

Role of Spirituality and Personal Commitment in Successful Delivery of Infrastructure Project

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Personal Commitment is behavioral skill that plays a significant role in successful execution of any infrastructure project as it transitions from simplicity towards complexity during the course of its execution. In the Indian context different stakeholders like contractors, vendors, consultants, statutory authorities, land owners, shareholders, financiers, common public etc. influences the project execution. Commitment of all these apart from project owner, sponsor, team members and project manager have significant effect in completing any project activity successfully within predefined schedule finalized during the project decomposition in the planning phase. Therefore balancing stakeholder's expectations who are also contributes towards incremental project progress becomes one of the primary focus areas for the Project Managers. As the project transitions from a state of infancy to maturity, the interaction of project elements with one another as well as with extraneous factors like environment increase by many folds. This results in increase in project complexity. Delivering project results successfully in complex and chaotic environment thus becomes highly challenging since the human behavior varies drastically from situation to situation. Under such situations, spirituality plays significant role as humans who execute the project are spiritual by nature. Team members try to imbibe their hidden spiritual value into their personal commitment to tackle the complexity, while concurrently building the project block by block to create reality for the intended objective.

This paper dovetails assessed value of personal commitment and spirituality into the project stages to enhance process effectiveness for delivering predefined project results. A mathematical relationship has been established for these. Creation and delivery of any value at affordable price which attracts stakeholder's affection and delight leads to project commercial success.

Key Words: Spirituality, Intellectual Honesty, Spiritual Intelligence, Personal Commitment Index, Stakeholders Prioritization Matrix, Physical Progress, Financial Progress, Risk Matrix

I. Spirituality

Spirituality is an expansive concept and embraces a sense of connection to something bigger and meaningful that touches us all. It's the ability to experience and integrate meaning and purpose for value creation through dedicated selfless continuous effort spread over time and space. It is one's own inherent property, a particular quality of one's inner action. The inherent property or values attached to spirituality are Intellectual Honesty (I_h) and Spiritual Intelligence (SQ_i). Human beings are considered spiritual since they have the power to know one's self, one's body, one's mind, one's emotions, one's actions and the soul.

- ❖ **Intellectual Honesty:** It is a virtue related to own thought and inner action. It involves moral integrity. It's about understanding the truth and having the strength to reveal it. It's the sincere intention of being honest towards oneself.
- ❖ **Spiritual Intelligence:** It is a property which is manifested through wisdom and compassion in one own actions while maintaining inner and outer peace regardless of the circumstances. Spiritual intelligence is a skill or competency and so needs to be developed for demonstration in unusual circumstances. The spiritual intelligence skills are related to Self-Awareness, Universal Awareness, Self-Mastery and Social Mastery.
 - i. **Self-Awareness:** Self Awareness is the knowledge of one self, life purpose, one's own inner thought process, ones world view and one's own values. It is intrinsic to an individual and cannot be seen by

others from outside. However it can be perceived by others based on behavior manifested in different circumstances. As one discovers and knows more about oneself, it helps to master the self and control one's behavior. Further, as one understands the value system and belief of others, it helps to discover oneself in greater depth. One's own inner thought process is complex in nature. This thought process helps to make decisions. As the events are not known upfront so many times the decisions are made in under uncertainty. Once the event happens and the implemented decision gives positive result, the self-confidence increases. This in tandem increases self-awareness. With increase in such real life experiences, the lessons learnt keeps on compiling in the memory. Whenever new situations arise, such experiences come into play to tackle in the best possible way.

Mathematically,

$$\text{Self-Awareness (SA)} = f(K_s, L_p, T_p, W_v, V_o) \quad (1)$$

Where,

- K_s = knowledge of one self
- L_p = one's own life purpose
- T_p = one's own inner thought process
- W_v = one's world view
- V_o = one's own values

- ii. **Universal Awareness:** This is the knowledge about our surrounding which is the remote or external environment. It is the knowledge of universal laws, spiritual principles, value system, perception, interconnectedness and the experience of oneness. It's about understanding others' view point through listening to know the legitimate point and develop relationship of trust. Universal laws and spiritual principle may not be tested but can be proved through experience. Spiritual principle is a skill which combines one's commitment to understand and learn the concepts. It can be tested by applying in one's own life to see if it works.

Mathematically,

$$\text{Universal-Awareness (UA)} = f(S_s, U_1, S_p, V_s, P, I, E_o) \quad (2)$$

Where,

- S_s = knowledge of one surrounding
- U_1 = Universal Laws
- S_p = Spiritual Principles
- V_s = Value System
- P = Perception
- I = Interconnectedness
- E_o = Experience of oneness

- iii. **Self Mastery:** Self Mastery is becoming the master to control one's own behavior to manifest love, compassion and forgiveness. It's about seeking external guidance, one's own inner guidance to take decisions before implementing the wisest action.

Mathematically,

$$\text{Self-Mastery (S_eM)} = f(L_o, C_o, F_o) \quad (3)$$

Where,

- L_o = Love
- C_o = Compassion

F_o = Forgiveness

- iv. **Social Mastery:** Social mastery is about becoming a good role model or change agent through demonstration of humility, compassion and wisdom. It is the ability to recognize the best. It's about feeling inner calmness by calming others. It's about aligning oneself with the natural timing, to achieve something big for the benefit of all.

Mathematically,

$$\text{Social-Mastery (S}_o\text{M)} = f(\text{H}_u, \text{C}_o, \text{W}_i) \quad (4)$$

Where,

- H_u = Humility
- C_o = Compassion
- W_i = Wisdom

The Spiritual Intelligence Skills are twenty one in number and can be summarized as under:

<p style="text-align: center;"><u>1st Quadrant : Self Awareness</u></p> <ul style="list-style-type: none"> i. Awareness of one world view ii. Awareness of one life purpose (mission) iii. Awareness of Values Hierarchy iv. Inner thought complexity v. Awareness of ones ego 	<p style="text-align: center;"><u>2nd Quadrant : Universal Awareness</u></p> <ul style="list-style-type: none"> i. Awareness of interconnectedness of all life processes ii. Awareness of worldwide view of others interacting with us iii. Awareness of the breadth of time perception iv. Awareness of the power of human perception v. Awareness of Spiritual Laws vi. Experience of transcendent of oneness
<p style="text-align: center;"><u>3rd Quadrant : Self Mastery</u></p> <ul style="list-style-type: none"> i. Commitment to Spiritual Growth ii. Keeping Self Incharge iii. Living for one's purpose and value iv. Sustaining faith in tough times v. Seeking guidance from higher power or higher self 	<p style="text-align: center;"><u>4th Quadrant : Social Mastery</u></p> <ul style="list-style-type: none"> i. Wise and effective mentor ii. Wise and effective change agent iii. Makes compassionate and wise decisions iv. Manifest calming & healing presence v. Aligned to the ebb flow of life

Projects are executed by humans who being spiritual possess a burning desire to achieve something good and valuable. This is illustrated by the fact that, ever since the beginning of the civilization, large number of infrastructures like huge monuments, pyramids and large structures were built by the rulers of different civilizations spread across different geographic areas without any physical connect between them. All such structures built in the ancient period were built with the larger objective of catering the need of the masses during that time. These are valued even today and some of them are considered the wonders of the world. If analyzed critically in depth, following facts emerges:

- i. Concepts of project management have been practiced since the beginning of human civilization.
- ii. The construction took place without using any modern day machinery, tools, software's of project management.
- iii. In-depth planning was done to execute the projects with perfection and continuous monitoring of progress.
- iv. Large teams were deployed to execute the projects. The teams were high performing, exhibited values like shared vision and goal, self and mutual accountability, personal commitment and complementing skills.
- v. The project teams who were involved in the project execution manifested a clear connect between spirituality and project that they executed.
- vi. Individual team members manifested Intellectual Honesty and skills of Spiritual Intelligence

II. Personal Commitment and its measurement

Personal Commitment is one such skill that plays a very important role in project success when the project from simple becomes complex. By definition, personal commitment is the adherence to timelines committed by individual team members for either start or completion of a project activity which was scheduled when the project detailed plan was finalized. In the Indian context different stakeholders influences the project execution and these are contractors, vendors, consultants, statutory authorities, land owners, shareholders, financiers etc. Commitment of all these apart from project owner, sponsor, team members and project manager have significant effect in completing any project activity inline with the requirement of agreed project schedule. Based on experience, the methodology formulated to measure the Personal Commitment named Personal Commitment Index (PCI) is illustrated through the following example as under:

1. Name of activity as per project detailed plan : A1
2. Dates associated with the start and completion of this activity so as to complete the project on schedule:
 - a. Early Start:ESD1
 - b. Early Finish:EFD1
 - c. Late Start:LSD1
 - d. Late Finish:LFD1
 - e. Free Float:FF1
 - f. Float:F1
 - g. Activity Schedule Duration: $AsD=EFD1-ESD1=LFD1-LSD1$
3. Team member responsible for this activity as per responsibility matrix: TM1
4. Actual dates for start and finish of this activity by TM1:
 - a. Actual Start: ASD1
 - b. Actual Finish: AFD1
5. Measurement of Personal Commitment Index(PCI): This is calculated as the difference between the scheduled date and actual date for either start or finish of an activity considering the free float associated with the activity and also the total float. When the delay in days is zero, then the activity is considered on schedule. Under such cases the PCI is 1.0 or 100 %. For any one day of delay, the PCI reduces by a factor equivalent to delay in days divided by the activity scheduled duration. Mathematically it is:

- a. For start of an activity:

$$PC = [(ESD1+FF1) - ASD1] \text{ days}; \quad (5)$$

❖ For $PC \geq 0$, there is no delay & so $PCI \geq 1$ or 100%

$$\text{Commitment Index Factor (CIF)} = [(PC / AsD) - 1] > 0 \quad (6)$$

If $PC < 0$, then delay and $PCI < 1$ or 100 % so,

$$\text{❖ Delay Factor (DF)} = |PC| / AsD \quad (7)$$

❖ The maximum value of delay upto activity duration can be acceptable, i.e. $|PC| \leq AsD$. If $|PC| \geq AsD$, $PCI \leq 0$ and not acceptable

$$\text{❖ } PCI = (1 - DF) * 100 \% \quad (8)$$

- b. For finish of an activity:

$$PC = LFD1 - AFD1; \text{ if } PC < 0, \text{ then delay} \quad (9)$$

- ❖ Delay Factor (DF) = $|PC| / AsD$ (10)
- ❖ $PCI = (1-DF) * 100 \%$ (11)

Personal Commitment Index for an activity equal to 1 is desirable to ensure that the immediate successor activity start is not delayed. Whenever there is no delay and the individual activity is completed ahead of schedule, there is possibility to start the successor activity ahead of the schedule date. Under such a case, the CIF is positive and helps to gain time. As the project involves large number of activities wherein the responsibility for completion of each activity as per the WBS and responsibility matrix is different, at individual and WBS level the PCI can be calculated as under:

- ❖ PCI Individual level (PCI_{IM}): at individual level, all the individual team members may be responsible for different activities, so the PCI at individual level is the product of PCI of all activities for which an individual is responsible as per the responsibility matrix. Here the responsibilities are of primary nature.

Mathematically,

$$PCI_{IM} = PCI_1 * PCI_2 * PCI_3 * \dots * PCI_n \quad (12)$$

Where n= number of activities for which an individual is responsible.

- ❖ PCI Team Level (PCI_T): at team level, all the individual team members are responsible for different activities, so the PCI at team level is the product of PCI of all individual team members for which the team is responsible as per the responsibility matrix.

Mathematically,

$$PCI_T = PCI_{IM1} * PCI_{IM2} * PCI_{IM3} * \dots * PCI_{IMj} \quad (13)$$

Where j= number of teams for which the team is responsible.

- ❖ WBS Level (PCI_{WBS}): at WBS level PCI is the product of PCI of all individual activities for achieving the completion of the WBS.

Mathematically,

$$PCI_{WBS} = PCI_{A1} * PCI_{A2} * PCI_{A3} * \dots * PCI_{Ak} \quad (14)$$

Where k= number of activities within each WBS element.

For a given project, at project level the PCI can be measured by any of the two methods:

- ❖ Method-1: PCI for the project is the product of PCI for each WBS element.

Mathematically,

$$PCI(\text{Project}) = PCI_{WBS1} * PCI_{WBS2} * PCI_{WBS3} * \dots * PCI_{WBS,m} \quad (15)$$

Where m= number of WBS elements.

- ❖ Method-2: Alternatively, the PCI for the project can be calculated as the product of PCI for all activities required to complete the project.

III. Project Formulation and Stakeholders Mapping

Projects execution follows the principles of Open System theory due to which the projects continuously interacts with the surrounding comprising operating and remote environment. Projects are characterized by its Uniqueness, Complexity, Dynamism, Diversity, Limited Resources and Risk profile wherein the value of project output justifies the resource invested. Stakeholders constitute an individual, group or an organisation that may affect or be affected or perceive itself to be affected by the project or its outcome. Once the project has been formulated and objectives, business value identified, the project plan is prepared incorporating the demands and expectations of the stakeholders. Upfront, stakeholder's analysis is completed to identify the stakeholders, group them, prioritize them (Table-1) considering their importance, degree of influence, impact and then dovetail their demand, expectations into the project plan decomposed into different WBS. At times, after the detailed stakeholder's analysis the project objectives along with the plan is required to be redefined. This is done in the initial stages to prevent problems arising at later stage when the project execution has started.

Table-1 [Stakeholders Prioritization Matrix]

Sl.	Stakeholder	Importance (1-10) [A]	Degree of Influence (1-10)[B]	Impact (1-10) [C]	Score=P [A+B+C]
i.	S ₁	A ₁	B ₁	C ₁	P ₁
ii.	S ₂	A ₂	B ₂	C ₂	P ₂
iii.	S ₃	A ₃	B ₃	C ₃	P ₃
iv.	S ₄	A ₄	B ₄	C ₄	P ₄
v.	S ₅	A ₅	B ₅	C ₅	P ₅
vi.	S _i	A _i	B _i	C _i	P _i

Mathematically,

$$P_i = \text{Prioritization Score for particular Stakeholder (S}_i\text{)} = A_i + B_i + C_i \quad (16)$$

Where

A_i : Importance Score

B_i : Degree of Influence Score

C_i : Impact Score

S_i : i^{th} type of Stakeholder

$i=1$ to N (Positive Integer >0)

N = total number of stakeholders

Once the stakeholders identification, prioritization has been done based on degree of importance, influence and impact, efforts to be made to concurrently identify such stakeholders who manifest certain degree of spirituality or exhibit spiritual behavior. Score of high, medium or low can be assigned for this time independent behavior against each stakeholder.

Mathematically,

$$\text{Stakeholders Spirituality} = SS_{pi} = \{\text{High, Medium, Low}\} \neq f(\text{time}) \quad (17)$$

Where

SS_{pi} : Stakeholders Spirituality for i^{th} type of Stakeholder

IV. Team Formation

Infrastructure Projects cannot be executed single handedly but require teams at each stage for its execution. Both time and effort is required to build teams. Team development happens through five stages namely Forming, Storming, Norming, Performing and Adjourning/Transforming or alternatively stages also named as Searching, Defining, Identifying, Processing and Assimilating/Reforming. Individuals join and collaborate to form teams. As individuals are spiritual, when they team up, their collective spiritual energy goes up. Individuals at each stage of

team development utilize four different types of energy namely physical, emotional, intellectual and spiritual to attain inner success.

- i. **Forming:** In the 1st stage, once team is formed, members meet, interact, and understand the team objective, goal, requirements, challenges, their desired action, rules and guidelines. Since individuals are spiritual, so when they meet, their collective spiritual energy goes up.

Mathematically,

$$\text{Individual team member Spirituality} = S_{pi} = \{\text{High, Medium, Low}\} \quad (18)$$

$$\text{Team Spirituality} = TS_p = \sum S_{pi} \quad (19)$$

Where

$$S_{pi} : \text{Spirituality Index for } i^{\text{th}} \text{ team member}$$

- ii. **Storming:** Each team member is unique, have their own ideas, their power to influence and express. The team members may be new to each other and from different religion, different places, speaking different language and value system. As such in the 2nd stage, open conflict occurs between each spiritual member. Members try to search for leaders who can guide them and help to concentrate their energy levels towards achieving the common goal. There is even conflict in spiritual practices. Members try to follow such spiritual practice which has yielded positive result in the past.

Mathematically,

$$\text{Team Spirituality} = TS_p = \sum S_{pi} = f(\text{Past Success Factors}) \quad (20)$$

- iii. **Norming:** Under the guidance of the leader, in the third stage, the team understands the framework, rules and guidelines to follow the work habits that support group activities, shared rules and values. Team members are encouraged to participate, communicate openly, exhibit mutual trust and focus to complete the intermittent milestones to achieve the set targets. It is seen that self-devotion of the team members reflect some degree of dependence on the spiritual behavior.

Mathematically,

$$\text{Team Spirituality} = TS_p = \sum S_{pi} = f(\text{Self Devotion of Individual members}) \quad (21)$$

- iv. **Performing:** With passage of time, as the project matures, individual team member's start understanding each other better, the team objective clarity enhances, participation increases and with the increase in project work load the members are self-motivated and self-directed to execute the plans. As the intermittent issues get resolved, targets are achieved and this leads to individual growth. Knowledge and responsibility sharing increases and the leader gradually becomes a facilitator to enhance the communication processes and thereby helping the members to achieve their next level targets. The spiritual energy level is highest at this stage since the members have bonded well with one another and have completed their work assignments. The team entropy is saturated along with the spiritual level. In this stage, each team members understands the spiritual practices which are success factors during project intermittent milestone completion. This is the time to define the project spirituality, which is nothing but the summation of successful spiritual practices under different WBS elements achieved by different team members.

Mathematically,

$$\text{Project Spirituality} = PS_p = \sum S_{p(WBS)_i} = f(\text{Successful Spiritual Practice}) \quad (22)$$

Here it also becomes important to track the Personal Commitment Index (PCI), after completion of intermittent milestones, against each team member either taken individually or in group. The PCI has already been defined earlier at individual and team level in equations (12) and (13) above. It is seen that PCI is time dependent and dynamic in nature.

Mathematically,

$$\text{Personal Commitment Index} = PCI_i = \{\text{High, Medium, Low}\} = f(\text{time}) \quad (23)$$

Where

PCI_i : PCI for i^{th} team member

- v. **Adjourning:** It's time to recognize team achievement and celebrate success. The team relationship starts dissolving and members become ready for change. Here individuals share and document their success stories as part of lessons learned so that the mistakes are not repeated again. Team members with similar levels of spiritual behavior, develop deep bonding and desire to reunite in new project. The team leader helps his team mates in their transition to other teams. This is the last stage.

Based on the stakeholders analysis, team members can be completely internal to the organization or it may comprise mix of members who are internal and external. Each team may be responsible for certain activity or milestone or WBS. Team becomes a high performance team when individual members develop deep personal commitment, care for one another's personal as well as spiritual growth and wellbeing while at the same time effortlessly raising themselves to measurable challenges known or unknown. Such relentless commitment to projects brings positive difference in the world.

V. Project Planning

Projects are decomposed, to make it more manageable by breaking it down into individual components called work breakdown structure (WBS). This is a hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables. During the execution, WBS facilitates other project management processes such as scheduling, preparation of resource matrix, responsibility identification / distribution, budgeting, cash flow management, risk breakdown structure, workaround, apart from alignment towards concerns of specific stakeholders group so as to control the project. It is a good practice to deploy such team members under each WBS elements who manifest certain degree of spiritual behavior. The external stakeholders against each type of WBS are to be also mapped upfront to understand the likely support to be obtained to minimize risks involved in completion of the project milestone under that WBS.

Infrastructure projects have number of linkages with the external environment. As such the challenges and risk which are encountered are external to the project organization and beyond the organization control. The risk associated with such challenges encountered during the course of project execution is with respect to the following but not limited to:

- i. Permanent land acquisition, Right of Use acquisition, Compensation amount, Resettlement
- ii. Delay in grant of statutory permissions / NOCs
- iii. Unforeseen changes in the market and economy
- iv. Change in wage rate, tax rate, inflation rate, interest rate and foreign exchange rate
- v. Political instability, Security threat
- vi. Change in policies, acts, notifications, guidelines, procedures
- vii. Technological obsolescence

These challenging situations lead to future events that are either not known at all or even though the possible events are known, but which of those actually happens and when are not known. The possible outcome of such risk associated with the project also has a direct bearing on the firms overall performance and can be categorized as business risk and financial risk. Irrespective of the type of challenge and the timing of its occurrence in the project execution lifecycle, the project manager is required to take proactive rather than reactive steps to counter this. Risk assessment and its management cannot be considered a separate project activity; rather it has to be imbibed in the project execution culture so that its assessment and management is continuous rather than a onetime affair. One has to ensure that risks do not have adverse consequences and so a practical approach has to be adopted for risk identification, its quantification, response and control.

VI. Project Decomposition

It is important to identify the different WBS elements once the project has been decomposed to finalize the project physical progress and financial progress plan. The more the project WBS elements the greater is the clarity in execution since different categories of manpower resource and stakeholders get involved in project execution. For ease of understanding, typical example of cross country natural gas pipeline has been taken. During project execution, the following WBS elements are identified to which weightages are assigned to plan and measure the project progress. The typical WBS elements are as under:

Table 3: WBS Elements & Weightages

Sl.	WBS Element (WBS _i)	Weight (W _i) units	Typical Weightage %
i.	Statutory Permissions, RoU, Land Acquisition	W ₁	2
ii.	Engineering	W ₂	9
iii.	Tendering	W ₃	15
iv.	Ordering	W ₄	25
v.	Manufacturing, Inspection, Delivery	W ₅	20
vi.	Construction	W ₆	25
vii.	Commissioning	W ₇	2
viii.	Closeout	W ₈	2
		Total	100 %

$$\sum W_j = 100 \quad (24)$$

Where i : Number of WBS elements;

Further, the physical progress schedule curve is prepared against each WBS element to measure the actual month by month incremental progress. All these WBS elements are interrelated by successor, predecessor relationships. The activities within the same WBS and also under different WBS interact with each other for start / finish.

VII. Risk Mapping

Once the projects risks are identified it needs to be mapped with the respective WBS element and the corresponding team responsible for that WBS. This team will be the owner for all the risk elements attached to the particular WBS. The identified risks are then decomposed, to make it more manageable by breaking it down into individual risk elements called risk breakdown structure (RBS). It may so happen that each risk element is attached to multiple WBS due to successor, predecessor relationship among the activities. Each risk element is then given a risk score of low, medium and high. Concurrently the Personal Commitment Index and Spirituality Index are also mapped. During the execution, RBS mapping facilitates all other project management processes such as scheduling, preparation of resource matrix, responsibility identification / distribution, budgeting, cash flow management, workaround, apart from alignment towards concerns of specific stakeholders group so as to control the project.

Table-4 [Risk Matrix]

Sl.	Risk Description	Corresponding WBS Element	Responsible Team	PCI	Corresponding Stakeholder
i.	R ₁	W ₁	T ₁	PCI ₁	S ₁
ii.	R ₂	W ₂	T ₂	PCI ₂	S ₂
iii.	R ₃	W ₃	T ₃	PCI ₃	S ₃
iv.	R ₄	W ₄	T ₄	PCI ₄	S ₄
v.	R ₅	W ₅	T ₅	PCI ₅	S ₅
vi.	R _i	W _i	T _i	PCI _i	S _i

VIII. Project Execution

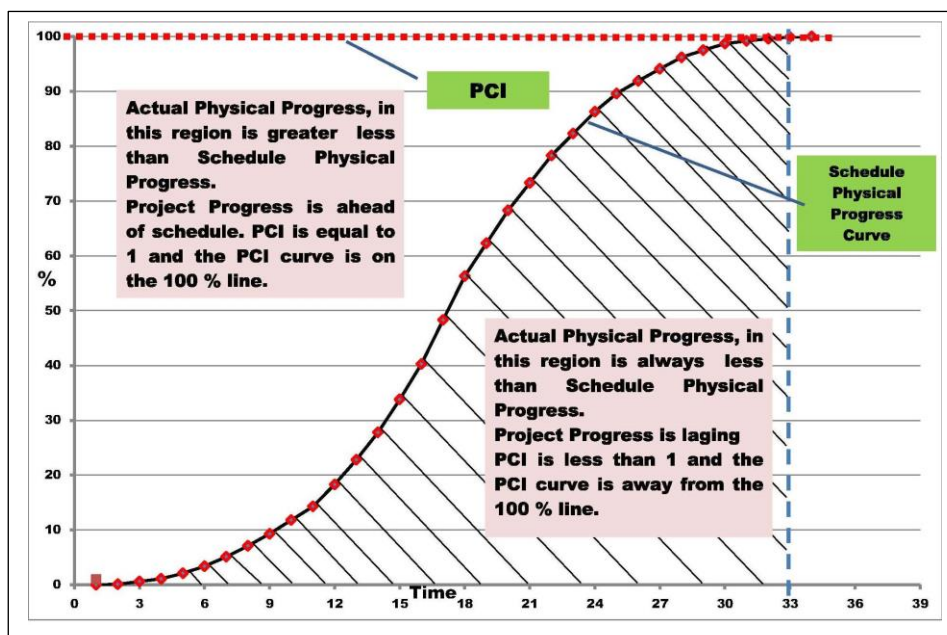
Project Execution is a specialized task undertaken by the spiritual humans using optimal resources while concurrently tackling with the risks and challenges surrounding the project environment. This is a really complex phase, since the different elements of the project actually starts interacting to each other using project management language. Execution is time dependent dynamic phase where time once lost cannot be retrieved, which may result in time or cost overrun if the milestones identified are not completed within late finish schedule dates. Therefore, as a robust practice, the progress is reported and monitored on periodic basis to ascertain the exceptions, hurdles which retards execution. During review review meetings, commitments are made by different team members for either starting activities or for completing unfinished activities. A log of the committed dates given by the individual team members can be maintained to measure the commitment index during the next review and again ascertain the reasons for delay in case the committed dates have not been achieved. As such the measurement of Personal Commitment Index after completion of each and every milestone becomes very important.

This is the phase where the focus is largely on synchronizing completion of different set of activities, under different WBS elements, by different teams located geographically far part. The monthly actual physical progress curve is steep in this stage. This is the phase when the actual cash flow exhibits incremental upward trend with 15-20 % lag with the actual physical progress curve. The spiritual level of the team is high and remains constant till the completion of the execution phase. Each day of the execution phase delivers something new to the project and as the time elapses, the project takes definite shape. The spiritual practices adopted by the team get revalidated, with completion of each intermittent milestone which is irreversible.

Mathematically,

$$\text{Project Spirituality} = f(\text{Revalidation of spiritual practices}) = f(\text{time}) \quad (25)$$

Project Personal Commitment Index as indicated at equation 15



IX. Project Completion, Commercial Operation

Post completion, the project is commissioned to start commercial operation leading to revenue generation. This is stage when all major milestones have been completed. Majority of the project capital expenditure has been made. The stakeholders demand and expectations are fulfilled. The stakeholders external to the organization are busy enjoying the success of the project whereas the internal stakeholders are busy to start project closeout and

recording the lessons learnt. At this stage, the project spirituality curve becomes parallel to time axis and terminates at a high note. Depending on the variation between the project schedule duration and actual project completion duration, the project commitment index can be derived to conduct analysis for compiling lessons learnt leading to knowledge leverage.

X. Closeout & Knowledge Leverage

Project closeout is the most critical stage. This is the phase where the orders are closed, final payments released, vendor rating done and action taken against such vendor, contractor who did not perform. This is the stage where the dissatisfied stakeholders may exhibit displeasure through queries raised through different channels like RTI and complaints. It's very important to reply to such queries and complaints within stipulated schedule transparently. Systematic documentation on project execution becomes important here, since the backup documents forms the basis of the replies. The lessons learnt under each WBS are recorded. The tender conditions and specifications if required are also modified for next project. The project completion report is prepared and presented to the project approving authority with recommendations seeking approval actions for policy and procedure modifications/ changes. Overall this stage is important to wind up the project formally.

XI. Conclusion

It is evident that Spirituality and Personal Commitment Index has reasonable degree of correlation with different project, phases starting from conceptualization of the project till the lessons learnt are captured for knowledge leverage after the project completion and closeout. As the project progresses, the project execution manifests different characteristic which are depicted through the following curves:

- ❖ Physical Progress Curve: This is a “S” curve. In the initial phase, the monthly incremental physical progress is low and picks up once construction starts.
- ❖ Financial Progress Curve: This is a “S” curve. Initially, the monthly incremental financial progress is low and picks up once payments are made with the delivery of material. The financial progress curve lags the physical progress curve by 15-20 % since the payments are released after receipt of bills on completion of the activities.
- ❖ Risk Curve: When the project starts, the risk is high and as the things become evident the risk decreases as the project progress.
- ❖ Project Spirituality Curve: The project spirituality increases and attains a constant value.
- ❖ Personal Commitment Index: The personal commitment index curve for the project has a direct correlation with the actual physical progress curve. For projects actual progress ahead of schedule progress the PCI curve is close to 100 % line.

Human values decide the outcome of any project. The most acclaimed human values across different social culture namely truth, compassion, responsibility, freedom and reverence when exhibited by project team members aid team development. Projects provide a platform through which vision is converted to reality resulting in something that brings greater meaning and purpose, for project teams through the challenges and opportunities which they face. This results in personal growth of each team member and ensures camaraderie between them. Project teams become effective, when the team members understand the balance between process discipline, value relationship and spiritual connection among themselves as well as stakeholders. A win-win situation is achieved for everyone involved in project execution if the team members takes a spiritual approach and are more committed, inspired, and effective in implementing the processes needed for a successful project completion.

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