ABSTRACT

Understanding the nature and level of interdependence among various stakeholders in healthcare sector is a critical issue for extensive spectrum of healthcare information users including policymakers, regulators and researchers on the one hand and technologists as well as healthcare professionals on the other. As information and communication technology evolves in the healthcare industry, the scope of information sharing is expanding beyond the walls of individual institutions. Based on the most recent research and international observations, a new paradigm has been identified including various new concepts, frameworks and theories for reengineering education.

ICT is no longer being used simply as a means for automating processes in modern healthcare services. Instead ICT is being used as a revolutionary means of delivering services to people. The adoption of ICT in the healthcare sector has brought about several benefits namely, greater productivity, profitability, efficiency, faster service, customer satisfaction, customer convenience, operational flexibility, 24x7 operations, space and cost savings. Many innovative application of ICT in healthcare sector has bridged the communication gap between the patients, doctors and various stakeholders.

India is one of the developing nations of Asian region which has got a large number of healthcare institutions and home grown social entrepreneurs. Advanced information and communication technologies are expanded all over the country considerably. Most of the public and private health service providers have introduced ICTs and improved the delivery system over a period of time in India. The role of ICT in the development of healthcare sector in Karnataka and other states in India has been a subject of debate, discussion and research. International, Asian region and Indian studies which are distantly related with the main theme of the present study.

The role of ICT in the management of healthcare sector in India in particular Karnataka has not been adequately and systematically evaluated by the researchers. Though Bangalore is known as Silicon Valley of India, Karnataka is one of the poorly performing states with respect to health indicators in India compared to other Southern states. There is growing social entrepreneurs who are looking at health
services as a challenge and its service delivery system. There are many numbers of services and technologies being used in this sector with the help of ICT.

In this context the present study examines the awareness, perceptions, effectiveness, challenges and innovative methodologies in health services delivery system. An attempt is made by the researcher to assess the extent of application of ICT in various health centers of Karnataka state in India. It is also felt necessary to identify and analyze the disadvantages of ICT in healthcare sector in order to suggest suitable preventive, protective and promotional measures which would enhance the credibility and efficiency of healthcare institutions in Karnataka state of India. Applications of ICT in healthcare services in Karnataka and the impact of ICT on the development of healthcare services in Karnataka state were primarily considered in the study.

For the purpose of this study primary data was generated by administering a detailed questionnaire to healthcare and IT professionals on primary health service delivery. Such data is put to advanced statistical analysis for drawing conclusions. Detailed explanation has been provided in the previous chapters on healthcare and IT professionals’ opinion on public health service delivery management. This study is related to service delivery that embraces the ICT acceptance, efficiency and effectiveness and its linkages among delivery management. Healthcare and IT professionals’ expectations and perceptions are evaluated in terms of ICT dimensions like acceptance, efficiency and effectiveness of the service delivery.

In order to provide a comprehensive analysis, discussion and interpretation of the results comprising theoretical interpretation, technology acceptance, efficiency and effectiveness of ICT has been accompanied with the findings of the study.

In general, the results of data analyses for the whole sample have been revealed that: Healthcare service delivery was analyzed with ICT dimensions such as acceptance, efficiency and effectiveness. The acceptance level of ICT in zone 1 and 2 is very high compared to other zones. Service delivery mechanism has been explored with need and awareness dimensions of ICT. A healthcare professional has been evaluated through their general awareness amongst different public health centers in Karnataka. Based on major findings of healthcare professionals, it’s evident that respondents who are more than 40 years and their low level of education are not in favour of using the ICT based applications in public health centers. Also respondents from zone 3 and 4 need lot of
trainings and need to build awareness of ICT based delivery systems. This can be achieved by encouraging the adoption of ICTs to improve and extend health care and health information systems to remote and underserved areas and vulnerable populations. The technology acceptance model (TAM) has been analyzed.