

*Research paper*

## **A Review of Systemic Information Sharing and Competitive Advantage, in Health Sector of Osun State, Nigeria**

<sup>1</sup>OMOLE, Segun Michael, <sup>2</sup>ADEBAYO, Tajudeen Temitayo, <sup>3</sup>AKINDELE, Frederick Akinade, <sup>4</sup>ADEPOJU, Kayode Olayiwola and <sup>5</sup>ADEOJO, Michael Babatunde

<sup>1</sup>Assistant Director (Health Records Services), & HOD, Health Information Management, Osun State College of Health Technology, Ilesa, Osun State, Nigeria. E-mail: osegunmicheal@gmail.com

<sup>2</sup>Assistant Director (Health Records Services), & HOD, Health Information Management, Federal Medical Center, Owo, Ondo State, Nigeria. Corresponding author's E-mail: adebayott@gmail.com

<sup>3</sup>PhD Student, Information Resources Management Department, School of Management Sciences, Babcock University, Ilesan-Remo, Ogun State, Nigeria. E-mail: akinstaar@gmail.com

<sup>4</sup>Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Osun State. E-mail: kayode\_adepoju@yahoo.com

<sup>5</sup>PhD Student, Information Resources Management Department, School of Management Sciences, Babcock University, Ilesan-Remo, Ogun State, Nigeria. E-mail: mobadeojo@gmail.com

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**This paper examined the relationship between systemic information sharing and competitive advantage in Health sector of the State of Osun. The article, objectively aimed at combining insight of how systemic information sharing bridges different aspects of competitive advantage activities in health sector of the State of Osun: through objective identification of basic concepts of systemic information sharing and assessment of its effect on competitive advantage in health sector. This article started with introduction, followed by discussion on systemic information sharing concept, competitive advantage concept, and techniques of competitive advantage. The method adopted in the study is literature review, in-depth study and theoretical discussion; to determine the influence of systemic information sharing on competitive advantage in health sector. Findings revealed that relationship exists between systemic information sharing and competitive advantage as evident in previous research work and case studies. The study concluded that, global advancement of services through systemic sharing of information, promotes quality products and services. The paper therefore recommended that, Government of Osun State should put mechanism in place to facilitate timely collection, storage, analysis, dissemination and use of health information for competitive advantage in the health sector.**

**Key Words:** Information Sharing, Systemic Information Sharing, Competitive Advantage, Growth and Leading Edge

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## INTRODUCTION

Around the world, institutions are maximizing their impact by becoming increasingly transparent. This follows a fundamental truth; that access to information and data foster effective collaboration, (Bill & Melinda Gates, 2014). Systemic Information sharing enhances organization's commitment to search for opportunities that will help others understand their priorities better and to support the decision making activities of the firm.

Systemic Information sharing is crucial to many businesses, helping to promptly meet customers and clients' needs through customer relationship system, which share information about products and services and improve access to their product. By sharing high quality information in the health sector; health agencies and partners can better understand the problems the health sector is trying to solve, while developing more efficient and effective strategies to overcome them.

Bill and Melinda Gate,(2014) state further that systemic information sharing facilitates a refined approach to information dissemination, through regular exploration; that guarantees increased access to important information in the health sector, while studying other institutional efforts at transparency; to learn lessons from partnering agencies and health sectors from other states.

Therefore, with an open exchange of information and ideas, health institutions can better access evidences, identify opportunities, build trust, and learn from each other's experiences, in order to gain competitive edge in health industry or health sector. It is against this backdrop that the researcher examined systemic information sharing and competitive advantage, in health sector of Osun State, Nigeria

## STATEMENT OF THE PROBLEM

Experience has shown that systemic information sharing usually affects competitive advantage among health workers in the health sector of Osun State. Preliminary investigation from existing literature also revealed that, poor attitude of health workers towards information creation, processing, custody, storage, retrieval, and dissemination affects information sharing in health sector. Failure of the Government to facilitate timely collection, storage, analysis, dissemination, and use of information as public goods, for competitive advantage in the health sector, constitutes a challenge to leading edge in the health sector of the state of Osun. Can this situation be improved through systemic information sharing? It is in the light of this that, the study investigates the effect of systemic information sharing on competitive advantage in health sector of Osun State.

## OBJECTIVES OF STUDY

The specific objectives of this study are:

1. To ascertain the knowledge of systemic information sharing in the health sector
2. To determine the level of competitiveness among the various actors in the health sector
3. To find out the relationship between systematic information sharing and competitive advantage in the health sector
4. To investigate the contribution of systemic information sharing to professional growth and competitive edge among the health professionals in the health sector.

## REVIEW OF LITERATURE

### Competitive Advantage

Margaret Rouse (2015) describes competitive advantage as, the favorable position an organization seeks in order to be more profitable than its competitors. Competitive advantage involves communicating a greater perceived value, to a target market, than its competitors can provide. This can be achieved through many avenues including offering a better-quality product or service, lowering prices and increasing marketing efforts. Sustainable competitive advantage refers to maintaining a favorable position over a long term, which can help boost a company's image in the market place, its valuation and its future earning potential.

The opinion of Kyra Sheahan (2015) agrees with the above, that competitive advantage is a business strategy, where companies find ways to differentiate themselves from their competitors, in effort to attract more businesses. Service based industries, such as health care institution, use competitive advantage strategies to gain an elevated position in the field.

The health care sector is competitive in nature. Doctors, Pharmacists, Nurses, Health Records Officers and others, compete for quality patient care and the hospital as an institution compete for funding. The ultimate goal is to attract customers and make a profit. With all the health industry's competition, health care professionals are looking for ways to enhance their competition and give themselves a leading edge.

### Techniques of Competitive Advantage

Health institutions must be careful to meet the health care service needs of their customers (Omole, 2014). Otherwise they will discover that they are losing them to other contemporary health organization, which are ready

and willing to meet their health care needs and demands. The following are techniques or strategies that can be used to gain a leading edge in health sector;

- a. **Service:** Health care entities can gain competitive advantage base on the service they provide. That is by offering a quality product and services (Rouse, 2015). Faster services, such as same –day results for laboratory work, or x-rays, are appealing to patients. Offering free consultations is another way to gain patient popularity.
- b. **Cost:** One way health care companies achieve competitive advantage is by lowering the price of their services. If patient can save money and still receive the same level of care, then they will be more inclined to do business with organization that is giving them financial break.
- c. **Workforce:** Health care companies are competitive about medical professionals who work for them. A hospital that employs a world renowned surgeon, for example, may have the competitive advantage, due to the talent and expertise they can offer patients (Sheakan, 2015).
- d. **Marketing Effort:** A systematic marketing outreach, aimed at gathering and analyzing information about the competitors' activities is essential (Haliso, 2015). Hence information sharing is the key to an increased marketing effort, which will guarantee competitive advantage. Because participating in a broad array of markets creates the opportunity to share best practices and learning. (Bain & company, 2015)

### Systemic Information Sharing

Systemic information sharing describes exchange of data between various organizations, people and technologies. There are several types of information sharing; information shared by individuals, information shared between firmware/software. The advent of widely distributed networks, internets, cross platform compatibility application, porting and standardization of information protocols have also facilitated to the huge growth in global information sharing (Techopedia, 2014).

Systemic Information sharing has also allowed availability of information, relevant to timely decision making; because when information is hoarded instead of shared, those needing it, may not be able to react in a timely manner. Using systematic information sharing intelligently has been shown, to be a more effective way to manage any organization; a government or a business. (Bill & Melinda Gates, 2014)

Willem (2015) asserts that public health decision making has become increasingly complex and the use of data has become essential in the information age. At the local level, data are used to monitor population health and to target interventions, at the national level; data are used for resources allocation, prioritization, and planning; at the global level for estimates on the global burden of disease, to measure progress in health and development, and to contain emerging global health threats. In addition to their primary use by health agencies; routinely collected public health data have become valuable for secondary use, such as; academic, research and technology development. Recently, global health and funding agencies have made appeal for greater availability and access to granular public health data, and have developed principles for information sharing.

The opinion of Bain and company (2015) support the above that, participating in a broad array of markets creates the opportunity to share best practices and learning via systemic information sharing, which guarantee tailoring of products and services to each stage of market development, and enables companies to optimize their returns.

Also Glynton Smith, (2014) posits that the art of integrating massive data into relevant information remains difficult. This difficulty arises both from the diversity of information needs and from the diversity of information users. The sharing of information serves management, administrative and planning functions of institutions, and enhances public understanding and support of these institutions.

For instance, hospitals use to share medical records (under stringent conditions) about people, so that their medical personnel can make better decisions concerning their clients and patients to facilitate quality patient care services, is a good example of how health organization can share information for competitive advantage. Therefore when used intelligently, systemic information sharing is a useful way of lowering cost, improving overall accuracy of public data, and allowing organizations and individuals alike to have access to information that might give them a competitive edge in their career.

The concept of systemic information sharing involves; Information availability, Information accessibility and acquisition, Information use and Information dissemination.

### Information Availability:

Ayede (2006) reiterates that availability of reliable information is important for the development of research and education as well as for planning and implementing government programmes, and Airiliebuwa (2000) asserts that for information to be available; there must be a well-established machinery and methodology for its effective

collection, collation, and analysis. Therefore availability of accumulated information enables users to develop optimal approaches to its use, and substantial reliance on telecommunication and information technology enhances exchange of information at reduced cost.

### **Information Accessibility and Acquisition**

American Chemical Society Journal (2014) posits that accessible information can be used to make decisions; which involves the ability to know enough about the various possibilities to understand the decision being faced, and the situation it is located in. The acquisition of such relevant information will promote managerial decision making, efficiency, effectiveness and quality service delivery. Bekerintering (2003) supports this by reporting that, information accessibility and acquisition usually aid wise decision making. This shows that we must not ignore the importance of information accessibility and acquisition unless we risk both missing out our information values and allowing them to distort our view of the situation, the problem, our opinions, and ability to implement managerial decisions.

### **Information Use**

Use of information involves interacting with information when you read, view, touch and then extract relevant information for the task at hand (Rustory- Huffman, 2014). Also Sigh (2012) explains that, people often talk about information needs, when in fact they are referring to want or use. While both are primarily, manifestation of need. Information need arise out of a desire to meet one, or other of three basic human needs i.e. Physiological needs (need for food, shelter, clothing, etc.), psychological needs (need for domination, security and so on.) and cognitive needs (need to plan, learn a skill and others).

Therefore information use begin with an initiation stage, during which the information user, first becomes aware of the need to gather information, by recognizing the initial needs for the information and make attempt to facilitate effective use of the information, through systematic organization pattern of the information resources, and their application, based on his/her needs for brilliant performance.

### **Information Dissemination**

Dissemination of information is essential to promote research performed by individuals, and group of researchers. Daily hundreds of scientists and researchers read journals and patent literature in order to thoroughly

analyze and index information that are consistent with their research work (CAS, 2012). In the light of this, dissemination of well packaged information is highly essential to facilitate advancement in frontiers of knowledge for enhanced competitive advantage in the health sector

### **Relationship between Systematic Information Sharing and Competitive Advantage**

Haliso (2015) submits that, strategically, to gain foreknowledge of your competitor's plans, and to plan your business strategy to countervail their plans; information is a strategic resource in an organization that enables the effective combination and utilization of the other factors of production. Also Meyer (2005) reports that, when thinking of information that can help solve a problem, in a development context, we inevitably see information as being a resource, and the skillful use of information can add value to information as development resource.

Competitive advantage activities involve, systemic gathering, analyzing, utilizing and sharing of intelligence information about products, customers, and any aspect of the environment needed to support executives and managers in making strategic decisions for an organization in order to have a leading edge (Haliso, 2015).

Therefore, the way Health professionals make use of the information at their disposal, the demand for them, the satisfaction achieved by their use and their resultant effect on their work as health care service providers, are among the items of knowledge which are necessary for the wise planning, processing, and packaging of their product and services; aimed at satisfying the health care need of the patients and clients in the health sector.

It could also be inferred from all the aforementioned opinions that systemic information sharing and competitive advantage are complementary activities, which are to be based entirely on the provision of quality health care products and services, to the customers at affordable cost.

### **Information, Growth and Competitive Advantage Model**

Chad Johnson, (2012) posits that, competitive advantage is a dynamic and an information dependent process that involves promoting best practices, and globally acceptable standard of health care services. As customer requirements and competitive dynamics continue to evolve, special consideration must be given to the following procedures for global penetration; as indicated in growth and competitive advantage model, postulated

by Bain and company (2015). These are: Manage the product/market portfolio globally, Share best practices and market learning, Prioritize and build emerging market positions, Optimize organic growth, versus joint venture, versus acquisition, Create a management process to balance local penetration and global leverage.

### Information Sharing and Competitive Advantage Theory

The theory of Gunilla Widen-Wulf and Elisabeth Davenport, (2007) on information sharing in competitive advantage identified the following as the basic activities involved in systemic information sharing for competitive advantage: Information seeking, Information sharing, Task undertaken in the workplace, Collaboration and Construction of organizational memory. Therefore the systematic implementation of these activities is germane to the accomplishment of a leading edge in any organization.

### Information Sharing and Competitive Advantage Cycle

Willem, et.al (2015) reports that systemic information sharing in public health will be essential to accelerate the use of valuable information for the global good: Also, Haliso (2015) asserts that the basic units of a competitive advantage system are the intelligence cycle. It is the process by which raw information is turned into intelligence for competitive edge. There are only four steps involved in the cycle, and each of the steps depends on systemic sharing of timely, accurate, relevant and reliable information, about the health care service in order to achieve leading edge. These are;

- a. **Planning and Direction:** This is the step at which management of health institutions gets involved and decides what intelligence it requires. At these level, Health care service providers decides what course he/she should take in fulfilling his task.
- b. **Collection:** This phase involves the actual gathering of raw information from which intelligence will be produced. The vast majority of collection materials are in public domain. Source of such collections include; periodicals, annual reports, books, broadcasts, speeches, databases and so on.
- c. **Analysis:** This step requires great skill and guts, because it involves weighing of information, look for patterns, and come up with different scenarios, based on what have be learned, to improve products and services.

- d. **Dissemination:** This is the last step (and the first, too) in the cycle, and it involves distributing and sharing of intelligence products to those who requested for it for improvement of their products and services in order to accomplish a competitive advantage in the health sector.

### Contributions of Systemic Information Sharing to Competitive Advantage

Willem, (2015) posits that the following benefits systemic information sharing have been widely recognized: Transparency and cooperation, Reproducibility of research, Cost efficiency, Prevention of redundancies, Acceleration of discoveries and innovation, Saving lives through more efficient and effective public health programmes.

### Challenges of Information Sharing in Competitive Advantage

Despite the global commitment to the use and sharing of public health information: Willen (2015) reports that this can be challenging in reality and some of these challenges are: Poor data quality, Lack of efficient use and sharing of data among different agencies, Interdisciplinary nature of health sector which leads to large and complex data generation, Existence of overlap across types of data, Paucity of data generation in health sector and Underutilization of data sources in public health science and policy.

### METHODOLOGY

The methods adopted in the study are literature review, in-depth study and theoretical discussion; to determine the influence of systemic information sharing on competitive advantage in health sector of Osun State

### SUMMARY OF FINDINGS

The literature revealed that global dynamics in the health sector are creating not only new imperatives for competitive success, but also tremendous opportunity for growth (Bain & Company, 2015). Literature also revealed that systemic information sharing conceptualizes the utilization of information to fill gap in knowledge and cognitive reasoning of health care service managers; about their institutions products and services, in comparison with other contemporary institutions in the health sector, in order to have a competitive edge in the health sector. Organizations that understand these

concepts and how they interplay to influence their products' markets can lead the penetration and consolidation process. They will be able to experience strong profitable growth, despite constraints in individual markets.

## CONCLUSION

In the course of this study inferences were drawn from existing literatures and postulated theories that, relationship exists between systemic information sharing and competitive advantage as evident in the work of American Chemical society (2014) which reports that global advancement of service through systemic sharing of scientific information, promote quality of products and services. This result, also agrees with Gunilla Widen (2012) that, it is fruitful to integrate the perspectives of information sharing for collaborative problem solving from different angles, complementing the true picture, and giving good grounds for developing both products and services, in line with the organizational aims, communication patterns, and network building for a leading edge.

Finally National Health Policy (2006) reports that, the availability and sharing of accurate, timely, reliable, and relevant health information is the most fundamental step towards informed public health action and quality service delivery. The study therefore concluded that, information sharing is an essential component of competitive edge activities of an organization. The information has to be acquired, processed, stored, retrieved and shared, for communication and planning of products and services. Indeed an effective global penetration, growth, and competitive advantage in the health sector depend upon the availability of relevant information at the right time and in the right quality

## RECOMMENDATION

On the bases of the inferences and conclusion of this study, the following recommendations are made:

1. Government of Osun State should extend the procurement and installation of appropriate information technology, staff training and capacity building to enhance systemic sharing of information in the health sector.
2. Government of Osun State should put mechanism in place to facilitate timely collection, storage, analysis, dissemination and the use of health information for competitive advantage in health sector.
3. Public and private health facilities should interface with communities for gathering of

information in a more comprehensive manner on the health profile of the population.

4. Government of Osun State should collect, analyze and make available information on health status, health behavioral risk practices, prevention and containment of epidemic outbreak and support for health research to enhance competitive edge in the health sector.
5. Osun State Government should facilitate standardization and financing of health data infrastructure (especially the DHIS-2web based application) to facilitate timely access to accurate information and their prompt application into products and services planning for a leading edge in the health sector of the state of Osun.

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