Individual Research Paper

a) investigate, in more detail, an ITSM or ITIL topic of your choice

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INTRODUCTION:

Information Technology has been the chief driver of entire computing universe. Considering this fact, all the IT organizations strive to sustain high levels of business performance. ITIL concepts provide all the necessary guidelines and steps for an organization to be on top of the benchmark list. This paper deals with the explanation and investigation of one of such topic "ITIL Service Lifecycle" which I consider to be most important unit of the ITIL framework as it has most information for an organization from how to start a business contract with a customer to how to sustain the business relationship and provide continuous service to the customer which paves way to gain more customers and improve the quality of service provided.

Let's start with a quick overview of what these terms stand for:

ITSM is an acronym for IT service management. It simply means how you manage the information systems that deliver value to your customers. Even if you've never heard the term ITSM, if you're running IT systems, then you are doing ITSM. ITSM could include activities like planning and managing changes so they don't cause disruption to the business, fixing things when they go wrong, or managing a budget to ensure you can pay the bills when they arrive. People who use the term ITSM tend to think of IT as a means of delivering valuable services to their customers, rather than to manage technology—but even if you have a completely technical focus, your work still needs to be managed, and that's what we call ITSM.

ITIL is the name of the world's most widely recognized framework for ITSM. ITIL has been adopted by many organizations, and there are millions of certified ITIL practitioners worldwide.

Benefits for ITIL

It is likely that some—probably many—of the ITIL best practices would prove beneficial to your organization. Organizations that adopt ITIL often find that they:

Improve the alignment of IT to their business, providing services that better meet the needs of their customers. Improve the quality of the IT services they deliver by understanding the required levels of – availability, security, capacity, and continuity, and then planning solutions that can deliver these. Lower the cost of delivering IT by reducing wasted effort and focusing on getting things right the first time.

You don't have to adopt ITIL to manage your IT services effectively and efficiently, but it can certainly help. Some organizations simply create their own set of processes for running IT, and this can work. But it's hard to develop something original that matches the years of experience that have gone into the development of the ITIL best practice framework that has now been adopted by many thousands of organizations.

Adopt and Adapt to Fit Your Needs:

IT organizations that make use of ITIL decide for themselves which aspects to adopt. Many IT organizations choose to adopt only the operational processes, such as incident management and change management. On their own, these do provide some value, of course, but they are only a small part of the whole ITIL framework. However, you'll get the best value from ITIL by taking a lifecycle approach to ITSM. This covers everything from your overall IT strategy through the design, transition, and operation of services; and it incorporates continual improvement into everything you do.

When your organization has made the decision to adopt a best practice framework, a smart strategy is to understand which approach a good fit for your organizational culture will be and to incorporate it into your own management system in a sympathetic way. I have worked with many organizations that start our relationship by telling me they tried ITIL a few years ago, but it didn't deliver any value. When I investigate what happened, I usually discover they attempted to adopt a rigid set of processes, with no understanding of how they would fit within the culture of their organization. As a result, people would ignore the new processes—so the money spent on the project ended up being wasted. The right way to use ITIL is summarized in the phrase "adopt and adapt." You only adopt the parts that you need, and you adapt the ideas to fit your environment rather than slavishly following the guidance.

The major topics of ITIL that accentuated me are as follows:

- Managing IT Services
- Service Lifecycle
    - Service Strategy
    - Service Design
    - Service Transition
    - Service Operation
    - Continual Service Improvement

In the current competitive industry to maintain high standards and achieve bigger an organization should be customer centric, deliver products of high value, have a clear knowledge about the requirements of the customer, have continuous improvement plans and constant research, analysis about the service provided and receive feedback from the customer about the service that is provided for any alterations needed.

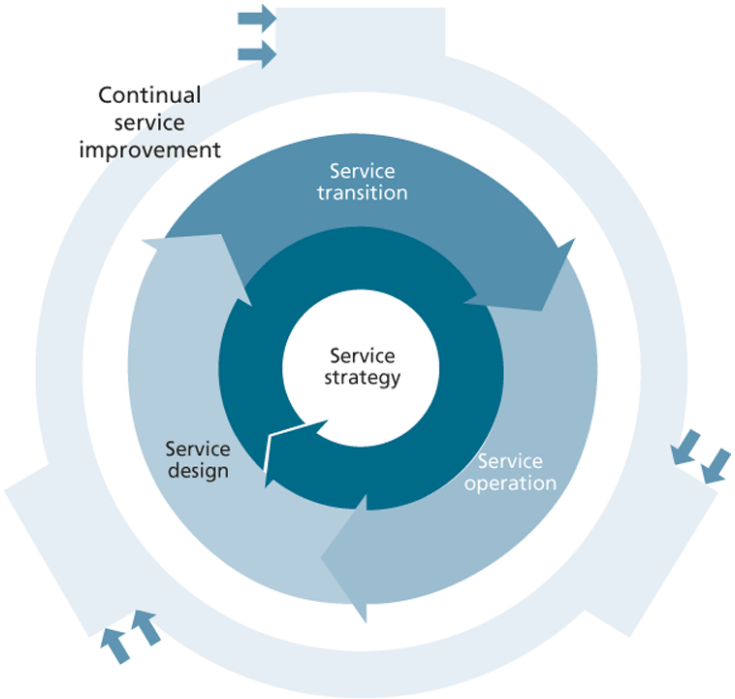


Fig 1.: Model of the ITIL Service Lifecycle (http://www.tomwimtechnologies.com/itilintermediate-lifecycle-service-operation/)

ITIL Service lifecycle deals with the combination of Service Strategy, Service Design, Service Transition, Service Operation and Continual Service Improvement.

Managing IT Services:

Managing IT Services gives a brief about some basic terms such as: *Service* which means something that could be delivered to a customer from a service provider or any person who is ready to offer the service. *IT Service* is nothing much than a typical service which is provided with the use of computers and involves more of a technical stuff. *Service Management* simply means managing a service in which the provider is bound to identify the actual customer requirements and act accordingly. In my perspective Service Management is a crucial part of an IT industry as managing the service includes proper communication with the customer to understand the needs and flaws of the current service that is being provided as well as managing the quality of the service throughout the service period. *IT Service Provider* is an organization that provides IT systems or service to a user/customer which may typically include online and offline support. The organization may be an internal team of the company which works for the people who put the customers on your desks and fix them when they go wrong. A real-time example could be the Computer Services department in our MSU campus who provide support to student/staff within the campus.

The first important aspect of managing an IT Service is to notice what is actually needed by the customer and what is going wrong in it, to see where the IT service users/customers have trouble. It is equally important to think from an IT Service provider's perspective. IT systems aren't simple to set up and run, and users expect many different types of technology to work together. IT systems change constantly with new upgrades, software applications and technologies appearing every week. People use IT systems to help them do business, so as the business needs change, so do the requirements of the IT systems that support them.

Customer service is just the assistance and advice provided by a company/an organization to those people who buy or use its products or services. There are many proven ways to improve IT customer service. In my personal experience when I was a customer service associate at Amazon, I felt that the key to Amazon's success is their customer service. In general, whenever we call a customer service center all we expect is to speak to an actual human instead of listening to the automated voice as we expect acknowledgement and understanding for our problems rather than just the solution. Some key points about customer service from my findings are as follows:

- Strengthen your customer service skills
- Improve customer interactions - in other words not always a customer expects a solution for their problems. Sometimes a simple empathy can do the magic of convincing a customer.
- Feedback – This is the major place where an organization can come to know how the customer feels about the service they provide and where they lack and the places for improvement.

Service Strategy:

Service Strategy is the center and origin point of the ITIL Service Lifecycle. It provides guidance on clarification and prioritization of service-provider investments in services. This step sets a strategic direction of the IT services focusing on the types of services like definition, maintenance and implementation they provide which helps them to be in sync with the customer's requirements. The major aspects of service strategy are Financial Management, Service Portfolio Management, Demand

Management, Strategy Management. Service strategy decides which type of service should be offered to the customer when required and concentrates on the areas of development.

The best way for an organization to concentrate on the areas of development is to track the number of new services that have been implemented, the initiatives that have been taken for business improvements, ratio of customers that the organization has gained to the customers that the organization has lost. This is simply referred as attrition ratio in many organizations to calculate the rate of employees joining and leaving the organization.

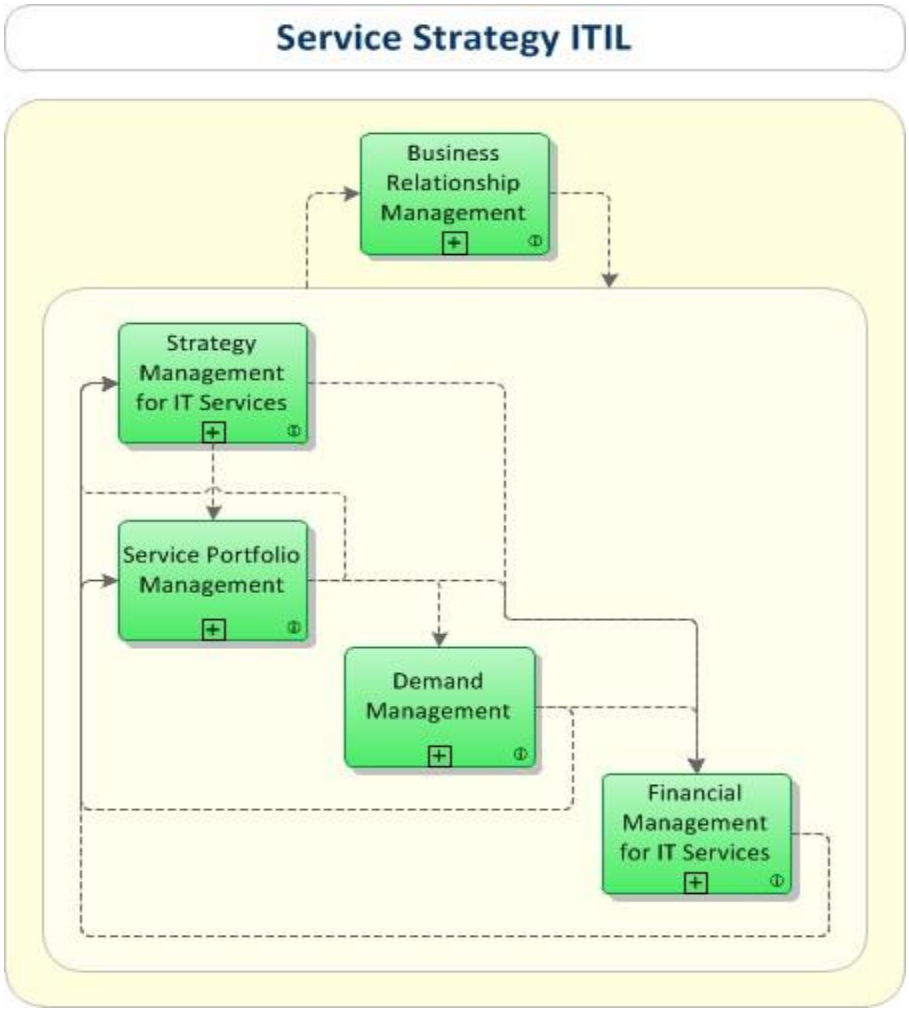


Figure 2.: Aspects of ITIL Service Strategy

Business relationship management: As the name states, this simply means managing the relationship with the customer and to have a rapport. For instance, a bad relationship outcome with the customer can adversely impact the longevity of the project. Sometimes its all about the relationship than the actual way you handle the project.

Strategy management for IT services: Identifying and implementing initiatives of a company's top management specifying the company's policies and then allocating people to implement the objectives.

Service portfolio management: Service portfolio management is all about managing the set of services that is provided to the customer involving approval of business cases etc. A business case is a written or verbal value proposition that is intended to educate a decision maker and convince them to take some kind of action.

Demand management: Keep track of the business activities and make sure the customer's expectations are met.

Financial management for IT services: Financial management is one of the important aspects as from a management's concern as the billing charged to the clients. Every organization has a dedicated team for financial management who manage the expenses of the organization.

Service strategy could be simply defined as overall goals of the service, as well to define customer and customer segmentation. The principles of Service strategy are value creation, service assets, service provider types, service structure.

Service Design:

Service design is the activity of planning and organizing people, infrastructure, communication and material components of a service to improve its quality and the interaction between the service provider and its customers. This step can also be called as a design phase as it helps us to analyze and understand the requirements of the customer in order to create or change the services that already exist.

According to ITIL Service Design volume, a Service Design Package is defined as "Document(s) defining all aspects of an IT service and its requirements through each stage of its lifecycle. A service design package is produced for each new IT service, major change or IT service retirement. Service Design Package is defined as "Document(s) defining all aspects of an IT service and its requirements through each stage of its lifecycle. A service design package is produced for each new IT service, major change or IT service retirement." Basically, the SDP is a product of the Service Design phase of the IT service lifecycle.

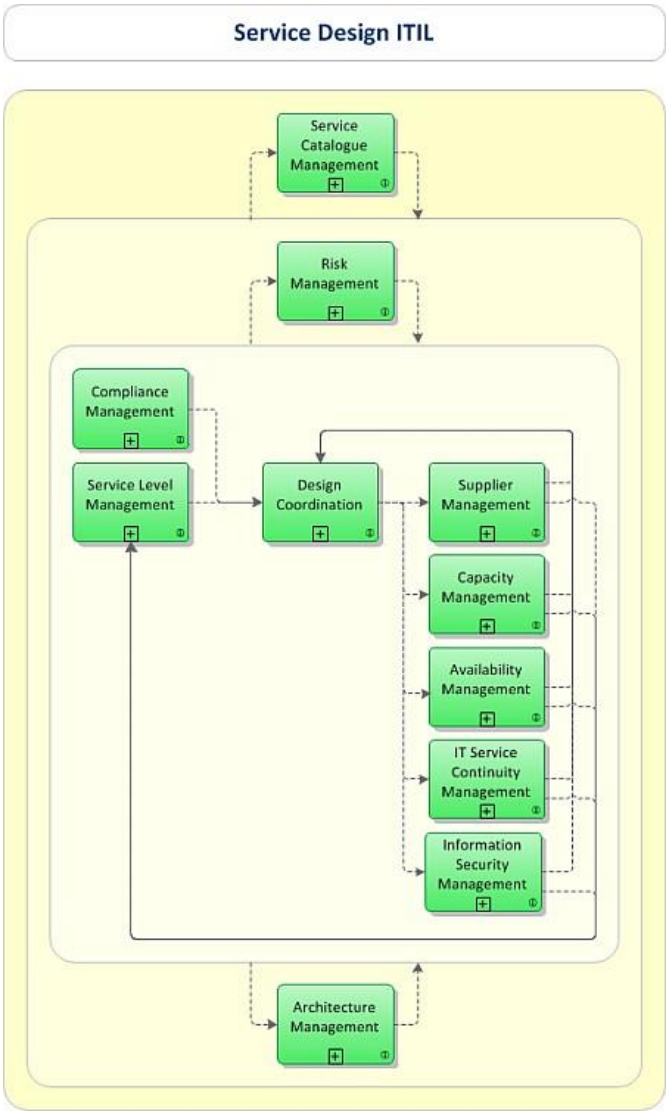


Figure 3.: Main processes as part of ITIL Service Design stage

In my perspective, an organization should have the service design dealt by a managerial person who is well balanced between the technical and management skills.

Service Transition:

The objective of ITIL Service Transition is to build and deploy IT services. In this step we can plan and manage changes to services and implement the changes into the live environment. The purpose of this step is to bridge the gap between design phase and operation phase. This stage also makes sure that changes to services and service management processes are carried out in a coordinated way. The three major stages of service transition step are:

- Build
- Test
- Implementation

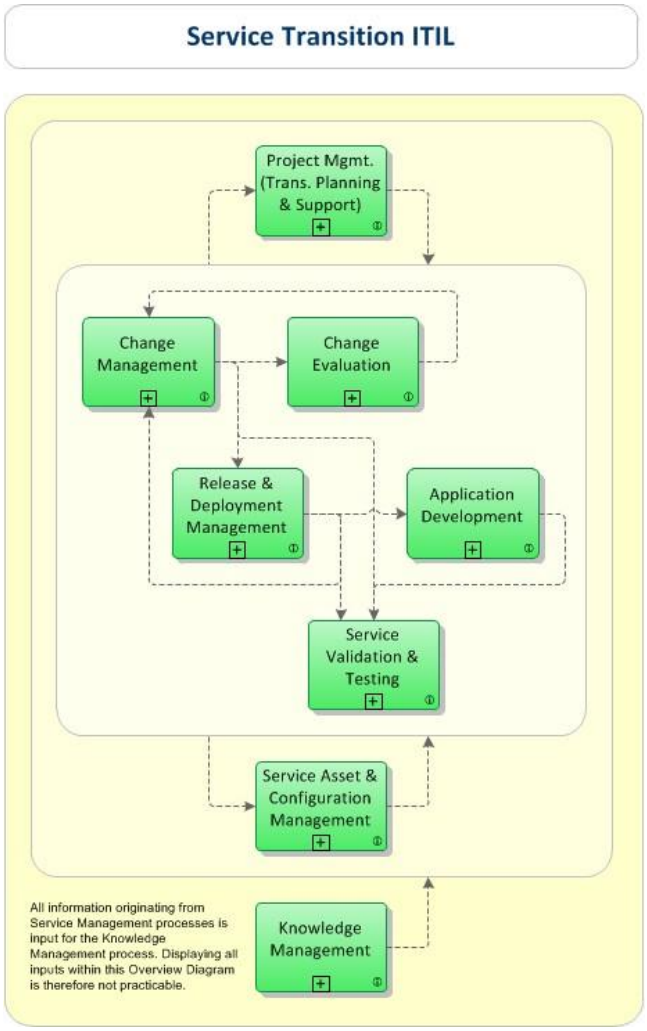


Figure 4.: Main processes of ITIL Service Transition stage

In other words, the role of service transition is to deliver services required by the business into operational use. Service transition provides service operation and service support through the service design package in the receiving service design phase to deliver the services required by the business to the necessary operational stage, if the business case assumptions or requirements in the design phase is changed, then in order to be delivered to the operation stages needed for service, the service must be modified in the transfer stage. The focus of service transition is on every aspect of performing a service, not just the application and the usual. It must ensure that services operate in the foreseeable extreme and in abnormal situations, and support failures and errors. Here are the processes that you need to control the implementation of new or changed services into the live environment:

Service Operation:

This step follows the design and transition phase, it can also be called as an operational phase where the customer interaction and evaluation take place. This is very important because this is where the show cause happens and if something goes wrong an immediate fix might be required. So, the service operation stage is where you deliver and support your IT services you make sure the service is working and fix it quickly when it goes wrong. The service operation stage is when you realize the strategic objectives.

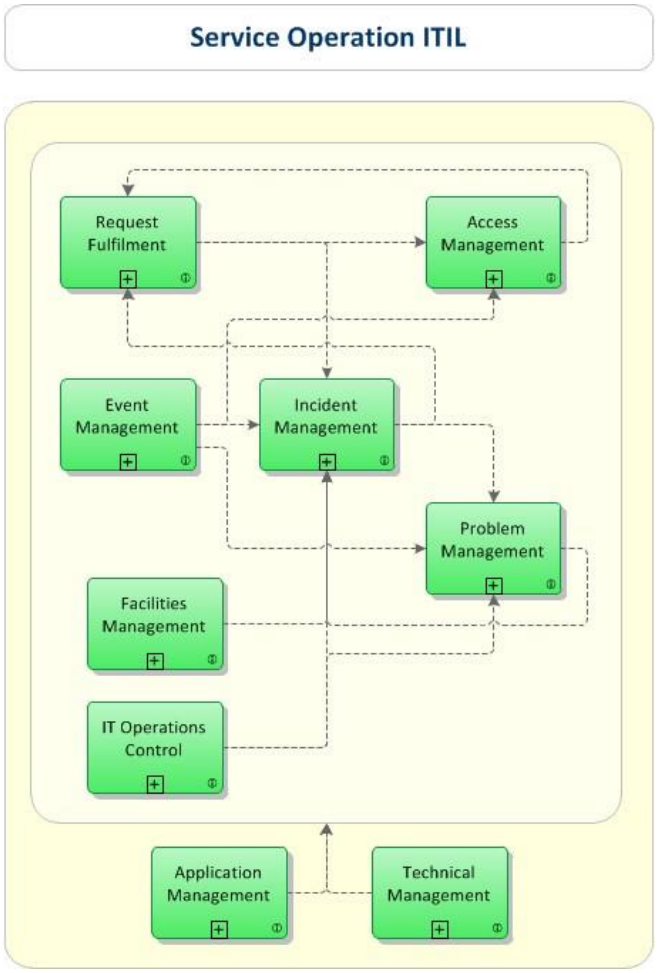


Figure 5.: Main processes as part of ITIL Service Operation Stage

The major support services or terms used in an organization are Request, Incident, Event, Problem and Change. The processes for this stage, which mainly focus on the delivery and support of the services in the live environment and ensure that services are provided as agreed are as follows:

Event management: Well, as the name states event management is all about handling events and other tasks that are running on an IT support system and whenever there an issue with the application the system triggers an alert indicating the same.

Incident management: Incidents are raised when there is an outage or an ongoing issue which creates an interruption in the system that stops the users from using the system.

Request Fulfillment: Request fulfillment means managing requests that are made by users for a service or support they require. It might necessarily not be a problem or an issue but request to allocate a system or installation of an application etc. Most of the Service Requests are handled by Service Desk team which is kind of a remote support

Problem management: Problem management is close to Incident management. However problems involve investigation and analysis of the root cause of the incident that caused the outage.

Access management: Access management is similar to access specifiers in a program code or the options within the security tab of a folder's properties. In a typical organization a dedicated team usually called "Messaging team" takes care of the access related tasks such as setting up user names and passwords for the users using Active Directory.

Continual Service Improvement:

The continual service improvement is the stage where all the operations are live and purpose of this is to meet the business requirements and try to improve the business continuously in order to maintain the business standards.

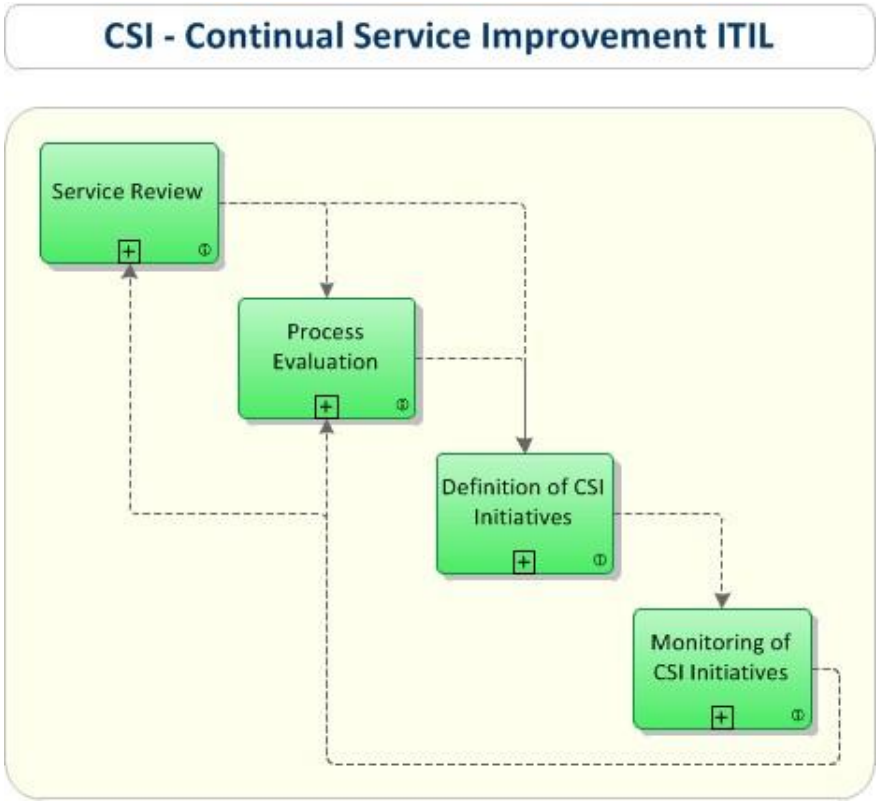
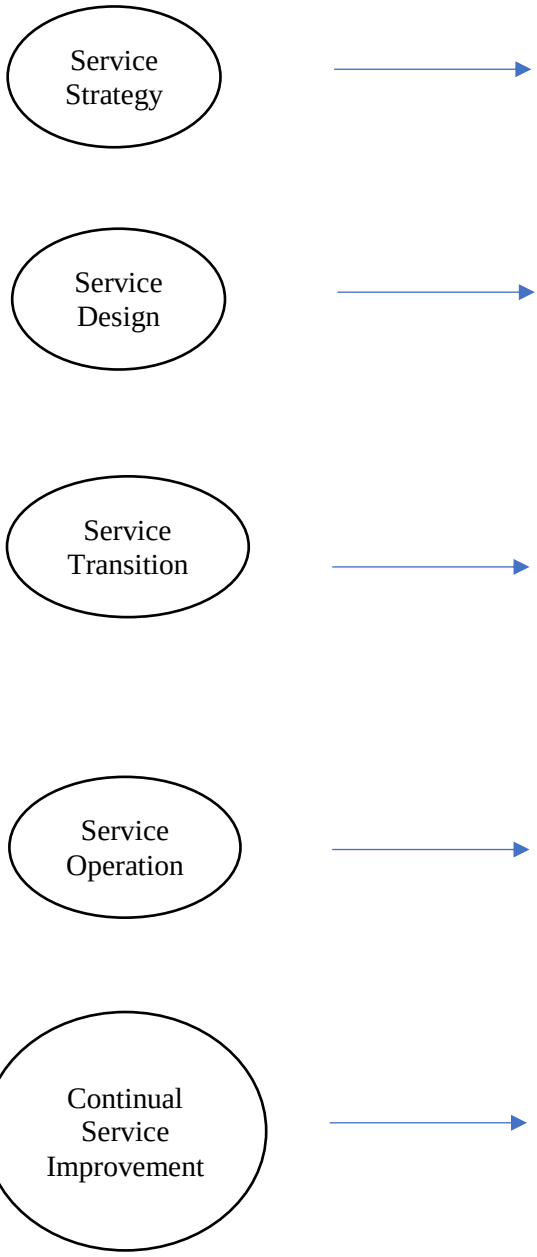


Figure 6.: Main processes as part of ITIL Continual Service Improvement Stage

Service management delivers value to customers in the form of services that enable them to achieve their business goals and outcomes. So, CSI has to ensure that the IT services align with changing business needs and continue to provide value. For example, when a project has been established with all the necessary process but if the same level of service and support is not maintained by the organization then it leads to a failure or a bad impression from the customer which might adversely impact the decision of the customer to return to the service provider.

Applying the service lifecycle to IT projects:

So far, we had a brief about ITIL service lifecycle and the stages in it. Now let us discuss how does it apply in a real-time IT project from the Service Strategy all the way to Continual Service Improvement.



In my personal experience I have seen scenarios where the customer wishes to extend the period of the contract even after few bad performance outcomes just because the support from the service provider is pretty good. This makes the continual service improvement step to be the key in terms of contract extension of a project in an organization.

Well, having discussed enough about the stages of the Service lifecycle and the real-time scenarios, now let us talk about who actually carries out ITIL activities. In any organizational unit there are several teams and people who perform many of the ITIL activities.

Service Desk: Service desk team is the first point of contact whenever a user or the customer faces an issue or an outage. A Service Desk is a primary IT function within the discipline of IT service management (ITSM) as defined by the Information Technology Infrastructure Library (ITIL). "User" refers to the actual

user of the service, while "Customer" refers to the entity that is paying for service. As per the ITIL concepts, the single point of contact between the service provider and the users. A typical service desk manages incidents and service requests, and also handles communication with the users. A Service Desk Analyst provides support for basic incident resolution and requests reported to the division service desk. Responsibilities include initial assessment, triage, research, and resolution of basic incidents and requests regarding the use of application software products and/or infrastructure components. The primary Service Desk Analyst role is that of providing first level support through taking calls and handling the resulting incidents or Service Requests, using the incident management and request fulfillment processes, in line with Service Desk objectives.

IT Operations management: IT operations management is the process of managing the provisioning, capacity, performance, and availability of an organization's IT infrastructure including on-premises data centers, private cloud deployments, and public cloud resources. Information technology operations, or IT operations, are the set of all processes and services that are both provisioned by an IT staff to their internal or external clients and used by themselves, to run themselves as a business. Operations management is an area of management concerned with designing and controlling the process of production and redesigning business operations in the production of goods or services. For an organization's information technology, infrastructure management (IM) is the management of essential operation components, such as policies, processes, equipment, data, human resources, and external contacts, for overall effectiveness. Management of Resources. Operations managers play a leading role in managing both raw materials and personnel. Oversight of inventory, purchasing and supplies is central to the job. Human resources tasks include determining needs, hiring employees, overseeing assignment of employees and planning staff development. IT Operations is responsible for the smooth functioning of the infrastructure and operational environments that support application deployment to internal and external customers, including the network infrastructure; server and device management; computer operations.

Technical management: Technical Management is treated in ITIL as a "function". It plays an important role in the management of the IT infrastructure. Many Technical Management activities are embedded in various ITIL processes - but not all Technical Management activities. The technical management function is the bunch of people with the appropriate skills and knowledge who perform activities at any stage in the service lifecycle. Sometimes staff are allocated permanent roles; other times they get involved in project work as and when required. It depends on the size and type of your organization. Technical management does not only provide resources for the service life cycle but it’s the service lifecycle that prompts consideration of the necessary knowledge and skills during the design of the services.

The Service Lifecycle part of the ITIL for Dummies sounded the most interesting topic for me to do a research on. It covers the topics which when followed makes an organization the best in class. From a real-time view the Service Lifecycle topic covers all the necessary touch points an organization needs to follow to its path to success. From my experience it is so much fun to be a support analyst in a company that follows the ITIL standards. From the service strategy stage that explains how a business case should be till the continual service improvement stage which deals about the support that is being provided to the customer, the ITIL life cycle clearly illustrates each and every step of technical and management alterations that a company needs in order to succeed in its path. Upon investigation about ITIL life cycle, the only thing that is missed as part of ITIL is ‘Resource Management’, Resource management is a key in any organization as handling the employees could be harder than handling the infrastructure itself. In my personal experience handling a support team which works 24 x 7 resource handling has been the toughest

part. Especially when it comes to training and retaining the employees in a team. Support could be harder than any other domain during critical tasks. For example when we were in the midst of holiday support for belk.com each and every job running in a server would be considered critical as instability in the website for a single minute can result in loss of thousands of dollars. To overcome this situation multiple shifts were implied using roll out basis by all the employees. However, when an employee doesn't turn up for work one day that becomes not only a resource lack but also a business call out as the depending works could be at stake.

Research Hypothesis:

Learning more into ITIL concepts and the standards I wish to learn and investigate more on how can ITIL be useful to organizations of all levels and to create an universal adaption methods for the ITIL concepts.

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