y
L	B	O	O	W	N	A	Y	U	E	R	T	I	R	C	X	A	Z	I	Z
H	A	I	G	I	I	L	X	C	H	A	O	T	V	N	V	L	G	C	Y
Q	E	T	P	A	T	P	F	E	L	N	M	G	R	O	S	N	O	P	S
S	V	A	T	Z	N	A	C	X	J	E	E	G	R	C	F	I	F	M	M
E	C	I	F	F	O	T	C	E	J	O	R	P	O	A	R	N	R	T	B
R	P	T	B	C	C	H	T	I	V	H	P	W	C	B	M	R	J	H	K
G	N	I	N	N	A	L	P	J	F	A	U	X	A	J	I	S	O	W	S
E	J	N	C	R	F	N	F	F	S	I	V	C	R	H	C	N	V	T	D
N	V	I	T	Z	S	A	Y	E	A	T	C	Y	Q	P	M	V	E	N	D
P	Q	E	Y	U	J	P	Q	G	O	K	C	E	K	S	M	R	M	B	U
B	R	V	U	O	Y	Q	H	N	Z	F	U	V	P	B	G	B	W	Q	R
Q	W	N	H	B	A	X	B	O	Q	I	L	R	R	S	B	W	J	D	N

Find all 24 project management words in the puzzle. Answers will be published in next issue of Prakalp.

PMPCE Students Speaks

Avinash Gurunath Naik
Sr. Project Engineer
Worley Parsons, USA Inc.
Student of 172nd Batch

Good day, Hope all fine with you. I am Avinash Naik, student of Mumbai Chapter 172nd Batch, currently working with WorleyParsons USA Inc.

I am very happy to inform you that I have passed PMP Examination on 30th Dec 2015 here in California.

I am very thankful to all concerned from Mumbai Chapter, especially Bharat Sir, Sharad Sir, Sagar for your valuable guidance and help.

Thank you once again!!!!

Thx to the Mumbai Chapter and their volunteers for taking so much pains to educate us about this 'knowledge area'!!

I have cleared the exam in first attempt due to the personal attention you have provided us.

Thank you very much.

Suneel Mohidekar
Susumo Engineering

Student of 172nd Batch

Robinson Moses

My experience of attending the class was overwhelming because of the diversity in the people belonging to different industries and the age gap that I had with a lot of people sitting in the class. But eventually the lectures who were there made us and me realize the common link between all of us with the syllabus of Project Management which was a huge revelation in itself and it made us appreciate people from different back grounds. The faculty which was provided to us was nothing short of excellence and there was no complain at all from anyone. The teaching was well structured and well bounded by everyone's experience. Every faculty made us feel important and the work that we did important most of all. To top it all the guidance that I received from my batch mates and the faculty even after the lectures were tremendous with no expectations in return, that moment I understood the culture of the PMI club. The minute I finished my cleared my exams I stated helping people and tried to educate people about PMI and PMP which was possible only because of the already set culture which I got the firsthand experience of. What a journey !

About the exam : Scary, confused but these are just feelings before the exam, the minute you finish and clear the exams you realize "Is this what I was so afraid of, I would do that again and succeed !"

PMP CE Preparatory Course Schedule 2016

2016 Month	Dates
January	09,10,16,17
February	13,14,20,21
March	12,13,19,20
April	16,17,23,24
May	14,15,21,22
June	18,19,25,26
July	16,17,23,24
August	20,21,27,28
September	17,18,24,25
October	15,16,22,23
November	12,13,19,20
December	10,11,17,18

Learn from the faculties who have contributed for PMBOK 3rd Edition, 4th Edition & 5th Edition. All our faculties are industry experts in their respective field.

This PMP CE Preparatory course schedule is tentative and may be changed without notice. Please contact PMI Mumbai Chapter Office for updated schedule.

Sessions to commence at 9.00 am and close by about 7.00/7.30 pm.

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Day 1
Introduction to the 'Guide to PMBOK'
Project Management Context
Project Management Processes
Integration Management
Develop Project Charter
Develop Project Management Plan
Direct and Manage project Work
Monitor and Control Project Work
Perform Integrated Change Control
Close Project or Phase
Scope Management
Plan Scope Management
Collect Requirements
Define Scope
Create WBS
Verify Scope
Control Scope

Day 2
Time Management
Plan Schedule Management
Define Activities
Sequence Activities
Estimate Activity Resources
Estimate Activity Durations
Develop Schedule
Control Schedule
Cost Management
Plan Cost Management
Estimate Costs
Determine Budget
Control Costs
Human Resources Management
Plan Human Resource Management
Acquire Project Team
Develop Project Team
Manage Project Team

Day 3
Risk Management
Plan Risk Management
Identify Risks
Perform Qualitative Risk Analysis
Perform Quantitative Risk Analysis
Plan Risk Responses
Control Risks
Communications Management
Plan Communications Management
Manage Communications
Control Communications
Quality Management
Plan Quality Management
Perform Quality Assurance
Perform Quality Control

Day 4
Procurement Management
Plan Procurement Management
Conduct Procurements
Control Procurements
Close Procurements
Stakeholder Management
Identify Stakeholders
Plan Stakeholder Management
Manage Stakeholder Engagement
Control Stakeholder Engagement
Professional Responsibility
Exam Overview
Candidate Feedback

PMP Practice Questions

Cost Management

Answers

 # 1. 1 is the correct answer.
The opportunity cost is the amount of the project that was not chosen.

 # 2. 4 is the correct answer.
Schedule Variance (SV): Any difference between the scheduled completion of an activity and the actual completion of that activity. SV % = (EV - PV) / PV SV % = ($34,000 - $50,000) / $50,000 = -32%

 # 3. 1 is the correct answer.
The project is now in the fourth month, the work is on schedule means , percentage of work completed = (4/12)*100
Cost Variance = Earn Value - Actual Cost Earn Value = total cost * percentage of work actually completed = $240,000 * (4/12)=$80,000 CV = $80,000 - $120,000 = -$40,000

 # 4. 1 is the correct answer.
Variance at Completion = BAC - EAC Estimate at Completion (EAC) = BAC / CPI = $10,000 / .8 = $12,500 Variance at Completion = $10,000 - $12,500 = -$2,500

 # 5. 1 is the correct answer
Hint: CV=EV-AC

 # 6. Correct Answer is 2

 # 7. Correct Answer is 2

 # 8. Answer 4
This question is asking for the formula for EAC, which is BAC/CPI. Notice how you will have to remember the formula to get the answer correct.

 # 9. Correct Answer is 4
CV = EV - AC

 # 10. Answer is 4
Presenting anything besides your original estimate (allocating more to the budget) is inaccurate and calls into question your competence and integrity as a project manager. The customer should list potential changes and risks to your estimate. If the costs and risks are justified, you can increase the budget.

 # 11. Answer is 2
This question is asking, "When you finish estimating costs, what do you have?" Many people who do not realize that estimates should be in a range pick choice C. Choice B is more correctly part of the cost management plan and the change control system.

 # 12. Answer 4
The CPI is less than one, so the situation is bad. Choice D is the best answer.

 # 13. Answer 3
Earned value questions ask for a calculation or an interpretation of the results. See the tricks under this topic in this book.

PMP Practice Questions Contd.

Cost Management Answers

 # 14. Answer 4
A change control system is not required to obtain estimates, but without the other three choices, you cannot develop the estimates. You need the WBS to define the activities, the network diagram to see the dependencies, and the risks to determine contingencies.
NOTE: These are high-level risks, not the detailed risks we identify later in the planning process group

 # 15. Answer 3
A cost baseline is an output of the Determine Budget process.

 # 16. Answer 1
Budget forecasts are an output of Control Costs, which is part of monitoring and controlling.

 # 17. Answer 2
Setup costs do not change as production on the project changes. Therefore, they are fixed costs.

 # 18. Answer 1
Accuracy is always important, but since the project charter has just been received, the project has not yet been planned. Therefore, although some of the choices are not blatantly wrong, it is best to estimate in a range.

 # 19. Answer 4
To answer this question, you must look for a choice that would take longer and cost more. If you picked choice A, reread it. It says scope was changed, not necessarily added to. If the change was to reduce the scope, it might also have reduced cost. Though it would take time to handle the event described in choice B, the impacted activity might not be on the critical path and thus might not affect time. Choice C would definitely add cost, but not necessarily time. Only choice D would negatively affect both time and cast.

 # 20. Answer
Really asking for ETC. ETC = EAC - AC. We have AC. Can we get EAC? EAC = BAC/CPI. Now we have everything we need.
ETC = EAC - AC = BAC/CPI -AC = $ 80,000/0.95 - $25,000 = $59,210 (A)

 # 21. Answer
Let's look at the schedule. Should be 45% complete, we are 40% complete. SPI = EV/PV = 40% / 45% = 0.89 < 1. We are behind schedule.
Now to budget. CPI = EV/AC = (40% x $450,000) / $165,000 = 1.09. We are within budget.

 # 22. Answer is 1
SPI = EV/PV = 15000/12000 = 1.25 > 1 so we're ahead of schedule. CPI = EV/AC = 15000/11000 = 1.36 > 1 ($1.36 in value for every dollar spend) so we're within our budget.

 # 23. Answer
The question is asking how much MORE money will be spent to complete the project. This is the Estimate to Completion, or ETC, which is given to you. $45,600

 # 24. Answer is 3
SPI is greater than 1, you are ahead of schedule. CPI is less than 1, you are over budget.

PMP Practice Questions Contd.

Cost Management Answers

 # 25. Answer is 3
EV, AC, SV, CV, SPI, AND CPI are all measures of PAST performance. ETC and VAC predict future values. Forecasting is future.\

 # 26. Answer is 2
The important information in this question are the NPV values. The given times and BCR are unnecessary information. Choose the greatest NPV.

 # 27. Answer is 3
From the equations, we have CPI = EV/AC. Solving for AC, gives us AC = EV/CPI = 172,500/0.92 = $187,500 (C)

 # 28. Answer is 4
The Cost performance Index (CPI) is given by the formula CPI = EV/AC where EV is the Earned Value and AC is the Actual Cost. Earned Value = 50% of $ 50,000 = $ 25,000 since 50% of the project is complete. Hence CPI = 25,000 / 50,000 = 0.5.

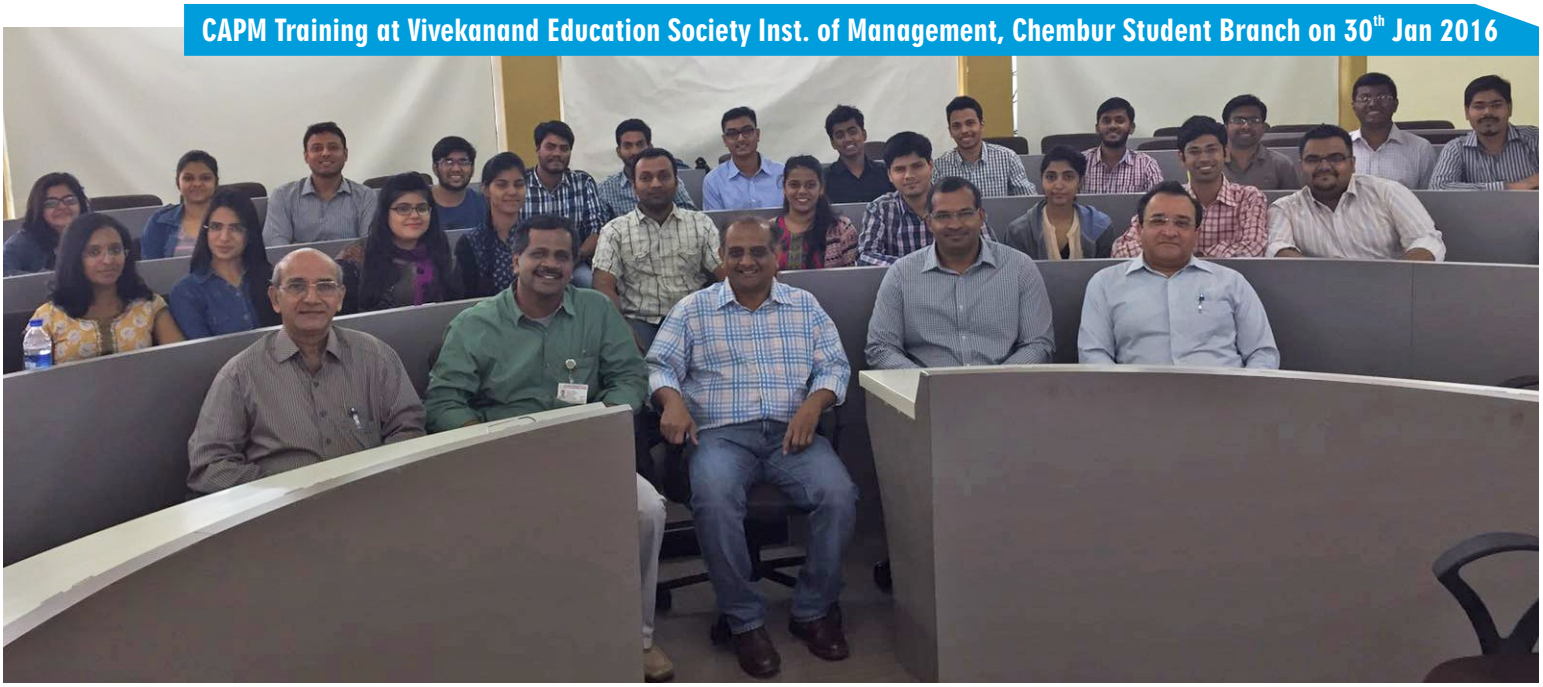
 # 29. Answer is 4.
1. I ask if I have an equation that has AC and at least 2 of these 3 terms- CPI, EV, PV.
The answer is yes.

CPI= EV/AC
If I multiply each side by AC
AC * CPI = EV
If I divide each side by CPI
AC= EV/CPI
AC= $322,000/.92
AC= $350,000

 # 30. Budget at Completion (BAC) = 200,000 USD
Actual Cost (AC) = 110,000 USD
Planned Value (PV) = 50% of 200,000 = 100,000USD
Earned Value (EV) = 60% of 200,000 = 120,000 USD
Cost Performance Index (CPI) = EV / AC = 120,000/110,000 = 1.1
Since the cost performance index is 1.1, which is greater than one, you are under budget. Therefore, in this case you will use the TCPI formula based on the BAC.
Hence,
TCPI = (BAC – EV)/(BAC – AC)
= (200,000 – 120,000)/(200,000 – 110,000)
= 80,000/90,000 = 0.89

Mumbai Chapter Activities

CAPM Training at Vivekanand Education Society Inst. of Management, Chembur Student Branch on 30th Jan 2016



Mumbai Chapter Activities

PMI Mumbai Chapter-NMIMS's MPSTME Branch on 31st January 2016 / Topic - Technology Trends in Today's Project Management

Mumbai Chapter Activities

WALKATHON 2016 - 17th Walking Competition - Organized by Walkers Club, Aarey on 14th Feb, 2016