PROJECT MANAGEMENT IN THE VUCA (VOLATILITY, UNCERTAINTY, COMPLEXITY AND AMBIGUITY) ENVIRONMENT

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ABSTRACT

VUCA (Volatility, Uncertainty, Complexity and Ambiguity) the prevailing name for today's business environment has been interestingly captured by one single pandemic the Covid-19.In the early years of the 21st century, the success rate of projects has improved to 39% as compared to 15% in the early 1990s as per the CHAOS Report 2013 (Standish Group.) That still leaves a sizable 61% failure rate for projects. But there are companies who have embraced these challenges with a positive attitude and have an exemplary track record of implementing thousands of successful projects one after another. Based on the secondary data, this paper reviews various dimensions of changes and challenges of project management in the 21st century. Two sources of secondary data were used. One was the academic literature and second was the annual reports of the top Indian IT companies. Major insights drawn from the literature are presented as the findings. The message is quite clear – the Domain Specialists Project Managers and the Business Analysts will have to team-up with Business and Technology Optimization Experts to leverage things like big data, business analytics, artificial intelligence, business intelligence, cloud computing and the digital, social and mobile spheres to enable the entire enterprise to assume project leadership.

Introduction

From the period of Gantt Charts, Program Evaluation and Review Technique (PERT)/Critical Path Method (CPM), Crashing, and so on to the times of data analytics, big data, Artificial Intelligence, Cloud Computing, Business Analytics, Internet of Things, Blockchain and so on, project management has seen a major change in outlook in the manner in which it was seen, planned and executed. From Level 1 it has changed gears to Level 2 and Level 3 before long. At Level 3, the capacity is turning into a fundamental piece of the enterprise technique with complex, foundational, versatile and dynamic way to deal with its management. As against the customary stand-alone way to deal with project management, today we are discussing a consistent joining of the action with the focal hierarchical framework itself. Project Management no longer remaining parts a segregated, consecutive, need-based capacity, yet it has synchronized with the general enterprise management. The very idea of project management makes it trying. It has long haul skylines with execution periods going from a couple of years to a couple of a very long time also. Not exclusively is it's arranging troublesome, its execution stays probably the biggest test. On account of the VUCA (Volatility, Uncertainty, Complexity and Ambiguity) climate attributes of the 21st century, project management needs to experience and go through a continuum of dynamism. There is practically nothing that is static about project management. Rather it is an action loaded with motion, smoothness and adaptability. Challenges presented by the 21st century demand gigantic versatility from project managers and enterprises executing projects. This paper examines these key challenges based on a short survey of scholarly writings. Simultaneously it additionally investigates annual reports of the top Indian IT organizations to discover how their practices have enabled them to change over these challenges into productive business openings.

Literature Review

In an attempt to revisit Project Management Practice, Abdulrahmanet al., (2016) have endeavored to reclassify the theoretical challenges (for project management) in the 21st Century. The writers have suggested that there is association between project management theory and practice just for the situation when the theories are productive and are even minded. Featuring the significance of project management, Managers.org.uk have expressed that in the 21st century organization of all types are progressively embracing a project-based way to deal with execute business procedure

and convey wanted results. Levit (2016) in her research has reasoned that the project management work has developed to a level where certain accepted procedures and standards can bring about considerable authoritative advantages, whenever utilized strictly. Finishing on a hopeful note she feels that regardless of the developing complexity and notwithstanding the disappointments, project management has a superior future. Indeed, even as the world becomes perpetually convoluted and stressors and disappointments actually happen, the future for Project Management stays splendid. The catalyst on "risk" component in Project management is obviously observed - Vishwanathan, (2018);Majeed, (2018); Lim, (2018), Project Management.com, (2018.) Authors like Smith et. al (2004) have recommended a plan through monitoring of risks for project management for the 21st century. The "worldwide test" has been recognized by Scheid (2013) as the significant explanation behind the way project management is changing of late. Quick movement of progress in technology and markets has been referred to by Veld (1999) as a factor that has put weight on authoritative assets. And project management has been cited as one of answers for more powerful usage of assets. "Adjusting to Change" has been cited as the distinct advantage for project management in the 21st century by Ajankar (2017.) Then "Project Leadership" is an issue that has been featured by writers like Wideman and Eng (1995), Kathleen and Hass (2017.) Hass says that project managers these days focus more on imagination, complexity management, ceaseless conveyance, project Return on Investment as against project plan, spending plan, scope and so forth Zero in on the requirement for ceaseless self-awareness and the developing hugeness of leadership and social abilities are viewed as significant for project management in the 21st Century by Glynn (2017.) Acknowledging the function of technology, Lientz and Rea (2001) believe that the test of overseeing projects is to consolidate the technology of things to come with exercises from an earlier time. Citing Winston Churchill saying "Anyway delightful the methodology, you ought to at times take a look at the outcomes", Turk (2007) has closed by calling

"results" as the bottom line of project management movement. Jose Lugo Santiago (2018) has featured the requirement for ethics in project management. The writer accepts that deceptive conduct at last disappoints the ability of enterprises and individuals. Multi-dimensional ways to deal with project management have been recommended by writers like Leo and Hwee (2003). They have introduced a three-dimensional way to deal with project management - basic, management and execution. Kosztyán (2012) has recommended an "expanded Multilevel Project Expert Matrix (xMPEM) strategy" to project management that can be utilized for activity, yet in addition at the strategic level of project management. Use of social and communitarian tools as an ease alternative for project correspondence has been featured by writers Etim et.al (2016.)

Notwithstanding survey of writing by analysts and academicians we additionally inspected the most recent yearly reports of the four organizations that were chosen for the investigation. Infosys in its yearly report for fiscal 2017-18 (page 20) says "We are exploring, bit by bit, towards new digital chances while astutely utilizing our conventional qualities – our center administrations. In the previous three years, we have grasped artificial intelligence-based automation strategies and programming automation stages to support the profitability of our center assistance conveyance. Infosys Nia®, our cutting edge shrewd automation stage, and AssistEdge®, our Robotic Process Automation stage, have been critical to carrying AI and automation together with profound information on our business to industrialize our center landscape. At the same time, through Project Infynity, we are additionally changing our conveyance rehearses in a comprehensive modernization venture that will bring the spryness we try to our cycles." TCS in its yearly report for 2017-18 (page 21) has cited the Chief Digital Officer of Rolls-Royce saying "This is a case of how we mean to release data advancement through cooperation. TCS is an outstanding accomplice with brilliant involvement with conveying an adaptable and lithe stage capacity across various business sectors. We hope to have the

option to acknowledge both present moment and long haul benefits through cooperation with accomplices and customers on the TCS IoT Platform. It will permit us to exploit relentless data advancement – including quickening our utilization of mechanical artificial intelligence and a scope of other bleeding edge advancement openings." WIPRO in its yearly report for 2017-18 (page 3) says "We have made it our fixation to enable our customers' businesses to adjust and modernize to be future prepared, in light of the fact that no disruption declares itself early. We are engaging our customers to bring down the expense of experimentation and disappointment, so they can turn like a beginning up and scale like an enterprise. We are helping them not simply with the appropriation of advancements like cloud, AI or blockchain, yet additionally working with them to receive better approaches for working, in the IT association and past." Oracle in its yearly report 2016 (page 6) has said about Oracle Project Management Cloud, which is intended to enhance the project management measure by utilizing a far reaching set of current application tools including job based analytics, social cooperation, costing and controls.

Key insights

A collective consideration of the literature reviewed and drawing insights from the Big 4 in the business of implementing projects, we plot the following changes in project management as it moved from the 20th to the 21st century:

a. The concept has changed from management to leadership,

b. The orientation of project management is systemic and strategic from being tactical earlier,

c. Focus has shifted to complexity handling against completion of tasks,

d. The approach is more of adaptive in nature as compared to a linear one in the past,

e. The thrust in project management has shifted to innovation from the earlier business as usual and

f. Outcomes now look at business and customer value rather than stereo-typed outcomes like cost, profit, time efficiency, etc.

Further project managers in the twentieth century and even in the early long stretches of 21st century used to discuss methods like Gantt Charts, PERT/CPM, Computer Assisted Instruction (CAI), Scheduling, Work Breakdown Structure (WBS) and so forth The ongoing 21st century Project Managers discuss things like Data Analytics, Big Data, AI, Cloud Computing, Blockchain technology, Internet of things (IOT) and so forth Project Managers today basically team-up with Business Analysts in order to get a vibe of the complexity and the change that they have to handle. Indeed, researchers like Kathleen B. (Kitty) Hass (2017) feel that these two teams will have to further work together with Business and Technology Optimization Experts to leverage things like business analytics, big data, business intelligence, artificial intelligence, cloud computing and the digital, social and mobile spheres to enable the entire enterprise to assume project leadership. It ought not be misunderstood that terms like Data Analytics, Big Data, Aritifical Intelligence, Cloud Computing, Blockchain technology, Internet of things and so forth are pertinent to Information Technology projects alone. Then again given the way that VUCA (Volatility, Uncertainty, Complexity and Ambiguity) natural attributes are generally pertinent to all businesses over the globe, these things are unavoidable for enterprises to outfit themselves with data, data, information and intelligence to start, change and execute compelling choices in the midst of danger and uncertainty.

Conclusion and recommendations

These are the times of Corona a pandemic that has led to some kind of panic in the overall business environment. Project management does not remain an exception. Instead of complaining about things like Volatility, Uncertainty, Complexity and Ambiguity, project managers will have to adapt themselves to these environmental settings.

The Organizational Culture needs to advance trust, team-work and danger taking capacities.

To counter components like complexity and uncertainty the way of life must be helpful enough to encourage inventiveness, development and flexibility. The way of life will have to actuate the project and other experts to firmly focus on innovative and expository greatness, upgrade of calculated abilities and building up a strategic twisted of psyche.

Project Managers and Executives will have to think and act like Project Leaders. They will have to improve and assume chances. An innovative direction on their part is an absolute necessity for projects to prevail in the midst of a wide scope of challenges. They will have to move toward projects with a strategic twisted of psyche detecting the worth creation openings and moving technology to the greatest conceivable degree.

A significant result of this investigation is a reasonable message that for associations to prevail with projects teaming up of project managers with business analysts and technology optimization experts is an unquestionable requirement. There will have to be a solid pool of specialized and investigative aptitude accessible all the time at the removal of the project team. Without these capacities it would just not be workable for associations to confront the complexities, volatility, ambiguity and uncertainty in the climate.

Finally the project managers and their teams will have to fabricate exceptional abilities with a ton of catalyst on more significant level calculated and logical aptitudes. Since the opportunity has arrived for them to change themselves into pioneers these abilities are unavoidable. Besides, their human connection abilities will likewise require bridling as they would be required regularly to team-up with the analysts and technology optimization experts.

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