

Everyone's Smart University

College of Management

Graduation Project



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Community Awareness of Digital Health Services in Saudi Arabia and Its Effect on the Society

الوعي بالخدمات الصحية الرقمية بالمملكة العربية السعودية ومدى تأثيره على المجتمع

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Table of Contents

S	part	chapter	page
1	First Part	Cover	-
		Acknowledgements	3
		Introduction	4
		Literature Review	5
2	Second Part	Research Methodology	6
		Digitalization of Health Services	8
3	Third Part	Health Transformation Program in Saudi Arabia	10
4	Fourth Part	Community Awareness	25
		Field work	30
5	Fifth Part	Conclusion	32
		Reinforcement	33
		References	34

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Introduction

Digital transformation is about adopting disruptive technologies to increase productivity, value creation, service integration and social welfare. Today in Saudi Arabia and in line with vision 2030 the digital transformation is a major factor in building the future and the integration of the services and data is benefiting the well-being of every person living in this country.

When it comes to society the three most aspects that shape the triangle of basic living are security education and health services, and today health services are evolving, and health service providers are moving rapidly to assure the best quality they can provide. and today's world most services are digitalize as part of the digital transformation and business.

While businesses are evolving, and the competition is higher, yet service providers are struggling when it comes to the awareness of their products and services from promoting the service to the marketing of the business to the right measurement of their service by the end user.

Without going through the digital transformation, we want to cover the digitalization in health services which means the services that can be done remotely. So, in this research, we are covering the two major sides of the equation in digital health services in Saudi Arabia: the services and their benefits in a hand, and the awareness and the impact on the society.

Literature Review

Since the launch of the Saudi 2030 ambitious vision, foundations have been built for mega projects including digitalization of services. The vision was not clear to everyone living in Saudi Arabia nor the benefits of its realization. But when the pandemic hit the world and the curfew happened, society began to use alternative channels including digital channels. Today, the challenge is the continuity of using these channels and their advantages.

Digital health services are not an exemption, there are huge advantages from them, but the community lack an awareness toward them, and they are still linked to "exceptional circumstances" such as the pandemic, while reality is that they are the future.

Research Methodology

- In this research, the method that will be used is Descriptive research.
- The data will be collected through surveys, interviews, field studies and previous statistics and data bases.
- The study population and sample type are targeting people living in Saudi Arabia, Saudis, and non-Saudis, focusing on people older than 15 years old capable of using digital channels.
- The field studies will be conducted on the major health services providers in Saudi Arabia to understand their transformation methodology, the usage of the services and the impact on their organization.

Research Problem

The research problem is that there is a lack of awareness toward the digital health services in Saudi Arabia and understanding the benefits of them.

The Importance and Objectives of the Research

- Reflecting/ learning about the digital transformation.
- Community awareness of receiving digital health services matches the physical quality.
- Clarifying the impact of using digital channels on the organizations and the beneficiaries.
- Digital and remote health services are a way of preventing infectious diseases.
- Explaining the challenging and obstacles that prevent from using the health services.

Research Hypotheses

- What is digital transformation in health services?
- How aware is the community of the digital health services?
- How to benefit from the digital health services?
- To what level using digital health services can prevent the community from infectious diseases?
- What are the challenges facing users of the digital health services?

Research Limits

- Interviews can be a challenge considering time availability and limitations of officials.
- Updated sources since technology is changing rapidly.
- Limited digital health transformation benchmarking in the region that can be compared

Digitalization of Health Services

Digital transformation industry is moving to adopt holistic business models, completely redesign products and services, and establish closer interactions with beneficiaries. The widespread implementation of digital transformation will profoundly affect the industry business environment.

So, digital transformation in healthcare makes a detailed overview of how the medical units diagnose monitor and manage patient health its main goal is to implement innovative healthcare IT solutions to optimize the major workflow process and compliance and improve patient services while reducing costs. And there are four main areas of digital transformation each presenting its own challenges and opportunities: process transformation, business model transformation, domain transformation, and cultural transformation. the first three areas are related to business and how it evolves from leadership, technology race, integration of information and achieving the right set of goals strategically. but the cultural transformation and the awareness is the key challenge when it comes to changing the behavior of the customer (who are the patients in this case) and this definitely effect the benefits of these services. hi

When it comes to the digitalization of healthcare, sharing the patience information and data from laboratory test and the results and x-rays imaging between health service providers whether it's for data sharing or second opinions, although telemedicine and remote supervision of surgeries and operations started and the early 90s, the major step in that field was when French surgeon Dr. Jacques Marescaux conducted the first and complete remote surgery on 7 September 2001 in New York City performing a cholecystectomy on a 68 years old female patient in Strasbourg France.

The race to provide the best health care as linked with the ease of the services, we can see that the countries who were ready digitally delt with the pandemic in a way like no other. It is clear to see that time is everything when it comes to the pandemics countries that lock down early were able to manage the virus more efficiently of course some countries implemented fairly strict measures early on but

didn't have money or infrastructure to deal with it add to that that the redness off those countries were measured also by the digitalization what helped Saudi Arabia to overcome the pandemic and to be an example of dealing with disasters is that the digital transformation in health services was ongoing as part of vision 2030.

Health Transformation Program in Saudi Arabia – Summary

The implementation plan for the Health Transformation Program included an introduction and (4) chapters as follows:

- **Chapter One: Scope of the Health Sector Transformation Program** (description of the program, its objectives, and policies).
- **Chapter Two: The Current Situation** (Basic Challenges, The Main Reasons That Led to These Challenges).
- **Chapter Three: Strategic Dimensions of the Health Sector Transformation Program.**
- **Chapter Four: Portfolio of Initiatives.**

Where the plan began with two articles of the Basic Law of Governance in the Kingdom of Saudi Arabia that guarantee free treatment and health care for citizens, as Article (31) of the Basic Law of Governance stipulates that “the state is concerned with public health and provides health care for every citizen and his family in cases of emergency, illness, disability and old age.” Royal Decree No. also issued the health system. M/11 dated 3/23/1423 AH (corresponding to 4/6/2002 AD), which included in Article (2) that “the system aims to ensure the provision of comprehensive and integrated health care to all the population in a fair, accessible and organized manner”.

The health sector transformation program was launched to enhance this human dimension. And he affirms the continuity of his approach in the future, as well as developing the health system in general and raising the quality of care and services provided, as the health sector transformation program comes as one of the programs of the Kingdom’s Vision 2030, which was established with the purpose of contributing to achieving the goals of the “vital society” axis within the vision. By restructuring the health sector in the Kingdom and strengthening its capabilities and position as an effective and integrated sector, it places the health of all members of society (citizen, resident and visitor) at the top

of its priorities by preparing and developing a national strategy for the transformation of the health sector.

Strategic Objectives of the Health Sector Transformation Program

- Facilitate access to health services.
- Improve the quality and efficiency of services.
- Promote prevention of health risks.
- Enhance traffic safety.

The detailed objectives that the health sector transformation program contributes to achieving:

1. Developing the non-profit sector.
2. Improving the quality of services provided to citizens.
3. Attracting global talents.
4. Providing qualitative knowledge for the distinguished in priority areas.
5. Privatization of specific government services.
6. Ensuring the achievement of developmental and food security.
7. Developing e-government.
8. Expansion of vocational training.
9. Developing the digital economy.
10. Enhancing the interaction of government agencies with the beneficiaries' comments.
11. Diversifying government revenues.
12. Ensure compatibility between education outputs and the needs of the labor market.
13. Attracting foreign and local investments.
14. Liberating state-owned assets to the private sector.
15. Improving the productivity of government employees.
16. Encouraging volunteer work.

Public Policies

The program works through a set of comprehensive policies to ensure the sustainability of reforms and increase the efficiency of spending.

The policies of the Health Sector Transformation Program are centered on the four strategic objectives, **and are based around many areas, which include:**

1. Readiness to respond to health risks by enhancing health security.
2. Quality of care through effective strategy and governance.
3. Financing health care and allocating resources to ensure the realization of value from the outputs.
4. Beneficiaries obtain health benefits packages based on their actual needs.
5. An executive system that provides integrated health care services to beneficiaries.
6. A competent, distinguished and adequate health workforce.
7. Innovation in healthcare.
8. A healthcare system based on best practices.
9. Health in all policies.
10. Reducing deaths and injuries resulting from traffic accidents.

Program Commitments and Ambitions

The program will contribute, through its four strategic objectives for the health dimension, to achieving the aspirations of the Kingdom's Vision 2030 and making a tangible positive impact on various aspects, to develop a national health system. **The program aspires to achieve the following:**

1. That the beneficiary enjoys a better healthy life.
2. Improving health care in the Kingdom of Saudi Arabia.
3. Improving the efficiency of health care providers.
4. The health care system in the Kingdom shall be strong and flexible.
5. Empowering beneficiaries.

Current Situation

The health care system in the Kingdom "8" major challenges, which the four strategic objectives of the health dimension work to address:

1. Premature deaths resulting from chronic diseases reach 90,000 citizens annually and include the areas of heart disease, stroke, diabetes, respiratory diseases, mental health, traffic accidents, and congenital diseases.
2. In 2016, the number of people with diabetes reached 4.6 million, and this number is expected to double by 2030.
3. A level of rapid growth in the population, as the total population of the Kingdom is expected to increase from 33.4 million in 2018 to 39.4 million in 2030.
4. Health challenges affecting the health of the population and the quality of health services provided.
5. The high rate of deaths and injuries resulting from traffic accidents, which cause huge human, social and financial losses.
6. Overlapping roles between the regulator and the entity that provides or finances the health service and the absence of clarification of roles and responsibilities related to the regulatory aspect among the main regulatory bodies.
7. Duplication of health service provision and financing for the same beneficiary.
8. There is a gap between supply and demand in the workforce in the health field, which has led to increased reliance on foreign labor.

The main reasons that led to these challenges:

- The lack of access to the services provided to the beneficiaries to the ideal level, in terms of quality and quantity, due to the absence of protocols and paths consistent with treatment, as well as the absence of a mechanism to complete the measurement of health care procedures and results. In addition to the sector's need to empower its workforce and raise its capabilities through various development programs, as well as the need to raise the efficiency of the system's work, to reduce duplication of access to service for beneficiaries who have dual eligibility, and who receive care across the various health care sectors.
- The fact that the Ministry of Health is the financier, regulator and service provider at the same time, this may affect the health sector governance systems in addition to its impact on the coordination of care and investments between the Ministry of Health and the public and private sectors. Therefore, the separation of roles and the transfer of competencies to concerned parties will contribute to enhancing the sustainability of the sector's transformation health care and raising the quality of care provided, in addition to reducing disease rates and appropriate response to health security problems.
- Traffic safety policies, protocols, laws, regulations, and other procedures are inconsistent with the best comprehensive traffic safety standards. Developing policies will contribute to enhancing traffic safety, by setting emergency service standards and rapid response to traffic accidents within the Kingdom of Saudi Arabia.
- The current health care model tends more towards treatment rather than prevention, and very great efforts are made to deal with diseases and treat them instead of avoiding them by promoting the principle of prevention. In the same vein, the current health system tends to find solutions that are more related to resources and personnel than to those related to beneficiaries.

- Weakness in the integration between primary, secondary, and specialized care and in the balanced distribution of it at the level of the Kingdom. In addition, there is a need to develop extended care services such as rehabilitation, long-term care and home care. There is also a need to enhance the efficiency of managing the occupancy of medical beds according to the level of care.
- The current infrastructure needs to be developed to support electronic and digital health and virtual health care (remotely), which has become a necessity considering the current challenges, especially pandemics and health threats.
- The need to update policies and legal frameworks to make it possible to enhance cooperation and integration between government agencies and agencies, and partnership with the private sector in investment and implementation of tasks.

The program's aspirations for the future of the health sector:

The program aspires to bring about a qualitative transformation in the health care model and service provision, as it will work to provide significant improvements in both public health and health services.

The program adopts **four strategic dimensions through which it works to achieve the goals of the Kingdom's Vision 2030 in transforming the health sector:**

1. Better health

The improvements included a focus on preventive health to address the main health challenges facing the Kingdom's population, to reduce the health burdens imposed on their health by non-communicable diseases, such as diabetes, cardiovascular diseases, respiratory diseases, and common mental illnesses.

2. Better care

Enabling all beneficiaries to access health care services, regardless of place of residence or who provides them with the service.

Providing health care within the Kingdom in line with national quality standards, in integration with all service providers. In addition, the achievement of standards will be scrutinized and regulated to ensure delivery, as well as the results of treatments will be measured to ensure that caregivers are committed to providing quality care.

In addition to developing a digital revolution in the field of health care, e-health and virtual care become the basis, facilitating beneficiaries' access to care services. Digital technologies, including artificial intelligence, will be used to help make better clinical decisions, and hospitals will always have immediate access to each patient's comprehensive healthcare record.

3. Better sustainability

Proper coordination between caregivers will ensure capacity improvement and full utilization and development of facilities in accordance with standards of urgent needs, thus contributing to reducing duplication of provision of health care services and the resulting misuse.

4. A better workforce

We will witness a greater correlation between the reward system and value-based care than outputs, so that the income of health professionals will increase according to their contribution to providing value-based care and achieving the desired goals and outputs.

Mechanisms for achieving future aspirations

To achieve “better health, better care, better sustainability and a better workforce”, the health sector transformation program will complete the implementation of the approved radical transformation of the Ministry of Health, which is the largest healthcare provider in the Kingdom. This is done through strategic reform initiatives that will achieve the target situation. **These initiatives are:**

1. Health Sector Governance Initiative.
2. The Modern Care Model Initiative.
3. The Institutional Transformation Initiative for Healthcare Facilities.
4. The National Health Insurance Initiative and New Financing Models.
5. The E-Health Initiative.
6. Manpower Initiative.
7. Private Sector Participation Initiative.
8. The E-Health Initiative.

The e-Health initiative is one of the important strategic reform initiatives

E-health is the effective and safe use of information and communication technologies to support health and related goals. This includes health care services, health surveillance, health literature, health education, knowledge, and research. **The effective adoption of eHealth will lead to:**

1. Facilitate the introduction of radically different approaches to care.
2. Facilitating entry into the health field for new, non-traditional service providers.
3. Provide disease prediction tools.
4. Enable personal care management.
5. Help alert population health systems in the event of an outbreak of communicable diseases.

It is expected that investing in e-health in the Kingdom will achieve multiple benefits, including the following:

1. Enabling compliance and application of quality and safety standards in health system practices.
2. Enabling the submission of performance reports and monitoring the extent to which targets are achieved.
3. Providing the population with personal care tools to help them take care of their health, raise their health education, and help them interact with the health system.
4. Integrating the continuum of care at all levels into the modern care model and supporting the flow of health information.
5. Ensure the effectiveness of operations in addition to the results of the services provided.
6. Monitor and improve the use of healthcare resources such as manpower, assets and services.
7. Access to high quality data that supports medical research, policy development and decision making.

8. Achieving the targeted effectiveness in financial and human resources services, information services, the supply chain of supplies, devices, medicines, etc., and supportive medical services and quality control.
9. Adoption of service-based costing, patient accounts, revenue cycle and claims management.

The scope of the e-health strategy and the role of the Saudi Health Exchange

The e-health strategy in the Kingdom of Saudi Arabia contains important elements that cover the entire health sector, and the strategy will work to link the Ministry of Health, other government services, and private sectors in the health system, as the Saudi health exchange will constitute an important mechanism for integrating digital capabilities in all sectors of the health system.

Strategic pillars of the health sector transformation program:

1. Governance and regulation of the health sector.
2. The value and cost of the health sector.
3. Private sector participation.
4. Workforce and education.
5. Providing integrated care.
6. Economic contribution.
7. Data and digitization.
8. Public health and health security.

Data and digitization are one of the strategic pillars that include:

1. Unified electronic health records for all.
2. Virtual care and electronic health care models.

3. Cybersecurity and health data protection.
4. Information systems and IT infrastructure.

To achieve the transformation of the health sector, (40) initiatives related to the strategic objectives were formulated.

The ambitions and commitments of the program, and the pillars and strategic considerations, have been translated into several initiatives that, in their entirety, ensure the fulfillment of the program's commitments. These initiatives constitute an essential building block in achieving the aspirations of the Kingdom's Vision 2030, in accordance with the criteria mentioned below:

1. Impact on the population.
2. Contribute to attracting the private sector.
3. Contribute to improving the macroeconomic indicator.
4. Contribute to the third and fourth level indicators.

After conducting a detailed study on the lessons learned from the coronavirus pandemic and based on the lessons learned, the following initiatives were proposed among the priority initiatives:

1. The initiative to prepare the strategy for the health sector transformation program.
2. The Health Innovation Initiative.
3. The National Digital Health Initiative.
4. The National Health Security Initiative.

Among the priority initiatives is the National Digital Health Initiative, which is linked to the first strategic objective (facilitating access to health services) and is based on:

- **Increasing the geographical coverage and expanding the health service.**
- **Facilitate access to emergency medical care.**
- **Health services accessible to all.**

During which, the integrated plan for virtual and remote health care will be designed to enable the transformation of the health sector at the level of service providers in all sectors, around the following elements:

- Technique of remote intensive care follow-up services.
- Artificial intelligence to support health decision.
- Technical Health Academy of the Kingdom.
- Individuals' electronic self-care platform.
- Remote monitoring of advanced home medical care.
- Virtual clinic platform.

This includes setting standards and a methodology to assess the current situation and ways to improve virtual health and the infrastructure of sectors in the Kingdom, studying the best global and regional practices, and then defining the framework and principles of the scheme for its integrated design. Accordingly, a comprehensive target plan is defined for each of the monitored elements and the functional and technical requirements for the development of a roadmap for the implementation stages of national digital health. The scope of work also includes developing a stakeholder participation plan and communication plan, in addition to developing the governance framework for the initiative to define roles, responsibilities and working relationships between stakeholders.

This will be followed by the adoption of the model by service providers, its development, and then its launch according to the approved roadmap. Support will be provided to them, workflow follow-up, and performance indicators monitored through interactive electronic control panels according to the governance model, to see the challenges, risks, and required support, and address them in a timely manner.

Community Awareness

We are in a digital era where digital transformation and online services are the new norm. Health services and healthcare are not an exception from the digital transformation. but such as any product, without awareness of the transformation and the benefits of the services provided, it is difficult for the end user to gain those benefits.

Since the launch of the Saudi 2030 ambitious vision, foundations have been built for mega projects including digitalization of services. The vision was not clear to everyone living in Saudi Arabia nor the benefits of its realization. But when the pandemic hit the world and the curfew happened, society began to use alternative channels including digital channels. Today, the challenge is the continuity of using these channels and their advantages.

Digital health services are not an exemption, there are huge advantages from them, but the community lack an awareness toward them, and they are still linked to "exceptional circumstances" such as the pandemic, while reality is that they are the future.

Looking at every transformation and change methodology, we see that awareness is the first step toward achieving and completing the transformation. John Kotter set his famous eight steps in transformation by finding the momentum for change then developing a vision and a strategy then delivering the idea of change which is done by focusing on the awareness of the community whether it is business wise or in a large scale such as transformation in countries. Kurt Lewin's model is more transparent in his model as his steps are defining the issue then consulting the experts and right after collecting the results and they needed information and completing the analysis we start the awareness process and reach out to those who will be affected by the change.

The Association of Change Management Professionals (ACMP) have their own methodology and standard that have 5 steps starting with evaluating the change impact and the organizational redness,

then formulating the change management strategy, then develop the change management plan followed by executing the change management plans and completing the change management efforts. In detail, awareness is part of every step because while evaluating the change impact on the organizational readiness the change must be defined and determining why the change is required and assessing the organizational culture that is related to the change. And while formulating the change management strategy, the communication strategy must be developed, and the change impact and readiness strategy will be developed right after. the impact we are talking about is the impact on the beneficiaries and this applies to a change in a service, a product, major or minor cultural change, or changing a day-to-day process or a method.

On the other hand, Prosci have developed another yet effective model of applying change focusing more on the people side. The model is called ADKAR, it is their five steps by beginning with Awareness, Desire, Knowledge, Ability and Reinforcement. Which means that change is a continuous process, it is not a project to be closed change is a loop that starts with awareness and when we reach the phase of Reinforcement, we work to sustain the change. ADKAR is a model for change in business, government, and our community.

Transformation and change management do not exist as a science by itself, in fact most of specialized and consultants and transformation, change management and cultural change have different backgrounds. In management, they come from business administration, business development, human resource management, and organizational behavior. some of them have a medical background such as neurologists and psychologists. Marketing plays the major role and the awareness too, which makes marketeers works side by side with those who are leading the change and applying the new service or product.

Awareness in every change is a key factor in understanding the change to be applied and the first step for those affected by the change to accept it. In a 2005 study with 411 companies undergoing

major change projects, the number one reason for resistance to change was lack of awareness of why the change was being made. So, to understand any change and accepted Those affected by it need to know *why*? Why is this change being made? why a change is needed? What is the nature of the change and how does the change align with the vision of the organization(country)? why is the change being made and what are the risks of not changing? how will the change impact our organization or community? and finally what's in it for me (WIIFM)?

Listing these questions and topics adds another question to be answered, is awareness building just a matter of effective communications? there are multiple factors influence how readily people recognize the need for change, including:

Factor 1 - A person's view of the current state

Factor 2 - How a person perceives problems

Factor 3 - The credibility of the sender

Factor 4 - Circulation of misinformation or rumors

Factor 5 - Contestability of the reason for change

Each of these factors directly influences the success of creating awareness of the need for change.

Factor 1 - *A person's view of the current state*

This is basically two types of people with two different ways of viewing the current state and the change at hand. It is those who strongly favored the current state who have significant time, energy or money invested in how things are done today may initially deny the reasons for change or discredit those reasons in favor of maintaining the status quo. On the other hand, people who strongly oppose the current state may seize upon the reason for changes as further evidence for their belief that a change is needed.

Factor 2 - *How a person perceives problems*

This second factor relates to a person's cognitive style and how they internalize new information against the backdrop of their current perceptions. In other words, people whose style is more adaptive are more aware of internal threats. Those whose style is more innovative are more aware of external drivers for change. Each of us has a unique way of processing information and solving problems. we each deal with things in our own way and in our own time. this style factor suggests that broad and general communications may not always, by themselves, create awareness of the need for change.

Factor 3 - *The credibility of the sender*

The credibility of the sender of awareness messages directly impacts how an individual will internalize that information. depending on the level of trust and respect for the sender, recipients of the message will view the sender either as a credible source or someone not to be believed.

Regardless of the real nature of the reasons for change, these perceptions of the of the messenger's credibility can greatly influence a person's willingness to acknowledge the awareness message. In some cases, individuals will simply not believe the reasons for change or will not take them seriously.

Factor 4 - *Circulation of misinformation or rumors*

This fourth factor relates to the presence or absence of distorted or incorrect information in the background conversation. For example, if an official withheld information from the public about the change, and rumors have spread, these rumors may have clouded the facts and have created barriers to building awareness. More time will be spent correcting misinformation than they would have spent communicating the right information in the first place.

Factor 5 - *Contestability of the reason for change*

The final factor that can impact awareness building is the contestability of the reasons for change. Some changes will have external and observable reasons that are difficult to dispute. These conditions

are more often present and changes that are a reaction to an external event or trend or are driven by forces outside of the organization.

This issue of contestability can create a barrier to change. If the reasons for change are debatable, then the time required to build awareness is longer. In some cases, individuals may not accept the reasons for change as valid.

Field work

Based on the general authority of statistics of Saudi Arabia, the majority of the population are between the ages 20-40 which accounts around 30% from the 34 million living in Saudi Arabia.

In a survey conducted by the researchers participated by 618 Saudis and non-Saudis, there was a good disruption between the participants in general and the sample gave us a good analysis to the community's awareness and concerns. The ages between 20 and 40 were 64.6%, and this category represent most of the population which gives us a high accuracy on the indications.

When it comes to the awareness in the five major regions in the Kingdom, 68.3% acknowledged their awareness of the digitalized services but only 19.9% have known these services before the pandemic (Covid-19). Even though more than half of participants are working in government sectors and public students who represent most of public health sector (Ministry of Health) beneficiaries.

Social media is the main source of gaining information about the digitalized services, it represented 50.2% ahead of MoH website and word of friend and other sources which counted 30.7%, 15.4% and 3.7% (radio, podcasts, and TV) respectively. Knowing that around half of the participants choose that there isn't enough media coverage on the provided services. Which obviously shows the lack of awareness efforts in the typical media.

Health wise, it was mandatory to use the health services digital platforms during the pandemic for vaccine registration and health status check. But the poll shows that 67% are still using the health services digital platforms post covid-19 and 71.7% are using them for themselves and their family members (parents, spouse and dependents) 87.5% that the level of trust in the digital platforms increased, with 75.7% shows no difficulties of using these platforms.

Moreover, using the health services digital platforms is preventing the spread of infectious diseases as 84.8% believe, but it might not stop them from physically visiting the physicians as 59.4% are convinced that the diagnosis is not accurate enough.

Lastly, the survey shows that digitalized services are clearly saving money and time compared to getting the services in person as over 90% affirm it strongly.

Conclusion

Everett Rogers, an American communication theorist and sociologist, viewed four elements as influencing diffusion of new ideas through cultures, these being innovations (a new idea, practice or object perceived as new), communication channels (mechanisms for messages to travel), time (influencing decision making and the rate of adoption) and social systems (groups involved in joint problem solving on a common goal).

Rogers viewed the innovation-decision process as occurring over five phases:

- Knowledge – represents exposure to the new idea.
- Persuasion – the individual is interested in the idea and seeks information/details.
- Decision – the individual weighs up the value of the idea and decides whether to adopt or reject it but not necessarily to acquire evidence.
- Implementation – the individual takes up the idea at varying rates depending on the situation and may seek out further information.
- Confirmation – the individual resolves their decision to continuing the innovation and may use it to maximum use.

Depending on the nature of change, these phases may take long time and each phase is different than the other in time consuming.

Reinforcement

We must appreciate and take in consideration all the effort that has been made by the Ministry of Health leading this digital transformation since the Crown Prince have set his sight on 2030 to achieve his brilliant vision. this effort must continue by using the last element in ADKAR model which is Reinforcement.

With effective reinforcement losing momentum will be avoided from the initial deployment of this ongoing change, and every beneficiary will adapt to every update and change. The current digitalized services are not the end of the line, and we haven't seen the realization yet.

So, by building reinforcement mechanism, the probability that project objectives are met increases dramatically. Which means that more awareness effort, marketing their services and enablement are expected from the ministry of health.

There are multiple tactics for building reinforcements, some of them which are having rewards to the users depending on the new digitalized services, gathering feedback, and putting them in consideration. More important, deploying performance measurement systems and accountability systems.

In summary, reinforcing change is just as critical as the first communication to build awareness of the need for change. Reinforcement is the process of completing the last lap in this race and finishing the change. In short, reinforcing this change can be any action that strengthen and sustain this transformation.

References

- Association of Change Management Professionals (ACMP). (2019). Standard for Change Management.
- Health Holding Company
- Health Sector Transformation Program, Saudi Vision 2030
- Jeffrey M. Hiatt. (2006). ADKAR: A Model for Change in Business, Government and our Community (1st). Prosci Research.
- Ministry of Health, Saudi Arabia
- NSW Agency for Clinical Innovation. (2015, November 02). Change Management Theories and Models – Everett Rogers
- Timothy Creasey, Jeffrey M. Hiatt. (2012). Change Management: The People Side of Change (2nd). Prosci Learning Center Publications.