CHAPTER- 2: REVIEW OF LITERATURE

A good review of literature is comprehensive, critical and contextualized means which will provide the reader with a theory base, a survey of published works that pertain to your investigation, and an analysis of that work (Hofstee, 2006). Its main purpose is to survey previous studies on knowledge sharing and intranets that should be in order to scope out the key data collection requirements for the primary research to be conducted. It forms the part of the emergent research design process (Denscombe, 2007).

Thus, a systematic review of literature on the TQM studies in different contexts is being presented below.

Cooper (1996) has studied the use of Total Quality Management (TQM) in libraries and information services in Australia and overseas. His study concludes that the implementation of TQM in each of the surveyed libraries took place before any library-based models had been recorded in the literature. He further adds that it is easy to accept as common sense many of the principles prescribed by the TQM management philosophy.

Khurshid(1997) in his article focused on the methods of libraries have adopted to identify user needs and to improve services to meet user’s needs. He has discussed the possible application of various TQM tools in cataloguing operations. The findings of the results showed that many of methods are either based on the TQM philosophy or can be adapted to it.

Sankara Reddy(1997) in his study found helpful to understand the standardization effort of Telugu University library in the areas of book acquisition, union catalogue preparation, inter library lending and circulation of documents that leads to user satisfaction.

Saroja and Sujatha (1999) have studied the application of TQM in information services in Indian open universities. They have suggested that quality assurance of library and information system should be the part of quality assurance of university TQM project. There is a need to develop standards / norms for assessing quality of
information services with particular reference to distance education land also to evolve methodologies and mechanisms for improvement of quality information services. Besides, more funds to be allocated for studying the quality of information services on project basis along with the training of staff members in providing quality information services.

Thapisa and Gamini (1999) are of the opinion that that quality can also be seen as relating to the fitness of a service or product to its intended purpose or use, subject to the expectations of the customer or user. Thus, the quality must be in conformity with the customer's requirements or needs which means – the quality of a service can be a definition of the customer's perception of what is good or bad, acceptable or not acceptable service. Hence, quality is an ongoing process where the user is a key determinant.

Ball (2000) has discussed about the quality management of library services in the digital era. He says that in order to enhance customer satisfaction and gain new customers, demonstrate efficiency and increase the attractiveness of their products. Economic measures are also becoming increasingly important even in largely publicly financed libraries. These measures may include controlling, marketing and quality management for enhancing the efficiency and effectiveness of library services. While, the quality of the products of the library as a service company must be permanently optimized in accordance with customers’ requirements. However, the services clearly differ, by several central criteria, from goods such as consumer products and capital goods.

Bii and Wanyama(2000) have presented a work on the influence of automation on the job commitment among library staff of Margaret Thatcher Library, MOI University. It is noted that automation has made life more comfortable for workers, leading to increased leisure and work satisfaction and ultimately the user satisfaction.

Gupta(2000) has presented Ranganathan's philosophy on TQM environment in his paper considering five laws of the library science as the groundwork for the quality service. He says that the user is the most important element in the trinity of users, librarians and the information sources; his/ her need must be met on a continual basis through error-free processes and teamwork which needs empowerment for service
providers and commitment to achieve the best from every individual, group and organization as a whole.

Lawrence(2000) has made some observation on the practices in academic libraries of Australia. He seems that the benefits of TQM for the library and its team members are more in correspondence to their participation and decision making by those who actually do the work. It has allowed the library thought to the customer surveys to address real concerns of users. Since TQM emphasizes on the ongoing use of performance standards, the library teams will be able to monitor the success of their recommendation. However, TQM does not offer a quick solution rather it has to be implemented by incremental changes leading to continuous improvement.

Reeda, Lemakb and Mero (2000) are of the opinion that Total Quality Management (TQM) can generate a sustainable competitive advantage, there is, surprisingly, little or no theory to underpin that belief. Therefore, they have explored the validity of the claim, by drawing on the market-based theory of competitive advantage, resource-based theory of the firm, and systems theory. They were able to conclude that the belief is warranted. It is deduced that the content of TQM is capable of producing a cost- or differentiation-based advantage, and that the tacitness and complexity that are inherent in the process of TQM have the potential to generate the barriers to imitation which are necessary for sustainability.

Aly and Akpovi (2001) have investigated the extent of total quality management implementation in two California public higher education systems: the California State University (CSU) and the University of California (UC) systems which included 32 statewide campuses with over half a million students and 27,000 faculty. The findings of the study revealed that more than half of the California public universities were implementing TQM in one form or another and the TQM implementation in the CSU system was much wider than that in the UC system. However, the character of implementation was still limited to business-type operations in universities, such as the business finance and administrative services.

Adamantidou and Kouri (2000) have discussed about the implementation of TQM in central library of the National Technical University of Athens in Greece. The study concludes that there is no perfect example of the implementation of improvement
processing of quality, just as there is no perfect model of reorganization. Hence, the proper approach needs to be adopted that will be in connection with the internal philosophy, culture and the external environment of the library in which it will be implemented.

Hsieh, Chang and Lu(2000) have conducted a study on the quality management approaches in libraries and information services. It is found that the libraries are forced to provide quality amenities in order to meet the overall capabilities of the users’ quality management concepts; they have quality, which is applied in libraries like in manufacturing industries. However, in libraries information services are given due attention/weight age for betterment of the standard to bring on parity with international level. It has been concluded that techniques must be considered as an internal portion of the total quality systems.

Verma(2002) has assessed the impact of six factors: status of library, size of LIS units, sector of organization, type of organization, resources and quality awareness level in his study for special libraries in India. TQM based approach was followed by using modified European Quality Model. The results of the study show that for proper performance measurement of LIS sector, QML depends upon a TQM oriented instrument. It is concluded that QML is closely related with innovation and reorganization process rather than streamlining and securing routine functions and processes which would be a conservative approach for successfully quality management in libraries.

Begum(2003) has explained about the ISO: 9000 that has been accepted as international certificate for accreditation of organizations for its quality management systems and procedures. She further adds that ISO- 9004-2:1992 has issued guidelines for services to establish and implement a quality system within a service organization such as an educational institution.

Burd(2003) has conducted a survey of work values of academic librarians in order to explore the relationships between values, job satisfaction, commitment and intent to leave. The results of the study show that librarians in institutions who support participatory management, open interaction, and opportunities for achievement and prospects for relationships built on honesty and trust are more satisfied and committed.
and less prone to leave.

Dayton(2003) has mentioned that TQM was deemed by many, a decade or so ago, to be a management movement. So significant that it was a paradigm change capable of completely reorienting corporate management responsibilities. It was the answer to the product quality challenge from Japan which made quality job number one. Further, TQM was supposed to provide the interdepartmental connections and the sharing of information, goals and responsibilities that would assure complete organizational realignment to customer needs.

Li, Anderson and Harrison(2003) considered the practice and the function of TQM in China after a short summarization of 428 Northern Chinese companies representing different forms of ownership. They found that the execution of quality was quite highly varied. However, in general, joint venture companies scored highly in quality practices, in contrast, state owned enterprises scored poorly. But privately owned companies also scored well in some aspects of quality implementation.

Satpathy(2003) has studied the qualities of educational institutions which are to be judged by the quality of information provided by their information center and departments. For providing quality information the quality of the system, behaviour of management needs continuous improvement, which can be achieved by application of TQM technique in libraries and information centres. It is seen that IT revolution in the past few years has come to the rescue of management in improving the system quality. Hence, the application of TQM technique will not only help the institute to go to greater heights but also provide the information in a cost-effective manner.

Sornam and Sudha(2003) are of the opinion that library profession is a people oriented profession which cannot escape from the clutches of conflicts and frustrations and age, mental status and years of experience that have an impact on occupational role stress.

Iyoro(2004) has examined the impact of serial publications in the promotion of educational excellence among information professionals receiving further training at the University of Ibadan. The study shows that at the perception of how serial accessibility has contributed to students' learning process. However, the serials were found to play a significant role in the acquisition of knowledge because their collection was easily and
Mounissamy and Swaroop Rani (2004) are of the opinion that library and information centers in the present information and communication technology (ICT) environment are also regarded as industries where the end users are the customers; therefore, it is the responsibility of the quality centers to keep on satisfying their customers using the available ICT and supported by TQM techniques. They have also discussed about the quality management tools, techniques and their applications in the library and information centers in general, influence of ICT, application of TQM principles in the libraries.

Srivastava and Srivastava (2004) have studied the satisfaction about nature of job that can be increased through job environment, training on IT and good monetary gains. However, they opined that though, the librarians are often challenged to offer the kinds of work environments that these new professionals prefer but the librarians of the colleges and other educational institutions should be provided training about the advanced information technology.

Buckland (2005) has analyzed the frustrations felt by the users who fail to find the information sources they want in the library. He has outlined four relationships between the user and accessibility of information resources: first is greater the popularity, the lower the immediate availability of documents; second is the longer the loan period, the lower the immediate availability, the shorter the loan period, the higher the immediate availability; thirdly the greater the popularity, the shorter the loan period has to be and the less the popularity, the longer the loan period can be and lastly Increasing the number of copies available, like shortening the length of loan periods, increases the immediate availability.

Rowley (2005) in her study finds that the libraries may deliver any type of information to the staffs and public very quickly. However, the quality performance management and impact assessment are there which affect the public and academic libraries in the UK.

Tari (2005) has studied components of TQM in order to make them known to managers and thus facilitate successful quality management implementation, and to show the situation of ISO: 9000 certified firms concerning these components. The
results of the study shows that certified firms must develop their people orientation and use techniques and tools to a higher extent in order to progress towards total quality.

Kaur(2006) in her article stressed over the needs for contented and well satisfied librarians to make libraries more service oriented to their clientele and the main organizational determinants influencing worker's job satisfaction. She has also stressed over to establish sensible organizational structures, delegating authority, promoting teamwork practice, developing job descriptions and evaluation systems, to allow employees’ freedom of choice to perform job duties, and providing employees with training opportunities and motivations.

Sherikar and Jange(2006) in their study found that none of the respondents were fully satisfied with the work culture in their library. However, the majority of professional staff were highly satisfied with the librarian's leadership quality, creating and maintaining cordial relationships amongst library professionals. But their key observation was that in services there was a direct interaction between a customer and the library staff and fulfilling their requirements through the service delivery process is both challenge and an opportunity. Thus, they recommend that a library in university adopting TQM in all its events & services require emphasizing the significance of quality management of services.

Thakkar, Deshmukh and Shastree (2006) have explored the potential for adoption of TQM in self financed technical institution in the light demands and challenges posed by customer/student and society. Their findings identified the technical and student’s requirement for the modern education set-up. The study also provides information about the severity of various technical requirements of competitive education and recognized the need for continuous improvement, cultural change and effective use of financial resources to improve the value addition at each level.

Nana(2007) in a study found that the university libraries are focusing on quality infrastructure, referring international standard organizations in developing building and services to all the teaching staff and students’ modification for the reading activities. The study concludes that Ljubljana University libraries have highly qualified staff and infrastructure and so many users are benefited from them.

Dash(2008) in his study has described the circumstances which are challenging
library services. The survey of his study indicates that if library managers are implementing the necessary changes to satisfy their clients. In the face of these challenges, it is now time for libraries to exhibit that they are valuable to the sustained survival and provisions of their organizations.

Moghaddam and Moballeghi (2008) have overviewed the TQM in library and information sectors. They have also reviewed the experiences of libraries adopting this method. They have opined that TQM was initially applied as a management philosophy in the manufacturing sector but following its enormous success, this philosophy is increasingly being applied in the service sector, including libraries.

Ugah (2008) has studied the availability and accessibility as the variables in information seeking and use. His findings reveal that the information sources were not readily available and accessible in the university library. The findings also reveal significant relationships between variables and the use of library services, and that these variables to a large extent influence the use of library services. It is concluded from his results that library services are not being fully used because of the perceived shortcomings in the availability and accessibility. It is also noted that information sources are not available in to users because either they have not been acquired, or are waiting in the processing unit of the library. Therefore, it is recommended that efforts should be made to acquire specific information sources that the users need but not available in the library and should also be brought to the attention of the university librarian.

Dixit and Garg (2009) have studied the TQM in Indian industries for its relevance, analysis and directions, where they have analyzed various factors important for total quality management implementation in various manufacturing organizations and also have assessed their relevance in Indian manufacturing organizations. It is shown that users focus must be the primary goal for various organizations to achieve total quality management and for that all factors must be used pragmatically accomplished.

Landrum et al (2009) have investigated the service quality perceptions of professional information system users. Further, they examined the relationship between relative importance allocated by the system’s users to each of the five SERVPERF dimensions as measured by the points allocated to that dimension and the
ratings provided for the individual items of the dimension. Their study concludes that the companies that provide client services; and the designers of information systems that interface with the users should emphasize responsiveness and reliability; however, in cases of limited user resources, responsiveness and reliability should be emphasized over other SERVPERF performance dimensions.

Santos-Vijande and Álvarez-González (2009) have conducted an empirical study to examine the impact of TQM implementation on the firms' market orientation and the joint effect of these variables on the development of marketing capabilities. The research also addresses the analysis of the TQM effect on firms' market-related performance relating to their main competitors. The findings of their study indicate that TQM positively influences firms' performance as well as marketing development within the organization in terms of cultural market orientation and marketing capabilities. TQM can thus be advocated as a recommendable management system from the marketing perspective that, in addition, effectively supports firms' competitiveness.

Shoeb and Ahmed (2009) have studied private university library system in Bangladesh and investigated the quality assessment of users by conducting a survey among the IUBL users using modified version of SERVQUAL instrument. The findings of their study shows that the user responses for minimum, expected, and perceived services were calculated by gender and status. Further, the gap scores between perceived and minimum services and perceived and expected services by different groups were computed, and the gap scores of gender and status groups were compared statistically.

Toremen, Karakus and Yasan (2009) have determined the extent of total quality management (TQM) practices in primary schools based on the teachers perceptions and how their perception were related to different variables. The findings show that there were significant differences among the teachers’ perceptions on TQM practices depending upon the variables of branch, level of education and tenure, while there were no meaningful differences according to the gender variable.

Zeithaml, Parasuraman and Berry (2009) study suggests that predicted service-the level of service customers believe they are likely to get; desired service- the level of service representing a blend of what customers believe “can be” and “should be”
provided; and adequate service - the minimum level of service customers are willing to accept, are the three levels of customer satisfaction. Their study research also supports the theory that customers generally use five factors, or dimensions, as their criteria for judging service quality.

Fields and Roman (2010) have examined the relationship of organizational characteristics of substance abuse treatment centers with their use of quality management practices (TQM) and the contribution of TQM use to a center’s provision of comprehensive care and to use of evidence-based treatment practices. Their study concludes that substance abuse treatment centers’ implementation of TQM processes may be positively related to the quality and cost-effectiveness of care provided.

Dean and Terziovski (2010) have presented the reports on a cross-sectional study conducted in the Australian services sector in which the extent of implementation of quality management practices with customers and suppliers, and the links between specific practices and performance outcomes are considered. The findings of the study indicate that quality management practices are not widely implemented with customers and suppliers in services. However, when the relationship between specific quality practices with customers and suppliers, and performance outcomes are explored by Multiple Regression Analysis, the most significant predictor of improved systems, improved responsiveness, increased quality of service and improved competitive advantage are obtained. Other significant factors include the use of customer satisfaction surveys, and the existence of strategic alliances. The implication of these findings for managers in service organizations, who are seeking more value from their customer/supplier interface, is that organizations should involve suppliers in their system and improvement projects.

Oyediran-Tidings (2010) has studied the information needs and seeking behaviour of library users at the Yaba College of Technology, Lagos. He attributed low use of library to the expressed unavailability of desired information resources. This study also suggests seeking user input for the acquisition process and policy to satisfy the users.

Robinson (2010) has studied the barriers of the total quality management in public leisure services. He opines that service organizations have become increasingly
conscious of the need to improve the quality of their service provision and as a result Total Quality Management (TQM) has emerged as the management philosophy. His study presents the factors which may make the achievement of TQM in the public leisure sector difficult. However, some solutions to the barriers to enable public leisure providers to pursue the goal of TQM are also suggested in this study.

Sayeda, Rajendran and Lokachari (2010) have studied the adoption of quality management practice in engineering educational institutions in India from management perspective. The finding of the study highlights twenty seven critical dimensions of (TQM) total quality management that examined the co-relation between TQM institution and dimensions execution, which was formulated by using 5 dimensions. Further, the significant and positive relationship among the TQM dimension and institution performance were also observed.

AL-jaradat, AL- Momani and AL-Hammouri (2012) have conducted a study to identify the concept and the application of total quality management of Jordanian University libraries; to understand the causes, reasons and justification for its application; to work in building measurement tool to identify the requirements of the application; and to check the tool validity and applicability in university libraries. The results of the study show that the arithmetic averages to the estimation of the study sample members to study tool as a whole in all areas with the degree of application of total quality management in university libraries was (medium), where the highest degree of awareness of employees was medium and the lowest in training a low.

Bhatt (2012) has presented various aspects of total quality management and correlate the importance of it in the library and information sector. He says that the library and information sectors have become totally users – oriented so the concept of 'customers’ satisfaction' also applies here and the basis foundation of total quality management is also associated with this concept. Therefore, application of all the techniques of total quality management is essential in libraries to fulfill the users’ needs in appropriate manner.

Duren (2012) has discussed the best practice of TQM in academic libraries in Germany. He opines that Total Quality Management (TQM) can be implemented and established in the day-to-day management of libraries successfully. A modern
leadership style – for example the transformational leadership – is required for the implementation of quality management in a library becoming an effective strategic goal and a management philosophy. He concludes that team leaders should be the role models for their team members and in this role be the first to give detailed information about their own working processes. They should also present and accomplish their ideas about the changes which help to develop higher quality openly.

Eraghi and Atharinejad(2012) have made a study to identify service improvement techniques for an academic library. In order to reach the quality and making suitable changes, first reader needs and their importance, and satisfaction degrees were examined via questionnaires based on TQM methodology that is one of the important tools of improvement and management development. Second, the service improvement techniques for satisfying the reader needs were developed by interviewing experts. This study also specifies reader needs and service improvement techniques respectively, and some practical suggestions are raised for academic libraries.

Sivankalai and Thulasir(2012) have conducted a study on the TQM in academic libraries to represent the problems which are encountered by the library staff. The study aims to highlight the problems encountered by the professionals and suggests some measures for its improvements. It is noted that professionals are aware of attending various types of conferences, seminars, workshops and programmes and they feel colleges should conduct some library events and programmes. This study concludes that most of the librarians do agree that this kind of concepts will elevate the existing system.

Sohail and Raza(2012) have conducted a survey of the library of Jamia Milia Islamia, Delhi to measure the perceptions of the library users as they relate to quality service and to determine how far the library has succeeded in delivering such service to its users. This study also includes the description of the planning, implementation and maintenance of the quality management system by the library, along with continual improvement efforts to provide quality service to the library clientele.

Somvir and Kaushik(2012) have conducted a study on the job satisfaction among library professionals in Haryana State to examine those factors which are related in a high manner to job satisfaction among the library workers. The study concludes that job
satisfaction among the library professionals is not related to their sex, the type of library in which they worked and their vocational needs, but it is related to the characteristics of their job environments. Further, it is suggested that the supervisory climate and the essential characteristics of the job itself are the two most important determinants of job satisfaction. The study also suggests that a supervisory climate which permits a librarian to exercise initiative and professional judgment in the performance of the job is conducive to job satisfaction.

Yapa (2012) has conducted a study to report the results of an investigation on the use of total quality management (TQM) tools, techniques and concepts among Sri Lankan service organizations. It is revealed in the study that revealed that there was an enthusiasm among the managers in implementing TQM in their organizations. However, deeper analysis of data revealed about the lack in understanding of TQM philosophies and techniques among the managers.

Bon and Mustafa (2013) have presented a review on the literature on the relationship between total quality management and innovation in services organization, and to develop a research conceptual framework on this relationship. For that they have reviewed the most recent studies investigated the TQM-innovation relationship and involved service industries in its scope. A discussion on the TQM practices in service organization is also presented and conceptual framework and model are proposed.

Sharma (2013) has outlined quality management in libraries. She mentions that quality techniques are philosophies intended at nonstop perfection of routine of diverse characteristics related to customer fulfillment and a library is part of once-over organization which delivers products face-to-face to the clients. Hence, she insisted to adopt quality management in library and information centres so that the librarians could manage staff, information in several supports, and technical activities to produce quality services.

Singh (2013) has discussed about the utility of TQM in library services of open universities in India. He is of the opinion that TQM provides the tools and the direction to improve quality services in libraries. He mentions that the main aim or objective of libraries is to satisfy the users, but the library professionals often forget that. But today’s libraries are pushed to a position where they have to provide quality services to its
users, to justify their existence. Besides, some suggestions are also provided in the paper for implementation of TQM in Open University libraries of the country.

Akhtar and Sanghera (2014) have discussed the application of TQM in academic libraries of public sectors universities in Pakistan. They have taken two aspects from TQM approaches including unwavering focus on user and continuous improvement in organization were selected covering access and appearance, atmosphere, resources, and services in public sector academic libraries. The results of the study show that all respondents agreed that user was a prime focus in libraries, but on the aspect of continuous improvement of library, they all consented that this aspect requires a positive re-fix. They suggest that that there may be a focus on library user to meet his demands through continuous improvement of different aspects of libraries keeping in view the quality indicators to bring academic libraries up to the standards of Total Quality Management.

Al-Ibrahim (2014) has detailed out a review on the literature relating to quality management and the various models that have been developed over the past decades for use in improving service quality. It begins by exploring the concept of service quality and introducing the Total Quality Management (TQM) approach. Thereafter, the article traces the historical development of TQM and considers how the practices associated with this philosophy have evolved over the time to produce the fundamental model of total quality. Important variables in determining the success or otherwise of TQM approaches are then discussed along with how TQM has been extended from its original context within the private, manufacturing sector, into the public sector as a method to improve the delivery of services. Further, the article addresses the use of TQM specifically in security organizations like the military, and the six sigma approach adopted by military organizations. The use of TQM in police organizations is also discussed and a range of potential models of QM that may be appropriate in the context of law enforcement are presented.

Chakrabarti and Pramanik (2014) have discussed about the TQM and its facets by showing TQM as the integration of all functions and process within an organization in order to achieve continuous improvement of the quality of goods and services. This paper focuses on how to implement TQM in academic organization so as to improve the
quality of library services through the use of different elements of TQM, fulfilling the user expectations, developing staff and user commitment and generating value for a academic library.

Chauhan (2014) has discussed the applications of TQM in academic libraries. He mentions that the libraries have always been committed to provide a high quality of services to its users; therefore, TQM provides the tools and the direction to improve quality of the services in any library. He has made references of the objectives of TQM in libraries, quality control, quality assurance systems in library services and system along with the quality component of library services, Besides, TQM in LIS centre, TQM in academic library policies, resources and processes and in user satisfaction are also discussed by him.

Pandey (2014) has discussed about the history of TQM – its meaning, origin and principles, etc. This study also provides information about the comparison between TQM to ISO 9001 and application of TQM in libraries. It also presents the barriers to the adoption of TQM in libraries. He further adds that TQM may play an important role in learning resource centre of any institute but many institutes in India are not fully aware about this. Thus, there is a need to organize many training sessions to train the library professionals to make them update.

Khan and Kamal (2015) mentions that the goal of university libraries is to maintain a level of service quality and to satisfy the readers at all times. Hence, it is necessary to determine the level of technical and reader services, as well as the measurement of service performance and service quality techniques to better understand the readers and to provide better services. Authors adds that in the past consuming more resources, buying more books and moving to large premises were considered as improving quality but that approach is not valid today rather one of the good solutions to improve quality is to provide right information to the right user at the right time. These require a thorough change in the approach – an approach based on user satisfaction.

Pimentel and Major (2016) have discussed about the key success factors for quality management implementation particularly in public sector. This case study consists of three government agencies where the results and outcomes of a quality
management programme differed. This programme was launched by a specific ministry in Portugal, linked to organizational change and delivering excellence. The study also identified other factors that can help for successful implementation of quality management, such as ‘power’ and ‘collective involvement’. Consequently, a refined ‘Oakland TQM model’ is proposed, as well as a visualization of the interaction of the items/factors involved in an input/output perspective.

Topalovic (2015) has conducted a study on the implementation of TQM in order to improve the production performance and enhancing the level of customer satisfaction with the aim to examine the attitudes of corporate clients on a variety of elements implemented TQM process, provided by bank. The results of the study show that top management commitment, courtesy and responsibility towards customers are significant factors of satisfaction.

Astunkar (2016) has discussed about the TQM in library and information services. He says that the process of implementing TQM in libraries involves a conceptual change in library professionals and a cultural transformation in the organizational operations because without a long-term thinking and commitment, it is not applicable. Further he adds that teamwork is an important factor for successful implementation of TQM.

Das and Mukherjee (2016) have presented about the key enablers to improve the quality of higher education in all university-affiliated degree colleges in the North-East of India. This study was conducted in two phases, where phase one determines the sampling plan. In the second phase of the study, using the Box plot technique, the study identifies the possible weak areas (sub-enablers) and weakest areas (critical domain) for improvement and Six Sigma Define Measure Analyze Improvement and Control (DMAIC) approach is used to identify the critically weak areas that need immediate attention in the higher education sector in a backward region. However, the study was focused on providing a theoretical dimension to the abysmal quality and passing rates in such a hostile environment. The study also has suggested some possible improvements.

Usor and Okon (2016) have discussed the problems and prospects of quality delivery of services in libraries. They mention that today’s libraries are introducing new
services either by converting existing services into e-services or by developing and implementing entirely new services for searching, delivery and use of information for quality services. Such initiatives for example, may include online services, portals, digitized collections etc. to enhance the quality of library services. Thus, the quality of library services today’s, may be defined by the speed and accuracy of reference and information delivery services, open access to both physical collection and retrieval system.

*****