**HOW THE HEALTHCARE SECTOR IN THE UK BENEFITED FROM QUALITY MANAGEMENT SYSTEMS**

# Introduction

There is an extensive need to appoint a quality management system in the healthcare sector in the UK as it is estimated to share an ample degree of benefits. National Health Service (NHS) is the largest publicly funded healthcare system in the UK. As per reports, the Internet of Things (IoT) has played a major role in the past to improve the quality management system in various sectors, including healthcare as it benefitted 823 million between the period of 2015-2020 (Statista Research Department, 2016). The healthcare sector faces the constraint of documenting the healthcare records of patients, hence referring to the need for digital tools such as big data in modern quality management systems to deliver better services in the UK. According to the views of Rieke *et al.* (2020), Data-driven machine learning (ML) has helped promote the application of quality management systems in the healthcare domain. In the UK, many healthcare units are making efforts to digitally pivot and boost the presence of quality management systems. According to the study by Sieck *et al.* (2021), quality control, data management, and customer satisfaction are seen to be the major advantages of having a quality management system (QMS). It is forecasted that having a QMS integrated into the operations enables the services to be sustainable for longer periods and register minimal complaints. As per current reports, 56% and 46% of responses in a survey in the UK helped explore that there is a lack of staff and time management in the healthcare units (Vankar, 2022). This is deteriorating the value of healthcare service standards in the UK, as QMS efficiency is under doubt. Therefore, the influence of QMS in improving healthcare services in the UK would be required to be evaluated.

# Aims and Objectives

***Aim***

The aim is to evaluate the ways by which the healthcare sector in the UK benefits from quality management systems.

***Objectives***

* To identify the success factors for QMS in the UK healthcare sector
* To analyse the benefits possessed by QMS in the UK healthcare sector
* To determine the need for dedicated QMS in the UK healthcare sector

# Methodology

There are different forms of research philosophies such as positivism, realism, pragmatism, and interpretivism. As per the views of Park *et al.* (2020), the positivist research philosophy enables better dealing with quantitative data but also has support for qualitative data. It is a highly structured philosophy as compared to the others and stands to be an ideal fit for the current study. Hence, positivism has been followed in the current study to realise the impact of QMS on UK healthcare services. According to the study by Alam (2021), the mixed research method is a useful strategy to move forward with research with the collection of both quantitative and qualitative data. In the current research, the mixed method strategy has been applied to collect primary quantitative survey data and secondary qualitative data for themes.

# Approach

The deductive approach has been selected for the current research. As per the study by Young *et al.* (2020), the deductive approach permits the testing of the hypothesis or existing theories. In the current case, the QMS has been compared against the total quality management theory to predict the impact of QMS on healthcare services.

# Limitations

The current study is only focusing on statistical analysis using graphs and charts using Microsoft Excel. In relation, a small sample size of 21 is used for the survey-based data analysis. The lack of SPSS use in the study meant that correlation could not be established between the variables using advanced descriptive statistics. Furthermore, the creation of two themes left plenty to explore in terms of the secondary research data.

# Knowledge of methods

Close-ended survey questions are used in the current study. As stated by Hands (2022), the use of the Likert scale and specific sampling techniques are necessary for quantitative data analysis. Similarly, the 5-point Likert scale is used alongside purposive sampling to select a sample size of 21. These respondents are healthcare users in the UK. On the other end, the themes have been formed based on the research objectives and available research data published on or after the year 2018.

# Findings

***Primary***

*Q1.* *Do you agree that* *QMS helps save time during healthcare service use?*

As per survey findings, there are 38% and 29% strongly agree and agree with the fact that QMS helps save time during healthcare service use. Hence, it is beneficial for the healthcare units to have it. On the contrary, a mere 10% disagreed with this viewpoint.

*Q2. Do you consider that taking healthcare services from QMS-driven healthcare is essential?*

According to survey findings, 43% strongly agreed and 24% agreed to the fact that taking healthcare services from QMS-driven healthcare is essential. Some of the NHS units seem to offer QMS-powered services, but the number is required to increase to pave way for better healthcare.

*Q3.* *Do you think that healthcare service standards are becoming better with QMS in the UK?*

As evident from the survey, there are 38% and 29% agree and strongly agree with the statement that healthcare service standards are becoming better with QMS in the UK. In contrast, 19% and 10% of the service users disagreed and strongly disagreed.

***Secondary***

*Theme 1*

It is seen that UK healthcare service users have felt lesser stress while using the services that follow the QMS approach. According to the views of Agrawal and Prabakaran (2020), the UK has now established a clear national strategy, resulting in the likes of the UK Biobank and 100,000 Genomes projects. These actions are in many ways supported by digitalisation and QMS.

*Theme 2*

The staff shortage in the UK to deliver appropriate healthcare services has crippled the stability of the healthcare units. As per the study by Vindrola-Padros *et al.* (2020), healthcare workers (HCWs) in the UK face immense pressure due to a lack of technical assistance as very few healthcare units are well equipped. However, the HCWs are expected to benefit from QMS in future as it balances the staff shortage with automated quality-checking measures.

# Analysis

The primary data is evidence of the success QMS shares in the healthcare sector in the UK, but it is still searching for a wider presence to maximise healthcare service efficiency. As discussed by Agrawal and Prabakaran (2020), Electronic Health Record (EHR) helps keep patient data safe and gives an advantage to healthcare workers in service in future. It can be analysed that the QMS approach benefits UK citizens to a large extent as they get access to healthcare services faster. The East London NHS Foundation Trust (ELFT) could be seen as a brand of NHS that serves the East London region and seems to be the only NHS unit that is equipped with a dedicated quality management system (Quality Improvement, 2023). There remain four specific approaches to shape the quality management system in ELFT as these are recognised as quality planning, quality assurance, quality control, and quality improvement. As mentioned by Vindrola-Padros *et al.* (2020), the HCWs in the UK need stronger support from the QMS. While it is believed that by using the principles of total quality management, a better QMS could be formed. The principles within the total quality management (TQM) framework to a large extent add value to the healthcare service users. The eight principles of the framework such as customer focus, process-centric approach, employee involvement, integrated system, systematic flow, continual efforts, relationship management, and fact-based decision-making help structure the healthcare operations with diligence. However, the presence of overall QMS in the UK is still considerably low as compared to the required service demands, especially since the Covid-19 pandemic situation. It could be analysed that digitalisation remains key for better QMS application in the healthcare industry in the UK in future. However, it has benefitted in terms of data management, quality control, and time management with the existing QMS in a few of the locations such as the ELFT in East London.

# Conclusions

Based on current findings it can be stated that there is a positive impact of having QMS in the UK. The primary data findings have inferred that healthcare users benefit immensely from a QMS-structured service delivery from a healthcare unit. The secondary data on the other end highlighted the importance of digitalisation in the elevation of healthcare sector services in the UK in future with the presence of dedicated QMS. It has been proven that the TQM goes along with the QMS application to add value to healthcare services in the UK.

# Recommendations

There is a need for using digital literacy in the UK to follow the application of QMS. The QMS needs to be applied on a wider scale in the NHS. There would be a need for utilising big data analytics to transform several healthcare units in the UK to become a better fit for QMS integration.

# Future work

The future work needs to be accompanied by a bigger sample size, for example, 101. This would allow analysing of the relation between the research variables in a better manner. The use of a specific healthcare unit such as NHS could be compared with the QMS application to better promote the need for QMS across the healthcare sector in the UK.

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