Effective integration through Vedic management & human psychology principles

Integration through Project Management

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ABSTRACT

In spite of advance developments in the project management domain through standard processes, procedures, knowledge areas, research studies indicate that many projects fail due to lack of integration management. .A manager's leadership role is of great importance in order to bring many talents together, knowledge integration, approach towards people factors and appropriate decision making to meet the greater challenges in today's global economy. The Vedic management principles, leadership qualities of our rich Indian heritage and literature and physiological studies related to diverse human elemental thoughts were not explored to the extent in order to create a great set of principles and approaches which can enrich the integration management of any project to scale its success to a greater height.

INTRODUCTION

The integration through the project management is very important in any project to be successful. Project integration management is high level work that requires the project manager to manage interdependencies among the other knowledge areas. Managing the inter dependencies among project management knowledge areas requires to deal with different teams, personalities and surprises. For example in Engineering projects matrix organization, project manager has to work with numerous teams and stake holders like design engineering, drafting, engineering analysis, engineering management, operations/production, logistics, facility, supply chain management, suppliers, testing, SBUs and project management. It is very important for a project manager to possess technical skills, strategic qualities and soft skills which will enhance the performance of a team. India is a country of rich heritage and culture, it's a land of great thinkers and strategists like Chankaya and Swami Vivekananda but above all this stands our great epics Ramayana and Mahabharatha which stands as great example of integrated team work to achieve the goal. For example Lord Shri Ram exhibits a skill of potential leader wherein he builds a bridge (causeway) Ram-Sethuve from India to Lanka utilizing the skill and man power of a tiny creature like Squirrel and his Vanara (monkey). In this great team work lord hanuman motivates the entire Vanara group to bring in their best physical and mental attributes which ultimately leads them to the path of success. The psychological factors play important role understanding the team members and team to get best results in a project. This paper aims to integrate the principles of our great epics and Vedic sciences in the field of project management. At the same time understanding the emotional and psychological quotient of the entire team will fetch better results in achieving a common goal. This paper intends to extract the combination of Vedic leadership principles and psychological aspects to enhance integration through project management.

DETAILS OF THE PAPER

LITERATURE REVIEW

Project failure study

[1] PMI pulse of the profession 2018 research reports that from 2011 to 2018 on an average 15% of the projects fail and result in 33% of the budget loss. PMI goes on to note that these poor project outcomes cause significant financial pain, writing: "We see US$122 million wasted for every US$1 billion invested due to poor project performance.

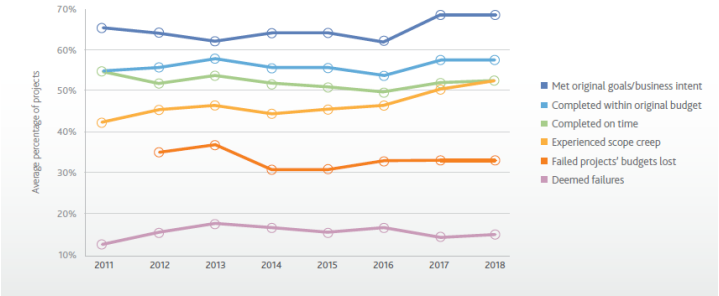

Fig: Project Performance Metrics

[2] Why NASA Projects Miss Deadlines and Blow Budgets?

Article IEEE Spectrum by Robert N Charette

Managers think their projects are "too big to fail," and believe future scientific progress will excuse any delays or cost overruns. The U.S. House Committee on Science, Space, and Technology held a hearing last week looking into NASA project costs and schedule overruns. The hearing followed on the heels of a Government Accountability Office (GAO) report released in May that showed that the costs and schedules of NASA's portfolio of major projects (meaning those with a life-cycle cost of more than US $250 million) have "deteriorated" over the past year.

The GAO reported that the agency's current overall development cost growth for the portfolio of 17 development projects increased to 18.8 percent, up from 15.6 percent in 2017. Further, the average launch delay for the portfolio had reached 12 months, the longest the GAO has seen in the past decade of looking into NASA's major projects.

The GAO identified the culprits as "risky management decisions, ineffective integration of different departments, unforeseen technical challenges—some avoidable and some not—and workmanship errors."

[3] Taylor and Francis, Technology analysis and strategic management article on "Planing in the dark: Why Major Engineering Projects Fail to Achieve Key Goals?" by Phillip Lawrence & Jim Scanlan.

The arguments, analysis and observations in this paper are based on 10 years of research with partners in the European and US aerospace and defense industries. During this period, the authors were part of a team of researchers who were seeking to develop a new methodology and tool set for project management, particularly aimed at large aerospace projects. The research was motivated by the seemingly ubiquitous reality of project failure, with large engineering projects apparently always late and over budget. Here the authors focus on aerospace and defense, but the problems are generic across all branches of engineering. In their view, aerospace and defense have more excuses than most, because not only are the projects huge, but also they are globally distributed and highly complex. As work progressed, a fundamental conundrum emerged. Through discussions with project managers and assessment of the teams that were undertaking the projects, it became obvious that they were well educated, intelligent, highly motivated and very capable people. So why were so many projects going wrong? And it was not just aerospace and defense, as projects were failing in many different sectors and in numerous geographic locations. Obviously the problems were not to do with incompetence, as they were clearly so generic. As a result, the authors focused their analysis on factors inherent in the way all major projects are undertaken. The ultimate finding has been that the very technology available for managing projects today is inadequate. And project management cultural problems, ineffective integration of different teams.

Pathological Culture	Bureaucratic Culture
Don't want to know Bad news.	May not find out.
Whistle-blowers are shot.	Messengers listened to if they arrive.
Responsibility shirked.	Responsibility is compartmentalised.
Failure is punished/hidden.	Failures lead to local repairs.
New ideas are discouraged.	New ideas create problems.

Fig: Types of Organisational Culture

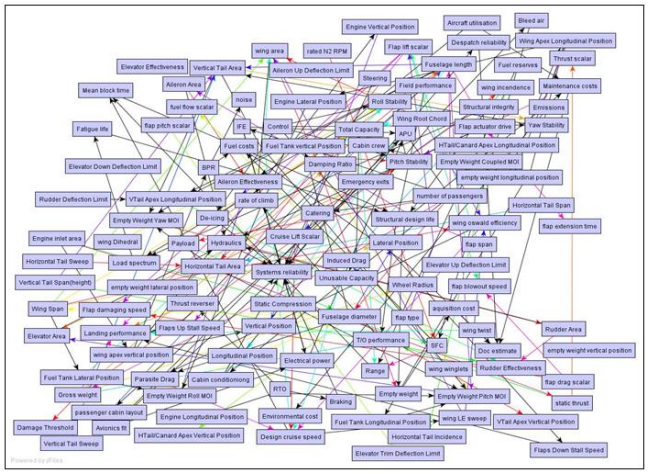

Fig: Example of an Aerospace Project Network Containing Multiple Intersecting Iterative Loops

[4] International Project Leadership Academy study on Airbus A380 failed/troubled projects states that, as the world's largest commercial aircraft the Airbus A380 is a feat of engineering. With two full decks, a wingspan wider than a football pitch and space for up to 850 passengers (in high density mode), the A380 is the most complex aircraft flying today. While the aircraft has now been in operational service for 6 years, the project that created this behemoth suffered its fair share of problems and delays. Originally scheduled for delivery in 2006, the aircraft's entry into service was delayed by almost 2 years and the project was several billion dollars over budget. One of the prominent reasons for the delay is failure form a single project team across the multiple design centers in use, which is again an integration and project leadership failures.

International Project Leadership Academy study on Boeing 787 failed/troubled projects states that The 787 has had a difficult birth. Plans to build the plane were first announced to the public in January 2003. At that time the development costs were projected to be $5B and the aircraft was to enter commercial service in 2008. While sales of the aircraft were strong, the development of the aircraft turned out to be significantly more challenging than anticipated. The use of composite materials instead of the traditional metals and decisions Boeing made about how to share the development of the aircraft's with suppliers, resulted in a project that was considerably more complex than anticipated. More than 3 years late and many billions of dollars over budget, the 787 finally entered commercial service in Sep 2011. The major contributing factors for the failure are the financial considerations trumped sound advice from the technical experts involved. Financial measures were too narrow to capture the full costs involved. Difficult managing and integrating across a large supply chain and development partners.

Vedic References

[5] In Mahabharatha Sabhaparva there is an interesting debate that happens between yudhishtra on one side and Bheema Krishna on the other side. Yudhishtra expresses his doubts that he may not be able to perform Rajasuya Yajna A sacrifice which will make him an emperor over all kings. He fears that he will face defeat against powerful kings like jarasandha who already had hundreds of kings captive under him. On hearing these words Bheema reply the king yudhishtra instilling confidence and motivation. This reply is of great importance even today.

अनारम्भ परो राजा वल्मीक इव सीदति

दुर्बलश चानुपायेन बलिनं यो sधितिष्ठति II

अतन्द्रितस तु परायेन दुर्बलो बलिनं रिपुम

जयेत सम्यङ नयो राजन नीत्यार्थान आत्मनो हितान II

कृष्णे नयो मयि बलं जयः पार्थे धनंजये

मागधं साधयिष्यामो वयं तरय इवाग्नयः II

On hearing these words, Bhima well-skilled in speech said,'That king who being weak and without resources becomes hostile and vulnerable. The king perishes against a strong opponent just like a hollow ant-hill.

However, Even a king that is weak may defeat an enemy that is strong and obtain the fruits of all his wishes, by wakefulness (Mindfulness and proactive) and by the application of policy (Righteous acts / Dharma / Niti). In Krishna is policy (Righteous acts / Dharma / Niti), in myself strength (Bala – Jnana, Icha and kriya) , in Arjuna Desire for Success / triumphs. So like the three fires (three Sacrificial fires – Sun, Fire and Self) that accomplish a sacrifice, we shall accomplish the death of the king of Magadha."

Purport By having the Right Policies, Right Strength (Skill Set) and a strong desire for success and victory even a weak king / manager can wing against all odds.

[6] Valmiki Ramayana Yuddha Kanda Sarga 21

समुद्रस्य ततः क्रुद्धो रामो रक्त अन्त लोचनः |

समीपस्थम् उवाच इदम् लक्ष्मणम् शुभ लक्ष्मणम् || ६-२१-१३

अवलेपम् समुद्रस्य न दर्शयति यत् स्वयम् |

प्रशमः च क्षमा चैव आर्जवम् प्रिय वादिता || ६-२१-१४

असामर्थ्यम् फलन्ति एते निर्गुणेषु सताम् गुणाः |

आत्म प्रशंसिनम् दुष्टम् धृष्टम् विपरिधावकम् || ६-२१-१५

सर्वत्र उत्सृष्ट दण्डम् च लोकः सत् कुरुते नरम् |

न साम्ना शक्यते कीर्तिर् न साम्ना शक्यते यशः || ६-२१-१६

प्राप्तुम् लक्ष्मण लोके अस्मिन् जयो वा रण मूधनि |

क्षमया हि समायुक्तम् माम् अयम् मकर आलयः || ६-२१-२०

असमर्थम् विजानाति धिक् क्षमाम् ईदृशे जने |

स दर्शयति साम्ना मे सागरो रूपमात्मनः || ६-२१-२१

चापम् आनय सौमित्रे शरामः च आशी विष उपमान् |

समुद्रम् शोषयिष्यामि पद्भ्याम् यान्तु प्लवङ्गमाः || ६-२१-२२

It is a very interesting scenario beautifully illustrated in Ramayana. Rama and all the monkey army need to cross a fierce ocean to fight against Ravana who has captured Rama's consort Sita.

Rama requested the Sea god to calm himself and allow the monkey army to cross and patiently waited for three days however the sea god demonstrated arrogance by not subduing. Then Rama got enraged and uttered the following words, here is the crude translation of the verses

"O, what arrogance of the ocean, who does not appear himself personally before me! Indeed calmness, forbearance kind spoken words and straight -forwardness- these qualities of noble men give weak results, when directed towards those having no virtues."

"This ignorant world honours that man, who boasts himself who is corrupt and shameless, runs about in all directions like an unleashed horse advertising himself and commits every kind of atrocities"

"O, Lakshmana! In this ignorant world, it is not possible to obtain fame, glory or victory at the end of a battle, by conciliation and dialogue"

"This ocean is considering me as an incapable man endowed as I am with forbearance. It is a great mistake to show forbearance to such an individual."

"The Ocean is not appearing himself before me on kind words. O, Lakshmana! Bring the bow and the serpentine arrows. I shall dry up this ocean, so that our monkeys can cross it by feet."

When the all the conciliation (sama) and dialogue fails the team need to be shown the severe consequences in this case drying up the whole ocean itself.

[7] Bhaghavatha – "सत्यम परम धीमहि" – Lord Vedavyasa

The lord Vedavyasa although being omniscient request all the knowledge seekers to contemplate on the supreme truth. Here one must be aware that Sri Vedavyasa uses the term Dhimahi (let us all meditate and contemplate).

Lord Vedavyasa being omniscient there is no need for him to contemplate and meditate. Still he uses a very inclusive approach by saying "comes let us all contemplate and meditate". This illustrates that the little indulgence from the leaders / managers in the activity which may be trivial from their perspective will be a great motivation for all the rest of the people.

[8] Mahabharatha Tatparya Nirnaya "Adhyaya 3" by Acharya Madhwa

Dharmaraja:

1. Dharma-He should be ethical and righteous. All decisions made from the foundation of dharma

Bheema:

2. Bhakti – Devotion , Passion in whatever karma / work

3. Jnana –Wisdom

4. Vairagya – Not distracted by pitfalls like quick shortcut results and concentrated only on the main goal

5. Prajna – Complete Awareness and Mindfulness of the current situations

6. Medha – Remembering and understanding of all the past experiences and learnings

7. Drithi – The inclination to complete and finish the activity which is started

8. Stithi – Conviction and commitment

9. Yoga - to be calm in the storm and take decisions in the midst of dualities

10. Prana – Energy and enthusiasm to be cheerful and lead everyone from the front

11. Bala – Physical, mental and spiritual strength, Weak people are never leaders.

Arjuna:

12. Shravana – A great listener

13. Manana – Churns what is listened and separates what is needed and what to be ignored

14. Dhyana – one pointedness

Nakula and Sahadeva

15. Vinaya – Humbleness

16. Sheela – Respected behaviour

Draupadi

17. Veda vagmaya - Knowledge – Both technical and interpersonal

Krishna

18. Veda vedya – Seeing Divinity in everyone and every action.

Psychology References

[9] Journal of Applied Psychology: Individual Differences and Their Measurement: A Review of 100 Years of Research -

This article reviews 100 years of research on individual differences and their measurement, with a focus on research published in the Journal of Applied Psychology. They focus on three major individual differences domains: (1) knowledge, skill, and ability, including both the cognitive and physical domain; (2) personality, including integrity, emotional intelligence, stable motivational attributes (e.g., achievement motivation, core self-evaluations), and creativity; and (3) vocational interests. For each domain, we describe the evolution of the domain across the years and highlight major empirical, theoretical, and methodological developments, including relationships between individual differences and job performance, job satisfaction, career development, and other aspects of organizational behavior.

"Possibly the greatest achievement of the members of the American Psychological Association is the establishment of the psychology of individual differences" (Walter Dill Scott, 1920, p. 85). The development of standardized measures of attributes on which individuals differ emerged very early in psychology's history, and has been a major theme in research published in the Journal of Applied Psychology (JAP). Numerous questions can and have been asked regarding individual differences, including a) their origins, including evolutionary, genetic, and situational causes; b) their dimensionality, with an eye to a parsimonious way of summarizing differences between people; c) their measurement; d) their stability over time; and e) their usefulness for applied purposes, such as forecasting future behavior in contexts such as personnel selection. Issues of the origins of individual differences have rarely been the purview of research in JAP (for notable exceptions, see Arvey, Bouchard, Segal, & Abraham [1989] and Shane, Nicolaou, Cherkas, & Spector [2010]). Dimensionality, measurement, stability, and applied use of individual differences have been major themes in JAP, as we detail below. Variables on which individuals differ can be arrayed on a continuum from stable to transitory (Ackerman & Humphreys, 1990). The term "individual differences" is generally reserved for attributes nearer the "stable" end of this continuum. In an organizational context, it is useful to think of individual differences as features that individuals bring with them to the job. Thus, ability, personality, interest patterns, and motivational traits (e.g., achievement motivation, core self-evaluations) fall under the individuals differences umbrella, whereas variables that are transient, such as mood, or that are closely linked to the specifics of the work setting (e.g., turnover intentions or perceived organizational climate), do not. We note that "stable" does not necessarily mean "unchangeable"; knowledge and skill are examples of individual difference variables that can be altered through investment of time and effort. Further, it has become clear that variables initially conceptualized as job- or organization-specific (e.g., job satisfaction) contain some dispositional variance (e.g., Arvey et al., 1989). Various taxonomies of individual differences have been put forward (e.g., Ackerman & Humphreys, 1990; Murphy, 2012; Peterson et al., 1990). Our review is not driven by any given taxonometric structure, but rather by the individual difference variables that have been the focus of research during the first century of JAP. We focus on three major sets of topics. The first is knowledge, skills, and abilities in the cognitive and psychomotor/physical domains. The second is personality, including two topics of considerable interest in recent years, namely, integrity testing and emotional intelligence, as well as motivational traits (e.g., achievement striving and core self-evaluation) and creativity. The third is vocational interests.

Knowledge, Skills, and Abilities

Cognitive Abilities

The study of cognitive abilities in JAP has paralleled the broader literature but with a more pragmatic and applied focus. The very first volume of the journal contained research on topics that are core topics of research today, including criterion related validity (Terman et al., 1917), bias and group differences (Sunne, 1917), measurement issues (Miner, 1917; Yerkes, 1917), and relationships with learning and the development of knowledge and skill (Bingham, 1917). The earliest research addressed questions about the nature and usefulness of ability.

Recent decades have frequently yielded research that incorporates ability as one of a number of variables to be considered for topics ranging from team effectiveness (Neuman & Wright, 1999) to ability's interaction with motivational processes in skill acquisition (Kanfer & other methods of measurement, including interviews (Huffcutt, Roth, & McDaniel, 1996) and situational judgment tests (SJTs; McDaniel, Morgenson, Finnegan, Campion, & Braverman, 2001). Across this work, general cognitive ability is now regularly used as a fundamental individual difference and is positioned as the standard against which other predictors often are compared (Ree et al., 1994). In addition, survey data suggest that some of the questions concerning cognitive ability explored at the start of the journal are now topics of broad consensus (Murphy, Cronin, & Tam, 2003). This represents a major change from its start as an interesting but promising characteristic to be explored.

Knowledge and Skill

Individual differences in knowledge and skills have long been a part of JAP. In addition to the direct study of knowledge and skill measurement, these individual differences have been a part of research on job analysis, leadership, career development, performance appraisal, training, and skill acquisition, among others. In fact, these characteristics so thoroughly permeate many domains of study that a comprehensive review would be both unmanageable and cross over into too many other domains. Instead we will limit ourselves to how individual differences in knowledge and skill have been measured and applied.

Fundamentally, the measurement of knowledge and skill is intimately connected to the measurement of intelligence or cognitive abilities (Kuncel & Beatty, 2013; Lubinski & Dawis, 1992). Thinking clearly about the underlying distinctions has been an unfolding process. As noted in the cognitive abilities section, even the earliest authors noted the difference between the potential a person has for learning and mental work (something ability-like) versus differences concerning what a person currently can do (something skill-like).

Sensory, Psychomotor, and Physical Abilities

There is a history of research on sensory, psychomotor, and physical abilities within industrial and organizational (I/O) psychology in general and in JAP in particular. This work is quite dated, and there has been very little research on these topics in recent decades, perhaps reflecting the changing nature of work and a reduction of the number of jobs with a substantial physical abilities component. This early work accomplished much in terms of developing measures of these abilities and understanding their factor structure. Today these domains largely constitute an active area of applied practice instead of active research.

Personality

The discussion of personality includes four sections. We open with a broad historical perspective on the conceptualization and measurement of personality. We follow this with treatments of three topics that can be viewed as part of a broader conceptualization of personality, namely, assessing integrity, emotional intelligence, motivational traits, and creativity.

A conference panel discussion on faking in personality instigated yet another pendulum swing in personality research (published afterwards in Morgeson et al., 2007). A panel of journal editors critically reviewed the evidence for the validity of personality and explored alternatives. So, this fourth era can be described as one in which the field searched for solutions to key contentious issues in the conceptualization and measurement of personality.

A first such longstanding issue deals with the modest size of validity coefficients for self-report measures of personality. Hence, over the last decade we have witnessed more diversity in personality measurement, which is reminiscent of early personality studies. Research suggests that measuring personality using other reports (e.g., Connelly & Ones, 2010; Oh, Wang, & Mount, 2011) or with personality inventories that refer to the work context (e.g., Lievens, De Corte, & Schollaert, 2008) can increase predictive validity relative to more traditional self-report measures. In JAP, research has also appeared measuring personality with conditional reasoning tests (Bing et al., 2007), SJTs (Motowidlo, Hooper, & Jackson, 2006), structured interviews (Van Iddekinge, Raymark, & Roth, 2005), and ideal point models (Stark, Chernyshenko, Drasgow, & Williams, 2006), though not all of these approaches demonstrated incremental prediction over self-reports. Besides alternative measurement, personality validities have also been found to be somewhat larger for compound traits that reflect multiple FFM factors (see Hogan, Hogan, and Busch [1984] for a pioneering example related to service orientation). There have also been further advancements in predictor-criterion matching. For instance, Chiaburu, Oh, Berry, Li, and Gardner's (2011) meta-analysis revealed that openness and agreeableness were better predictors of contextual performance than of task performance.

Second, researchers have identified personality traits that the FFM may not capture. For instance, Ashton et al.'s (2004) HEXACO model adds a sixth factor (Honesty-Humility) to the FFM. In addition, there has been progress towards a taxonomy of lower-level FFM facets (Judge et al., 2013), with the benefit that well-chosen facet measures can enhance the prediction of narrow criteria (e.g., Dudley, Orvis, Lebiecki, & Cortina, 2006). Apart from the FFM traits, assessing social skills (e.g., Witt & Ferris, 2003), maladaptive personality traits and integrity (more in section below), and emotional intelligence (see also below) has (again) become popular.

Third, various theoretical developments have refined conceptualizations of personality. Some of the more notable advancements are that (1) personality can interact with the situation to affect behavior (e.g., Tett and Burnett's [2003] trait activation theory), (2) motivational forces mediate the effects of personality (e.g., Barrick, Stewart, & Piotrowski, 2002) with both implicit and explicit motives being important (Frost, Ko, & James, 2007; Lang, Zettler, Ewen, & Hulsheger, 2010), (3) personality is stable yet also prone to change across life (Woods & Hampson, 2010), (4) personality both affects and is affected by work (Wille & De Fruyt, 2014), and (5) personality traits represent stable distributions of variable personality states (Judge, Simon, Hurst, Kelley, & 2014; Minbashian, Wood, & Beckmann, 2010).

In sum, the history of personality research in JAP is characterized by waves of optimism and skepticism, as well as by waves of construct diversification and homogenization. Another common thread is that JAP has historically favored research on optimizing personality measurement, whereas conceptual developments typically have originated outside of JAP.

Integrity

JAP as predictors of CWB, including biodata (Rosenbaum, 1976), conditional reasoning (Bing et al., 2007; LeBreton et al., 2007), and the Big 5 personality dimensions (Berry, Ones, & Sackett, 2007). Further, in recent years, there has been a reemergence of scholarly interest in maladaptive traits under the umbrella term of the Dark Triad, namely narcissism, machiavellianism, and psychopathy. A meta-analysis by O'Boyle, Forsyth, Banks, and McDaniel (2012) found substantial correlations with CWB for narcissism and machiavellianism. In contrast, correlations between the Dark Triad traits and job performance were very small, leading O'Boyle et al. to conclude that these traits appear to be related to negative, but not positive, employee behaviors.

Emotional Intelligence

The first JAP article on these modern EI conceptualizations was published in 2004 (Law, Wong, & Song). Since then, JAP has published two EI meta-analyses. Joseph and Newman (2010) examined the validity of EI as conceptualized in the ability model. They found support for a sequential relationship among EI facets (emotion perception, understanding, and regulation) and job performance, with personality and cognitive ability as antecedents of these EI processes. This meta-analysis has become the most cited JAP article in recent years. Then, Joseph, Jin, Newman, and O'Boyle (2015) examined the validity of EI as conceptualized in the mixed model. Although Joseph et al. found a moderate correlation between mixed EI and supervisor-rated job performance, this relationship reduced to zero after controlling for already-established constructs such as ability EI, self-efficacy, the Big Five factors, and cognitive ability. Taken together, these two meta-analyses demonstrate that further progress on EI is to be made via more refined conceptualizations and measurement of the ability EI model.

Motivational Traits

JAP research has tended to focus on broader constructs, such as conscientiousness and Core Self Evaluation (CSE), than on constructs that are assumed to more closely reflect motivation, such as achievement motivation (this general trend is evident in other journals as well). Yet, many JAP articles on these broader variables have been highly-cited. Finally, with some notable exceptions (e.g., Hermans, 1970), research in JAP has focused more on testing substantive relations between motivation-related traits and other constructs and less on the measurement of individual differences in motivation.

Creativity

Two highly-cited JAP papers examined interactions between individual and situational antecedents of creative behavior. George and Zhou (2001) found that high levels of openness to experience resulted in the highest levels of creative behavior in the presence of positive feedback and uncertainty about either job means or ends. High levels of conscientiousness resulted in lower levels of creative behavior in the presence of close supervisory monitoring and low levels of co-worker support. Zhou (2003) reported a three-way interaction: individuals low in creative personality were more likely to exhibit creative behavior in the presence of creative co-workers and a low level of supervisory monitoring. In sum, the literature to date would suggest the use of multiple measures from the cognitive ability, personality, cognitive style, and motivation domains to predict creative work behavior.

Vocational Interests

Strong (1951) concluded that "in any attempt to test a man in order to discover what kind of person he is it is evident that an interest test should be included in the battery" (p. 91). Vocational interests reflect individual differences in people's preferences for certain types of work activities and environments. Interests have been described and measured in various ways, including interests in occupations, job tasks, school subjects, and activities, as well as with respect to personal characteristics and skills. For example, early work focused on people's interests in particular occupations (e.g., Strong, 1927). However, over the past several decades, most research has focused on the interests attributes from Holland's (1959, 1973) theory of occupational choice. Holland categorized interests into six main types: realistic, investigative, artistic, social, enterprising, and conventional interests (i.e., RIASEC), which can be used to describe both individuals' interests and the interests different work environments support.

[10] PMI talent triangle

PMI talent triangle defines leadrship attributes for a project leader. One should have balance talent of technical project management, strategic and business management and leadership.

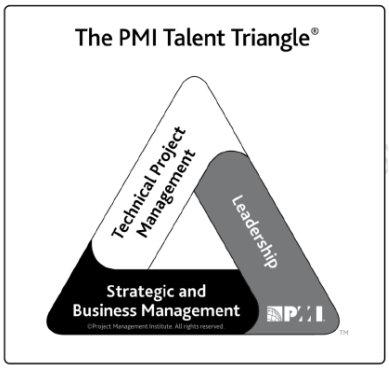

Figure 3-2. The PMI Talent Triangle®

Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)* – Sixth Edition, Project Management Institute, Inc., 2017. Page 57

PM should have a balance of skills

Technical skills
- *PMBOK® Guide*

Strategic and Business Management
- Business acumen
- Basic management
- Vision
- Strategic alignment

Leadership
- Motivate and guide teams
- Soft Skills
  - Communications
  - Facilitation
  - Conflict Resolution
  - Emotional Intelligence
  - Critical Thinking

Fig: PMI talent triangle

CONCLUSION

The majority of the large and complex projects fail due to project integration problems as many different teams/personalities deliver the objectives from different locations. The lack of discrete leadership qualities is also one of the major contributors towards the project delays and failure.

The different members of organization possess diverse and different behaviours with the project leaders which mainly depends on the (1) knowledge, skill, and ability, including both the cognitive and physical domain; (2) personality, including integrity, emotional intelligence, stable motivational attributes (e.g., achievement motivation,

core self-evaluations), and creativity; and (3) vocational interests. The current leadrship styles follow mostly same/similar appoach towards all team memmbers which may not be acceptable by all population. So leader has to formulate the quick and different approach/es towrds different individuals based on the factors explained.

Some of the leadrsip attributes from the great Indian literatures example Ramayana, Mahabharatha, Bhagvata and Mahabharata Tatparya Nirnaya etc.will help to define dicrete leadrship qualities to excel in leadrship.

Combination of psychologically driven different suitable approaches towards diversified different individuals and practicing the discrete leadrship qualities along with PMBOK leadrship attributes will help to integrate teams/indiviuduals well and will help to scale large projects to a greater height of scuccess.

Proposed project leader model:

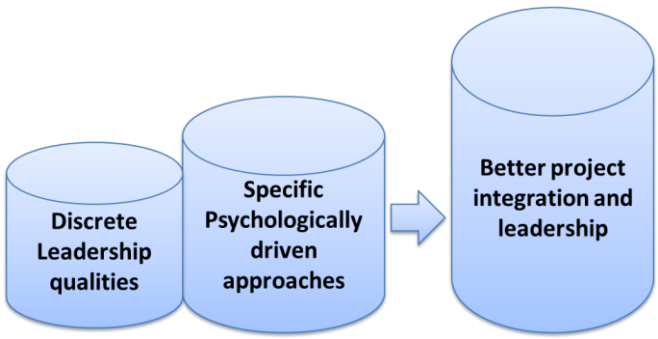

Fig: Leadrship model

Discrete Leadership qualities:

- Ethical and righteous
- Passion in all work
- Not to be distracted by pitfalls like quick shortcut results and concentrated only on the main goal
- Complete Awareness and Mindfulness of the current situations
- Remembering and understanding of all the past experiences and learnings
- The inclination to complete and finish the activity which is started
- Conviction and commitment
- To be calm in the storm and take decisions in the midst of dualities
- Energy and enthusiasm to be cheerful and lead everyone from the front
- Physical, mental and spiritual strength
- A great listener
- Churns what is listened and separates what is needed and what to be ignored
- one pointedness
- Humbleness
- Respected behaviour
- Knowledge – Both technical and interpersonal

- Seeing Divinity in everyone and every action.

Different/specific psychologically driven approaches towards different individuals based on:

- Knowledge, skill, and ability, including both the cognitive and physical domain.
- Personality, including integrity, emotional intelligence, stable motivational attributes (e.g., achievement motivation, core self-evaluations), and creativity
- Vocational interests.

REFERENCES

[1] PMI pulse of the profession 2018 report.

[2] Article IEEE Spectrum by Robert N Charette.

[3] Journal - Technology Analysis & Strategic Management Volume 19, 2007 – Issue 4

[4] Artcle on project failure: International Project Leadership Academy (a division of Calleam Consulting Ltd) based on research by Prof. Philip Lawrence, Aerospace Research Centre, UWE Bristol and Prof. Jim Scanlan, Computational Engineering and Design Research Group, School of Engineering Sciences, University of Southampton.

[5] Mahabharatha Sabha parva

[6] Valmiki Ramayana Yuddha Kanda Sarga 21

[7] Bhagvata

[8] Mahabharatha Tatparya Nirnaya "Adhyaya 3".

[9] Individual Differences and Their Measurement: A Review of 100 Years of Research by Paul R. Sackett University of Minnesota, Twin Cities Campus, Filip Lievens Ghent University, Belgium, Nathan R. Kuncel University of Minnesota, Twin Cities Campus.

[10] PMBOK Guide sixth edition.