THINK INDIA JOURNAL

ISSN:0971-1260
Vol-22- Issue-14-December-2019

Project And Operations Management Of E-Governance Systems

Ashish Karan, PhD student (2017RHS9002), Dept. of Humanities and Social Sciences, Malaviya National Institute of Technology Jaipur, India

Abstract: e-Governance is the use of Information and communication technology for enhancing relation between the Government and its citizens. India has witnessed the transformation of the citizen centric services from paper based to web based. The present Government has invested a lot of human and financial capital in almost all the sectors to computerize various processes. In that race for making services online very less thought has gone to analyse the hindrances which needs to be overcome first before its implementation in the entire country. Our country still has villages which lacks proper electrification inhabited by IT illiterate people. As per statistics of Ministry of Electronics, Govt of India the failure rate of **e-governance projects** is pretty high (85%). **This puts a question mark on Project and Operations Management of E Governance projects**. A developing country cannot afford to invest time and money in projects that fails. It calls for a serious introspection. The article talks about the best industrial practices in fields of project management and operations management of E-Governance IT projects. The paper introduces Prince2 (project management method) the IT Infrastructure Library (ITIL) framework (Operations management method and discuss its significance and benefits in E-Governance implementation and sustenance.

Keywords: E-Governance, ITIL, ITSM, Project Management, Prince2.

1. Introduction and Definitions. E-Governance is the usage of internet technology as a means for exchanging information, delivering services and transacting with citizens, business organisations, and other segments of government. E-Governance provides a full proof strategy to effective overall governance. It definitely improves accountability, transparency and efficiency of government processes, but in addition to it, it also facilitates sustainable and inclusive growth. E-Governance also provides a mechanism of direct delivery of citizen centric services to all segments of the society including those in the remotest corners, without having to deal with intermediaries.

ISSN:0971-1260
Vol-22- Issue-14-December-2019

a. Governance. The art of managing the functioning of an organisation by the people who are authorised to do so is called governance.

b. e-Government. It is the use of ICT by the government to offer its citizens and businesses organisations the opportunity to interact and conduct operations with government by making use of different communication media such as telephones, fax, smart cards, e-mail / Internet etc. It is also about how government administers, rules, regulates and frameworks to carry out service delivery and the coordination , communication and integration of processes takes place within itself. Another definition of E-government was presented by United Nation's website to be "e-government refers to the use of information and communication technologies (ICT) - such as Wide Area Networks, the Internet, and mobile computing - by government agencies".

c. e-Governance e-Governance is a wider term than e-Government According to Thomos B. Riley. "Government and governance are both getting
the consent and cooperation of the governed. But whereas government is the
formal apparatus for this objective, government is the outcome as experienced by those on the receiving end.. E-Governance can be more productive version of government in general if it is well implemented and managed.

2. Reasons of Success or Failure of E-Government Projects in India. An estimated US$3 trillion was spent during the first decade of the 21st century on government information systems. Yet recent studies suggest between 60 to 80% of e-government projects fail in some way leading to "a massive wastage of financial, human and political resources, and an inability to deliver the potential benefits of e-government to its beneficiaries". Systems failures are recognized as occurring from a complex interaction of technical and human factors set in a social situation rather than as the result of the failure of one particular component (human or technical) . To understand failure, we need to examine the basis on which academic writers, who generally adopt an informative stance to evaluation, decide to provide descriptive and diagnostic information on the projects being considered. These diagnostic approaches fall into three main categories – factoral analyses, systems approaches

ISSN:0971-1260
Vol-22- Issue-14-December-2019

and interpretive studies. Heeks (2002) applied a factor-based approach to an analysis of the significant number of failures in e-government projects. A survey of relevant case studies in the literature led him to the identification of seven dimensions necessary and sufficient to measure the gap that exists between 'current reality' and the 'design concept' of the intended application. He contends that the wider the gap that exists on each of these dimensions, the higher the risk of failure for the project. The seven dimensions of potential design-reality gaps to be explored on an e-government project are summarized by the ITPOSMO acronym and are outlined as:

a. Information: the formal information held by the digital system and the informal information used by the people involved with the system.

b. Technology: mainly focuses on the digital IT but can also cover other information-handling technologies such as paper or analogue telephones.

c. Processes: the activities undertaken by the relevant stakeholders for whom the e-Government system operates both information related processes and broader business processes.

d. Objectives and values: often the most important dimension since the objectives component covers issues of self-interest and organizational politics, and can even be seen to incorporate formal organizational strategies; the values component covers culture: what stakeholders feel are the right and wrong ways to do things.

e. Staffing and skills: it comprises of the expertise level of the staff involved in the implementation of the project.

f. Management systems and structures: the overall management systems required to organize operation and use of the e-government system, plus the way in which stakeholder agencies/groups are structured, both formally and informally.

ISSN:0971-1260
Vol-22- Issue-14-December-2019

E-Governance Project Failure - Facts and Reasons (Shown in Table 1)

35 % of e-Government projects are total Failures	- Initiatives not implemented - Initiatives abandoned immediately
50% of e-Government projects are partial Failures	- Main stated goals not achieved – Initial success but failure after an year - Success for one group but failure for others
15% of e-Government projects are successes	- All stakeholders benefited - No adverse results

Table1 (Source: www.nisg.org/docs/539_Report.pdf)

3. Implementation Challenges in India. Several initiatives has been taken by the Indian government to facilitate the access to public services even then the desired outcomes are yet to be fully realised. This can be largely attributed to various front-end and back-end challenges that the government continues to face. High illiteracy levels, non-availability of user friendly interfaces, inadequate or no power supply in rural areas, low internet penetration and most importantly, lack of awareness of e-Governance processes are some of the main user specific issues which forms the front end challenges. On the other hand, back-end challenges relate to technical, process or human resource issues within the government which mainly comprises of issues like lack of systems integration within a department, lack of integration across government departments, limited knowledge of using computers at various levels of bureaucracy and deployment of technology without proper process re-engineering. The obstacles in the implementation of e-Governance related to project management are explained in the following paragraphs:

ISSN:0971-1260
Vol-22- Issue-14-December-2019

4. Non Technical Challenges

a. Different Language. India is a country where people with different cultures and different religions live together People belonging to different states speak different languages. The diversity of people in context of language is a huge challenge for implementing e-Governance projects as e-Governance applications are written in English language. And also, English may not be understandable by most of the people. Therefore, it becomes a challenge for the government to write e-Governance applications which are to be implemented for the whole nation in more than one language so that these may be acceptable to the users of a particular language.

b. Low Literacy. Literacy can be defined as the ability to read and write with understanding in any language. A person who can merely read but cannot write cannot be considered as literate. Any formal education or minimum educational standard is not necessary to be considered literate. The biggest obstacle in implementation of e-Governance projects is illiteracy. Illiterate people are not able to access the e-Governance applications; hence the projects do not get much success.

c. Low IT Literacy. Much of the Indian people are not literate and those who are literate do not have much knowledge about Information Technology (IT). Most of the people in India do not know how to use Internet. how can e-Governance projects be implemented successfully in such situation?

d. Services are not accessible easily: The concept of e-Governance is claiming for increased efficiency and effectiveness of the government, but these goals can only be achieved if the services are available to all of its citizens. A major part of Indian population is not able to access e-Governance applications due to limited access of Internet or lack of power supply.

5. Issues in Project Management in India. E-Government is a globally acclaimed fact that it is a force multiplier in achieving good governance, bringing down cost of operations, and increasing the ability of citizens and businesses to access services effectively

ISSN:0971-1260
Vol-22- Issue-14-December-2019

and in cost efficient manner. It is a challenging task to successfully implement an e-Government project. Some current challenges for managing e-Government Projects in India are as follows:

a. Lack of effective project management tools and methods.

b. Absence of proper planning, various ad hoc tasks are taken up by the project team due to which the focus on critical activities is lost.

c. The knowledge of project management concepts is very low in Government officials forming part of the e-Government Project team.

e. E-Government projects do not follow any standardized project management implementation frameworks.

f. Resources are over loaded with work due to inadequate staffing. Sometimes tasks not assigned to the team appropriately.

g. No control of central IT agencies during project execution. The decision making process is generally left to individual line ministries and departments since funding comes from them.

h. Non provisioning of Project Management dashboard for coordinated project monitoring by all the stakeholders in a large project.

i. Inadequate tracking of how the project is being implemented, tasks causing delays. No monitoring of Cost and Schedule at project checkpoints. During the project initiation, the baseline data is not captured which is useful for bench marking of activities.

6. Project Management Method – Prince2. The UK Government established CCTA (Central Computer and Telecommunications Agency) in 1970 to device a standard for project management of software. This resulted in development of PRINCE (PRojects IN Controlled Environments) in 1989 which in turn evolved and became PRINCE2 in 1996.

ISSN:0971-1260
Vol-22- Issue-14-December-2019

PRINCE2 is a structured PM technique with the spotlight on the business case, the promotion of consistency in projects, the cataloguing of lessons learnt, common vocabulary and the representation by stakeholders in the project planning. Although the roots of PRINCE2 were in IT, it is currently one of the best practice tools, flexible enough to be customized to any organisation and project. PRINCE2 is owned by the Office of Government Commerce (OGC), which is now part of the Efficiency and Reform Group within the UK Government's Cabinet Office. The OGC also has methodologies around program and value management, risk, PMO-type offices, and portfolio management. PRINCE2 foundation and practitioner qualifications are available world-wide including in India through accredited training organisations.

a. Project. A project is an organisation created to deliver one or more products according to an agreed business case. A project introduces amendment, is temporary, cross-functional, distinctive and unsure.

b. Project Management. It is a method for planning, delegating, monitoring and controlling the aspects of a project. The aspects are scope, time, cost, quality, risk and benefits.

c. The PRINCE2 Methods It includes principles, themes, processes and tailoring. PRINCE2 does not provide specialist aspects, detailed techniques, or leadership capability. PRINCE2 is embodies proven best practise, can be applied to any type of project, is widely recognised with a common vocabulary, provides explicit recognition of responsibilities, and provides a highly structured approach to accountability, delegation, authority, and communication. It manages by exception and manages by stages.

d. A PRINCE2 project ought to be tailored for a particular situation. Tailoring ensures that the method relates to the environment, and that project controls are based on the project's scale, complexity, and importance. The Project Manager and the Project Board will make a decision on how the method will be applied, and this will be documented in the Project Initiation Document.

e. Principles It is the adoption of principles that determines whether a project is using PRINCE2, not the adoption of processes and documents alone. The principles

ISSN:0971-1260
Vol-22- Issue-14-December-2019

are business justification, learn by experience, defined roles and responsibilities, manage by stages, manage by exception, focus on products, and tailor to suit the environment.

f. A PRINCE2 project must have justification to start it and to continue throughout the project. If a project can no longer be justified it must stop. Justification must be documented and approved.

g. A PRINCE2 project learns by experience. When starting a project lessons learned from similar projects are sought, as the project progresses lessons are included in reports and reviews, and when the project closes lessons are identified and passed on for the future.

h. A PRINCE2 project has outlined and in agreement roles and responsibilities. All projects have the following primary stakeholders; business sponsors, users, and suppliers. Business sponsors ensure the investment provides value for money. Users gain the intended benefits and feel the pain. Suppliers, internal and external, provide the resources.

i. A PRINCE2 project is planned, monitored and controlled by stages. There is at least two stages; initiation plus one or more management stages. Planning is only conducted on the level that is foreseeable. The greater the complexity and risk, the more stages that should be implemented.

j. A PRINCE2 project has agreed tolerances for its aspects. If these tolerances establish limits of delegated authority. If they are breached the next higher level must manage the exception. PRINCE2 permits acceptable governance by shaping distinct responsibilities for steering, managing, and delivering the project. A PRINCE2 project focuses on the definition and delivery of products, according to their quality criteria. This means there is a common understanding of the products required. When delivered, this provides acceptance.

7. **PRINCE2 Themes**. It describes the aspects of project management which must be addressed continually. There are seven themes: business case, organisation, quality, plans, risk, change and progress.

ISSN:0971-1260
Vol-22- Issue-14-December-2019

a. Business Case Theme The Business Case theme establishes mechanisms to judge whether the project is and remains desirable, viable and achievable. It is the justification for the project. The business justification is documented in the Business Case. Products are outputs, which lead to outcomes, which provide benefits. Benefits are always expressed in quantifiable terms. In PRINCE2, the business case is developed at the beginning of the project and is maintained throughout the project, verified by the Project Board at each stage assessment and other key points, and confirmed that the benefits accrue. The Executive is responsible for the Business Case. Development may be delegated, typically to a Business Analyst or Project Manager. A detailed Business Case is derived from the outline Business Case, the Project Plan (cost, timescale, products), and the Risk Register. It is the responsibility of the Executive to assure that the project stakeholders remains justifiable at all times. The Executive should not rely on end-stage assessment alone, but rather should make use of Project Assurance as Highlight Reports as well. The Senior User(s) specify the benefits and is held to account by demonstrating to corporate or programme management that forecasts are in fact realised. The Executive is responsible for ensuring that benefit reviews are planned and executed. The Benefits Review Plan is first created by the Project Manager in the initiation stage and approved by the Project Board. The three basic business options concerning investment always include (a) do nothing, (b) do the minimal (e.g., a workaround), (c) do something. The Business Case should list each benefit that it is claimed would result from the project's outcome. This can be financial and non-financial, but must be aligned to corporate strategy, mapped to outcomes and outputs, quantified (with tolerance), measurable, and assigned.

b. Organisation Theme The Organisation theme defines and establishes the project's structure of accountability and responsibilities. It is based on a customer/supplier model. A project may be a stand-alone entity or it can be part of a programme of related projects. Regardless, it will exist within the wider context of a corporate organisation. PRINCE2 ***does not define management jobs - it defines roles.*** This includes the three primary categories of stakeholder which are included on the Project Board; *Business/Executive*, *Senior User* and *Senior Supplier* interests. The Executive is interested in value for money, the Senior User in desired outputs, and the Senior Supplier in producing the project products. The customer is usually interpreted

ISSN:0971-1260
Vol-22- Issue-14-December-2019

as a collective term for Business and User roles. Sometimes the Executive (Business) can be combined with the Senior User. PRINCE2 separates the direction and management of the project from the delivery of the outputs. The project management structure has four levels, of which the bottom three represents the project team. The corporate or programme management forms the topmost layer. The Project Board gives direction; the Project Board gives management and the Team Manager delivers. The Executive can be combined with the Senior User role. The Project Board should display four key characteristics; authority, credibility, ability to delegate and availability. The Executive is ultimately accountable for the project's success and the key decision maker. The Executive ensure that project gives value for money and is responsible for the Business Case. The Senior User represents those who will use the project (including operations and maintenance). The Senior Supplier is accountable for the quality of products delivered and is responsible for the technical integrity of the product. The Board is responsible for appointing a Project Assurance role, independent of the Project Manager. Assurance however is also responsible for supporting the Project Manager with advice and guidance. Producing a matrix of products with stakeholders helps split stakeholders from decision-makers. Stakeholders need to be engaged as part of the Communications Management Strategy, project decision makers need to be on the Project Board. The Project Board should define in the Configuration Management Strategy a scale of severity ratings for change, and determine, as Change Authority, what conditions are places for the authorisation for change or off-specifications. In PRINCE2 the Project Manager's role should not be shared. The Project is responsible for liaison with Project Assurance and the Project Board. Ensuring production is the Team Manager's primary responsibility. PRINCE2 uses Work Packages to allocate work to Team Managers or team members. The Project Support role, which is responsible for the documentation repository, is not optional. It does default to the Project Manager if there is no other person allocated to the role. The use of "management by stages" also allows smooth transition for changes to the project management team if needed. The Communications Management Strategy facilitates engagement with stakeholders through the establishment of a controlled and bi-directional flow of information.

c. Quality Theme The theme of Quality defines the means by which a projects verifies that products are fit for purpose. Quality Systems and Quality

ISSN:0971-1260
Vol-22- Issue-14-December-2019

Assurance exist on the Corporate level and should be differentiated from Quality Planning and Quality Control, on the Project level. In PRINCE2 Quality is defined as the totality of features in a product, process, person, service, or system. The scope of a plan is the sum total of its products, defined by a product breakdown structure. Project Assurance is undertaken from within the project and assures that the project is being conducted properly with regard to internal rules. Quality Assurance is the responsibility of the corporate or programme management is external to the project. It assurances the project complies with corporate standards and legislation. The Quality System and Quality Assurance is corporate responsibility. Quality planning and quality control is project responsibility. The Project's acceptance criteria provide prioritised and measurable definitions of attributes. A popular prioritisation technique is MoSCoW (must, should, could, won't). Product Descriptions should not be written in too much detail as it increases the cost of quality in the project. Project Product Descriptions include (a) the overall purpose of the project, (b) composition (set of products), (c) customer's quality expectations, (d) acceptance criteria, methods, and responsibilities, (e) project-level quality tolerances. The Quality Register is a diary of quality events planned and undertaken. This will include quality control, which includes carrying out quality methods (e.g., inspection, testing etc), maintaining quality and approval records, and gaining acceptance. The quality review technique is conducted as a formal meeting with prior circulated questions. The review team agrees on actions for each question. If follow up action (FAR) is not feasible or not within tolerance, then it should be raised an issue for the Project Manager.

d. Plans Theme Plans facilitate communication and control, by focusing on products and managing by stages (the where, how, by whom, and when of products). Plans form the backbone of any project’s management information system. They must be kept in line with the Business Case at all times. PRINCE2 recommends three levels of plan to suit the needs of the different levels of management. Outside of the project there may be a corporate or programme plan. The Project Plan provides the Business Case, with Project costs and timescales as a baseline. The Stage plan is similar to the Project Plan but with adequate detail for day-to-day control for the Project Manager. Team plans are produced by a Team Manager to facilitate Work Packages. They are optional. Exception Plans are prepared for the appropriate management level to show the actions required to recover from the effects of

ISSN:0971-1260
Vol-22- Issue-14-December-2019

tolerance deviation. Plans are designed as a prerequisite. Then, simultaneous with an analysis of risks, products are defined and analysed, then activities and dependencies, then estimates, then the schedule, and finally documentation. This process is repeated for project, stage and team plans. It is a product-based planning technique. The "philosophy" behind producing plans in PRINCE2 is that the products required are identified first and only then are the activities, dependencies, and resources required to deliver those products identified. This is product-based planning. The benefits include (for example) involving users in specifying the product requirements, thus increasing buy-in and reducing approval disputes, and clarifying the scope boundary, defining products that are in and out of the scope. Writing the Project Product Description forms the very first task of product-based planning. The plan is then broken down into its major products, which are then further broken down etc, until an appropriate level of detail is reached. It is useful to identify any external products required by the plan, as the Project Manager is not accountable for their creation. For each external product there should be a corresponding entry in the Risk Register. If a detailed requirement for specification for a product is already available, this may be used as a substitute for the Product Description. A flow diagram needs to be created that identifies and defines the sequence in which the products of the plan will be developed and any dependencies between them. Dependencies are internal or external. An external dependency includes the delivery of a product from another project.

e. Risk Themes The Risk theme identifies, assesses and controls uncertainty. Risk is an uncertain event that will have an effect on the achievement of objectives. They can be threats or opportunities. Different organisations have different 'risk appetites'. Risk Register is maintained by project support on behalf of the Project Manager. The Risk Management procedure is sequentially (a) identify (context and risks), (b) plan, (c) implement, with (d) communication, throughout. An effective way to identify risks is to use a risk workshop. Identification should involve noting the risk cause, the event, and the effect. A typical estimation technique is a quantitative probability impact grid. Risk responses do not necessarily remove a risk in entirety; it may leave a residual risk. It is also possible that the response to a risk can change some aspect of a project resulting in a secondary risk. Threat responses are; avoid, reduce (probability and impact), fallback (impact only), transfer, share, or accept.

ISSN:0971-1260
Vol-22- Issue-14-December-2019

Opportunity responses are exploit, enhance, share or reject. The Risk owner is the named individual responsible for managing, monitoring, and control of a particular risk. The risk actionee carries out the risk response action.

f. Change Themes The Change theme identifies, assesses and controls changes to the baseline. The baseline should use a form of version control in documentation. The process to manage changes and issues is the Configuration Management Strategy. A configuration item is subject to configuration management. The entity may be a component of a product, a product, or a set of products that form a release. Issues consist of Requests for Change (funded from the Change Budget), Off-Specifications aka stuff-ups (funded from Tolerances), and Problem/Concerns, which require approval from the Project Board. Tolerances should not be used to fund Requests for Change. The following management products are used to establish and maintain the project's controls for issues, changes, and configuration management: (a) configuration management strategy, (b) configuration item records, (c) product status accounts, (d) daily log, (e) issue register, (f) issue reports. To make and effective issue and change control, it is supported by a configuration management system which maintains product baselines (the basis from which the entity will change) and facilitates impact assessments (relationships between products). The Configuration Management Strategy should define the configuration management procedure and the issue and change control procedure. It is the Project Board's responsibility to review and approve requests for change and off-specifications. But for projects where there is likely to be lots of changes the Project Board may choose to delegate this to a Change Authority (e.g., the Project Manager). The Project Manager needs to consider whether it is worthwhile going a detailed impact analysis as the effort itself may cause a deviation from the plan. An impact analysis must cover the three areas of business, user, and supplier. Having taken an impact analysis, the severity or priority should be re-evaluated.

g. Progress Theme The Purpose of the progress theme is establish mechanisms to monitor and compare actual achievements against those planned and provide forecasts. It is based on the principles of manage by stages; manage by exception, and business justification. An exception is a situation where there is a deviation beyond the agreed tolerance levels. The principle of manage by exception

ISSN:0971-1260
Vol-22- Issue-14-December-2019

uses different types of tolerance against which a project can be controlled which equate to setting and reporting. They are (i) project tolerance, from programme and corporate management and (ii) project progress/exceptions, to programme and corporate management, (iii) stage tolerance, to the project manager, (iv) stage progress/exceptions, from the project manager, (v) work package tolerance, from the project manager, (vi) work package progress/issues, to the project manager. Stages should be shorter when there is greater risk, uncertainty, or complexity. They can be longer when the risk is lower, typically in the middle of projects. PRINCE2 provides two types of progress control reports throughout the life of a project; event-driven controls and time-driven controls. The Work Package and report back to the Project Manager is via Checkpoint Reports. There is one Checkpoint Report per Work Package. If the forecast is project tolerances will be exceeded, the Project Board has the authority to manage the project and must refer the matter to corporate or programme management for a decision.

8. **Prince2 Processes** PRINCE2 is a process-based approach to management. Pre-project there is a project mandate to set the inquiry into action. It is important to verify that the project is worthwhile and viable. This is the Project Brief and a stage plan for initiation. The Project Board reviews the brief and decided whether to initiate the project. The initiation stage culminates in the production of a Project Initiation Document. The Project Board delegates day-to-day control to the Project Manager on a stage-by-stage basis. The Project Manager ensures that a set of project records are maintained to assist with project control. The Team Managers execute the Work Packages and keep the Project Manager apprised of progress via Checkpoint Reports. During the final stage, once the Project Manager has gained approval for all of the Project's products, it is time to decommission the project.

a. Starting Up A Project (SU) The purpose of the starting up a project process is to determine whether or not there is a worthwhile project. At this stage, do the minimum necessary to come to this decision. The effort involved with vary (business context). During the Starting Up process, the activities include appointing the Executive and Project Manager, capture previous lessons, prepare the outline Business Case, assemble the Project Brief, and plan the initiation stage.

ISSN:0971-1260
Vol-22- Issue-14-December-2019

b. Directing A Project (DP) Process The purpose of the directing a project process is to enable the Project Board to be accountable for the project's success whilst delegating day-to-day management to the project manager. The Project Board manages by exception. It monitors via reports through a small a number of decision points. The Project Board is responsible for ensuring there is continued business justification. The Directing a Project process is initiated from the Starting up a Project process, as input, and concludes with the Closing a Project process, as an output. Within the directing a project process, the Project Board will authorise initiation, authorise the project, authorise a stage or exception plan, give ad-hoc direction, and authorise project closure. Initiation is triggered by a request from the Project Manager for authorisation to deliver the project. Ad-hoc direction may occur as a response to reports e.g., Highlight Report (time-driven within a stage), Exception Report, Issues Report. The last activity is Authorising closure of the project which is undertaken by the Project Board before it gets disbanded, and may require endorsement from corporate or programme management.

c. Initiating A Project Process (IP) The purpose of the initiating a project process is to establish a solid foundation for the project. It establishes a common understanding of benefits and risks, the scope, the products and their cost, etc as baselines. During this process the Project Manager will create a suite of management products required for the level of control specified by the Board. This will include the Risk Management Strategy, the Configuration Management Strategy, the Quality Management Strategy, the Communications Management Strategy, the project controls, the Project Plan, a refined Business Case, and assembling the Project Initiation Documentation.

d. Controlling A Stage Process (CS) The purpose of the controlling a stage process is to assign and monitor work, deal with issues, report progress to the Board, and take corrective actions to ensure that the stage remains within tolerance levels. The controlling a stage processes is first used after the Board authorises the Project. Work Packages are used to define and control the work being done, and sets tolerances for the Team Managers. There must be a level of autonomy within the project teams. Activities include the authorisation, reviewing work package status, and receiving completed work packages, reviewing stage status, reporting highlights

ISSN:0971-1260
Vol-22- Issue-14-December-2019

to the Board, examination of issues and risks, escalation of issues and risks and taking corrective action.

e. Managing Product Delivery (MP) Process The purpose of the managing product delivery process is to control the link between the Project Manager and the Team Managers by placing formal requirements on accepting, executing, and delivering project work. Activities are simply to accept, execute and deliver a work package.

f. Managing A Stage Boundary (SB) Process The purpose of the managing a stage boundary process is for the Board to review the current stage, approve the next stage, review the updated project plan, confirm business justification and acceptance of risks. The Board must assure that all products in the current stage plan have been completed and approved. For exceptions, the Project Manager must prepare an Exception Plan and seek approval from the Board for the Exception Plan. If a stage or the project is forecast to deviate beyond its agreed tolerances, it no longer has the approval of the Project Board. The Project Board requests for Exception Plans in response to an Exception Report which is produced prior to the planned stage boundary but its approval by the Project Board marks a stage boundary for the revised stage. The activities within the managing a stage boundary process include planning the next stage, updating the project plan, updating the business case, reporting a stage end, and producing exception plans.

g. Closing A Project (CP) Process The purpose of the closing a project process is to provide a fixed point where acceptance of the project product has been confirmed and that the objectives in the Project Initiation Document have been achieved. The activities of the process are Project-Manager orientated and are to prepare planned closure, prepare premature closure, hand over products, evaluate the project and recommend project closure. It must include transfer of ownership to the customer and terminate the responsibility of the project management team. Project closure is confirmed by the Board. The Communication Management Strategy is used to identify stakeholders who should be notified of closure. The project's registers (Issues, Risks, Quality, Daily Log, and Lessons Learned) should be closed. Project information should be secured and archived. The Manager must seek approval to give

ISSN:0971-1260
Vol-22- Issue-14-December-2019

notice to the corporate or programme management that resources are about to be released.

9. **Tailoring PRINCE2 to the Project Environment** Tailoring refers to the appropriate use of PRINCE2 on any given project, ensuring there is the correct amount of planning, control, governance, and use of processes and themes, whereas the adoption of PRINCE2 across an organisation is known as embedding. Tailoring is about thinking about how to apply the method and then using it with a lightness of touch. The distinction between projects and programmes is that projects typically produce or change something and are then disbanded. The benefits of the understanding are likely to be accrued after the projects are complete. Programmes are typically used to transform organisations and have a lifespan that covers the realisation of the benefits - which could be several years. Overall, the purpose of PRINCE2 can be regarded as reducing the risk of failure. Thus, whenever an element of PRINCE2 is reduced, this should be seen as a risk.

10. **Operations Management by ITIL.** The Information Technology Infrastructure Library was born from the marriage of IT and business strategy after the realisation of the significance of IT service management. It is basically a set of policies and concepts for managing IT infrastructure and service effectively and efficiently. It was first published in the 1980s by The U.K. Central Computer and Telecommunications Agency, and it is still governed by the U.K. Office of Government Commerce. Even though ITIL was developed during the 1980s, adoption was light until the early 1990s and has only gained traction in the U.S. within the past few years. ITIL makes E-Governance implementation easier by providing structured, flexible guidelines for governance standards around IT service management. It improves the alignment between the operations and IT, increasing citizen satisfaction, lowering costs, optimizing outsourcing, improving service levels, increasing service availability, and improving the ability to manage change, among other things. Some may found the guidelines as prescriptive and inflexible and it may appear for some as barriers to adoption due to lengthy implementation, disruption of current processes, change issues but in long run it is very fruitful. ITIL comprises of two domains and eleven processes of IT service management which are as follows:

ISSN:0971-1260
Vol-22- Issue-14-December-2019

a. The Service Support Domain which has the following processes:

(i) Service Desk.
(ii) Incident Management.
(iv) Problem Management
(v) Configuration Management.
(vi) Change Management.
(vii) Release Management.

b. The Service Delivery Domain with the following processes:

(i) Service-level Management
(ii) Capacity Management.
(iii) IT Service Continuity Management.
(iv) Availability Management.
(v) Financial Management for IT services.

11. A hierarchical structure of roles and responsibilities is provided within each process as well (Figure 1). Moreover, the International Organization for Standardization (ISO) established the 'ISO20000' as the specification of international standards for IT service management in 2005, which succeeded the 'BS15000' specification of the British Standard Institution based on the ITIL of OGC. The United Kingdom's Central Computer and Telecommunications Agency (CCTA) created ITIL in response to the growing dependence on Information Technology to meet business needs and goals. ITIL provides E-Government with a framework that is customizable to select the best practices from the industry and achieve a hight level of quality service. It also caters for scalability in future. The core of ITIL comprises five service delivery processes (Table 1) and five service support processes and one service support function (service desk). Service support processes apply to the operational level of the organization whereas the service delivery processes are tactical in nature.

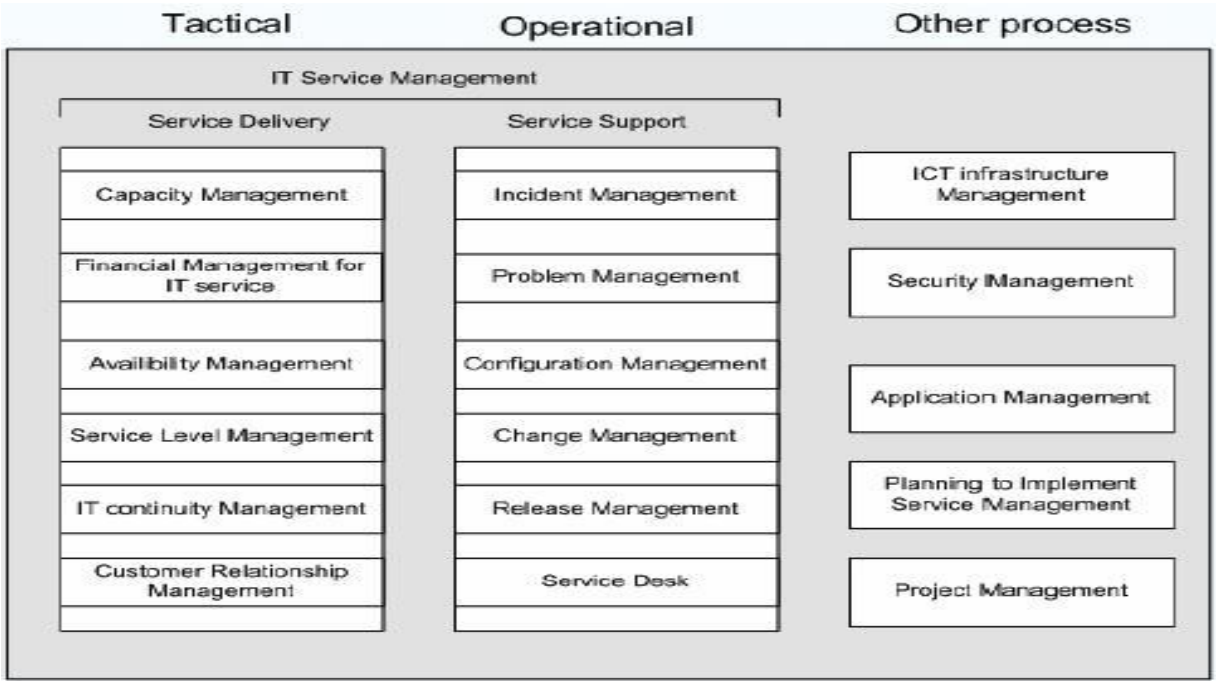

Figure 1. ITIL Infrastructure

Table1. Description of core ITIL components (adapted from OGC 2006)

Service Delivery Domain – Tactical Level	
Service Level Management (SLM)	Negotiates service level agreements (SLA) and ensures that these are met.
Capacity Management	Ensures that the capacity of IT services and the IT infrastructure is able to deliver agreed service level targets in a cost effective and timely manner.
IT Service Continuity Management	Manages risks that could seriously impact IT services. ITSCM ensures that the IT service provider can always provide minimum agreed service levels, by reducing the risk to

ISSN:0971-1260
Vol-22- Issue-14-December-2019

	an acceptable level and planning for the recovery of IT services.
Availability Management	Defines, analyses, plans, measures and improves all aspects of the \availability of IT services.
Financial Management	Manages an IT service provider's budgeting, accounting and charging requirements
Service Support Domain – Operational Level	
Service Desk	The single point of contact between the service provider and the users.
Incident Management	Manages the lifecycle of all incidents. Its primary objective is to return the IT service to customers as quickly as possible.
Problem Management	Manages the lifecycle of all problems. Its primary objectives are to prevent incidents from happening, and to minimize the impact of incidents that cannot be prevented.
Change Management	Controls the lifecycle of all changes. The objective is to enable beneficial changes to

ISSN:0971-1260
Vol-22- Issue-14-December-2019

	be made with minimum disruption to IT services.
Release Management	A collection of hardware, software, documentation, processes or other components required to implement p proved changes to IT services.
Configuration Management	Responsible for maintaining information about C Configuration items required to deliver an IT

BENEFITS OF ITIL

12. ITIL turned out to be very fruitful for E-Governance implementation. Some of the IT specific benefits are enumerated below:

a. Increased IT efficiency and productivity through defined roles and responsibilities and repeatable and scalable best-practice-based processes.

b. Better support for regulatory and compliance challenges and increased control.

c. Increased customer perception of IT and its services and the business value they deliver.

d. Increased visibility and understanding of IT services.

e. Better IT service suitability and availability by reducing the "incident lifecycle," with the ability to prevent issues before the occur The proactive identification of problems and reducing their adverse impact on business operations Having a better ability to react to the business's need for rapid change.

ISSN:0971-1260
Vol-22- Issue-14-December-2019

f. The ability to measure and improve operational performance.

CONCLUSION

13. In E-Governance the interaction with stakeholders is through IT, so IT drives the Governance today. The fact is that the E-Governance effectiveness and citizen service quality is dependent on a high availability, dependability, security and performance of IT services. ITIL provides the foundation for quality e-Governance application management. It supports governance aims by offering services which are based on efficient citizen centric principles and adequately fulfil governance requirements. Prince2 which is a project management methodology provides ensures entire project is divided into stages where each stages is closely monitored and clearance to go further is given only when the viability of the project is justified. The roles in the prince2 of the directing board (Senior Supplier, Senior User and Executive) are well laid to give direction to the rest of the project management team comprising of project manager, team mangers and team members. The business justification of the project is validated throughout the project thus removing and chance of project failure. While the Prince2 ensures effective project roll out, ITIL ensures its sustenance, both contributing equally in a success of an e-Governance system leading to effective interaction between the government and its citizens.

REFERENCES

Karan, Ashish (2017). Cybercrime analysis using criminal information management system: An e-governance measure by ministry of home affair. **International Journal of Advanced Research, Ideas and Innovations in Technology)**, V4I3-1548 , 1-6

Karan, Ashish (2017). Project Management Challenges in Implementation of e-Governance in India. **International Journal of Advanced Research, Ideas and Innovations in Technology,** V4I3-1548 , 1-3

ISSN:0971-1260
Vol-22- Issue-14-December-2019

Karan, Ashish (2017). E-Governance: Project Management Practices through Information Technology Infrastructure Library. **International Journal of Advanced Research, Ideas and Innovations in Technology**, V4I3-1548 , 1-4

Cater-Steel, A. 2007a. “Integration of service management with CMMI and SPICE”. Proceedings of the 5th Annual SEPG Australia Conference. Gold Coast, Australia.

Cater-Steel, A. 2007b.” ITIL adoption in Australia: 2 years of itSMFA surveys and case studies”. In itSMF Australia 10th National Conference and Expo. Melbourne.

Cater-Steel, Aileen and Toleman, Mark. 2007. Education for IT service management standards. International Journal of IT Standards and Standardization Research, 5 (2), pp. 27-41

.

2006."Transforming IT Service Management -- The ITIL Impact”. Proceedings of the itSMF Australia 10th National Conference and Expo. Adelaide, Australia.

Carter, L., & Belanger, F. 2005. The utilization of e-government services: Citizen Trust, innovation, and acceptance factors. Information Systems Journal, Vol. 15, pp. 5–25.

Conger, Sue, Winniford, MaryAnne, and Erickson-Harris, Lisa. 2008. "Service Management in Operations". Proceedings publication at the 13th Americas Conference on Information Systems (AMCIS), Toronto, CA

Coopers, D. & Schindler, P. 2003. Business Research Methods. 8th Ed. New York: McGraw-Hill/Irwin

ISSN:0971-1260
Vol-22- Issue-14-December-2019

Evans, D., Yen, D. C. 2005. E-government: An analysis for implementation: Framework for understanding cultural and social impact. Government Information Quarterly Vol.22 pp.354–373

Hochstein, A., Tamm, G., & Brenner, W. 2005. Service-Oriented IT Management: Benefit, Cost and Success Factors. 15th European Conference on Information Systems, Regensburg, Germany.

ISO/IEC. 2005a. ISO/IEC 20000:2005 Information technology - Service management - Part 1: Specification. Geneva: International Organization for Standardization.

ISO/IEC. 2005b. ISO/IEC 20000:2005 Information technology - Service management - Part 2: Code of practice. Geneva: International Organization for Standardization.

ITSM. 2010. ITSM - IT Service Management http://www.itsm.info/ITSM.htm. Accessed on June 15, 2010

Joshi, N., W Riley, J Schneider, Y-S Tan. 2007. "Integration of domain-specific IT processes and tools in IBM Service Management."IBM Systems Journal. Armonk: Jul-Sep 2007. Vol. 46(3); pp. 497-512.

Lewis K., Schwartz L. 2009. A case for ITIL returns on investment – white paper, ITSM Academy.

Lloyd, V., Peters, L., Rupchock, K. & Wilkinson, P. 2003. Planning to Implement IT Service Management. 3rd Ed. London: The Stationary Office

OGC. 2006. Introduction to ITIL. London: Stationery Office.

ISSN:0971-1260
Vol-22- Issue-14-December-2019

Praeg, C.-P. & Schnabel, U. 2006. IT-Service Cachet - managing IT-service performance and IT-service quality. *Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06).*

Sallé, M. 2004. IT Service Management and IT Governance: review, comparative analysis and their impact on utility computing (No. HPL-2004-98). Palo Alto: Hewlett-Packard Company.

SRO, 2010 http://www.sro.vic.gov.au/sro/SROnav.nsf/Home+Page/SRO ~Home+Page?open State Revenue Office (AU).(Accessed on June 15, 2010)

TSO. 2005. ITIL V2 Glossary v01 London: Office of Government Commerce. ITIL V2 Glossary

Zeng, Jihong. 2007. "Improving IT Service Delivery Quality: A Case Investigation. Journal of American Academy of Business. Vol. 12(1); pp. 24-31. Cambridge. Hollywood.

Websites

[1] http://www.egov4dev.org/success/sfrates.shtml

[2] e-governance in India by Laxminarayan bindhani and Padmalaya Mahapatra

[3] www.nisg.org/docs/539_Report.pdf

[4] http://unpan1.un.org/

[5] http://meity.gov.in/

