

A Study of ITIL Implementation Approaches

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Abstract: Bearing in mind the truth that IT has now become an essential part of nearly all the organizations, as the organizations grow, they are often challenged with various sever problems related to operations and management of IT Infrastructure. In this research, I will be exploring some of the organizations within Pakistan, of different sizes, that are either in process of incorporating ITIL standards or have already been following the standards and policies of the ITIL framework within their organization. On the basis of my research, I will highlight various issues, limitations and challenges that were faced by these organizations before the implementation of ITIL and will recommend a few approaches that will be most effective for handling commonly faced issues by the organization in the pursuit of implementing ITIL framework.

Key Words: ITIL framework, service support, service delivery, incident management, problem management, change management.

INTRODUCTION

ITIL is a non-proprietary framework consisting of numerous interconnected processes that offer an end-to-end viewpoint to IT services stipulation, with the aim to compel constant improvement. Today, a majority of industry leaders consider ITIL an authentic global benchmark for IT Service Management [1].

ITIL defines Service Management as: “The process of maintaining and gradually improving business aligned IT service quality, through constant cycle of agreeing, monitoring, reporting and reviewing IT service achievements and through instigating actions to eradicate unacceptable levels of service [2].”

ITIL exhorts that IT services should be in accordance with the business needs, and corroborate with the quintessence business procedures. It guides organizations on using IT as a device to ease business transmutation and development.

ITIL benefits include, but are not limited to:

- IT services embracing business needs. This means the IT endeavour is centred on helping the organizations to accomplish their planned goals
- Enhancements in the efficacy and quality of service delivery
- Better knowledge of support priorities as well as service delivery
- Better relations among IT, vendors, and customers due to service level management
- Supervision of service delivery facilitating recognition of areas that need process improvement
- Increased productivity
- Better use of expertise and skills [3]

ITIL framework consists of seven core facets:

- Service Support
- Service Delivery
- Security Management
- Application Management
- Planning to Implement Service Management
- ITC Infrastructure Management
- Business Perspective [4].

Service Support model provides a platform for users, customers, and business to acquire pertinent information, and hence is the focal point of this paper.

BEST PRACTICE PROCESSES OF ITIL SERVICE SUPPORT

Table 1 provides a summary of Service Support model of ITIL. These processes are crucial for any organization when it comes to delivering products and services to the customers – both internally and externally.

Table 1: Best Practice Processes of ITIL Service Support

Process	Services Provided
Service Desk	Presents an integrated platform to service providers and ICT users. It also provides guidelines for fixing problems and assisting customers in solving their information-related issues.
Incident Management	Provides incident management flow that reduces the effect of problems in information service. The focus of incident management is on solving problems rapidly instead of evaluating their causes.
Problem Management	Analyzes the reasons of aberration so as to lessen customer loss. This helps customers in evading the similar faults in future.
Change Management	Refers to the use of estimation, review, implementation, and verification mechanisms – by service providers – to report all change operations to the management.
Configuration Management	Describes all service modules, and controls these modules in order to ascertain precise management. Hence, CMDB is the most significant step of configuration management.
Release Management	Refers to all the implementation management process that are required before post-changed service resources or service components are connected to information systems.

Source: [4]

LITERATURE REVIEW

There are numerous academic case studies and surveys conducted on the benefits of the implementation of ITIL. After the thorough analysis of the literature written in this domain and studying different approaches that have served fruitful to many organizations in overcoming various issues related to IT strategy and Business Model synergy, it is concluded that this research would be carried out to analyse some of the local organizations in Pakistan. After carefully analysing their business model and IT Infrastructure, the researcher would highlight some measures and approaches that could be used by organizations in general for heading in the right direction with respect to their IT Infrastructure and could improve their existing business model, services or products.

COMPANIES PROFILING

Folio3

Folio3 is a rapidly growing software house established in January 2006 that helps entrepreneurs and large corporations build innovative, world class software solutions. The information technology of the organization is crucial to the deliverance of the products to their clients [17]. With the growth of the company's infrastructure and the customer profile, the intricacy of the environment increased and so did the risk of problems, incidents, and changes that has a huge effect on Customer Service as well as revenue generation of the company.

Information Technology Environment: The organization's IT architecture includes:

- Intel / HP based servers
- IBM Mid-Range Computers (RISC/6000);
- Storage Area Network (across the two data centers);
- 100+ Virtual Servers based on Citrix XEN hypervisor
- 3 Database Management Systems (DB2, SQL Server and MySql);
- 100+ workstations.

The expansion in services demanded the problem, change, and incident management processes of the organization to not just carry on sustaining the high degree of availability that is essential in a combative environment, but also to render the service thriftily. The IT management recognized that to significantly improve processes and change the culture, the critical areas that required immediate attention included:

- Taking measures on ad hoc basis i.e. when and as needed
- Clear set of expectations from roles
- Proper and consistent communication between the business and IT departments
- Proper Contract Vendor Management
- Define Service Level Agreement
- Balance of sharing IT Resources within the company

Business Case: A Business Case was formalized to deal with various issues:

- Large number of disparate systems;
- Duplication of effort within existing processes;
- Ad hoc approach towards solving problems that is without any prior investigation or long term planning.
- No seizure or analyses of incidents and related trends;

- There was no root cause analysis of problems;
- Change Management policy did not exist;
- Changes were being made to the IT infrastructure and applications without formal approval;
- Changes (approved or otherwise) were not scheduled at times of least impact to the business;
- Expectations from IT department were not clearly defined.
- Roles and Responsibilities were not properly defined
- No standard practice is followed
- Coordination between IT Department and the Management is weak
- Service Level Agreement is not defined due to which accountability of the quality of service from vendor as well as within the organization is always at stake.
- To make operations available to the organization at an economical rate by implementing automation.

Implementation:

The company formulated a group based on three members from the IT department and invested on their training for the ITIL certification. Once the group cleared their certification, they were made responsible for facilitating organization with the proper implementation of ITIL framework within each branch. The team was initially instructed to directly report to the executive management. Since, the team was based on newly certified ITIL professionals therefore the company also hired the services of specialized ITIL coach to ensure the working and effectiveness of the members of the ITIL team. After a couple of months, the ITIL team announced their proposal to the management. Their proposal was pretty detailed as they pursued all guidelines of ITIL and vigilantly worked to tailor it to the operations of the company.

The management then forwarded the plan to IT architects for their vision and insight with respect to various project and product related complexities. As a result of which the plan was revised with respect to the technical constraints and ground realities of the organization. Through this practice, the company successfully identified numerous important organizational changes that were required to be made, fused a number of business lines, and restructured few of its IT operations. Ultimately, the organization with the help of ITIL personnel, some IT consultants having experiences with similar organizations, carried out a series of meetings and interviews and this led to the creation of exhaustive requirements, infrastructure diagrams, and definite workflows. Before long, technology silos were having dialogues about the integration of the tools to give a better prospect of the infrastructure on the whole. Redundancies in efforts and tools were detected and removed. The mean time to solve support issues reduced, the idea of enforcing a CMDB was brought in, and the company began to enjoy the advantages of ITIL, both in expenses as well as in labour.

The organization started seeing the advantages of the implementation of the ITIL for prompt feedback to customers, effective traceability of incidents and changes, efficient solutions to the problems and high level of availability to their customers. The actual advantage is a consistent advancement towards incident and problem management and a central repository of all the artefacts and well-structured IT infrastructure.

PixSense

PixSense provides a mobile social network platform that monetizes user-generated content through advertising, micro-subscription, and digital-goods commerce. The solution is tightly integrated with the mobile operator's billing and messaging infrastructure and is scalable to support additional revenue-generating third-party applications. The PixSense platform is delivered under a frictionless revenue-sharing model in full partnership with the operator [19].

The customer profile of Pixsense includes PT Excelcommindo, Telenor, Globe and HP Snapfish etc. and so the challenges faced by the company were to provide prompt feedback to customers, new and advanced services, easy and effective traceability of incidents and changes, efficient solutions to the problems and high level of availability to their customers.

Information Technology Environment: The organization's IT architecture includes:

- Synergy of data and infrastructure between two distantly hosted location
- IBM Mainframe Computers Z800 (situated in two Data Centers 20 kilometres apart);
- Storage Area Network (across the two data centers);
- 200 Servers (Windows Server family*, IBM, HP, LINUX and Sun);
- 4 Database Management Systems (Oracle, SQL Server, MySQL and Lotus Notes);
- Operating Systems (VM/VSE, AIX, NT/Windows 2000, and Solaris); and
- 200+ workstations.

The IT management recognized that to significantly improve processes and change the culture, the critical areas that required immediate attention included:

- Alignment between the business goals and IT objectives
- Elimination of ad hoc-ism in both internal and external support issues
- Better tracking of incidents, problems and change requests
- Proper hierarchy of personnel in IT department and clear set of roles and responsibilities
- Central repository for better synchronization of records between local and foreign offices
- Proper Vendor Management and Service Level Agreement
- Monitored and balanced use IT Resources within the company

Business Case: A Business Case was formalized to deal with various issues:

- Duplication of effort within existing processes;
- Ad hoc approach towards solving problems that is without any prior investigation or long term planning.
- No seizure or analyses of incidents and related trends;
- There was no root cause analysis of problems;
- Change Management policy did not exist;
- Changes were being made to the IT infrastructure and applications without formal approval;
- There was no risk assessment of the change;
- Expectations from IT department were not clearly defined.

- Roles and Responsibilities were not properly defined
- No standard practice is followed
- Coordination between IT Department and the Management is weak
- Service Level Agreements are not defined due to which accountability of the quality of service from vendor as well as within the organization is always at stake.
- To make operations available to the organization at an economical rate by implementing automation.

Implementation:

A project team with a verified success record of enforcing the software and ITIL processes was built, and dedicated project authority was founded to curtail risks related to the projects of such type. Various tactical decisions made at the beginning of the project and in the course of its life added to its success:

- Firstly, to re-design the current processes to foster the implementation of the software. Then at a later date re-define these processes to be a closer fit to ITIL;
- Slight or no alteration in the standard software to guarantee flawless upgrades of the product in future;
- Passing on of expertise from the project team (outside the company) to the company's employees;
- Future utilization of the software's capabilities to expand the deployment of ITIL's Service Support model - Configuration Management Database (CMDB).

The IT team and the main stakeholders of the organization were involved in the deployment of the software and related processes. Their responsibilities included:

- Documenting the processes
- Providing training to the staff
- Installation of the software for Incident, Problem and Change management

The re-designing of the current Problem, Change, and Incident Management processes obligated some basic knowledge of the ITIL Service Delivery framework. Hence, a handful of employees were provided training of ITIL Service Support to enforce the alignment of these re-designed processes with ITIL. A number of outsourcers were evaluated and then utilized for different services including the servicing of field IT infrastructure, for example telecommunication's routers, hubs, etc. To ensure compliance with the organization's problem and change management processes, the outsourcer's contracts were properly maintained which resulted into following benefits,

- The facilitation of the measurement of the outsourcer's field support performance against agreed SLA's;
- The on-going maintenance of the telecommunication security configuration to minimize the risk from unauthorized access to the organization's network;
- Analysis of incidents, problems and changes in the field and their impact; and
- Trend analysis of equipment failures for future procurement of devices.

The deployment of the software and the implementation of ITIL have resulted in the creation of a single, integrated, and standardized workflow. Problem, Incident, and Change Management processes that are now standardized and uniform throughout the organization have enabled the IT department to get a complete picture of problems, incidents,

and changes and their corresponding effects. With the creation of a proper knowledge base to capture the problem information in a controlled manner, the trend in problems can now be identified in advance and can be managed proactively instead of reactively, thus enabling organization to have consistent network management and alerts across the organization. Implementation of incident, problem and change management has significantly changed the way the staff handles and resolves problems. With increased control and reporting procedures, not only the possibility of losing the critical information about the problems and their workflow has reduced significantly but also with the help of accuracy of reported problems, trend analysis and reliable statistics, organization can now make better strategic decisions with regard to proactively manage problems and decrease the service outages in order to achieve improvements in responding to alert and increasing customer services. Also, with clearly defining the roles, responsibilities and expectations from IT Department and facilitating the department with adequate level of professional help, the dependency on individual expertise to resolve problems and manage workflows has been almost eliminated. Further, with a better understanding of problems and their priorities and the performance of the service providers against SLA's, the organization has a greater concentration on availability and service management, with outsourcers to make sure they fulfil their SLA requirements.

NJI

NJI is one of the brightest and most reputable names in the insurance sector. Sustained growth over half a century has secured NJI a place among the "Big Three" Pakistani insurance in terms of gross direct premium and financial base. NJI is listed on the Karachi & Lahore Stock Exchanges. NJI, with its Head Office in Karachi, has an extensive and dynamic branch network in all major cities and towns of Pakistan that guarantees prompt service at the customer's doorstep.

The company's strategic objective is to increase their market share without compromising on level of service to their customers and profitability. This means providing product according to the requirement of their customers thus assisting them in maintaining and improving their risks, and finally settling their claims (if any) promptly and judiciously [21].

The organization heavily relies on the practices of ITIL framework and continuously invests in proper execution and maintenance of the processes running in the organization.

Information Technology Environment: The organization's IT architecture includes:

- Synergy of data and infrastructure between multiple units located in different cities across Pakistan.
- IBM Mainframe Computers Z800;
- IBM Mid-Range Computers (RISC/6000);
- Storage Area Network (across the country);
- Data Store
- 200 Servers (IBM, HP, Remedy, LINUX and Sun);
- Database Management Systems (Oracle and Lotus Notes);
- Operating Systems (Windows XP, Windows 2003, Windows 7 and FC9); and

- 800+ workstations.

Business Case: Considering the expanding size of the organization and the IT Department scattered across the country, the management wanted to improve the IT services quality and enhance the level of productivity at the top management levels. So, the management decided to lean towards the implementation of ITIL framework in order to achieve better process integration and synchronization in operation.

The business case offered several advantages of problem, change, and incident management processes that include:

- Enhanced security of IT infrastructure;
- Improved service level by augmenting adaptability in infrastructure, greater availability using clusters, and an assured customer deliverance by means of SLAs;
- IT expenditure becomes clear helping organization in budgeting
- Roles and responsibilities become clear
- IT service management methodology revolutionizes to become proactive from being reactive;
- Coordination between IT Department and the Management became strong
- Maturity level and expertise of IT department becomes evident
- Enhanced and accurate Capacity Management
- Mature risk mitigation plan
- Effective disaster recovery and business continuity plans
- Helped organization in making strategic decisions with respect to vendor support and service level agreements.
- Considerably enhanced processes, which are in accordance with a globally accepted standard for best practices (ITIL);
- Major cut on operational costs achieved by implementing software for the monitoring, recording, and tracking of incident, problem and change management and virtualization.

Implementation:

In early 2003, the management acquired the services of an ITIL consultancy firm that worked directly with IT team to make sure there was 'buy-in' at all stages and a chain of information and training workshops was carried out all through the implementation. The group of consultants performed detailed maturity assessments of the processes in place and a comprehensive project plan was presented on the basis of their discoveries.

This project continued for more than five years and is now aimed at continual improvement. The overall effect can be summarized as below:

- Introduced ITIL framework and training of the staff for the continuous improvement in IT service management.
- Created synchronized and uniformed Workflows for Incident, Problem and Change Management process that are same across the all the units.
- Created a central repository for capturing and maintaining incident and problem related information in a controlled way.
- Increased maturity of the information lifecycle and the timely obtaining necessary details about the customer's requirement has facilitated management in taking cost effective decision with regard to buying hardware and

software in advance, when it is most economical for the organization.

- Based on the availability of accurate, timely and complete information, the organization is now in a better position to make strategic decisions.
- With IT functions being managed on a country level, capacity and availability management can be done for the organization on a bigger scale rather than doing it on project basis, thus enabling organization to gain economic benefits.
- Improved visibility and tracking of problem status throughout the organization so that the problems could be identified at an earlier stage and the issues can resolve proactively.
- Reduced service outages, resulting in increased customer service.
- Little dependency on proficiency of an individual for troubleshooting and workflow management.
- Better understanding of problems and their priorities and the performance of the service providers against SLA's .
- Created ability to have consistent network management and alerts across all telecommunications nodes.

FINDINGS AND LESSONS

After closely evaluating the issues, challenges and opportunities of improvement existed in the organizations that I've studied and critically examining the course followed by these organizations in the pursuit of ITIL framework implementation, I've identified various important aspects that are necessary for successful implementation of the ITIL framework within an organization. The observations are as follow:

Why Implement ITIL

- The reason why the organization is opting for the ITIL framework must be clearly and completely understood by the key stakeholders. It should be well known and communicated why ITIL framework is being considered, what will be the objectives or the benefits from the implementation of the ITIL framework and how will it be monitored or measured. In case of small size organizations, the changes can be implemented, observed and tracked in a more convenient manner because of the limited hierarchy of the organization and centralization of the resources [22]. Therefore, mostly small size organizations are less threatened with respect to the proper execution of the changes, the communication between department and individuals, effective and efficient tracking of the overall progress. However, in case of medium and large size organization, where most of the times business units are scattered over distant geographical locations, bringing awareness of the benefits and purpose of the ITIL framework become foremost important challenge. It is very important to have people at critical position in the organization to have thorough understanding of the purpose and benefits of the implementation of the ITIL framework and the changes that will be introduced during this process so that these people can better act as facilitators in the transition rather than producing friction.
- Management should invest in the tools necessary for the effective implementation of the ITIL framework, such as Configuration Management Database, Helpdesk tools,

ITSM tools etc. Mostly, small size organizations are reluctant in purchasing expensive solutions for meeting their challenges and so they usually incline towards custom solutions built in-house by IT Department. Such custom tools are designed according to the specific needs of the business and serve as single solution for Help Desk, Incident and Problem management tools [22]. However, both in medium and large size organization, it is essential for the management to have proper setup defined for IT Service Management. Without the implementation and training of Help Desk, Incident Management setup, Problem Management setup, Change management and Release Management protocols the organization cannot effectively gain the benefits of the ITIL framework. For Large size organization, the existence of the functional CMDB is a must since most ITIL processes interact with it but in the case of medium size organization the requirement can still be fulfilled with independently operating units maintaining all the information in separate units.

Training And Professional Help

- It is must to have dedicated and trained professionals at key positions in the organization, who have clear understanding of the ITIL framework and understands the commitment and dedication that is required on continuous basis. Although, it is an easier task to accomplish in small size organization but it is observed that compared to large scale organizations, in smaller organizations these activities are de-prioritized or taken for granted over period of time. It is because of the limited number of people accountable for certain tasks and less need of transferring expertise to other people in the organization. Usually in such environment, key people from the IT department are delimited to the operations that have already been introduced to and processes that they find working adequately for the given period of time. On the contrary, the medium and the large size organizations do understand and heavily emphasize on the importance of keeping key facilitators of the ITIL framework trained and up to date with the over-all expectations and objectives of the organization. Based on the research, I find it essential for strengthening the implemented processes and for the growth of the organization that the key players (mostly head of department or at managers) must have professional attitude towards the incorporation of ITIL practices and work towards the continuous identification of opportunities of improvement in the given model of the organization. Knowledge sharing must be achieved with the help of trained professional from outside or within the organization by conducting various sessions' at all possible levels of the organization for the awareness of ITIL, its objectives, benefits and how it is aligned with business objectives [22]. The communication channels play critical role in the success of the ITIL implementation and therefore must be built all throughout the organization so that all the participants of the process remain sync with each other.
- The need for the change in the culture of the organization and the expectations from people should be clearly understood by all the participants.

Roles and Responsibilities

- Before introducing the practices recommended by the ITIL framework in organization of any size, understand the roles

and functions required to support these processes. The proposed structure for the new IT organization must be carefully analysed in order to ensure that the structure is secure and operational for both the existing processes and the new processes that will be introduced due to the changes in the operations.

- To have clear set of roles and responsibilities defined for each process owner so that they are primarily responsible for driving that process and monitoring the progress over period of time.
- For successfully proceeding with the implementation of the ITIL framework within an organization it is a must for organization of any size to ensure that the process owners are effectively incorporating the practices of ITIL framework in their day to day activities and not de-prioritizing these activities due to some other job commitments or business projects. It is for the higher management to direct, control and sustains processes all throughout the organization in the planned order and in case of any lacking take necessary action to bring the process back on the track.

Ownership of Processes

- Ideally, ITIL framework recommends having a dedicated owner for each process in a company, irrespective of the location of the units across the globe, as having more than one owner for a process not only cause redundancy of tasks and activities within the organization but also affects the uniformity of operations across the company [23]. With a single owner to a process, it is easier to achieve discipline and consistency in task and activities across the organization and also the accountability of the success or failure of the processes can be easily identified and tracked. However, having a separate owner for each process is a costly measure and therefore even though it is strongly advised for large organization but for both small and medium size organizations, such arrangements may not always be affordable therefore in such organizations, the responsibilities of the different related processes can be shared by single owner as long as the processes do not clash with each other and the owner could do justice to his assigned processes.

Prioritization of Processes

- For any organization, , operating under any kind of circumstances, keeping the general view of ITIL framework implementation in mind, it is essential to first identify the processes that have most impact on the business value and then address the processes with respect to their complexities and dependencies. Usually in smaller organization, changes are easier to introduce therefore decisions related to prioritization of the processes and the implementation of the action plan is considerably easier to achieve. But as the size of the organization increases and the business expands, the decisions related to introducing change in the environment becomes complicated and difficult to incorporate. Therefore, it is advised for all type of organization to start with improvement of processes one at a time instead of trying to improve all the processes at one time. Because taking it step by step will not only enable the individuals within the organization to cope up with the changes and understand the impact as well as the benefits of these changes but will also help management to

continue their core operations with only particular area of the business being subjected to the desired change.

Management Commitment

- The role of the management in this whole transition is not only the most important but also the utmost difficult aspect of the whole process. The attitude and the approach of the management towards the implementation of ITIL framework is usually not dependent on the size of the organization but on the vision with respect to the business objectives and growth. For the success of the ITIL framework implementation, it is essential to have commitment from the top management in way that they fully understand the value of money and effort going into this practice and provide consistent and complete support continuously [23]. One of the common and false assumptions about ITIL is that by just imposing the framework on any organization, all the issues faced by organization can be resolved. The reason for such assumption is usually the lack of understanding of the purpose of the ITIL implementation and the unrealistic expectations of the management.
- The management must make sure that the right people are in charge of the process, facilitate the staff and the key stakeholders with professional training of the ITIL discipline and also of various tools utilized, monitoring the progress over period of time, demanding proper reporting of activities and taking all the necessary actions to keep IT Infrastructure of the organization aligned with the business objectives. Also, the management must make sure that Service Level Manager role is carried out at the right level from within IT, and that the efforts made by the participants are focused at strategic and tactical level so that the main objectives remains the development and improvement of the services rather than the technology.

Service Level Agreements

- The vendors and the service providers are considered to be the life line of IT department of any organization because based on the agreement of services and support from these vendors, management makes strategic decisions and plan future endeavours accordingly. So, for any size of organization that can either be in the state of expansion or working towards the improvement of quality of the services they offer, it is a matter of paramount importance to maintain proper Service Level Agreements with each contractor in order to be able to monitor and ensure the level of services provided and make better plans for the future. The proper documentation of these contracts not only help organization in being precisely up to date with respect to capabilities of the organization but also facilitate in budgeting and managing IT operations in a predictable manner over a longer period of time.

Outcome

- Although the benefits of incorporating ITIL framework within an organization will start surfacing shortly after its implementation but the real difference in terms of the quality of the service and the alignment of the business objectives with IT will evolve over period of time with the help of discoveries of short comings of the infrastructure and the enhanced maturity level of processes followed throughout the organization. Mostly, ITIL implementation

are incremental in nature that is the practices are deployed in the organization in form of one process at a time therefore the complete adoption of the ITIL framework may vary from the organization to organization based on the size and complexity of the organization [23]. In case of the small and medium organizations, the ITIL framework implementation tends to complete in considerably shorter period of time so the results of this transition, from the ad-hoc processes to the best practices defined by ITIL framework, get evident to stakeholders much more conveniently and efficiently. However in case of large organization or organization scattered over distant geographical locations, it is advised to keep all key stakeholders engaged and enthusiastic with respect to the new transformation and to communicate as well as highlight achievements on frequent basis.

CONCLUSION

On the basis of the organizations that have been studied in this report, it has been observed that the benefits claimed by ITIL in literature are the same as they are perceived by the practitioners in actual industry. ITIL is one of the most widely used IT frameworks and by now has been adopted by many organizations around the world. However implementation of the ITIL framework comes with different challenges like resistance to change, conflicts in tasks, unclear orders and educating staff etc.

To gain maximum benefit from the IT investment, organizations should concentrate on the maturity of their processes related to service management. In order to improve the effectiveness and efficiency of the deliverables, an organization must find ways to improve the Service Delivery and Service Management process.

If the implementation of ITIL framework is not carried out as change in organization culture or in IT operations than even though large amount of investments are made in the IT infrastructure, organization will still fail to see the desired improvements. This happens mainly because the guidance for processes structuring provided by ITIL framework is either not rolled out effectively or is not followed completely. Implementation of ITIL framework is not only about the evaluation and revision of the existing processes but is mainly focused at changing the way people operate and get rewarded, different technical platforms and thus changing the behaviour of the entire organization.

FUTURE WORK

Considering the limitations mentioned above, this research work includes input from limited group of individuals and single representation of each type of organization i.e. small, medium and large organizations. Therefore, to better validate the findings and improve the recommendations, more research needs to be performed on a large group of organizations and from each organization, more than a couple of representatives should be interviewed so that the overall improvement gain, resolution of challenges, and biasness in the findings could be presented in accurate manner.

Also, to put the findings highlighted in this report to actual test, these findings can be applied and used as guidelines for any new organization implementing ITIL framework. Based on their experience in the light of the findings of this report, the authenticity of these findings can be further validated.

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