Implementing Continual Service Improvement In Business Enterprises: A Proposal To Improve Business Effectiveness Of Nepal

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Abstract: Today organizations are striving to manage Information Technology (IT) from the view point of business in order to improve the services they deliver, reduce the cost, achieve greater business agility and Return on Investments (ROI). To fulfill their quest, to make the management efficient and stay competitive they are fast adopting standardized frameworks of best practice processes such as IT Infrastructure Library (ITIL), which is regarded as most suitable framework for IT Service Management. Gap between the theory of IT service management, most importantly the practice of Continual service Improvement and the state of Nepalese business environment has motivated the author to perform a fundamental research in this topic area. The research issues were deduced into main research question and to achieve the objectives an appropriate methodology was followed.

Keywords: Business Effectiveness, Continual Service Improvement, Information Technology Infrastructure Library (ITIL), IT Case of Nepal

Introduction
The main objective of this research is “Continual Service Improvement: Bringing it to life” .ITIL (Information Technology Infrastructure Library), one of the widely adopted framework today in business. We most of us has heard and read about it but still don’t know from where to start its implementation process. Although Nepal is taken as the model for this project, the framework developed could be useful for other similar developing countries. The Study identifies potentials of the CSI in the course business planning and realization processes of decisions. Gaps will be identified and demands and necessity of service improvements will be clearly analyzed.

Background
Cartlidge & Lillycrop (2007) opines that organizations today are struggling to manage information and IT resources and they take information as most important resource to be managed. The problem is many organizations overlook at the aspects of IT and address them superficially (Avgerou, 2009; Pohjola, 2003; UNCTAD, 2008). Nepal and many developing countries need to adopt effective framework and strategies to manage the IT assets effectively. Talking about Nepal, it is still in struggling phase in field of Information and communication Technology (ICT). Many factors acting upon it like the low level of economic development, lack of infrastructure and the unstable government. No matter where the position of Nepal is in global IT map, the technical innovations and adoptions done in different sectors are considerable. The potential problems and challenges behind could be IT adoption cost, power outage, brain drain, insufficient infrastructures and lack of knowledge in Systematic IT framework adoption (Castells, 1999; Avgerou, 2009).

Terms of Reference
Rationale
Nepal is a developing country in South-East Asia which is influenced by the rapid technological and economical change in two neighbouring countries – India and China. The Demand of IT is high despite of the political instability which has halted the development of socio-economic, cultural and physical infrastructure development. Technology is being adopted in every sectors and the number of peoples who are not influenced by the latest technologies can be counted in numbers. Interestingly in the past few years there has been some remarkable changes and development in the field of information technology. Organizations were still using ad-hoc methods to make managerial decisions. The paper based records was the source of primary data for doing market analysis and decision making. Business Intelligence was limitedly used by Nepalese companies. Decisions were relying on trained and motivated staffs but were later felt for computerization. Thus some of the global and private companies introduced IT in Business and for core decision making process although it has not made much headway (Manandhar, 2010). The IT development in Nepal is haphazard. The government is never aware of the development, deployments, research and investment in information technology. Only some of the private and successful organization is making investment on the sector and they do knows about the latest trends and demands of IT in market but most of the organizations are still deprived of the basic facilities of Information technology. Other aspects to be considered for the adoption of new system and continual service improvement are cost, local expertise and access. The cost of IT adoption, especially software is very high. For the developing countries like Nepal where the economy is very poor and poverty rate is high, the government mayn’t be able to invest and allocate sufficient funds on technology implementation, which doesn’t imply that IT investment should be null. Government can make the rules and regulation flexible and can encourage the private sectors and international donors for the investment on those sectors. IT adoption needs experts but at the same time local experts can be trained instead of investing on the foreign experts, as a significant number of IT student’s graduates from the local universities and colleges every year (Paudel et al., 2010; Timsina, 2007). It is seen that an effective framework is necessary which will minimize the problems being faced currently and which can help to establish the Nepalese market in the international platform.
Research Question
As the proposed research will focus in IT Service Management and service improvement of business enterprises, the key research question is formulated as follows:

1) What is the benefit of efficacious adoption of ITIL & continual service improvement process in Business Enterprises, especially in Nepal?

To contribute to the above question, the study will focus on the following specific areas:
I. What is the current status of IT adoption in Nepal? Is government really conscious about the service improvement and adoption of IT in Business? Are the policies formulated suitable for new technology acceptance?
II. What are the available models or frameworks for IT used by other countries which proved to be successful? Can those frameworks fit into Nepal’s present scenario?
III. What can be the potential barriers if we introduce new IT framework?
IV. How can Nepal benefit from new framework, possibilities and potential it carries?

Aims and Objectives
The aim of the research is to develop a solution framework for effective adoption of Business Intelligence and to generate a solution path for continual service improvements of those intelligent systems. The objectives set to attain this research aim are given below:
1) To investigate on the past IT policies of Nepal and produce a critical analysis of its significance and impact.
2) To investigate critically about the effort made towards IT Service Improvements and IT frameworks used by some developing countries based on thorough review of published literature.
3) To analyze the impact due to CSI process taking in consideration the different barriers like cost, culture, skills, access, etc.
4) To investigate the advantages of CSI in Business Intelligence and critically analyze importance of its adoption in IT
5) To examine the best technology to fit the need of Nepalese society and the Nepalese business enterprises.
6) To find out how common BI activities are and how BI is currently applied in large Nepalese companies.
7) To examine the initiation and organization as well as the future prospects Concerning Service management and improvements.

Scope
Service Management has become the voice of world today. The world is going into transition phase through adopting the different frameworks of service management in IT. Service management and continual service Improvement has become the key issues of every business to cope up with the present development trend and no one can think of Return on Investment (ROI) and Value on Investment (VOI) without fitting into the present scenarios. The research will look after the history of service management, the frameworks adopted in delivering services. The need of continual service improvement and the benefits of adopting new IT frameworks like ITIL, PRINCE2 etc in service improvement will be discussed in the research as well.

Data Collection
In order to clutch large amount information on a short time period, questionnaire is prepared with fixed number of closed questions. The questionnaire was distributed to the stakeholders of information technology and the individuals responsible in BI activities in Nepal. The questionnaire was distributed through e-mail. In October 2011, a survey of CSI, ITIL adoption and impacts on Business effectiveness was conducted. The questionnaire was comprised of 3 parts as shown in Table.

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Table 1: Survey Questionnaire Composition

Literature
Avgerou (2009) believes that IT has become the powerful force in transforming the socio-economic and political condition throughout the world. Cater-Steel & Tan (2005) argues that the circumstances confluence in past few years has motivated IT functions to become more user-friendly and service-oriented. Batalden (1993) says Change in Technological sector is at rapid pace. Many witnesses are in front of us that remind us about the vast change in technology and the impacts are felt in our daily lives. It is becoming hard to predict the future and people are becoming better and wise day by day. Changes in technology, evolution of new IT standards, frameworks happen to change the people thoughts, beliefs, societies, countries and the whole world heading towards IT revolution.

Continual Service Improvement
Case (2009) depicts that Continual Service Improvement is a hot issue today, many organizations talk and think about it but in reality they don’t make an effective plan, allocate resource, schedule and monitor it. It is just confined in discussion stage and embedding with organization culture is still lagging behind. Continual Service Improvement (CSI) focuses quality of service maintenance, evaluation and improvement in regular basis taking care of maturity of overall ITSM service lifecycle and the processes underlying. CSI integrates the common principles, methods and practices from quality, and change management working in improving the services, processes and activities related to technology and service lifecycle (Arraj, 2010; Cartlidge & Lillycrop, 2007).
According to Macdonald (2011) summarized from a ITSM journal Service Talk, CSI embraces every aspect of the ITIL service lifecycle and can be applied to provide a sustained improvement in IT performance and to deliver a positive uplift in the service management capability of the IT service provider. Case & Probst (2009) depicts that the practice of CSI ensures that IT is capable of enabling business operations continually and is coping up with the changing business environments. CSI is taken as a wrapper for whole service lifecycle which focuses on the overall health of service management within an organization. Its main objective is to align and adjust IT services and going for improvements of IT services supporting business by identifying the changing business needs (foxit, 2011). The main objectives of CSI are (foxit, 2011):

i. ITSM overall health is taken as discipline
ii. IT services portfolio are aligned continually to meet current and future needs.
iii. Highlights the maturity of IT processes supporting business.
iv. Reviewing of ITSM for improvements, through continuous evaluation and making recommendations across all lifecycle.

Arraj (2010) says “Don’t try to boil the ocean at one time” which states that CSI implementation should be proactive in practice. Organizations should focus in how to continually improve the process after spending thousands of their money in developing and implementing service rather trying to make changes instantly. CSI cannot work in vacuum rather requires the constant support of other processes and expertise of Technical, Application and operational Management. Service Level Management and Availability and capacity Management plays great role in monitoring services (Case, 2009).

Objectives of CSI

Johns, (2011) believes that the objectives of continual service improvement are to increase the efficiency, maximizing the effectiveness of the business process and the cost optimization .The entire service lifecycle of CSI is helpful to identify the improvement opportunities. It is also responsible for identifying ways to improve IT service quality and in improving the efficiency of ITSM processes. It ensures that customer satisfaction is met providing cost effective solution and quality end product (Ward and Peppard, 2006).

CSI Lifecycle stages

CSI is crucial in obtaining business value today and the areas it needs to address are; Overall health of IT service management as a discipline, Continual alignment of the portfolio of IT services with current and future business needs and maturity of enabling IT processes for each service in CSI lifecycle.

Service Transition

It deals with testing, building and deployment of new changed services enabling plan, check and track progress against requirements. It provides guidance ensuring that the newly changed services are well managed, introduced, deployed, and transferred (Kuller, Grabowski, Petrsames and Vogt, 2010).

Service Design

Service design stage deals in designing appropriate and innovative IT services focusing on architecture, processes, policy and documentation, meeting current business agreements. Design phase starts with new set of changed business requirements and ends up with a solution development to meet business needs as documented(Foxit, 2011; Kuller , Grabowski, Petrsames and Vogt, 2010).

Service Operation

It deals with management of day-to-day operation of IT services ensuring that the processes and activities are operated well in usual basis(Foxit, 2011). Service Operation can be optimized into long term and long term improvement beyond the discussion stage. CSI should be embedded to the organizational culture and has to become a routine activity (Arraj, 2010; Nickols, 2010). According to Johns (2011) summarized from an ITSM journal Service Talk: “Remember the adage. ‘If you don’t measure it, you can’t manage it’-and you certainly can’t provide evidence-based feedback to the decision makers in the organisation unless you are tracking, monitoring and reporting”.

Illustration 1: Service Portfolio spine

Illustration 2: The Continual Service Improvement Model

Illustration 3: CSI Lifecycle
activities and are supported by number of processes like Access, Event, Incident, Problem and Request management; functions like service desk, technical management, IT operations management and application management (Kuller, Grabowski, Pedtsames and Vogt, 2010).

Service Strategy

It tries to make clear why a particular activity is performed before going for its implementation. Core processes are defining the market, developing offering and strategic assets and finally preparing for execution (Foxit, 2011; Kuller, Grabowski, Petrsames and Vogt, 2010). The core principles of service strategy are:
1. Value creation
2. Service Assets
3. Service Provider types
4. Service structures
5. Service strategy fundamentals

Illustration 4: Service Improvement levels (Bernard-Doppler) of CSI

Illustration 4 clearly shows the increased value to the business when the CSI influence expands to phases of service lifecycle. ITIL (2006) suggests making incremental improvements by start measuring, gathering, analysing and beginning the data reviews straight away.

Critical Success factors

Rapidbi (2000-2012) explains Critical Success factors (CSFs) as:

"Any aspects of a business that are identified as vital for successful targets to be reached and maintained. Critical success factors are normally identified in such areas as production processes, employee and organization skills, functions, techniques, and technologies."

Ward and Peppard (2006) says Critical Success factors as the activities that are essential for ensuring success of any business. There come risk factors associated with every project. The success of project is determined by certain factors surrounding it (ITLibrary, 2011).

Size of Organization

Hung, Tsai and Jiang (2009) argues that large organizations are better in terms of ability, IT knowledge experts whereas small ones are facing problems in technology adoption. Thus the size of enterprise is positively related to implementation of CSI. So our first target can be larger organizations, motivating them to adopt intelligent systems in core decision making process.

IS capabilities of staffs

Hung, Tsai and Jiang (2009) believed that small enterprises lack professional IT knowledge and technical IT staffs. Because of this problem organizations delay in adopting innovations and has build up trends of waiting until they have sufficient expertise. Marrone & Kolbe (2011) argues that it is necessary to change the beliefs of senior executives that IT is the only competitive tool for business

Innovation of senior executives

Marrone & Kolbe (2011) believed that senior executives characteristics affects the IS adoption in organization. Hung, Tsai and Jiang (2009) further illustrates that change of organization depends not only in size and factors related to market but also in preferences of senior executives.

Knowledge management capabilities

Marrone & Kolbe (2011) assures that organizations should be able to capture and transmit real time services and projects related information in order to make rapid decisions and to improve responses from customer. Database management, analysis of data (data exploration, mining etc.) and business analysis for decision support and implementation are the KPIs for knowledge management.

Aligning IT on Business

CIOs of companies are always thinking about reducing the costs associated and increasing the business value through IT whereas businesses depend on IT ensuring that they are flexible to respond increasing volatility (Kafkin & Taggart, 2001; Avgerou, 2001). Avgerou (2001) depicts that the customer is most important ingredients of any business, customers has problem and the job of the business is solving customer problems, solving customers problems is the opportunity of business, but customers has choice always as there is competition. Kyem (2001) assures that due to increasing competition and changing customer desires, business decision makers are no longer satisfied with scheduled analytical reports, pre-configured KPIs or fixed dashboards. They believe and demand the ad hoc queries to be referred quickly and information to be accessible by right people when and where they need to use them. Azvine Cui et al (2006) illustrates that the main reasons for this are the fluctuating business conditions and environments, changes in sales pattern, and customers being more wise and demanding. The term BI is no so well defined and varies from different people’s viewpoint.

Azvine Cui et al (2006) define BI as:

“The way to capture business data, access, analyze, understand and turning of valuable assets of an enterprise i.e. raw data to actionable information with a view to improve business performance. ”

IT Service Management

Foster (2007) believes that ITSM helps in delivering quality IT Service enabling the achievement of business goals and objectives in cost effective and efficient manner. Iden (2009) assures that ITSM is becoming more and more popular in Community of Information Technology emphasizing on management of IT services, customer needs, and quality service delivery and for handling many day-to-day activities of IT department. IT Service Management inspection are based on analysis of KPIs like: “Growth and value, Budget
ITIL and Service Lifecycle

ITIL is globally accepted frameworks of IT service management and is beating other frameworks in the ITSM race (SearchCIO, 2007–2012). It seems more powerful and easily accepted all over the world.

Case Studies on ITIL Implementation Success stories

Queensland Health Success story

Queensland Health is a largest state agency in Queensland, Australia with a complex organizational structure having more than 50,000 employees, aimed at providing dependable health care and better health to all communities in the state. QH was using health information system which was looked after by QH’s Information Directorate (QHID) and was a largest IT operation in Queensland with staffs over 800 and 285 networked sites (Cater-Steel & Tan, 2005). QHID realized that it’s decentralized IT operations and structure was not meeting the level of IT services the users were expecting and felt for a change in structure. Thus it reorganized and consolidated the IT operations going through range of reforms.

CISCO Success story

Reddy and Lietzell (2009) summarizes that ITIL first was requested in 2003 as a framework for process improvement in CISCO, gained momentum in 2005 through training plans, and further process based organizational plans and roadmaps was established. They further illustrates that ITIL has become the robust framework for service improvement in CISCO today which has improved incident, problem, change management including other core organizational processes and is building momentum at Cisco.

Challenges and breakthroughs

Reddy and Lietzell (2009) opines that the change management issues through reorganization of IT function was not easily accepted by the senior level management and led to resistance. Support from senior management, project champion, vendors relationship with management, change in corporate culture, project governance, execution and realization of benefits came to be most important CSFs for the Queensland health project and CISCO project (Cater-Steel & Tan, 2005).

Why service Management is necessary?

ITIL V3 says:

“A service is a means of delivering value to customers by facilitating outcomes customers want to achieve, but without the ownership of specific costs and risks.”

And

“Service Management is a set of specialized organizational capabilities for providing value to customers in the form of services.” (Cartlidge & Lillycrop, 2007)

The business and technology drivers are key to ITSM. Organizations should focus on enabling technology and services to deliver quality demanded by business, and in demonstrating Return-on-Investment (ROI) or Value on Investment (Cardiff, 2011).

Enablers of Continual Service Improvements

The key enablers are: Leadership, Resources, Knowledge & skill, Integrated tools, Ability to Deploy, Ability to affect behavioural change and ITSM program momentum. Cater-Steel and Tan (2009) believes that service improvements require executive and senior level support and active participation.

Concluding Remarks

As highlighted in Service Talk, Macdonald (2011) says:

“The need to develop an in house competency is becoming more important for organizations truly committed to CSI. ITIL process assessments should be performed and repeated on a periodic basis.”
Adoption of ITIL also results to a benchmark for measuring performance against services and IT projects. ITIL has great economic impact on all the areas mentioned above and the benefits can be measured through direct and indirect savings done due to its implementation (ITIL, 2006; ITILTRAINING, 2012).

Role of IT in Development
Information technology is taken as one of the Key factors for the socioeconomic transition and development of the country (Avgouropoulos, 2009; Poljola, 2003; UNCTAD, 2008). Country development relies on the simplification of use of IT made for general public. Different studies reveals the fact that no papers till now are against the need of IT in the overall development perspective of any country (Kafkin & Taggart, 2001; Avgouropoulos, 2009). The vital problem in adopting IT in developing countries can be the setup cost for initial infrastructure setup (Case, 2009; Arraj, 2010).

Government units responsible for IT Sector
National Science and Technology Council (NSTC) and the Royal Nepal Academy of Science and Technology (RoNAST) were the government bodies responsible formed at 1976 and 1982 respectively for handling functions related to Science and Technology. Later in 1996 A.D, Ministry of Science and Technology (MOST) was instituted which is responsible for coordinating all the functions related to information and technology for the process of national development. National Information Technology Centre (NITC), is formed in 2000 by MOST, is now responsible for developing & promoting IT sector in Nepal (MOST, 2010).

**Illustration 6: Organizational chart (Most, 2010)**

History of IT Adoption in Nepal
The IT adoption history is not so good in Nepal and the facts and figures if collected can be the reason of surprise for everyone. Computers came to the general public since 1970s. The only government body, Nepal computer centre (NCC), was the first who started using these electronic devices. The use of Census IBM 1401, a second generation computer was done in 1971 for the first time for census (Aakar, 2007). Only the simple electronic calculators were in use before this. Later the government felt for national data processing Centre which resulted in the establishment of Centre for Electronic Data Processing (CEDP) in year 1973, which was later named as National Computer Centre (NCC). NCC started first computer training program all over Nepal along with the main function of electronic data processing of Government of Nepal. The influence of IT started growing as a result of which Nepalese students started to go other countries like India, Thailand and USA (Grg, 2007). Nepal got its first internet connection in 1994 with the help of Mercantile and Royal Nepal Academy of Science and Technology (RONAST). Few companies started writing software for local market, Computer Association of Nepal (CAN) started and use of computers started in different sectors like education, health and training institutions (Manandhar, 1996). Since 2000, urban areas of Nepal started having access to Internet, computers and IT policy was devised because of which Nepal made a place in global IT map. This can be taken as a benchmark for IT development in Nepal.

The IT policy of 2000
The Government of Nepal is responsible for formulating policies and strategies in the welfare of Nepalese. The first IT policy with a motto “to place Nepal on the Global Map of Information technology within the next five years” was made on the year 2000. According to a member of National Planning Commission (NPC):

“the principal objective of [ICT] development is to ensure peoples’ universal access to information and to contribute to the national economy, to good governance and to make social services easily available to the general public” (IDRC, 2001).

After the formulation of IT policy in Nepal by the government a hope came to the people that now it will contribute to the Nepal’s development process. Bhoop R. Pandey, Chairman, Nepal Telecommunication Authority says:

“Policy is not constant, we need to revise and update it from time to time” (IDRC, 1993).

The policy remained constant for ten years and thereafter with the pressure of different stakeholders revised in 2010 (Republica, 2010).

Electronic Transaction Act 2006
Around 2004, when the business and e-commerce was thriving the world, the government of Nepal realized the need of act and policies for creating the environment for internet related business, and thus promulgated electronic transaction act (ETA). The unstable government and changing political condition of country was being the hindrance for significant implementation of the policies. Hence again in 2006 with the restoration of democracy the parliament again passed the act and named as Electronic Transaction Act 2006(2063) and referred to as “cyber law” as it was the first act passed by the government of Nepal that was related to IT (Shakya, 2007; Pradhan, 2002).

Information Technology Policy 2067 (2010)
Government of Nepal revised the IT policy act after 10 years in May 2010. The policy changed was welcomed by every sector as it says:

“….after the IT Policy 2000 was passed, there has been significant and rapid development in the IT Sector which the present IT policy and infrastructure is unable to address.”
The previous IT act was not able to address the various issues related to networking, wireless technology, outsourcing etc. To address these issues the IT policy has been revised (Republica, 2010; GON, 2010). The policy was found helpful as it focused to develop Nepal as outsourcing destination and opened the way towards the use of IT for governance, commerce, trade, telecommunication, security and data protection (GoN, 2010; Republica, 2010; Pradhan, 2002). The IT policy 2067 was successful to contribute on nation’s Gross domestic products and addressed the issues that were not included in previous IT policies and acts. The policy had a provision for IPRs and framework to ease online business by promoting e-payments systems and gateways (Republica, 2010). Although the policy was able to create new opportunities, visions in IT sector, most of the experts were in doubt that government will be able to review the policies and formulate the plans accordingly with the change of time continuously. The short comings of the new policy was that it was not able to guide the development of IT sector with the use of proper framework and the IT adoption was rather haphazard and the evolution was random. Implementing policies and laws was challenging too (Pradhan, 2002; Shakya, 2007).

Initiative from Political Leader
One of the young political leaders and CA member Gagan Thapa, of Nepalese congress Party raised the matter that Government should set ICT and its development as a prime goal in every sectors of the country like health, information, education(Exceptnepal, 2010).

Concluding Remarks
From the research above it is found that Nepal has made tremendous development in IT sector. GON is conscious about the need of IT in overall development of the country. The motto of IT policy act 2000, to establish Nepal in global IT market seems really encouraging.

Nepal’s present Scenario
Pradhan (2002) assures that Nepal is very much backward in the field of technology and innovations. The government is not aware of making good IT strategies and resolving the local cultural and social issues in technological adoption. Shakya (2007) add that there is still a long way to travel in order to stand parallel to the developed countries in the sector of information technology.

Nepalese Business Environment: Threats and Opportunities
Gautam (2005) argues Nepal has dozens of government owned corporations and thousands of private enterprises. After the peace process in 1990, private business was placed on focus area by the government itself and the donors from national and international markets were invited for investment. The NepaliTimes (2007) article indicates that business environment in Nepal is pathetic. GP (2011) argues due to hyper insecurity, trade unionism and the political abnormalities the business sectors lost their faith to which over the past ten years it has been seriously affected. GP (2011) believes that Nepalese business sectors can again blossom if peace and political stability is established and can maintain its pace with international market. For that we need is peace process and adoption of latest technologies and new frameworks. Gautam (2005) further explains that improvements are necessary bringing change in the practices being made, changing the whole process and technologies and assures that there is light in other end of the tunnel for both domestic and international business investors.

Trends of IT Adoption in Business
Business Intelligence has not made much headway in Nepal. Organizations are afraid to change the culture being followed from a long time. Gautam (2005) assures only some of the government organizations and few private enterprises have shown interest in adoption of IT in business and have made effort in making separate department for handling ICT. Some companies use computer based tools to interpret data. Banking sectors are using MKIS for the marketing research and it is still in early stage of development. Although some organizations have shown interest towards market study but most of them are still turning blind eye towards it. Shakya (2002) argues that customer characteristics are very less researched. Marketing research firms are operating in private sectors but only few organizations have set up their own market research department.

Potential barriers
The IT development in Nepal is unplanned and the IT adoption and development made so far is random. More than that Nepalese are deprived from their right to be well updated about information and technologies and the news related to them as there is not a good reading and learning activities. It is obvious that most of the people don’t know about IT and its importance in life. IT frameworks, their importance and realization are far and beyond their access. Problem is that technology comes in package with some development projects focusing a certain area. Those projects concentrate on getting a desired outcome in certain time interval. Government or the donor agencies that does initiation of this package focus very less in building the technology capability for the benefited enterprises. They give less priority to technology sustain, building of infrastructures rather depending on external sources and sometime the package is beyond the capability of internal resources. So there can be lots of issues related in adoption of new IT frameworks which are fairly discussed below.

Social issues
Pradhan (2002) argues that the impact of IT adoption is in labour market. There is a fear ruling people’s mind that if technology is adopted this will grab their jobs and they believe that the new adoption will not be easy as their skills doesn’t meet the requirements. Technology can be a better alternative to personnel which increases unemployment. More than that adoption of new frameworks requires trained personnel’s which are very few in number. These are the social issues that can be problem in new technology acceptance.

Economic issues
Return on investment (ROI) and funds for initial investment are the main economic aspects for technology acquisition. Nepal lacks sufficient funds to buy expensive technology and lacks external sources that can assist it. Existing technologies and the services are also assisted by donors. The main fear is peoples mind is that investing on technology can go waste and try not to take the risk of losing their capital (Pradhan, 2002).
**Political Issues**
Currently Nepal is in a very difficult political situation. The Government is inconsistent and changes more than thrice a year. This condition has halted the developmental works and resulted in a very pity conditions. Gautam (2005) says that Businesses are not meeting their targets; they are failing to meet their return on investments. They are afraid to go for service improvements, foreign donors are afraid to invest in the country. Technology acquisition has several political questions and government is responsible for any changes and acceptance. Because of this poor political condition technology acceptance is very difficult.

**Cultural Issues**
Pradhan (2002) says the new technology being adopted should be accepted by the receiving society. ITIL (2006) depicts technology implementation is not easy task and does not end up with just installing the machines and explaining how to use them rather needs accompany transferring education, organization, administration, strategies etc. Nepalese culture is totally different and the practices differ from western culture, so it is hard to change their attitudes and beliefs towards IT.

**Concluding Remarks**
IT is being adopted in wide scale in Nepal. Beside IT related developments and software proprietary works being carried on; there is a need of service management and improvements of IT sector, towards which the government seems unconscious. The IT acts should be well updated and must address the latest trends and developments made in IT sector. The laws should not stop the private and other vendors who want to adopt the new frameworks and technology for the first time rather encourage them with the facilities and support they can provide.

**CSI for Nepalese Business Sector Effectiveness**
Many business enterprises are focusing on manufacturing rather than service sectors. Mulholland and Showalter (1992) believe that it is the need of service managers to realize that short-term “lean and mean” policies lack competitiveness and resulting into low quality and productivity. So to enhance the competitiveness, it is necessary to embed systems that ensure continual quality and productivity. CSI enables enterprises for process oriented way of thinking and strategies development with the involvement of all level of people in the organizational hierarchy. Gautam (2005) assures that CSI concept is new in Nepal, and its awareness is limited within few enterprises. Development made in IT sector is considerable but the strategies are not well formulated and impacts are not sustainable. Service improvement activities are rarely carried on without taking in account the Infrastructures, stakeholders, potential risk factors and impacts on business (Pradhan, 2002).

**Scope of Continual Service Improvement**
Case (2009) states that CSI Implementation process may vary and the correct way to implement it rely upon the organization’s goal; it may be long term goals or short time dependent on the nature and policy of the organization. Generally the scope looks into three areas of ITSM.
- ITSM Processes
- IT Services
- The Service Lifecycle

Cartlidge & Lillycrop(2007) thinks it is very hard to decide from where to start, but one of the above three areas can be taken as a starting point. Case ITIL (2006) suggests the organizations to address the pain points first for getting value of Investment (VOI) as well as gaining the business and functional group support. Case (2009) opines some quick wins like low hanging fruits can be experienced during the implementing process.

**ITSM Processes- Where Do we start?**
Case (2009) are not aware of from where to start the implementation of CSI in business. They can approach through change management, Incident Management and problem management by going into mature documenting process. Case (2009) argues change management as a control process and helps in attaining a maturity level for organizations protecting the production environment with the efficiency and effectiveness the process requires. Request for Change (RFC) can be a quick win if one doesn’t exist, or change advisory board highlighting the possible changes, procedures to implement changes, creating risk models and so forth.

**Illustration 7: ITIL Roadmap Development Phase (ITIL, 2006)**

**IT Services- Where do we start?**
Case (2009) states that it is crucial to choose right IT services once the ITSM process is implemented in our business, to ensure the business value is delivered. But the problem is to identify the right services but can be simply done through identifying the services falling out to meet the satisfaction levels or which are continuously giving a threat. In case of absence of service level data a discussion is to be conducted either to give continuity to the service or discard the service.

**Service lifecycle-where do we start?**
Starting the improvement initiatives of processes organization will find our many turning points for making improvements in the service lifecycle itself. Thus it is crucial that organization keeps tracks of the communication and feedbacks between different service lifecycle phases. Organizations should look for improvement opportunities associated with the business requirements Case (2009) and Nickols (2010).
Illustration 8: Ongoing feedback loop in CSI Service Levels

Illustration 8 shows an ongoing feedback loop based on outputs provided from one phase being used as input in next phase.

Where we are?
This section is aiming to give a complete picture on the current situation analysis of Nepalese Business enterprises and the IT industry with the view of the 4Ps.

Baseline Assessment—Introduction
Knowing the current situation is only part of the processes and given the scope of this paper the baseline assessment will therefore, focus specifically on the 4 Ps (itSMF-NL, 2006). To establish the baseline around individual component in the CSI model — Understanding the difference between and the relationship among these elements as well as how they are balanced is an important first step in carrying out this task.

The Methodology
To meet the objectives of this paper, some research on the 4Ps was conducted using two approaches. The research was conducted during a 3 weeks period. First, a detailed data was collected using analysis of the policy documents of Nepalese government through websites and reading different information and journals available. Incidentally, the author of this paper happened to worked in the IT sector of Nepal for one and half year, and his contribution is invaluable to providing information to this evaluation.

People
1. People being the most important resource, it’s important to establish the degree of senior management buy in entire current data collection processing.
2. Do we have the right people with relevant qualification and competencies?
3. People around DSS?
4. What is the Structure of underpinning the people, process and technology?
5. What about cultural issues and motivations?

Process
1. How is the data being collected right now is it process based?
2. What are the policies and the procedures are they written and documented and accessible and usable?
3. Are the processes scalable and repeatable as well as flexible?
4. Is people train, aware and able to use the processes?

Products
1. We try to establish the technology is it, what kind of technology is currently being used?
2. Is it user-friendly, compatible and integrated with other products?
3. How about cost performance, and support is it usually available?
4. How about portability and flexibility and scalability?
5. How about utility and warranty?

Partners
1. Who are the most influential and interested stakeholders?
2. Are we getting an optimal value from their service for money?
3. Are we getting the right services from them?
4. Are we in a win/win situation with them?
5. How about service level and other legal agreement with our partners?

Where do we want to be?
We are looking at creating good values for our customers in the form of products, services and process taking in consideration needs, wants and desires and a value proposition with subjective and objective benefits. It is clear from our previous baseline assignments that we want to make a healthy IT environment where IT is governed well, the ICT sector is well updated with the late trends, frameworks to meet the business needs. Our vision is to make a healthy technology adoption environment, allowing business to reduce service time and downtime with well handled incidents and problems, with greater visibility of services and core functionalities. The key outputs of this system are service Level Agreements (SLAs) and the Operational level agreements (OLA) and the key product expected at the end of the day is a framework for Nepal highlighting the benefits of efficacious adoption of ITIL & Continual service improvement process in Business making baseline the following statement:

“Implementing Continual Service Improvement in Business Enterprises: A proposal to improve business effectiveness of Nepal”

And with an aim to highlight the:

“Benefits of adopting ITIL framework and going for Continual Service Improvement process in IT sector of Business, especially in Nepal”

Critical Success Factors
Our critical success factors can be highlighted as:

i. Senior management accepting the proposal for service management and go for CSI, and for sure they have willingness and commitment to change for the better and to embrace ICT in value chain of business service delivery.

ii. Availability of staff; Most of the IT firms has well set of IT staffs as they are aware of IT and its impact on business for gaining customers motive, fulfilling their wants, getting return on investment and for long term success.

iii. Change in corporate culture
iv. Realization of benefits
v. Decision based on data and information.

**Measurable target**
The Government rules and policies and the paradigm shifts the business is going for are the benchmarks for the measurement of the targets.

- Business willingness to go for IT service management can be measured by the availability of policies for the implementation.
- Allocation of resources like Human, Financial and Technological.

**How do we get there?**
CSI is hard beginning and most of the organizations are confused from where to begin the improvements works. Reviewing of data, internal and external services should be done presenting senior management with the recommendations for improvement. Problems are to be prioritised and it is necessary to ensure that the services are well resourced and getting necessary support.

**Quick wins**
"Without short-term wins, too many employees give up or actively join the resistance - Most people won’t go the long march unless they see compelling evidence within six to eighteen months that the journey is producing expected result“ (Kotter and Schlesinger, 2009). It is crucial to have some short term wins in order to make the change successful. Restructure the MOST units into portfolios at least into the following: ICT as a portfolio, Data Management and Statistics Information as a Portfolios and Office Management operation as a portfolio. Changes can be institutionalized not only by consolidating change in organization, rather it needs regular follow up, monitoring and understanding of the real gain and benefits. Change management is tough and changing the behavioural aspect of people is even harder because people are used to with the old working practices and there is always a danger of reverting to traditional aspect. So to go for service improvements it is necessary for handling the change effectively. Organizations should buy in people with ITIL experience or with service focused experience; training programme and plans for employees focused on ITIL or service management; ensuring the changing requirements are matched meeting the service levels agreements and goals, with steering of information around and updating on regular basis.

**How do we keep the momentum going?**

**Define what to measure**
This stage is pre-determined in initial stages and includes what to be measured focusing on precise areas or items to be measured.

**Define the areas that you can measure**
Being confined to the organization policies and strategic plans, It is indicated what areas to be measured outlining the objectives linked to key performance indicators (KPI), this step sets the definition of what to measure by the organizations (OGC, 2009).

**Collecting the data**
This step focuses in gathering and collecting raw facts, figures and quantitative data being confined to objectives and goals of service operation. Main focus is given in collecting data from organizations that are adopting CSI and collecting feedbacks (OGC, 2009).

**Processing the data**
Processing of data gathered in previous stage is done here with the critical success factors (CSF) and KPIs. The framework proposed, i.e. ITIL in our case plays a significant role in processing of data with the use of computer based resources facilitating data capture (OGC, 2009).

**Analyzing the data**
Following the data processing, the information and data managers will work together and analyze the data within the framework of organization policies and requirements. It is understandable that the statistics will lead and play a pivotal role in interpreting and translating the reports from the data.

**Making it usable and presenting the data**
The analyzed data is now ready for presenting to the senior management and its wider stakeholders with the performance of business organizations and shortcoming are presented to managerial level to come up with the solutions and steps for improvement.

**Implementing change**
The data, facts and figures compiled and generated are important over time for making business decisions and finding on what company needs the most (OGC, 2009).

**Data Collection**
The literature review was not sufficient to know about current IT scenario of Nepal, Thus questionnaires were made to evoke perceptions from the present stakeholders of IT sector. The survey was done forwarding the devised questionnaires to a selected group of 30 peoples, ensuring that as many stakeholders as possible were selected representing from different sectors.

**Questionnaire design**
Questionnaire were the source for the primary data, thus a great effort had been made to come up with the final set of questions covering the research areas, aims and objectives and making as simple as possible targeting the stakeholders.

**Organization demographics**
The main purpose of this section was to illustrate the characteristic of sample taken into account.
Summary of Key Outcomes

From the overall analysis of the research and data collection, the following were assumed to be the key outcomes considering continual service improvement:

1) In order to encourage the IT adoption, the government should establish an authority with formulation of laws and policies.
2) Implementing service management and continual service improvement should be considered as the effective solution for increasing income and delivering quality services.
3) Based on the framework, action plan for adoption of new frameworks should be designed.
4) The political stability and public awareness found to be important catalyst for the wide and effective adoption of IT.
5) Framework for implementing service management should also consider making full utilization of existing investments and infrastructures.
6) Building up of expert pool to provide support to technology adoption and change management has become the necessity.
7) Various awareness and consultation programme on Service improvements necessity in business enterprises and suitable frameworks can be conducted.
The following are the critical success factors for the CSI study on countries like UK, Australia, etc., and absence of motivation and connectivity. For IT adoption to increase and market to boom, increase in internet penetration and increase of population in cyberspace are necessities. IT policies can’t do anything if the proper enforcement is not done with action plan and implementation programme. So it should be brought for industry wise adoption. This research thesis was focussed on providing solution to help Nepal cope with challenges it has been facing in IT adoption. But from literatures, it was clear that the IT adoption barriers and challenges were shared by many countries. The key adoption obstructions common to all these developing countries included factors like cost of IT infrastructure, political instability, and power and connectivity. These facts have been supported by different case studies discussed in this research. The framework proposed for Nepal can thus be generalized for adoption by any other developing countries by incorporating their specific issues. It is therefore safe to assume that the framework developed in the research not only addresses the main objective of this research thesis which is to deliver a solution path for Continual Service Improvement of business sectors in Nepal but goes above and beyond by incorporating the need of any developing country which strives to adopt an efficient IT framework through changes in traditional practices.

**References**


**Conclusion**

The result shows that the building up of new framework in existing scenario is not very likely to attain its objectives. The same barriers like lack of rules and regulations, political instability will still appear as challenges for new framework. The review of existing policies and their upgrade are cited as prerequisites for introduction of such framework. Until there is thorough study on framework, potential barriers can’t be identified. The questionnaire findings on challenges and barriers of IT adoption in Nepal shows that deep rooted political problem and lack of enforcing law for technology adoption and Service improvements are major huddles. Besides that, lack of awareness about availability and usage of different IT frameworks being used by different developed countries like UK, Australia, etc., and absence of motivation to go for change were challenge in Technologies adoption. Other reasons cited by individuals were lack of skills, lack of mechanism of transfer of existing knowledge and skills, insufficient trainings, lack of migration and deployment experts, lack of motivation among business organisations to push them towards technology acceptance. Concluding the findings IT adoption should be regarded as cross-sector issue and every sector should formulate their policies to make it IT-friendly. Government should focus on infrastructure development like building information super highway, power and connectivity. For IT adoption to increase and market to boom, increase in internet penetration and increase of population in cyberspace are necessities. IT policies can’t do anything if the proper enforcement is not done with action plan and implementation programme. So it should be brought for industry wise adoption. This research thesis was focussed on providing solution to help Nepal cope with challenges it has been facing in IT adoption. But from literatures, it was clear that the IT adoption barriers and challenges were shared by many countries. The key adoption obstructions common to all these developing countries included factors like cost of IT infrastructure, political instability, and power and connectivity. These facts have been supported by different case studies discussed in this research. The framework proposed for Nepal can thus be generalized for adoption by any other developing countries by incorporating their specific issues. It is therefore safe to assume that the framework developed in the research not only addresses the main objective of this research thesis which is to deliver a solution path for Continual Service Improvement of business sectors in Nepal but goes above and beyond by incorporating the need of any developing country which strives to adopt an efficient IT framework through changes in traditional practices.


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