Barriers to Implementation of Knowledge Management in Hospital Institutions in Saudi Arabia

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Abstract
The rapid growth of medical care presents various challenges, especially in developing countries such as Saudi Arabia. The country’s medical care is still struggling to establish standard medical care, that can match that of advanced nations, such as Western Europe and USA. One of the key areas facing this challenge within the medical fraternity of Saudi Arabia is the implementation of Knowledge Management (KM). This section faces barriers of organizational, technical, financial and human nature. Consequently, it requires a multi-faceted problem solving strategy. This article addresses the entire scope of barriers to KM implementation ranging from hospital peculiarities to a comprehensive framework for addressing the problem.

Index Terms- Data, Information, Language, Knowledge

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Introduction

This article addresses the emerging barriers to KM implementation in the organization of hospitals in Saudi Arabia. One of the core values of human beings is knowledge. The two types of knowledge include tacit knowledge, which is acquired cognitively and explicit knowledge, which is derived from tacit knowledge through documentation. Consequently, it has become indispensable for organizations, including hospitals to include the newly evolved concepts, skills, tolls and practices in their organizational structure. The ability to collect, process, store and share knowledge, mark the boundary between success and failure in organizations. Another vital part of knowledge in an organization is the learning process. Even though, learning may be a natural process of the brain, considerable growth of an organization relies heavily on proper appreciation of the learning process with an aim of improving intellectual capital. It is also crucial to understand the notion of data and the confusion it has with other aspects of knowledge such as information. As compared to information, data are barely a structured record of transactions from which an organization retrieves information. However, the concept of knowledge is broader and encompasses all matters pertaining to data, information and the process of learning [1].

Problem Description

The role of knowledge, in the context of healthcare, is more significant than in any other industry. Even though knowledge is crucial in the growth of medical organizations, various factors present barriers to effective implementation of knowledge management. These factors range from the complexity of organizational structures to poor-knowledge sharing practices and lack of resources. These barriers create an enormous problem in hospitals due to the inability of the medical fraternity to improve patient care in a timely manner. The subsequent effect is low patient satisfaction coupled with a higher rate of medical errors. The number of medical errors is alarming with an average of 670 errors in the year 2009 alone [1].

Methodology of Investigation

The need for implementation of KM is embedded on its inseparable value in knowledge generation sharing and application aimed at enhancing the performance and profitability of an organization. The main problem with both the network of primary clinics and specialized treatment facilities in Saudi Arabia is their inability to meet the high demand for medical care, due to the numerous barriers to the functioning of the medical field. Investigating the barriers to implementation of KM requires the use of detailed narrative reviews of useful literature, as well as statistical data ranging from charts and diagrams.

Solutions to Medical Errors

There are numerous debates over the action to take to combat the barriers to the implementation of knowledge management in Saudi Arabian hospital organizational structure. One of the sounding proposals sites the provision of Information Technology (IT) infrastructure as a
possible solution. The proponents of this claim aim at improving the storage of personal information of patients to aid in reducing the occurrence of medical errors. Another section of people who claim that error reduction relies heavily on maintaining competency and professionalism among the medical personnel [1]. Eliminating barriers to the implementation of knowledge management, according to some, requires an active consideration of the cultural and social characteristic of the people of Saudi Arabia. The implementation of KM requires the adoption of a single language of communication, preferably English to eliminate the existing communication barrier. However, the most effective means of elimination barriers are the creation of a comprehensive framework of techniques and IT systems.

Data, Knowledge, Information and Knowledge Management

Data mainly refers to strings of numbers, letters without precise meaning. Attaching meaning to data gives information. On the other hand, knowledge is a broader term comprising of a mixture of information and value representing awareness. From the various definitions of knowledge management, it is summed up as a concept of gathering, organizing and analyzing of knowledge with respect to documents and skills from people. It is a pivotal concept in understanding the business conduct of an organization, information collection and utilization, as well as nature of data development and sharing culture.

Knowledge Management on the Global Context

Knowledge Management is gaining wider recognition from professionals and the public. There are four principal areas of the concept, which include the elicitation, archive, transmittal and utility phases. The elicitation phase highlights the importance of data while the archive phase is concerned with organizing knowledge into codes. The transmittal phase deals with connecting generators of knowledge to users, while the utility phase enables hospital workers to put into practice the acquired knowledge. Most organizations focus on scientific and IT evolution, to acquire a competitive edge over their competitors [1].

Knowledge Management Implementation in Hospitals of Saudi Arabia

An even economic growth within the country is guaranteed through considering such factors as equity, gender, and age among the residents of the country. Saudi Arabia has implemented the use of KM within the business strategy of public sector; however, KM is used widely in the private sectors. Following the need to ensure the use of KM in the development strategies of organization, the Ninth development plan was enforced to shift the country’s economy to a knowledge-based economy level. Managing knowledge in the Ninth plan had six basic directions to attend to for long-term economic stability. This is achieved by focusing on technology people and processes covering factors such as leadership, learning, organization, and technology. Among the advantages associated with KM are; enhancement of productivity, boosting trust rate, enhances knowledge sharing process as well as transparency, decentralization of power and attraction of employees [1].
Knowledge Management Implementation Barriers

The barriers are grouped into organizational, human, technical, financial and political barriers. Nevertheless, KM is threatened by aspects such as; language barriers, closed society of Saudi Arabia, and human resource management structure.

Organizational Barriers

Organizational Barriers include poor management support, poor organizational structures, lack of leadership, poor organizational structure, insufficient planning, lack of awareness of KM provisions and lack of knowledge sharing. These barriers are the most critical barriers for the implementation of KM.

Human Barriers

Human Barriers link closely to organizational barriers. The main human barriers include cultural barriers, extra effort and time requirements, employee’s opposition, staff retirement, staff defection and failure in ownership. These barriers lead to poor employee motivation, who subsequently fails to be committed to work and reduces their productivity and drive to achieve the objectives of the sector.

Technical Barriers

Technical Barriers include insufficient infrastructure, poor IT design and planning, poor networking and lack of maintenance and training needs. These barriers pose a threat to the implementation of KM since it is virtually impossible without the involvement of the IT department.

Political Barriers

Political Barriers include the challenges involving the creation of meritocracy of ideas and knowledge markets.

Financial Barriers

On the other hand, Financial Barriers comprise of the global economy, financial needs for professional development, poor financial investment of the organization, security concerns, and insufficient IT investment [1].
## Knowledge Management Implementation Barriers in Hospitals

**Table I:** The table below shows the impact of barriers to human resource management, language and closed society. The symbol * represents major impact, ∇ refers to minor effect, and ∅ shows no impact. (Courtesy of dissertation of KM Implementation Barriers in Hospital Organization in Saudi Arabia)

<table>
<thead>
<tr>
<th>Types of Barriers</th>
<th>Elaborations of each barrier</th>
<th>Language</th>
<th>Human Resources Management</th>
<th>Closed Society</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizational Barriers</strong></td>
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<td></td>
<td>Inefficient Planning →</td>
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<td>Lack of Leadership →</td>
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<td>Poor Managerial Support →</td>
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<td>Poor Organizational Culture →</td>
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<td>Lack of Knowledge Sharing →</td>
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<td></td>
<td>Unawareness of KM Provisions →</td>
<td>∇</td>
<td>*</td>
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<tr>
<td><strong>Human Barriers</strong></td>
<td>Cultural Barrier →</td>
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<td>Opposition →</td>
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<td>Extra Time and Effort Requirements →</td>
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<td>Staff Retirement →</td>
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<td>Staff Defection →</td>
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<td></td>
<td>Problem of Failure Ownership →</td>
<td>∇</td>
<td>*</td>
<td>∇</td>
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<tr>
<td><strong>Technical Barriers</strong></td>
<td>Inefficient Technological Infrastructure →</td>
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<td>Poor Networking →</td>
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<td>Poor IT Design/Planning →</td>
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<td>Lack of IT Training →</td>
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<td>Maintenance Requirements →</td>
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### Discussion

**Saudi Arabia Hospital System overview and structure**

As a member of World Health Organization, SA has two branches of the hospital system. These are the government and private sectors. The chief hospital provider is the Ministry of Health (MOH) concerned with the needs of public hospitals and financing the public health service. MOH provides 605 of health care services of the country. Government agencies significantly contribute in the provision of hospital services. They include; school health units, referral hospitals and teaching hospitals to name but a few. These agencies work under full-time inspection and investigation by the government.
The structure of the hospital system of Saudi Arabia is well represented in the figure as follows:

1. **Fig I: Current Saudi Arabian Hospital Structure**

![Diagram of Saudi Arabian Hospital Structure]

Source: (Courtesy of dissertation of KM Implementation Barriers in Hospital Organization in Saudi Arabia)

**Government Plans for Development**

The law binds the government to deliver free medical care services for the residents. This is achieved through implementation of health policies that protect the rights of citizens to free medical services. The government plans on improvement of health care services revolves around the health care strategies that seek to solve challenges facing hospital systems. These challenges include; high cost of medical technologies and equipments, expensive medical services and tools, efficient treatment for chronic sickness, and provision of efficient long-term therapy services.

**Development of Model for Implementation of Knowledge Management in Hospitals**

In a bid to establish a satisfying hospital system, the government is planning to implement a number of reforms in technological, administrative and human-related sectors. Cooperative care insurance is an ultimate government’s plan in the ensuring quality health services and patients’ well-being. Knowledge management is directly linked with change management [1]. This is
because KM involves implementation of cultural, structural and technological changes. The KM structure in hospitals should involve; design analysis, evaluation of infrastructure, knowledge management deployment, and evaluation.

**Conclusion**

Despite all the unique factors (closed society, perception of work status, and religion) surrounding the country, implementation of Knowledge management is one of the most significant strategies for improving healthcare services in Saudi Arabia. Research findings have formed a strong basis for drawing a conclusion that supports the claim that; hospital performance can be enhanced through constant improvements and reforms taken under the implementation of KM in the hospital’s management systems.

**Limitations and Recommendation**

The study of KM was highly limited by the content of accessible resources. Therefore, it is recommended to foster further discovery of hospitals in the context of KM implementation based on the wide range of information available for the study of KM. the recommended resources constitute the use of government documents and medical-oriented records. The other limitation is the absence of statistical information that supports practical evidence. The recommendation involves the selection of appropriate research methodology that involves statistical methods, as opposed to narrative literature.
Reference


