

## Can Technology be a Driving Factor in Healthcare Agility? - A Cross-Country Comparison

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### Abstract:

The incorporation of information technology in various aspects of healthcare, the growing needs for speed and accountability, the constantly evolving healthcare landscape and patient requirements, and the need for greater organizational flexibility to align with the agility concept - all of these factors have led to the adoption of agile approaches in the healthcare sector. Agility promotes essential qualities of flexibility, adaption, and ongoing learning during the implementation process. By valuing effective communication and leveraging chance to their advantage, an agile approach facilitates a natural evolution towards an adaptable implementation process. The paper will provide insights into how the incorporation of technology can help overcome the challenges that impede healthcare agility, and highlight any among these countries. The primary objective of this paper is to analyse the various determinants that influence healthcare agility on a global scale, with a focus on developed, developing, and under-developed countries. The research studies on five key factors that impact agility, namely cultural factor, leadership, infrastructure, resources and patient-centered care. This research particularly focus on the impact of cultural factor on agility in healthcare among different economies. The countries are Afghanistan, India and Dubai which are under-developed, developing and developed countries respectively. The study delves into each factor to understand its impact on healthcare agility in these countries. Furthermore, the paper identifies common cultural factors that impact agility, that are prevalent across these countries. Lastly, the study investigates the role of technology in bridging the gaps created by challenges related to healthcare agility in these countries. Ultimately, the research seeks to shed light on the potential benefits of technology in enhancing healthcare agility, and to offer recommendations for healthcare organizations looking to leverage technology in this regard.

**Key Words:** Agility, Healthcare, technology adoption, different economies

### Introduction:

The necessity for the healthcare sector to adapt quickly to the changing needs of patients and society as a whole. The application of technology is one answer to this problem. The health of people and society as a whole is maintained in large part by the healthcare industry, which is a crucial sector. The healthcare sector must, however, overcome a number of obstacles in order to adapt more quickly to shifting conditions. These difficulties include the need for more individualised and patient-centered care as well as the rising expenses and growing demand for healthcare services.

Many people now use technology as a reliable tool in their daily life. As we are all aware, information, such as bank balances, bill payment options, weather predictions, breaking news, and phone

numbers, is always at our fingertips. Technology are utilised in healthcare to improve patient wellbeing and safety. Using medical technology aids in preserving patient safety. The first includes reports on consultations and diagnoses, medication cautions, flags, and reminders, as well as easier patient data accessible. Digital technology in medicine and healthcare has the potential to improve unsustainable healthcare systems into sustainable ones. The use of technology is one potential answer to the problem of healthcare agility. By enabling new models of healthcare delivery, expanding patient-provider communication, and enhancing the effectiveness and efficiency of healthcare systems, technology has the potential to revolutionise healthcare. The use of technology in healthcare, such as electronic health records, telemedicine, and digital health

technologies, has significantly increased in recent years. Via remote care delivery, increased access to health data, and real-time decision assistance, these technologies offer the potential to increase healthcare agility. Technology adoption in healthcare is not without difficulties, though. These difficulties include issues with data security and privacy, system interoperability, and the requirement for legislative and regulatory frameworks to encourage innovation and investment.

The capacity to move fast and easily is referred to as agility. In recent years, research on healthcare has given a growing amount of emphasis to the idea of agility. The term "healthcare agility" describes an organization's capacity to react swiftly and successfully to modifications in patient requirements, healthcare regulations, and technology improvements. Agile healthcare can respond to change, enhance patient outcomes, and perform better. Healthcare may become more agile by implementing a variety of initiatives, such as the use of technology, process enhancements, and personnel development. For instance, the implementation of electronic health records (EHRs) can increase agility by enabling healthcare professionals to rapidly and readily access patient data, allowing them to respond to changes in patients' requirements and make educated decisions. By optimising workflows, removing bottlenecks, and fostering better communication and teamwork among healthcare workers, process changes can also increase agility. By giving healthcare professionals regular training and education so they can keep current with the newest medical procedures and technologies, workforce development may increase agility. As the rate of technological development and shifts in healthcare regulations can be swift, agility is crucial in healthcare research. Agile healthcare research organisations can interact successfully with other research institutions to hasten the discovery of new medicines and therapies. They can also quickly respond to evolving research demands, adjust to changes in funding and regulatory requirements.

Therefore, agility is a crucial concept in healthcare research that can aid institutions and researchers in responding quickly and effectively to

modifications in healthcare regulations, patient demands, and technological advancements, ultimately improving patient outcomes and advancing the healthcare industry.

**Research Question:** Can technology adoption help the healthcare infrastructure system in improving the impact of cultural factor on the agility positively?

**Objective of the study:**

- To understand the relationship between the various cultural factors related to customers and agility of healthcare system across three economies
- To understand how technology adoption will help the healthcare infrastructure system in improving the impact of cultural factor on the agility positively
- To understand the various hospital related factors that determines the agility of healthcare system across three economies

**Review Of Literature:**

**Rebecca Kitzmiller, Eleanor Hunt, Sara Breckenridge Sproat (2006)** has proposed to study on how the agile techniques can be incorporated into traditional implementation approaches in order to improve the success rate of the technology implementations.

**Syed Faramarz Ghorani (2015)** had done a study on a healthcare supply chain agility model which is based on the information technology. The paper is an applied research and a survey research in terms of data collection. The findings of this paper is that the customer relationship, order processing, purchase and procurement, services/production scheduling, inventory management, customer services, and transportation are based on information technology of agile healthcare supply chain. Also, the results showed that the Information technology-based supply chain is effective for the improvement of the organization performance.

**Sridevi Poosanam (2018)** studied on referring to a case study which understands the reasons of transition resistance when it is transitioning from a traditional software development practice to an agile practice in an IT healthcare development that happened in Texas. The study was to apply the qualitative research methodology and was guided

by the research questions. The findings of the paper showed that a number of practical ways that leaders can thwart resistance to agile. The study produced some of the most important recommendations for practise, including enhancing employee training, enhancing departmental communications, aiding staff in understanding the advantages of Agile, and enhancing leadership.

**Nour Hussein, Bader Obeidat, MaisJaradat, Muhammad turkiAlshurideh, and Ra'EdMasa'deh (2021)**, to determine the effect of organisational agility on achieving organisational excellence in healthcare services in the UAE, an empirical test was conducted. According to the findings of the study, organisational agility approaches that prioritise responsiveness and extensive sensing agility when viewed as a whole system significantly improve organisational excellence in the UAE healthcare services industry. The study's findings focused on two types of agility that are appropriate for healthcare settings: sensing agility and response agility, where businesses can focus most of their efforts on achieving excellence.

**Vaishnavi V, Suresh M and Dutta P(2019)** did an analysis on the interactions among the different factors for the implementation of agility in the healthcare organization. In order to comprehend how the components are related to one another and to examine their interactions, this research study lists 12 factors of preparedness for change, that is followed by an expert interview. The study reveals that elements including environmental scanning, resource availability, innovativeness, cost effectiveness, organisational leadership, training and development are significant for implementing/improving the readiness of agility in healthcare companies.

**Pajouyhan, A., Rezaei, B., &Parno, M. (2019)** conducted a study to explain the relationship of the components of EI with the organizational agility in the healthcare network. The study found that pearson test suggested positive and substantial correlations between EI and organisational agility. According to the study's findings on the impact of EI on organisational agility, healthcare system managers are advised to establish the groundwork for increasing organisational agility by paying attention to EI.

**Mandal S (2018)** studied on efficient deployment of resources for ensuring optimal supply chain performance. This study's goal is to highlight how human capital—the creative idea generating skills and specialised knowledge held by business employees—can be used to increase health-care agility. The study considered the moderating role of three IT capabilities, namely outside-in, spanning, and inside-out IT capabilities, on human capital and health-care SC performance association, as well as on health-care supply chain performance and health-care agility association, because information technology (IT) capabilities play a dominant role in information exchange crucial to supply chain operations. The study found positive effects of human capital on the SC performance and agility of the healthcare industry. It was also discovered that improved health-care agility was a result of SC performance in the healthcare industry. The study also found that outside-in, spanning, and inside-out IT capabilities positively moderated the relationships between human capital and healthcare SC performance as well as between healthcare SC performance and healthcare agility.

**FaduoTamtam and AminaTourabi (2020)** conducted a study that gives an assessment approach that tries to find the least and most suitable enablers influencing the agility of healthcare organisations by defining several agile enablers, criteria, and attributes. This paper also offers suggestions for how to improve organisational agility.

**SomdechRungsrissawat, kittisakJermstittiparsert (2019)** examined on how human capital affects healthcare agility in Thailand's healthcare industry as well as the mediating function of healthcare supply chain performance in the connection under consideration. The findings of this paper showed that healthcare supply chain performance considerably mediates this link and that human capital greatly improves agility in the sector. The majority of the study's implications are directed towards the service industry, which can increase its agility through stronger human capital and improved supply chain performance.

**RojalinPatri and M. Suresh (2019)** gives a comprehensive analysis of the research on the

idea of agility in healthcare services. Over a number of years, the authors undertook a systematic review of articles published in a number of scholarly journals and conference proceedings. Overall, the analysis of the literature offers a thorough overview of the idea of agility in healthcare services and provides information on the advantages and difficulties of applying agile methods in healthcare companies. As a result of evolving patient needs, technological developments, and policy changes, the review also offers recommendations for healthcare organisations looking to become more flexible and adaptable.

**Mandal, S. (2020)** examined the influence of technology orientation and healthcare agility and resilience on sustainable healthcare performance. The paper provides a thorough analysis of the literature on these subjects. The literature analysis points out several pieces of research that concluded that healthcare agility and resilience were positively correlated with long-term healthcare performance. The author examines how organisational culture change, strategic planning, and leadership can be used to overcome these issues. Overall, the literature analysis offers a thorough overview of the ideas behind sustainable healthcare performance, healthcare agility, and the role of technology in accomplishing these objectives. The review establishes a foundation for the investigation and offers perceptions into the state of the art of this field of study.

**SamyadipChakraborty, Vaidik Bhatt, TulikaChakravorty (2020)** analyses how the orchestration, agility, and responsiveness of care services are affected by the deployment of digital technologies. This paper also looks at the ideas of healthcare responsiveness and agility, which refer to an organization's capacity to quickly adjust to changes in the healthcare environment, such as shifting patient requirements or emerging technology. Overall, the literature study offers a thorough summary of the ideas behind the use of digital technology, care service orchestration, healthcare agility, responsiveness, and their connections. The review contains information about the state of research on these themes at the

time of publication and serves as a foundation for the research investigation.

**SamyadipChakraborty, Vaidik Bhatt, TulikaChakravorty (2019)** explores how adoption of the Internet of Things (IoT) affects the flexibility and agility of healthcare companies. The literature review starts off with an overview of the Internet of Things (IoT) in healthcare, outlining how IoT technologies, like wearables and remote sensors, are being utilised to gather and transmit data for healthcare applications. The analysis underlines the potential benefits of IoT adoption in healthcare, such as increased patient monitoring, better resource allocation, and decreased healthcare costs. The review provides a basis for the investigation and offers perceptions into the state of the art of this field of study.

**M. Suresh, A. Roobaswathiny& S. Lakshmi Priyadarsini (2021)** evaluates the variables that affect COVID-19 hospitals' agility. The study provides a detailed overview of the literature on healthcare agility and its application in the context of the COVID-19 pandemic. The literature review examines the special difficulties brought on by the COVID-19 epidemic, including the necessity for swift decision-making, the lack of resources, and the patient demands that are constantly changing. The review reveals the crucial aspects of leadership, communication, resource allocation, and technology adoption that affect COVID-19 hospitals' agility. The review offers insights into the present level of research on healthcare agility in the context of a public health crisis and serves as a foundation for the research investigation.

**Yadav, N., & Dixit, S. (2017)** focuses on the changes in the external environment of learning goal orientation and organisational culture in order to construct a conceptual model of learning agility and genuine leadership development. An overview of the ideas of learning agility, authentic leadership, and their connections to organisational culture are given in the paper's literature review. The present paper is an attempt to explore the relationship between learning agility and authentic leadership development. It also covers the two factors—learning goal orientation and organisational culture that may function as moderators of this relationship. A conceptual model has also been proposed that can be

explored empirically. This understanding of the relationships among all these aspects will further add to the existing information on these constructs and allow the companies to develop strategies and start executing career development treatments in a proper manner.

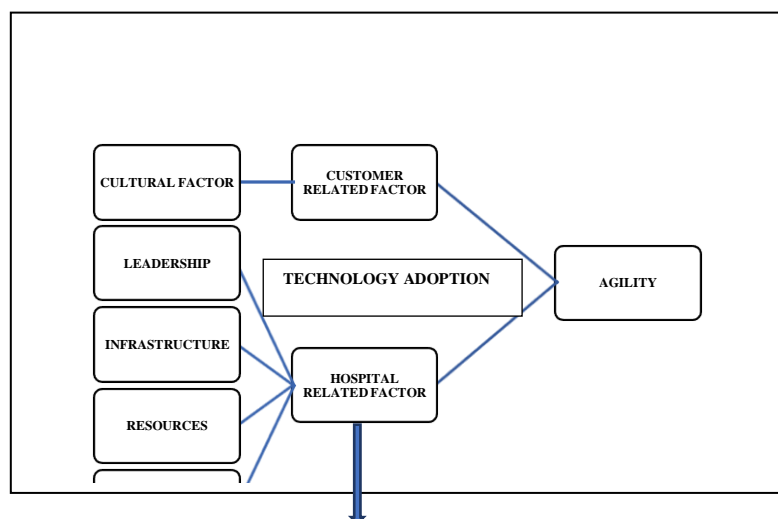
**Teoh, Sayyen&Cai, Shun & Corbitt, Brian. (2010)** provides a case study of the deployment of healthcare information technology (HIT) utilising an Agile-Innovative Capability Development (A-ICD) process. The literature study of the paper includes an overview of HIT implementation, agile approaches, and creative capability creation in healthcare. The introduction highlights some of its potential advantages, including better patient outcomes, higher effectiveness, and cost savings. The review then describes the difficulty in integrating HIT systems with current procedures, lack of technical skills, and opposition to change as implementation problems for HIT. The review underlines the potential advantages of using agile methods to adopt HIT and contends that the A-ICD process can help healthcare organisations build their capacity for innovation.

**Teresa Britt Pipe, Vicki L. Buchda, Susan Launder, Barb Hudak, Lynne Hulvey, Katherine E. Karns and Debra Pendergast (2012)** conducted a pilot study that evaluated the personal and organizational effects of an educational intervention on the stress of members of a health team, along with its design, execution, and outcomes. The project's findings indicate that stress and its symptoms are problematic issues

for hospital and ambulatory clinic staff. In addition, a workplace intervention that promoted positive strategies for coping and enhancing personal and organizational well-being was both feasible and efficient.

**Suresh, M., & Patri, R. (2017)** evaluated the agility of a university dispensary. This study demonstrates a method for evaluating the agility of a healthcare organization. It makes two contributions to the existing knowledge base. The paper suggests a method for determining a healthcare organization's agility, and then it identifies the characteristics that hinder agile performance and provides a suggestion for improving its agile capabilities. According to the findings, the characteristics that weaken the University dispensary's agile capability are clear information flow, adequate salaries and bonuses for caregivers, reading errors in medical descriptions, in-house or nearby pathology laboratory services, technical upgradation of the dispensary's equipment and facilities, minimizing patient throughput time, and an adequate training program for safety practices. The dispensary's current agility was determined to be "Agile," which is average in comparison to the agility labels.

**CONCEPTUAL FRAMEWORK:**



*Conceptual framework developed by the author\**

For better patient outcomes and adapting to the rapidly changing healthcare environment, agility in the industry is essential. The above mentioned are the factors that affect agility in healthcare.

**Relationship between Technology Adoption and agility:**

Impact of digital technology adoption on care service orchestration, agility and responsiveness is a study by Chakraborty S. ,Bhatt V. and Chakravorty T. International Journal of Scientific and Technology Research (2020). This study makes suggestions regarding how the widespread responsiveness of healthcare services is affected by hospitals' usage of digital technologies. The study analyses how orchestration, transparency, and agility in the care delivery process affect responsiveness.Chakraborty S. (2019) Impact of iot adoption on agility and flexibility of healthcare organizationInternational Journal of Innovative Technology and Exploring Engineering .This study examines the association between IoT usage and suggested service delivery improvements achieved by healthcare organisations using data from the Indian healthcare sector.

**Relationship between Cultural Factor and agility:**

According to the study done by VibhasRatanjee on “Contributor: Seven shifts to an Agile Culture in Healthcare”, driving the changes throughout a hospital can dramatically advance an agile culture, according to research on leadership agility, which identifies 7 basic alterations shared by highly agile leaders.

**Relationship between Leadership and agility:**

**Shirey M. R. (2015)** Strategic Agility for Nursing Leadership- Journal of Nursing Administration . The author gives strategies for introducing

strategic agility in healthcare systems and examines strategic agility as a crucial leadership skills. We propose a framework for creating infrastructure alongside a strategic agility checklist.

**Relationship between Patient Centered-Care and agility:**

**Stanton B. M.Rivera M. J.Eberman L. E. (2022)**Support Systems and Patient Care Delivery for Nonnative English-Speaking Patients: A Study of Secondary School Athletic TrainersJournal of Athletic Training.Communication difficulties, a drop in the quality of service, and a general decline in provider satisfaction are all effects of language difficulties in the healthcare industry. Participants in this study felt that when establishing a patient-centered experience, it was crucial to adjust care to cultural needs and provide a friendly environment for NNEs.

In conclusion, a variety of factors may have an impact on how agile healthcare businesses are. Understanding these elements can help healthcare businesses become more agile and capable of responding swiftly to changes in patient requirements, healthcare regulations, and technological improvements. This paper is constraint to only three factors, such as technology adoption, patient centered-care and cultural factor.

**Research Methodology:**

This study uses descriptive research methods. The researcher used web databases like research gate, google scholar, pubMed, and Mendeley to gather secondary data for the study. The population is 195 countries in the world. The sample size for the study is 3 countries.

**ANALYSIS:**

**Cultural factor:**

<b>Underdeveloped Country (Afghanistan):</b>	<b>Developing Country (India):</b>	<b>Developed Country (Dubai):</b>
Gender roles and norms	Caste system	Gender roles and norms

Traditional Beliefs and practices	Traditional and alternative medicine	Religious and cultural beliefs
Language and literacy	Language and regional diversity	Language and communication
Conflict and instability	Family Involvement	Healthcare seeking behavior

**Afghanistan:**

1. Gender roles and norms: Healthcare organisations may become less agile as a result of limited access to healthcare for women and girls, gender-segregated healthcare workers and facilities, gender-based discrimination, and limited participation of women in decision-making.
2. Traditional Beliefs and practices: Diagnostic and therapeutic processes may be slowed down by patients who favour alternative therapies or at-home treatments over contemporary medicine. The communication and collaboration between patients and providers may be impacted by conventional assumptions about sickness and treatment, which would hinder healthcare agility.
3. Language and literacy: Patients' access to and comprehension of healthcare information may be restricted by high rates of illiteracy and inadequate fluency in the official languages (Pashto and Dari), which could slow down the delivery of healthcare.
4. Conflict and instability: The provision of healthcare can be hampered by ongoing violence and political instability, which can also reduce access to healthcare facilities and result in a scarcity of healthcare workers and supplies. Several elements may make healthcare companies less agile.

**India:**

1. Caste-based discrimination can restrict prospects for healthcare workers from lower castes and hinder their access to care. This could hinder healthcare organisations' ability to adapt and result in a lack of diversity on healthcare teams.

2. Traditional and alternative medicine: India has a diversified population with a wide range of cultural beliefs and traditions, over 22 official languages, etc. This may have an effect on communication and healthcare delivery, decreasing healthcare agility.
3. Language and regional Diversity : Indian patients frequently turn to traditional and alternative medicine in place of or in addition to Western therapy. As a result, there may be a reduction in the collaboration and communication between patients and healthcare providers.
4. Family Involvement: Families frequently influence healthcare decisions in India, and patients may rely on them for assistance. As a result, there may be a negative influence on patient autonomy and a reduction in the ability of healthcare professionals to participate in decision-making.

**Dubai:**

1. Gender roles and norms: The communication and collaboration between patients and providers may be impacted by cultural differences in gender roles and customs. For instance, some patients might prefer to work with healthcare professionals of a similar gender, while female patients might have certain healthcare requirements that call for gender-sensitive treatment.
2. Religious and cultural beliefs: The religious and cultural beliefs of the patients in Dubai, who come from a variety of ethnic backgrounds, may have an impact on their healthcare needs and preferences. To deliver culturally appropriate care and guarantee patient

satisfaction, healthcare professionals need to be aware of and sensitive to these values.

3. Language and communication: Patients and healthcare professionals may speak different languages or dialects due to the large number of expatriate populations in Dubai. Communication and understanding problems caused by language limitations might slow down healthcare delivery.

4. Healthcare seeking behaviour: Depending on their cultural background and religious beliefs, patients may exhibit various healthcare seeking behaviours. While certain cultures may place a higher priority on preventative care, others might only seek medical attention when symptoms are severe. This may have an effect on patient outcomes and healthcare delivery, decreasing healthcare agility.

**Technological Adoption:**

<b>Underdeveloped Country (Afghanistan):</b>	<b>Developing Country (India):</b>	<b>Developed Country (Dubai):</b>
Digital infrastructure	Electronic Health records	Electronic Medical records (EMRs)
Data Analytics	Telemedicine	Telemedicine
Artificial Intelligence	Artificial Intelligence	Artificial Intelligence
Mobile Technology	Internet of Things (IoT)	Wearable Technology
Electronic Payment Systems	Mobile Health (m Health)	Mobile Health (m Health)
Cybersecurity	Cloud Computing	Blockchain Technology

**Afghanistan:**

1. Digital infrastructure: May increase agility by making it easier for healthcare professionals to communicate and share information, but it may have limitations in places with weak infrastructure.
2. Data Analytics: May increase agility by revealing healthcare patterns and pinpointing areas for improvement, but its potential is constrained by the amount and calibre of healthcare data available.
3. Artificial Intelligence: May increase agility by automating processes and delivering more precise diagnoses, but may be constrained by the cost of

adopting AI technologies and the lack of access to skilled people.

4. Mobile Technology: can increase agility by enabling remote care and patient communication, but may be constrained by low smartphone adoption rates.
5. Electronic Payment Systems: can increase agility by decreasing administrative load and expediting payment procedures, but may be constrained by low financial knowledge and restricted access to banking services.
6. Cybersecurity: Can increase agility by securing sensitive patient information and guaranteeing

continuity of care, but may be constrained by limited resources and cybersecurity skills.

**India:**

1. Electronic Health records: Greater patient safety, quicker access to patient information, improved information sharing and coordination, and fewer errors
2. Telemedicine: Increased efficiency, shorter wait times, improved patient-provider communication, and improved access to healthcare services
3. Artificial Intelligence: Improved access to healthcare services, enhanced patient-provider communication, improved patient engagement, increased efficiency
4. Internet of Things (IoT): Enhanced diagnoses, better patient outcomes, and greater efficiency in clinical decision-making
5. Mobile Health (m Health): Expanded data gathering, remote patient management, improved patient monitoring, and increased efficiency
6. Cloud Computing: Enhanced information sharing, better data management and storage, greater accessibility, and lower costs

**Dubai:**

1. Electronic Medical records (EMRs): Greater patient safety, quicker access to patient information, improved information sharing and coordination, and fewer errors
2. Telemedicine: Increased efficiency, shorter wait times, improved patient-provider communication, and improved access to healthcare services
3. Artificial Intelligence: Enhanced patient engagement, real-time data collection, remote patient management, improved patient monitoring
4. Wearable Technology: Greater patient interaction, remote patient management, better patient monitoring, and real-time data collection
5. Mobile Health (m Health): Increased efficiency, patient participation, improved patient-provider communication, and improved access to healthcare services
6. Blockchain Technology : Greater information exchange, more openness, decreased errors, and improved data security and privacy.

**Suggestions And Conclusions:**

**Suggestions:**

The study emphasises how crucial technology adoption is for enhancing healthcare agility. In order to promote healthcare agility, healthcare organisations should support the adoption of new technologies and prioritise the deployment of technology that is appropriate for their cultural environment. The study demonstrates that cultural considerations have a big impact on healthcare agility. In order to create patient-centered care models that are culturally acceptable, healthcare institutions need better understand cultural aspects.

**Conclusions:**

The study emphasises how crucial it is to comprehend cultural issues and create patient-centered care models that are culturally sensitive. Healthcare institutions should place a high priority on cultural sensitivity and create training programmes that might enhance respect for and understanding of various cultural beliefs and practises. The study demonstrates that adopting new technologies can increase healthcare agility, but they must take national cultural context into account. Managers should encourage the deployment of new technologies that can increase healthcare agility and prioritise the adoption of technology that is appropriate for the national cultural environment. Overall, the study underlines the need of taking cultural aspects into account when evaluating healthcare agility and draws attention to the possibility for technology adoption to enhance healthcare agility.

**Limitations:**

The study is mostly conceptual in nature and bases. The findings reached might be constrained by the absence of supporting empirical data. It's possible that the three countries and a factor (cultural factor) are the focus of the paper rather than all the nations or all the factors that affect healthcare agility. The paper offers a general overview of the problems, but it does not provide a detailed analysis of any particular elements or solutions that might increase healthcare agility in the three nations. The researchers performing the study may have biases and viewpoints that affect

the investigation, which may have an impact on how the results are interpreted. The paper only focuses on the three countries mentioned and does not compare their healthcare systems with those of other countries, which could provide a more comprehensive understanding of healthcare agility in a global context.

#### **Managerial Implications:**

With a focus on correcting the common areas of insufficiency found in the study, healthcare administrators can use the findings to direct the integration of technology into their healthcare systems. Managers can prioritise implementing technology that is appropriate for the country's cultural setting and encourage the adoption of new technologies that can increase healthcare agility in their particular enterprises based on the study's findings. Programs for managers to train healthcare staff in cultural sensitivity might help them better understand and respect various cultural practises and beliefs. This can support ensuring that healthcare services are provided in a sensitive and acceptable manner across cultural boundaries. This could involve techniques like encouraging patients to participate more in their care and delivering prompt and efficient communication.

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#### **Directions For Future Research:**

1. Conduct a longitudinal study: An in-depth understanding of how technology affects healthcare system agility would result from conducting a longitudinal research that tracks changes in technology adoption and healthcare agility across time.
2. Explore the role of culture and policy: Although cultural and policy factors were the focus of this study, it would be interesting to investigate these in greater depth. For instance, what cultural or policy factors in different nations might make or break the adoption of new technologies, and how might this affect healthcare agility?
3. Conduct a qualitative study: For a more in-depth comprehension of the difficulties and opportunities associated with the adoption of technology in various healthcare systems could be gained through the conduct of a qualitative study, such as interviews or focus groups with healthcare professionals.
4. Compare healthcare systems within a single country: Although this study compared healthcare systems across nations, comparing systems within a single nation might be beneficial. For instance, how is agility affected by differences in technology adoption between urban and rural healthcare systems?

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