

Student Name: Portia Boateng Turkson

Student ID:2122363

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Lecture name: Amitave Banik

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Abstract

The current report has highlighted the utility of the technology in the healthcare sector of the UK. In the beginning of the report three objectives have been decided and an in depth literature review has been conducted on the basis of that. Apart from that a secondary research has been conducted with the help of thematic analysis. Above all several recommendations have been insisted on in order to enhance the utility of the technology.

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Introduction

Hospitals play an important role in improving the quality of life of the patient by providing them the necessary medical care and support that further helps them to recover from the health condition in a minimum possible time. Apart from that it provides the necessary facilities to the patient which they cannot get at home. Technology has also played a major role in providing quality services to the patient. From consultation to providing technologically advanced equipment support helps patients to get back to normal life at a lesser time. Moreover, some of the advanced technologies like AI and block chain have helped the hospitals to develop personalised apps so that they connect with patients personally and provide personal care online before and after the recovery period. The current report structure will analyse the ways through which technology has helped the hospitals to make their services efficient.

Rationale

Internet and technology both have significant impact on the overall development of the health care sector. First of all, the internet has improved the level of communication between the patients and the hospital. In today's world hospitals are able to connect with the patients through different online digital mediums that have further helped them to analyse the health and condition of the patient and prescribe the initial necessary measure to the patient. Apart from that, advanced technology has also a significant role in improving the quality of care given to the patients in the health care sector (Martin *et al.*, 2019). Some of the advanced technologies such as artificial intelligence or virtual reality are the next big trend in the health care sector that is going to change the way of providing care to the patient in a different way altogether. Moreover, higher effective technology tools will also be used in the health care sector to build infrastructure in such a way that it will create a healthy care environment for the employees that will further help them to recover from the situation in a minimum time possible. However, there are several challenges in implementing this advanced technology in the healthcare sector (Vatandoost and Litkouhi, 2019). For example, these technologies are newly advanced technology and in order to handle it properly in depth training should be provided to the care support team. Above all these types of advanced technological tools are very expensive and which can increase the operational cost of the hospitals in the healthcare sector will impact the overall growth in a negative way (Lee, 2018).

Research Objectives

- To measure the role of technology and communication in hospitals
- To analyse the challenges in implementing new technology in the hospital
- To evaluate types of technologies that have been used in hospitals in the UK

Research Methodology

Research Philosophy

Research philosophy not only helps the researcher to gather the information for the research but also helps them to analyse the reason and perspective of the information. Apart from that it helps the researcher to gain an in-depth vision of the topic that has been provided in the research (Hürlimann, 2019). In the current research interpretivism philosophy has been used as it helps the researcher to interpret the gathered information in a useful way.

Research Approach

Research approach is the strategy developed by the researcher in order to complete the overall research in an effective way (Walter and Ophir, 2019). It helps the researcher to get a wide perception of the miniscule details that can help in the completion of the study. In the current research inductive approach has been taken as it will help the researcher to analyse the information and draw necessary conclusions.

Research Design

Research design is the framework developed by the researcher in order to carry forward the study in an effective way so that theory can reach a conclusive conclusion. In the current research descriptive design has been used as it will help the researcher to develop the idea of the research (Dannels, 2018).

Data collection method

Data collection method helps the researcher to gather the authentic and credible source of data from the relevant resources in order to develop the study in a more efficient way. In the current study secondary qualitative data collection methods have been utilised as it will help the researcher to do final assessment and analysis of the research (O'Connor, 2020).

Research ethics

Research ethics is the ethical consideration that the researcher needs to keep in mind in order to maintain the ethical decorum of the study. Apart from that they need to gather the information from credible sources such as Google scholar so that quality of the research could not be compromised (Barrow *et al.*, 2021).

Literature Review

Role of technology and communication in hospital

According to Morland and Pettersen (2018), technology and digital communication have impacted the overall development of the healthcare sector in an effective way. First of all it has changed the definition of a patient's personal care approach by minimising the gap between the patients and medical experts. Apart from other personal care it has significantly improved the efficiency of the medical equipment that has again helped the doctors to provide quality services to the patient. There are several AI technologies that have been in the trend that are used in the medical equipment in order to not only minimise the human intervention so that they will be able to focus on other important aspects but also help the doctors to enhance the accuracy rate of the different medical procedures.

Challenges in implementing new technology in the hospital

In the viewpoint of Konttila *et al.* (2019), apart from the different advantages of the technology there are several challenges the hospital needs to go through in providing care and services to the patient. Interoperability is one of the biggest challenges in the healthcare setting where the chances of breaching the confidential data of the patients are quite high. It not only hampers the quality of life of the patients in a negative way but also hampers the overall reputation of the hospitals in a negative way. As AI and virtual realities are the new technology and very few people are there in the health sector who are efficient in handling the high end technology which can cause severe injury to the patients and can impact the overall reputation of the hospital; in a negative way. Above all patients show resistance in utilising the new technology in the healthcare setting as it has greater risk factors involved in it.

Types of technology used in the hospitals of the UK

In the view point of Vargo *et al.* (2021), technology is getting advanced day by day. It is helping the hospitals in the medical care sector to minimise the recovery period of the patients. There are several types of technologies that have been utilised by several hospitals in the UK. Electronic health record is the technology that has been used in the medical hospital in the UK to track the medical record of the patients. It helps the doctor to analyse the current health condition of the patient and prescribe the necessary medication that will help them to recover in the minimum time possible. Apart from that surgical equipment used in the medical sector has also been upgraded in order to provide best health care support to the patient so that they will be able to come back to their normal daily life. Tele-health tools are widely used in the health care sector that helps the medical experts in the hospital to minimise the overall operational cost of the patient that can decrease the load of financial spending. Smartphone technology is the biggest invention of this era that helps the hospital

to reach out to their patients within a few clicks and provide personal care services to them which not only enhances the patient satisfaction level but also help them to enhance the overall reputation of the hospital in a positive way.

Analysis and Discussion

In the current literature review, the importance of the technology in the health care setting has been highlighted by describing several factors that have a direct impact on the overall health of the patient. First of all it helps the doctors to analyse the current health condition of the patient and provide necessary help and support immediately. Apart from that it has also helped the hospital to automate their systems and processes in order to not only minimise the doctor intervention but also enhance the accuracy rate. Moreover, it has also discussed several challenges that both the hospital and patient go through within the healthcare sector. The concept of data breaching and its impact on the overall impact on the quality of life of the patient and the reputation of the hospital have also been highlighted. Above all it has discussed the different types of technology that has been used in the health care sector that not only improves the life of the patient but also helps the medical expert to deliver quality services to the patient that can impact the overall growth of the hospital in a positive way.

Secondary data analysis

Theme number	Theme name	Author name	Title of the Article
Theme 1	Utility of the technology and communication in the health care sector	“Morland, C. and Pettersen, I.J., 2018”	“Translating technological change—implementing technology into a hospital”
Theme 2	Difficulties in incorporation of new technologies in the hospital.	“Konttila, J., Siira, H., Kyngäs, H., Lahtinen, M., Elo, S., Kääriäinen, M., Kaakinen, P., Oikarinen, A., Yamakawa, M., Fukui, S. and Utsumi, M., 2019”	“Healthcare professionals’ competence in digitalisation: A systematic review”

Theme 3	Types of technology utilised in the hospital of the UK	Vargo, D., Zhu, L., Benwell, B. and Yan, Z., 2021	“Digital technology use during COVID-19 pandemic: A rapid review”
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Table 1: Thematic analysis

(Source: Created by the researcher)

Theme 1

As the technology is getting advanced at a rapid pace the overall growth of the healthcare sector is also getting influenced in a positive way. Medical care experts are taking the advantage of technological tools in order to automate the operational process that can increase the overall accuracy rate (Morland and Pettersen, 2018).

Theme 2

Adapting to the new technology is becoming a bigger challenge for the hospitals as in order to handle the advanced technological tool they need organisational as well as collegial support otherwise severe injuries can take place and will impact the life of the patients in a negative way (Konttila *et al.*, 2019).

Theme 3

During the pandemic the demand for the care and support has been increased in a drastic way and doctors needed more workforces in order to support the patients by providing them the quality services. Therefore, they have taken the advantage of the current advanced technology for the treatment of the patient (Vargo *et al.*, 2021).

Conclusion

From the above discussion it can be concluded that the success of the healthcare sector directly depends on the technological trend in the market as it helps them to incorporate several technologies through which they can provide quality care to their patients. The current report structure has highlighted the different ways through which technology and communication medium can help the hospitals to innovate their operational processes. Apart

from that several; challenges are also discussed while using it. Different types of the technology have been discussed along with their utility.

Recommendations

Hospitals can take several recommended initiatives that can maximise the utility of the technology.

- They can improve their security systems so that no data can be breached outside the hospital.
- They can provide training to their medical care experts about the new technologies that are going to be incorporated.
- They can take the advantage of the digital medium in order to contact their patients virtually and provide the necessary care support that will be beneficial for both the patients as well as the hospitals.
- Above all they can take feedback from the patient about the care that has been provided will help them to improve their services.

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