

Author: Debabrata Pruseth

Co-Author: Ramanand Garimella, Lakshmivaragan D.

The Need of the Hour: Next Generation Operating Model

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Abstract

Albert Einstein once correctly said "We cannot solve our problems with the same thinking we used when we created them". To successfully sail through new technology disruptions, project managers not only have to adopt to technology but also adopt new processes and skillsets to manage projects effectively. Still what are these components and where should they start?

This article elaborates the key component of a new age operating model through the lenses of people, process and technology for project managers to adopt in today's digital era. The key component of the model include change management, governance, technology, capabilities and structure. For instance, in governance we will discuss how project managers can use digital technology to govern a diversified workforce spread across multiple locations. Under capabilities we will discuss how critical thinking methodology needs to be incorporated to drive innovation in projects.

In today's project management landscape, change is inevitable and unpredictable. The new age technology disruptions like artificial intelligence, deep learning, augmented reality, etc., call for a new operating model for project managers encompassing an entrepreneurial and innovative mindset. The article takes examples from real life case studies and provides implementable recommendations for today's project managers.

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Introduction

Project Management in India is going through challenging times today. Not only are the complexities of projects growing day by day but also the risk and uncertainties in project executions are increasing manifold. Crisis situations like 'Brexit' and the recent 'demonetization' that impacted banking systems and associated projects, are not only increasing in scales and complexity but are becoming more unpredictable. The other two key changes that each Project Manager has to successfully manage in their projects are rapid technology disruptions and emergence of a millennial Gen-Y workforce. The traditional project management practices are not capable of handling these new age challenges. This calls for adoption of a

next generation operating model revolving around the fundamentals of our project management practices, for example, PMBOK at the core.

Key Components of Operating Model

The key components of the operating model which need to evolve to help Project Managers in today's world are change management, technology, governance and (specific) capabilities. Figure 1 illustrates these key components and sub components.

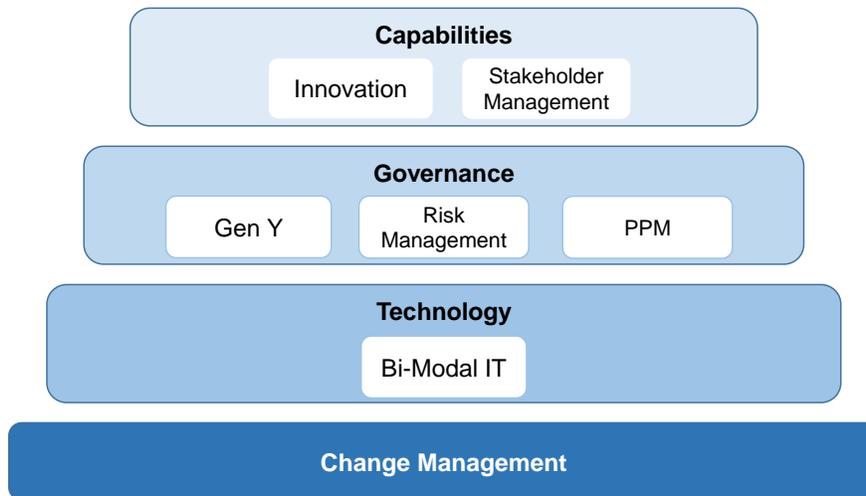


Figure 1: Components of Next-Gen Operating Model

We will talk about these four operating model components and sub components subsequently in detail through the three angles of people, process and technology. The key point to be kept in mind is that we are not proposing a new model to replace PMBOK, but changes revolving around the way we implement some of its practices. Figure 2 illustrates the intent.

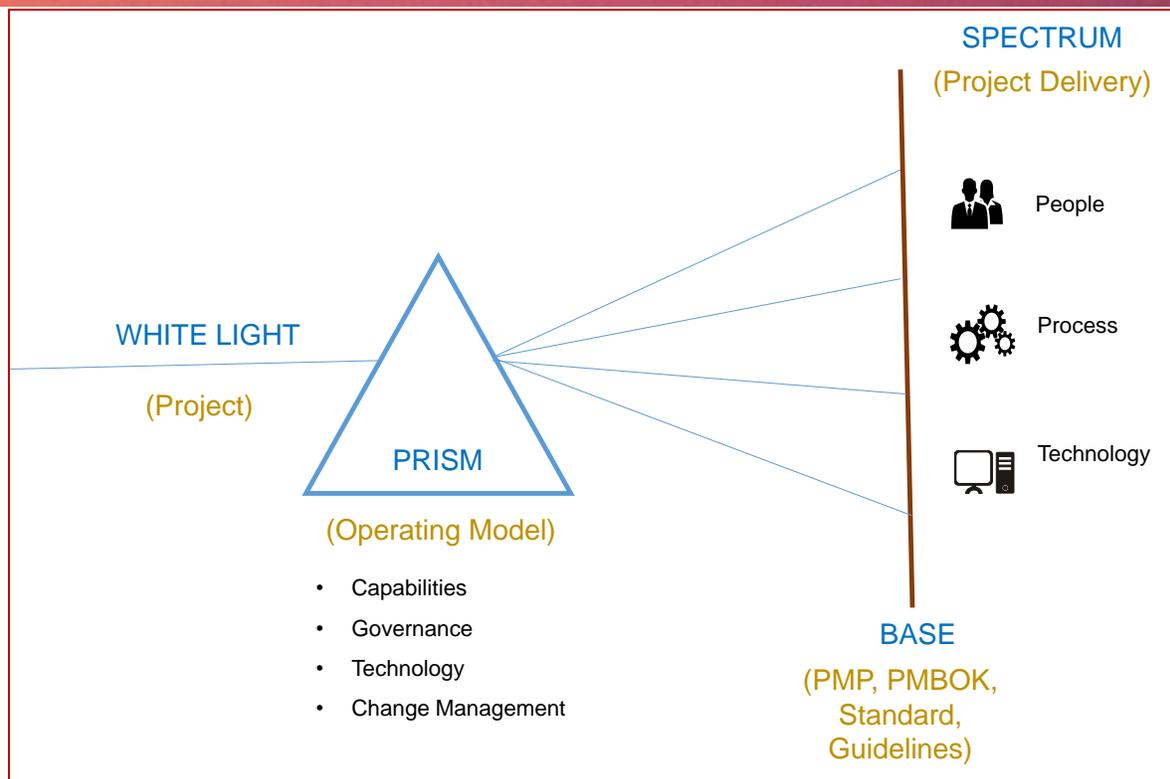


Figure 2: Conceptual view of operating model

Let us assume that each project, at inception, is like a white light, the end objective of which is to produce a beautiful colored spectrum. PMBOK provides the base on which the spectrum is produced. However the quality of the spectrum will depend on the nature of the PRISM, which in our case is the operating model for the project delivery.

1. Capabilities

Project management is evolving. Table 1 illustrates some key fundamental changes that are already happening in this space and will continue to evolve in the near future.

Present	Immediate Future
Focus on specific technology and processes	Focus on customer centricity
Homogeneous teams	Heterogeneous team spread across multiple geographies
Project Key Performance Improvement (KPI) measured in terms of budget and scope creep	KPI measured in terms of innovation, customer satisfaction and end outcome delivered
Focus on operationalizing laid standard processes	Focus on innovations

Present	Immediate Future
Waterfall methodology for project development	Agile methodologies with BizDevOps (Business, Development and Operations Integration)
Sustain risk in project	Encompass disruptions by taking calculated risk
Close control in the project team	Empowered project teams with shared ownership

Table 1: Project Management Capability Evolution

To handle these disruptions, Program/Project managers need to enhance some of their capabilities. Two of these capabilities which from our experience are the most important, are innovation and stakeholder management. We will discuss them one by one in detail.

1.1 Innovation

Gone are the days when Program Managers KPI were measured in terms of effort and budget slippage. Most of the KPI now are tightly linked to Business KPIs. One of them in today's digital era is innovation. Program Managers need to create an environment of creativity and drive innovation in each phase of each project. From creating new innovative solution designs to decreasing operating cost by innovative techniques, innovation is the buzz word today.

The key challenge is how to build the culture of creativity and innovation in the team. There are two components to it, one is internal and the other is external oriented. Internal change involves Program Managers adopting new creative thinking techniques. External change involves building the culture. We will discuss both briefly starting with internal change.

Most traditional Program Managers are grooved to think in a specific way which we call logical thinking¹ (sometimes called as vertical thinking). Logical thinking is helpful in the following use cases:

- The problem or solution does not involve human aspects and is primarily data or technology related.
- There is a clear understanding of the root cause of the problem
- There is enough data available (past data, trends and so on) to predict future trends
- You clearly know the starting point for the solution.

However these use cases are not relevant in today's era of technology disruption and customer centricity. Program Managers therefore have to adopt new age creative thinking¹ techniques especially system, lateral and design thinking techniques. System thinking helps Program Managers to analyse problems not as isolated instance but as part of an overall interconnected system. This is very helpful while dealing with IoT (Internet of Things) programs which relies heavily on the concept of interconnected 'things'. Lateral thinking helps Program Managers in situations where step by step logic (direct reasoning) fails and hence need indirect reasoning to come up with innovative solutions. This is especially applicable while working with most of the new age technologies. Design thinking goes one step ahead to use intuition and logic to solve human centric problems. This is especially useful in programs dealing with customer experiences especially in the marketing area. Let us take a live case study of one of the creative thinking techniques, that is, lateral thinking.

Case Study

A leading Casino Chain had two lines of business (LoB) – Casino and Resort. The IT Program Manager was provided with the responsibility of increasing customer loyalty for each of the LoBs. By traditional vertical thinking technique, he developed a set of projects to enhance the underlying application capability for each of the LoBs separately. However, this was not producing any desired outcome. Using lateral thinking technique, he realized that the customers of both the LoBs were same. He then combined the underlying technology to create a single customer loyalty program for both LoBs. This helped increase customer satisfaction and loyalty.

Now let us briefly touch upon the external component that is, building a culture of innovation within project teams. From our experience in driving large transformation programs, Table 2 illustrates some personal tips.

Sl. Nbr	Tip to foster creativity and innovation in project teams
1	Encourage process orientation and not blind result focus among team members.
2	Divide work into smaller sections while allocating work to team members. This helps them learn and master the work efficiently. Avoid big tasks at one go especially when it comes to new resources and new technology.
3	Perfectionist in a team is desirable but not always good in the long run.
4	Incorporate 'positive psychology' concepts especially during brainstorming sessions. For example, think about the positive aspect of a solution rather than debating on the design.
5	Do not keep employees dead busy throughout the day. Scarcity of anything including time always fosters a narrow mindset. Give some free time to employees.

Table 2: Tips for creating a culture of innovation in project teams

1.2 Stakeholder Management

After innovation, the second key capability that we will discuss is stakeholder management. One of the most challenging aspects that each Program Manager has to handle in today's dynamic world is stakeholder management. Stakeholder can be a demanding business owner or a Gen Y team member in the workspace. In many case Program Managers do not have the necessary authority to forcefully drive their agenda through them. So what are the options? Concepts of psychology especially how to influence without authority can be of great use. One specific area that we have been advocating since the last few years is the use of 6 principles of persuasion² for effective influencing, as identified by Robert Cialdini, as illustrated in Figure 3.

Six Principles of Persuasion – Dr. Robert Cialdini					
Reciprocity	Consistency	Social Proof	Authority	Liking	Scarcity
People tend to return a favor	If people commit, they are more likely honor	People will do things that they see other people are doing	People tend to obey authority figures	People are easily persuaded by the people they like	Perceived scarcity will generate demand
What can PMs do ?					
PMs can consider offering resources, help to enhance trust coefficient	Taking a commitment however small it is will influence the stakeholder to continue the support	PMs can use horizontal peer power to influence	PMs to develop a reputation for being an expert	PMs draw on similarities, engage in dialogue prior to making requests	PMs can emphasize uniqueness, time constraints and exclusivity of information

Figure 3: Six principles of persuasion

Case Study

In one program we had to socialize a key recommendation to multiple stakeholders. However it was getting difficult to get a common consensus and buy in. Using the principles of 'social proof' we first segmented the stakeholders into easy and difficult targets. We went to the easy targets and got their approval first. We then went to the difficult targets and told them that their peers have already reviewed and approved the solution. This helped them give their consent and buy-in.

While persuasion is one of the key aspects, there are other important soft skills which the Project Manager need to harness to manage the demands of the stakeholders. One of the most important one is effective communication.

In today's digital era, effective communication is sacrosanct for the success of any program. Most projects fail not due to lack of communication and poor communication. While adopting the latest technology for communication is definitely essential, for example, digitalizing documents, leveraging internal collaboration tool, creating virtual project rooms and so on, the key backbone of any effective communication lies in concepts of psychology. It is essential to segment and understand the psychology trait (for example, hostile, complaining, 'know it all' and the like) of each key stakeholder separately and create a personalized communication strategy. For example, for stakeholders who are always indecisive, your communication with him should bring him confidence that even if he takes a decision now and it turns out to be wrong in future, it can be rectified with proper mitigation plans. Simultaneously show him that the loss of not making a decision now is more severe. This will ensure his buy in.

2. [Governance](#)

Now as we have discussed the capabilities that Program Managers need to up skill, let us talk about the second topic that is, how Program Managers need to effectively govern projects in today's digital era. We will discuss three aspects of it that are most relevant in today's emerging and challenging landscape:

- Managing Gen Y talent
- Enhancing risk management
- Leveraging the PPM tool

2.1 [Managing Gen Y Talent](#)

Gen Y is here. All Program Managers must have handled a Gen Y (person born after 1979) resource in their project teams. Most Program Managers typically in today's scenario belong to what psychologists call Gen X (born between 1965 and 1979).

There is a distinct trait difference in the behavior and attitude towards work in Gen X and Gen Y as found by countless researchers. This has invariably led to many Program Managers wondering on how best to manage Gen Y talent and also how to integrate different generations in the same workforce to have a productive team. The Program Manager must understand that Gen Y is an asset and not a liability and they cannot run away from it.

In 2013 we did a primary research⁴ on this topic and published our findings in the PMI national conference. We provided actionable recommendations in managing Gen Y talent across the entire talent management life cycle. Years hence, today also we still see most managers make the same mistakes we found in our research then. It is worth revisiting some of the basic recommendations which we have mentioned in Table 3.

Focus Area	Recommendations
Feedback	Unlike their peers, provide Gen Y constant and instant feedback.
Flexibility	Provide flexibility in dressing code, working hours and schedule. Consider Gen Y aspirations in devising HR and work related policies.
Technology	Allow BYOD (Bring Your Own Device) and provide digital in-house platform for collaboration/ideation.
Training	Provide digital training programs for them, on the latest technologies.

Table 3: Managing Gen Y talent in projects

2.2 Risk Management

With the advent of new age digital technology disruption, project complexity is growing rapidly. External challenges are also increasing. Traditional risk management practices (for example, BCP and DR) may not be sufficient to handle tomorrow's crisis situations in projects. Program Managers hence need to improve upon them. Two key processes that we have successfully used in large BFSI programs (and can be replicated in other industries) is stress testing and crisis reporting⁵. Stress testing can be seen as a proactive approach where you anticipate what all crisis scenarios might occur in future and do a stress test on project operational parameters, simulating the crisis scenarios, to check how well the project can handle the actual crisis. This helps Program Managers prepare for actual crisis in future. Crisis reporting on the other hand is a reactive approach. It is a framework which is executed once the actual crisis has happened. The intent is to effectively report various project operational parameters to the project accountable executive to make the necessary corrective decisions during the time of crisis. Crisis reporting is an advanced form of traditional risk management practice. Both stress testing and crisis reporting are mostly applicable at large

program levels or at the organization level. The Program Manager has a crucial role in defining its process and framework.

Case Study

The best example to understand the role of stress testing and crisis reporting in a new emerging crisis area is the recent 'demonetization' in India. Before announcing the demonetization, the RBI (Reserve Bank of India) must have done a thorough stress testing on the effect of demonetization on each and every aspect of the banking industry (market, operation, retail, credit risk and so on). Based on that RBI must have laid down its strategy for demonetization. However not all scenarios can be covered under stress testing. This is evident from the fiasco that was created post demonetization was announced. This is where crisis reporting comes into play. RBI must have asked each bank to provide ground level crisis reports on how demonetization is unfolding. This helped them take necessary corrective decision as evident from the multiple changes in rules announced in the subsequent few months post demonetization.

2.3 Project and Portfolio Management (PPM) Tool

Most of the projects nowadays are moving from what we call the standard Waterfall model to the Agile model. The Agile model includes numerous short sprints where the project outcomes are delivered in a progressive manner instead of a big bang approach. What adds to the complexity is the ever changing business requirements, an evolving technology landscape and a demanding Gen Y workforce which is not tuned to working with Gen X managers. It is difficult for managers to plan and manage the project schedule and the budget in time with the above complexities.

The new age Project and Portfolio Management (PPM) tool can help Project Managers govern. The PPM tool provides robust finance, project, demand, resource and portfolio management capability and can support both waterfall and agile development methodologies. By integrating with various development, testing and collaboration tools, Program Managers can have end to end visibility and control of the project what we call as 'Biz Dev Ops'. In most cases we have seen that Project Managers still continue to use spreadsheet based processes. In other cases where they have installed the PPM tool and ineffective integration⁶ with other Application Life Cycle Management (ALM) tool have hindered realizing full benefits.

Because of rapidly changing requirements and technologies many a time Project Managers fail to plan accurately. There is also a psychological term associated called 'Planning Fallacy'⁷. Planning fallacy means that when it comes to predicting how much time will be needed to complete a future task, people (Program Managers in our case) always underestimate the time needed to deliver the project and overpromise. This

basic human nature coupled with emerging challenges results in cost overrun and benefit shortfall in most projects. The PPM tool with its inbuilt robust estimation engine and past database, helps Managers avoid them.

3. [Technology](#)

While technology disruption and adoption in projects is a vast topic in itself, we will limit our discussion to one key area which each Program Manager needs to gear up to that is, managing a BI-Modal IT. 'BI Modal IT' implies existence of both legacy and new age technology in the same program. Let us discuss this in detail.

As technology and process adoption emerge in programs, Program Managers face a unique dilemma:

- Some projects run on the Waterfall methodology (comprising of linear and distinctive project phases) whereas the rest run on Agile methodology (comprising of iterative phases).
- Some projects leverage both legacy and new age technologies. Case in example is a large bank where the backend was in Mainframe but the front end is on new age technology encompassing predictive analytics and machine learning.

Managing a Bi-Modal program is a key challenge for any Program Manager. The Project and Portfolio Management (PPM) tool (as discussed in previous section) has been found to be of great advantage for Program Managers. As a project changes shape, content, and roles dramatically and in unexpected directions, the PPM tool provides a single comprehensive solution for Program Managers to manage any type of projects from waterfall to agile and from legacy to digital.

The most common challenge in a BI-Modal IT that many Program Managers especially in the BFSI industry, face is integrating Big Data and legacy systems. Out of all the key architecture elements (Business, Technology, Application and Information), Information architecture driven by Big Data has gained lot of traction in large programs now-a-days. According to a survey by Forbes⁸ 51% of the enterprises intend to invest more in Big Data. Big Data will touch most of the large transformation program in future and Program Managers need to be prepared.

4. [Change Management](#)

We have talked about technology, governance and capability now. The key component that binds them together and ensures success is effective change management.

We live in changing times and projects are not immune to it. Due to the frequent requirement changes, the technology (digital disruption) or organization structure changes, the project lifecycles are filled with frequent changes. Change management is a framework to communicate changes in the project environment to all external and internal stakeholders in an effective manner, to ensure their buy in and continuous support.

According to a survey,⁹ more than 70% of change management initiatives fail to achieve the end outcome. Project Managers who are good at strategizing change management, fail at delivering them. This is corroborated by another survey¹⁰ which states that 46% of change management fails at the execution level. What should we as Project Managers do to avoid this trap?

Most Project Managers assume that change management starts and ends at changing the communication processes. This is a narrow aspect of looking at change management. They ignore the key aspects of change management which are people and culture. Culture consists of belief, attitude and behavior. It differs based on geography (multi country project teams), age group (Gen Y vs. Gen X), and structure (workers vs. business stakeholders) and hence we cannot have one solution fit all approach. From our experience in driving effective change management in large programs, the following are some key points that we have learnt:

- Change management is a continuous process with long term engagement for all stakeholders (upstream to downstream). It is not a onetime activity.
- Change management is bidirectional that is, communication should be both outbound and inbound. Not only should stakeholders be provided the right information at the right time, their input and feedback should be received and acted upon.
- Change should always start at the top that is business stakeholders, before moving down to the bottom. Most Project Managers do the reverse that is, follow the bottom up approach.

Also, organizational change and personal change in a workspace are always interlinked. The foundation of this lies in the psychological concept of “cognitive dissidence”¹¹. According to it “a distressing mental state arises when people find that their beliefs are inconsistent with their actions”. What it implies, in large transformation programs, is that if people believe in the program’s overall purpose and it is in alignment with their own life purposes, they will be more inclined to change their individual behaviors to suite the program’s need. Let us go back to our example of demonetization that was announced by India’s PM in late 2016. The initial message that went out was demonetization will help digitization and create a cash less economy. Initially most people were skeptic and were not eager to go cashless as they were more inclined towards cash transaction by habit. So the message was changed stating that demonetization will help remove corruption. People connected to this message very well. They realized that the end outcome will help their day to day life and hence they readily accepted the change with all its hardship. Coming to

project management, a stakeholder will be more inclined to adapt to changes in a project if he feels it is linked to his personal beliefs/goals/objectives. For example, in one of the large Big Data IT transformation programs where we had a lot of resistance from the stakeholders in adopting Big Data, we successfully applied this theory in practice by doing the following:

- For business stakeholder, we convinced them that adopting Big Data will decrease operational cost and increase profit which in turn will help their KPI and business strategy.
- For project teams who were new to Big Data and little reluctant to adopt it, we communicated how it will enhance their skill sets and provide more opportunity for growth in future.

This was done by drafting and implementing a proper change management plan which includes identifying the key stakeholder group, assessing their needs, creating a communication strategy/plan addressing these needs, proper training need analysis, design and delivery, and redefining the KPIs including benefit measurement (benefit monitoring, tracking and realization) for the program revolving around Big Data.

Conclusion

We live in changing times filled with rapid digital technology disruptions, emerging crisis situations and a new Gen Y workforce. Our traditional operating models are not suitable to handle these rapid changes and they need to evolve with time. The points discussed in this whitepaper around capabilities, governance, technology and change management are the key elements of a new age operating model which we are confident, will guide each Program and Project Manager in successfully driving projects in these challenging times. The recommendations mentioned are easy to comprehend and adopt.

Reference

1. <https://www.pmi.org.in/events/media/technical-paper/adoptingla-475a1f90759a163.pdf>
2. <https://www.pmi.org.in/events/media/technical-paper/overcoming-b1417443d3f07c3.pdf>
3. <https://www.cutter.com/article/applying-psychology-strong-business-it-alignment-467911>
4. http://www.slideshare.net/slideshow/embed_code/26965890
5. <https://www.pmi.org.in/events/media/technical-paper/overcoming-e87405adbe3487b.pdf>
6. <https://www.cutter.com/article/pragmatic-approach-automating-it-processes-through-it-tools-489996>
7. <https://www.psychologytoday.com/blog/communication-central/201010/planning-fallacy-being-realistic-about-how-much-time-you-have>
8. <https://www.forbes.com/sites/louiscolumbus/2016/05/22/51-of-enterprises-intend-to-invest-more-in-big-data/#37a074c01f61>
9. <https://www.psychologytoday.com/blog/wired-success/201411/why-change-management-fails>
10. <http://rhmr.mediaroom.com/where-change-management-fails>
11. <https://www.simplypsychology.org/cognitive-dissonance.html>