

Risk-Based Approach in Internal Audit of Infrastructure Projects

India as a developing country has set its focus on accelerated growth in the near future, through rural development, creation of infrastructure and employment generation. Consequently, it is expected to fuel consumption-led growth and increased economic activities. Implementation of Goods and Services Tax, enactment of the Insolvency and Bankruptcy Code, Make in India, Digital India, new Foreign Trade policy etc. are some of the policy initiatives through which the Government intends to realise this objective. The growth phase shall promote entrepreneurship, unprecedented business opportunities and create potential for attracting huge sums of long-term investments into our country. This will definitely call for an accelerated use of the 5M's resources available to Management, namely Manpower, Materials, Machines, Methods, and Money through entities executing infrastructure projects. Internal Audit as a function, through its systematic, disciplined, risk-based approach shall play a vital role in providing independent, objective assurance so that these resources by way of 5M's are effectively and optimally used. Read on...



Success of any planning activity lies in its implementation and the implementation of development plans of the Government happen through execution of various infrastructure projects by Government undertakings/ Departments as Project Owners like the Railways/ Rail Vikas Nigam Limited, National Highway Development Authority, Power Grid Corporation of India Limited, Oil & Natural Gas Corporation, National Mineral Development Corporation, and several other such entities.

Development of port-linked infrastructure, laying of dedicated freight corridors in railways, construction of roads and highways, bridges,



CA. Kallol Bhattacharya

The author is a member of the ICAI. He can be reached at kallol_b63@yahoo.in or ebboard@icai.in

extension of transmission and distribution lines, rural electrification, development of smart cities, construction of water treatment plants, desalination plants, sewage treatment plants, are namely a few large scale infrastructure projects through which the development activities are carried out. While the Government-owned Project Owners, as mentioned above, ensure through their tenders and negotiations that they have given their projects for execution to the most technically qualified organisations at the lowest/best price, the real challenges of optimisation lie within the latter organisations involved in Engineering, Procurement and Construction (hereinafter 'EPC Companies') for delivery of projects within the negotiated price, within the project completion deadlines while meeting the stringent quality parameters. These projects are often valued at several hundred/thousands of crores and the consequences of delivery failure lead to imposition of liquidated damages by the Project Owners on the EPC Companies. Hence, successful

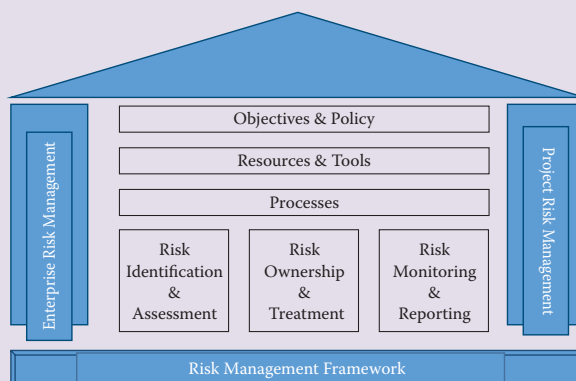
implementation of the said projects often lie in success of the EPC Companies.

On both sides, i.e. (A) in organisations of the Project Owners and (B) in the EPC Companies, the Internal Audit function plays an important role in reviewing and reporting risks and deviations in a timely manner. Based on the reports of the Internal Auditor, early mitigation-actions are taken by the respective managements so that the projects are successfully executed and completed as per schedule. Several of such projects are Projects of national importance; hence the focus of Internal Audit may include the following objectives:

- Efficient use of materials and other resources
- Quality of work
- Timely completion of project as per schedule
- Cost Control & Management
- Efficient Project Management

On both sides, i.e. (A) in organisations of the Project Owners and (B) in the EPC Companies, the Internal Audit function, plays an important role in reviewing and reporting risks and deviations in a timely manner. Based on the reports of the Internal Auditor, early mitigation-actions are taken by the managements so that the projects are successfully executed and completed as per schedule.

The Internal Auditors, in both (A) and (B) types of Organisations, should at first look at the risk management systems that exist there within. The purpose of this look-out is to assess the adequacy and appropriateness of the Risk Management framework comprising of the policy, resources, tools and processes used for managing the two pillars of risk management, namely Enterprise Risk Management ('ERM') and Project Risk Management ('PRM') (see concept diagram below) followed by an assessment of effectiveness of the risk management systems in such organisations. Nevertheless, *the purpose of risk-based approach of Internal Audit always, is to link the audit objectives and audit efforts to the overall objectives of the organisation* as outlined above.



While ERM addresses risks, issues that are strategic, organisation-wide, with consequences on the long-term, requiring periodic review by the top/senior management, PRM addresses risks, issues that are more operational in nature, often project specific, requiring continuous monitoring and control by the middle/supervisory management.

The four broad categories under which the risks may be identified are: Strategic, Compliance, Financial and Operational. The involvement of Strategic risks at the entity level include choice of projects, location of projects, policy concerns, environmental factors etc. However, once the projects are bid out for execution, the Internal Auditors may have to consider risks that are mostly Compliance-related, Financial and Operational in nature, with respect to such projects.

In its risk-based approach to audit, the Internal Auditor must prepare Risk and Control Matrices ('RaCM') that can help him navigate through the risk universe to identify the key risks requiring focussed attention. For this purpose, the Internal Auditors should not only take into cognizance the risks listed in the Risk Registers available within the organizations but should also update his RaCM with other key risks, based on his study and assessment of the existing systems. *In the interest of time and cost involved, the Internal Auditors may focus on the key risks and the key controls.*

Key risks for an Internal Auditor are those which are rated as Critical, High and Medium based on the rating scales defined by the Management. The scales of rating are normally pre-defined based on parameters relevant to the organisations. There after each and every risk is rated on the scale as Critical/High/Medium/Low on the basis of risk scores

Internal Audit

arrived at, taking into account the perceptions of severity and impact of risks. In medium to large, matured organisations, Risk Management is a separate function by itself and this subject matter of relevance is a distinct, elaborate topic in itself for research and publication.

Key controls are those controls that mitigate multiple risks over an entire Activity cycle (illustrated in table below) covering multiple processes or mitigate multiple risks of sub-processes within a broad process. The absence of such control may not be sufficiently compensated by the presence of other controls.

For the purpose of preparation of an Internal Audit Programme and Audit Plan, the Internal Auditor should break down and identify the organisational activities, into Activity cycles or distinct Processes/ functions to ensure audit coverage of the entire organisation. The RaCM prepared by the Internal Auditor may consider the following Processes or Activity cycles, as shown in the table below:

Sl. No.	Processes	Activity cycles
1	Management & Strategy	Vision, Mission & Performance
2	Prospecting, Bidding/ Tendering	Bid to Order
3	Contract Management	Order to Cash
4	Billing & Claims	
5	Engineering – Support & Solutions	Project Execution
6	Construction Execution	
7	Quality Assurance	
8	Safety Assurance	
9	Purchase & resourcing	Purchase to pay
10	Materials Management	
11	Human Resource	Employee – On-boarding, Compensation, Exit
12	Finance	Books to Report
13	Legal & Compliances	Compliance Management

Note: The above broad listing of functions and activity cycles are illustrative of an organisation executing projects. Each organisation may have to be assessed on a case-to case basis to ensure its comprehensiveness.

As narrated above, the Internal Auditor can adopt a process approach so that his review is comprehensive and the selection of processes are integrated to one another in a rational flow of activities. For his review of projects, he should further identify the activities into the two principal stages of project execution, namely: (i) Pre-bid stage and (ii) Post-Award stage.

(A) Internal Audit function in Organisations of Project Owners

An indicative list of important matters for the Internal Auditor to consider are as follows:

(i) At Pre-bid stage:

- Project selection and approvals
- Budgetary sanctions, Financial closure
- Environmental, Safety and other relevant clearances including Right of Way
- Tender and bidding parameters
- Pre-qualify technically competitive parties
- Closure of financial bids and negotiations
- Project Award

(ii) At Post-Award stage:

- Approval of the Contract by competent Authority
- Release of advances against security
- Approval of project schedule
- Project site enablers
- Progress review and monitoring
- Contractual disbursements
- Compliance to quality and safety standards
- Compliance to applicable laws and regulations

YES. IT'S TRUE.

Online Accounting Software for CA & Accounting firms who manage accounting for multiple companies.

100 companies @15,000 INR

✓ Branch Accounting

✓ Job Work

✓ Financial Reports

✓ GST Filing

✓ E-Way Bill

✓ Multi User Access

www.giddh.com

Contact us at +91-8818888764, +91-8818888768 or sales@giddh.com

Internal Audit

- Compliance to contractual conditions penalties, liquidated damages etc.
- Project commissioning, testing and hand over
- Defect Liability period review
- Project monitoring against schedules, cost-estimates and input-output norms
- Progress and quality certification by Project Owner and progress billing
- Contractual realizations and disbursements

(B) Internal Audit in EPC Companies

(i) Pre-bid stage:

Internal Audit coverage may broadly include the following matters and the processes around:

- Internal approvals for bid submission
- Tender response: satisfaction of pre-qualification parameters
- Project scope understanding, technical specifications and pre-bid clarifications
- Understanding of risks: Technical, Financial, Compliance
- Bid estimation inputs: Bill of Materials, Quantity
- Risk mitigation, Bid costing and pricing
- Project acceptance on award
- Win-loss analysis, including root cause analysis of lost bids
- Variations to Contract: Documentation, Approval and Claims
- Delay analysis (wherever applicable) and Make-up plan
- Project completion, Commissioning and Testing
- Project hand over and Certificate from Project Owner
- Defect liability period compliances
- Security release and final contractual realizations

(ii) Post-Award stage:

The Internal Audit coverage, amongst others shall include the following matters:

- Contract sign-off, in line with terms of Tender and pre-bid clarifications
- Meetings with Project Owner and mutually signed-off Minutes
- Realisation of advances against security
- Access to work fronts and approval of Project schedule by Project Owner
- Resource planning: Work-force, Tools & Plants, Equipment, etc.
- Vision, Mission and Values of the Organization
- Ethics: Policies, guidance and internal practices
- Risk Management including Fraud Risk Management: Policies & practices
- Whistle blowing: Policies, guidance and internal practices
- Sexual Harassment: Policies, guidance and internal practices

Even without discounting the benefits of risk-based approach of Internal Audit, it can be safely confirmed that the *risk-based approach cannot deliver the goods unless a preview of the Entity-level controls ('ELC') and Culture is completed by the Internal Auditor before the commencement of his audit performance.* Preview of ELC can give the Internal Auditor an insight into the levels of involvement and commitment of the senior management to the most important matters of the organisations and it may encompass the following aspects:

Internal Audit

- Work place Safety and Culture

Although it may not initially be possible to do a formal audit of Culture, the Internal Auditor must try to understand the underlying cultures that drive the Organisations. The audit trails for such exercise may not be available on record but interactions with different levels of employees within the organisations, may give the Internal Auditor a sense of the culture, viz.

- the openness of communication
- communication – approach: political, biased or reasonable
- values and beliefs
- trust on the senior management

An understanding of the above aspects of ELC and Culture, shall lead the Internal Auditor towards a superior audit performance. Such insights shall become useful in the risk understanding, perceived possibilities of control lapses and many more benefits that may accrue, such as,

- Audit Work preparations, namely Audit Programme and Audit Plans,
- Construction of the RaCM relevant to the projects and the Organisation



- Devising Sampling strategy for testing
- Overall reliance on the systems and processes.

While the broad approach of Internal Audit may remain the same, internal audit of infrastructure projects often pose a few additional challenges to the Project Owners and the EPC Companies, in combination of all or a few of the following:

- remoteness of projects
- placement of qualified, quality personnel on a sustained basis
- changing, volatile work force including wage earners
- training and continuous development
- internal communication and adherence to rules, regulations
- change management
- hostile site conditions, challenging terrains, terrorism-infested areas etc.

As illustrated above, a risk-based approach of Internal Audit is an imperative phenomenon for organisations executing infrastructure projects. Hence, this risk-based approach equipped

A risk-based approach of Internal Audit is an imperative phenomenon for organisations executing infrastructure projects. Hence, this risk-based approach equipped with an insight of Entity Level Controls and Culture, can surely enable the Internal Auditors accomplish the audit performance in a successful manner.

with an insight of ELC and Culture, can surely enable the Internal Auditors accomplish their audit performance in a successful manner. Superior audit performance includes qualitative reporting of relevant risk findings and value-added recommendations for implementation that leads to creation of robust process driven infrastructure projects and organizations dedicated to our Nation. ■