# A study on Impact of Digitalisation on services in the Healthcare Industry

**Ms.Maria Alexina Vinotha Rajan,** Assistant Professor, Department of Commerce, St.Claret College, Bangalore
**Ms.Shalini.S,** Associate Professor & HOD, Dept of Business Administration, IADC-A, Bangalore

**Abstract**

Digitalization is the cause of major transformation in the Industrial sector. Many major industries are seeing sweeping changes and it has impacted the growth of the Industries. The healthcare sector has also seen major change in its functioning and it the healthcare Industry that will have a high potential to be transformed by digitalization. The future of the healthcare services will be different in the future and the change will be towards consumer centric healthcare. This will allow the people to have more responsibility in managing their healthcare and the health of their family members. This paper focuses on the aspect of how digitalization has impacted the health care services and how it will lead to improve in the productivity and drive down the cost of the health care services. Digitalization will ultimately lead to supporting and accelerating the systemic shift to value-based healthcare services.

**Keywords:** Digitalization, health care services, healthcare Industry

## I. Introduction

Digitalization is the cause of large-scale and sweeping transformations across multiple aspects of business, providing unparalleled opportunities for value creation and capture. While it is clear that digital technology will transform most industries, there are a number of challenges that need to be understood. These include factors such as the pace of changing customer expectations, cultural transformation, outdated regulation, and identifying and accessing the right skills. Digitalisation in the healthcare sector is yet another important industry that has seen a drastic change over the years. The introduction of digital services will be among the most important factors in transforming healthcare over the next decade. Yet while few industries have the potential to be changed so profoundly by digital technology as healthcare, the challenges facing innovators should not be underestimated.

## 2. Review of Literature

[1] Nichol, Peter B. In his paper discussed about the role of digitalization that leads in better services to the patients and thus leading to satisfied healthcare service.

[2] Wheatley, Benjamin. "Transforming Care Delivery through Health Information Technology." The Permanente Journal of healthcare and sciences talk about the transformational shift in the healthcare services post digitalization. This article also discusses the various parameters that has led to the high satisfaction of healthcare services.

[3] New Health Economy conducted by cisco & PWC jointly says, Digitalization has the potential to affect every aspect of care. The study was conducted in India jointly by Cisco and pricewaterhouse cooper and it was inferred that it leads to transformation of care.

[4] Porche consulting firm India has done a detailed study on the implications of digitization in the health care services in India highlighting the benefits, impact and disadvantages faced.

## 3. Statement of the Problem

Digital Technology has transformed the way we live. Consumers already encountered big changes in financial services, transportation and manufacturing industry. Almost every industry has been heavily

impacted by technologies. The new digital world is now going to revolutionize the healthcare industry. The impact of technology on healthcare definitely calls for a study. This study is done in order to find out the changes that are driven in the healthcare industry in the Indian scenario and how it leads to better services.

## IV. Objectives of the study

- To explain the impact of digitisation on the services of the healthcare Industry.
- To know the advantages and disadvantages of digitalization in the services of the Healthcare industry.

## V. Methodology

This paper is basically a descriptive based study. The data is collected from research articles and other related sites.

## What will digital healthcare look like?

A truly digital healthcare industry would revolutionize diagnosis and treatment, with a shift in focus to prevention and management. With the widespread introduction and seamless coordination of digital apps and connected devices, the healthcare industry could be transformed from a reactionary system to one that is proactively centered on the patient and driven by data. The most tangible, expected changes will be that care will move closer to the home, and citizens will have more responsibility for managing their own health and well-being. Perhaps the most noticeable changes for a individual would be that significantly fewer trips to a physician or a hospital would be required.

Individuals would become more engaged to manage their own health and care. Through self-care and monitoring of vital signs, an individual's health could be continuously tracked. If needed, a virtual care consultation could be arranged, so that individuals could receive medical advice without leaving their homes.

Digital healthcare would have a profound impact on the healthcare industry itself. Highly skilled and highly paid healthcare professionals would be able to focus their efforts on more complex and higher-value cases. Digital healthcare has the potential to bring about not just small improvements in efficiency, but a step change in the productivity of the healthcare industry along with a significant impact on health outcomes.

Healthcare in India is facing the challenge of meeting the global needs. The need of the hour in India is to march towards digitalisation.

How digitalisation will look like?

- IT supported and virtually-connected overarching planning tools will improve foresighted scheduled appointments by uniting all patient-interfaces between the various health stakeholders.
- • Proactive planning of patient care enables a fully-automated treatment path that respects treatment deviations
- Digital planning safety can be used for patient communication i. e. the patient will have total transparency of treatment plan (examination schedule, appointments, dismissal schedule) and can anticipate upcoming treatments in advance without having to contact healthcare entities separately.
- More preventive check-ups and more effective continual monitoring of patient's vital data.
- An electronic health file is created for every patient, which leads to a reduction in documents and time since medical records are automatically generated
- Patient centered healthcare ecosystem
- Digital literacy in medical education ( Medical Apps)
- Customized health apps.

- Embedded sensors & artificial organs can be the future to name a few.
- Robotics assisted nursing care could also be the future.

**Four digital themes of Digitalization in Healthcare:**

Four digital themes – smart care, care anywhere, empowered care and intelligent healthcare enterprise – have been identified, which will be of crucial importance to the digital transformation of healthcare over the next decade.

1) Smart care will improve patient outcomes and lower the cost of healthcare through the use of precision medicine, robotics and medical printing.

2) Care anywhere will see healthcare move closer to the home, through advances in the connected home and virtual care, which will also help broaden access, especially in maturing economies.

3) Empowered care, through the development of 'living services' will enable citizens to take a more active role in managing their own well-being and healthcare.

4) Intelligent health enterprises will provide data-driven solutions that enable healthcare workers and their enterprises to maximize their efficiency and allow patient health to be monitored more effectively in real time.

**Digital initiatives in health can produce significant benefit for patients and healthcare providers. Benefits can include:**

- Improved outcomes and treatment quality and patient care
- Reduction in unwarranted variation
- Reduction in preventable harm
- Improved appropriateness of health care
- Improved patient centeredness
- Increased opportunities for monitoring and quality improvement.
- It has transformed the relationships in the healthcare sector, patients being self reliant , better informed and comfortable finding information independently/
- Creating of jobs.

**Findings:**

- There is a strong urge for people in India to move towards digitalization in a quick manner.
- Virtual visits to the doctor are declining and people are getting geared to e –prescriptions.
- Consumers have a appetite to use technology enabled service in the healthcare services in the metro cities in India.
- New technology helps patients to follow their treatment in a more systematic way.
- The convergence of digital technology makes the healthcare more accessible and available to the patients.

**Disadvantages of Digitalization:**

**Economic cost burden:** Improvements in health and quality of life have come at a high cost despite advances in science and technology. Economic growth, particularly in emerging countries, has contributed to the improved health of the world's population, but much of this progress has been achieved through increasingly large expenditure by governments, health organizations and citizens.

**Ageing populations:** Older people require more medical care than younger people, so ageing populations require greater healthcare resources.

**Increased incidence of chronic disease:** Unhealthy diets and sedentary lifestyles are among the factors driving a rapid increase in the prevalence and coincidence of chronic diseases.

**The unsustainable cost of care:**

**Government policy, regulation and mandates:** Concerns about costs, quality and access to healthcare are leading many countries to introduce major reforms to their health systems. Countries are also looking to reform healthcare payments, signalling a shift from fee-for-service to paying for value or outcomes.

**Empowered consumer:** The liberation of healthcare data, coupled with shifting costs, has ushered in the arrival of a new, empowered healthcare consumer. These consumers now have 'liquid expectations', defined as the expectation that services available in one industry be matched by other industries.

**Conclusion:**

Digital health initiatives into healthcare organisations can produce significant benefits to patients and healthcare providers. Improvements to quality, safety and efficiency of patient care are achievable via digital interventions. The study indicates that a combination of digital interventions may yield greater benefit. However, the successes of these interventions are dependent on ensuring a rigorous implementation process. If it is properly implemented digitalisation will be a boon and all the individuals should get geared to enter into the world of digitalisation in the healthcare industry.

**Bibliography:**


1. Achuja, R., & Alka, N. (2005). Emerging trends in health insurance for lowincome groups. Economic and Political Weekly, 40(38), 4151-4157.
2. Ahuja, R., & De, I. (2004). Health Insurance for the Poor Need to Strengthen Healthcare Provision. Economic and Political Weekly, 39(41), 4491-4493.
3. Akerlof, G. (1970). The market for lemons: Quality uncertainty and the market mechanism. Quarterly Journal of Economics, 488-500.
4. Amy, F., & McKnight, R. (2005). What Did Medicare Do (And Was It Worth It)? NBER Working Paper No. 11609.
5. Andaleeb, S.S. (1998). Determinants of customer satisfaction with hospitals: a managerial model. International Journal of Health Care Quality Assurance, 11(6-7), 181-7.
6. Bawa, S.K. (2007). Life insurance corporation, impact of privatisation and performance. New Delhi: Regal Publications.
7. Bedi, S., Sanjay, A., Sharma, D.K., Singh, S., Amit, L., Kumar, A. (2009). Hospital support services outsourcing – The know-how. International Journal of Medical Toxicology & Legal Medicine, 12(2), 13-19 Bellemare, C., & Shearer, B.S. (2006). Sorting, incentives and risk preferences: evidence from a field experiment. Economics Letters, 108(3), 345-348.
8. Ben, B., & Gertler, M. (1987). Banking and macroeconomic equilibrium. In: Barnett, W., & Singleton, K. (eds.), New approaches to monetary economics. New York: Cambridge University Press, pp. 89-111. Bhardwaj, A., Sharma, D.K., Sarma, R.K., & Chaubey, P.C. (2001).
9. Cardon, J.H., & Hendel, I. (2001). Asymmetric information in health insurance: evidence from the national medical expenditure survey. Rand J Econ, 32, 408-27.
10. Cawley, J., & Philipson, T. (1999). An empirical examination of information barriers to trade in insurance. Am Econ Rev, 89, 827-46.
11. Cegala, D.J., Street Jr., R.L., & Clinch, C.R. (2007). The impact of patient participation on physicians information provision during a primary care medical interview. Health Communication, 21, 177-185. Charles, P. (1997). Health economics. New York: Addison Wesley.
12. Chiappori, P.A., Jullien, B., Salanie, B., & Salanie, F. (2004). Asymmetric information in insurance: General testable implications
13. Moretti, E. (2003). Do microfinance programs help families insure consumption against illness? Development and Comp Systems.
14. Gumber, A., & Kulkarni, V. (2000): Health insurance for workers in the informal sector: detail results from a pilot study. New Delhi: National Council of Applied Economic Research. Haas, J., Udvarhelyi, I.S., Morris, C.N., & Epstein, A.M. (1993). The effect of providing health coverage to poor uninsured women in Massachusetts. Journal of the American Medical Association, 269(1), 87-91. Hahn, B. (1994).