
THE IMPACT OF TECHNOLOGICAL ADVANCEMENTS ON MARKET TRENDS IN HEALTH CARE PRODUCTS AT KAMINENI

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ABSTRACT

Technological advancements have significantly transformed the healthcare products market by improving product quality, accessibility, efficiency, and patient outcomes. Innovations such as artificial intelligence (AI), the Internet of Things (IoT), wearable health devices, telemedicine, biotechnology, and digital health platforms have reshaped the way healthcare products are developed, marketed, and consumed. These technologies enable real-time health monitoring, personalized treatment solutions, faster diagnosis, and improved patient engagement, leading to increased demand for advanced healthcare products.

The integration of technology has also influenced consumer preferences, encouraging the adoption of smart medical devices, health-tracking applications, and remote healthcare solutions. Healthcare organizations and manufacturers are investing heavily in research and development to introduce innovative products that meet evolving patient needs and regulatory requirements. Furthermore, technological advancements have strengthened supply chain management, inventory control, and distribution systems, ensuring the timely availability of healthcare products.

This study examines the impact of technological innovations on market trends in the healthcare products industry. It explores how emerging technologies influence consumer behavior, product development strategies, competitive dynamics, and overall market growth. The findings highlight that technological progress serves as a key driver of innovation and competitiveness, enabling healthcare companies to enhance customer satisfaction and achieve sustainable growth. The study concludes that organizations embracing technological advancements are better positioned to respond to changing market demands and capitalize on emerging opportunities in the healthcare sector.

I. INTRODUCTION

Health care systems are designed to meet the health care needs of target populations. There are a wide variety of health care systems around the world. In some countries, the health care system planning is distributed among market participants, whereas in others planning is made more centrally among governments, trade unions, charities, religious, or other co-ordinate bodies to deliver planned health care services targeted to the populations they serve. However, health care planning has often been evolutionary rather than revolutionary.

Goals

The goals for health systems, according to the *World Health Report 2000 - Health systems: improving*

performance (WHO, 2000), are good health, responsiveness to the expectations of the population, and fair financial contribution. Duckett (2004) proposed a two dimensional approach to evaluation of health care systems: quality, efficiency and acceptability on one dimension and equity on another.

Providers

Health care providers are trained professional people working self-employed or as an employee in an organization, whether a for-profit company, a not-for profit company, a government entity, or a charity. Organizations employing people providing health care are also known as health care providers. Examples are doctors and nurses, paramedics,

dentists, medical laboratory staff, specialist therapists, psychologists, pharmacists, chiropractors, and optometrists.

Financing

There are generally five primary methods of funding health care systems:

1. direct or out-of-pocket payments,
2. general taxation to the state, county or municipality,
3. social health insurance,
4. voluntary or private health insurance, and
5. Donations or community health insurance.

Most countries' systems feature a mix of all five models. One study based on data from the OECD concluded that all types of health care finance "are compatible with" an efficient health care system. The study also found no relationship between financing and cost control.

The term health insurance is generally used to describe a form of insurance that pays for medical expenses. It is sometimes used more broadly to include insurance covering disability or long-term nursing or custodial care needs. It may be provided through a government-sponsored social insurance program, or from private insurance companies. It may be purchased on a group basis (e.g., by a firm to cover its employees) or purchased by individual consumers. In each case, the covered groups or individuals pay premiums or taxes to help protect themselves from high or unexpected health care expenses. Similar benefits paying for medical expenses may also be provided through schemes organized by the government and funded through contributions from users.

By estimating the overall cost of health care expenses, a routine finance structure (such as a monthly premium or annual tax) can be developed, ensuring that money is available to pay for the health care benefits specified in the insurance agreement. The benefit is administered by a central organization, most often either a government agency

or a private or not-for-profit entity operating a health plan.

Many forms of commercial health insurance control their costs by restricting the benefits that are paid by through deductibles, co-payments, coinsurance, policy exclusions, and total coverage limits and will severely restrict or refuse coverage of pre-existing conditions. Many government schemes also have co-payment schemes but exclusions are rare because of political pressure. The larger insurance schemes may also negotiate fees with providers.

Many forms of government insurance schemes control their costs by using the bargaining power of government to control costs in the health care delivery system. For example by negotiating drug prices directly with pharmaceutical companies, or negotiating standard fees with the medical profession. Government schemes sometimes feature contributions related to earnings as part of a scheme to deliver universal health care, which may or may not also involve the use of commercial and non-commercial insurers. Essentially the more wealthy pay proportionately more into the scheme to cover the needs of the relatively poor who therefore contribute proportionately less. There are usually caps on the contributions of the wealthy and minimum payments that must be made by the insured (often in the form of a minimum contribution, similar to a deductible in commercial insurance models). In health care delivery system (primary health care) there are also providers in different ways, for example Government, private, NGOs and traditional medicine.

Health informatics

Health informatics or medical informatics is the intersection of information science, medicine and health care. It deals with the resources, devices and methods required to optimize the acquisition, storage, retrieval and use of information in health and biomedicine. Health informatics tools include not only computers but also clinical guidelines,

formal medical terminologies, and information and communication systems.

Management

Public health is concerned with threats to the overall health of a community based on population health analysis. The population in question can be as small as a handful of people or as large as all the inhabitants of several continents (for instance, in the case of a pandemic). Public health is typically divided into epidemiology, biostatistics and health services. Environmental, social, behavioral, and occupational health are also important subfields.

Vaccination policy refers to the policy a government adopts in relation to vaccination. Vaccinations are voluntary in some countries and mandatory in some countries. Some governments pay all or part of the costs of vaccinations for vaccines in a national vaccination schedule.

Today, most governments recognize the importance of public health programs in reducing the incidence of disease, disability, and the effects of aging, although public health generally receives significantly less government funding compared with medicine. In recent years, public health programs providing vaccinations have made incredible strides in promoting health, including the eradication of smallpox, a disease that plagued humanity for thousands of years.

An important public health issue facing the world currently is HIV/AIDS. Another major public health concern is diabetes. In 2006, according to the World Health Organization, at least 171 million people worldwide suffered from diabetes. Its incidence is increasing rapidly, and it is estimated that by the year 2030, this number will double. A controversial aspect of public health is the control of smoking.

Antibiotic resistance is another major concern, leading to the reemergence of diseases such as Tuberculosis.

Special health care systems

- Occupational safety and health
- School health services

- Military medicine

Need & Importance of Study

The Topic Selected For Study, As There Is Greater Importance Of Customer Perception In The Hospital Due To Impact Of Growing Technologies In The Business Environment. Change Is Here To Stay, And We Need To Understand That All The Practices That Are Working Today May Not Necessarily Work Tomorrow. Customers' Expectations, Market Changes and Strategic Decisions Will Highly Influence the Customer's Perception towards a Particular Brand.

Scope of The Study

The study has a wider scope covering the MARKET ANALYSIS of the people who are using Services of KAMINENI Hospitals in Hyderabad and it also emphasizes on the parameters like customer/patient awareness, customer perception branding value and image. It also throws a light on the customer awareness of the Hospitals industry with attention to KAMINENI Hospital. The project covers the entire branding features on their impact on customer

Objectives Of The Study

1. To analyze the impact of technological advancements on the healthcare products market.
2. To examine the role of emerging technologies such as Artificial Intelligence (AI), Internet of Things (IoT), telemedicine, and wearable devices in shaping market trends.
3. To study consumer acceptance and adoption of technologically advanced healthcare products.
4. To evaluate the influence of technology on product innovation and development within the healthcare industry.
5. To assess the impact of digital healthcare solutions on customer satisfaction and healthcare accessibility.

6. To identify changes in purchasing behavior resulting from technological improvements in healthcare products.
7. To examine the competitive advantages gained by healthcare companies through technological innovation.
8. To study the role of technology in improving supply chain and distribution efficiency in the healthcare products sector.
9. To identify the challenges and opportunities associated with the adoption of advanced technologies in healthcare products.
10. To provide suggestions and recommendations for healthcare organizations to effectively leverage technological advancements for market growth and customer value creation.

II. RESEARCH METHODOLOGY

Research Design:

A research design is considered as the frame work or plan for a study that guides and helps the collection and analysis of the data.

A sound research is the basis of success of any formal research. It is said to be the blue print of the study conducted.

Nature of the Data:

The data collected for the study was mainly primary in nature. There is first hand information which is customer opinion, towards the company products. Besides this secondary data was also collected from company brochures and company websites.

Sources of Data:

Primary data was collected from the customers who are in KAMINENI Hospital in Hyderabad city.

Secondary data was collected from the company brochures and company websites.

Methods of Data Collection:

The method adopted to elicit information from customers is structured questionnaire that contains close, open ended questions. The reason for

choosing the questionnaire method is primarily due to the qualitative nature of the study.

Survey:

Wide range of information about customer opinion, perception, and expectation is gathered through survey from Hyderabad city.

Sampling Design:

Sample Unit: The sampling unit is customers who are in KAMINENI Hospital, Hyderabad.

Sample Size: The sample size is 100 customers in Hyderabad city.

Sampling Method: Random Sampling

Limitations:

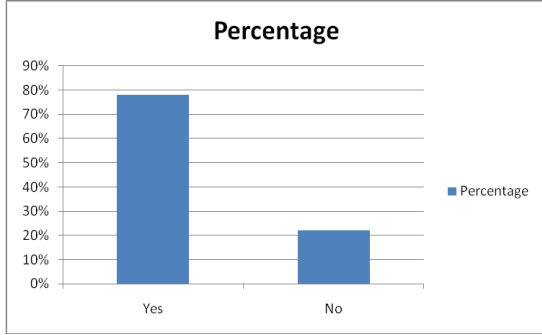
1. Time constraints restricted extensive data collection.
2. Rapid technological changes may affect the relevance of findings.
3. Dependence on the accuracy of primary and secondary data sources.
4. Possibility of respondent bias in survey responses.
5. Study focuses only on healthcare products and excludes other healthcare services.
6. Market trends may be influenced by external factors such as government policies and economic conditions.
7. Limited access to proprietary industry data and company information.
8. Findings may not be universally applicable across all healthcare product segments.
9. Changes in consumer preferences may impact the validity of the results over time.
10. Resource constraints limited the scope of detailed analysis.

III. DATA ANALYSIS AND INTERPRETATION

1. Do you know about Health Care System In general?
 - a. Yes
 - b. No

| | | |
|-------------|----|------------|
| No | Of | Percentage |
| Respondents | | |

| | |
|-----|-----|
| Yes | 78% |
| No | 22% |



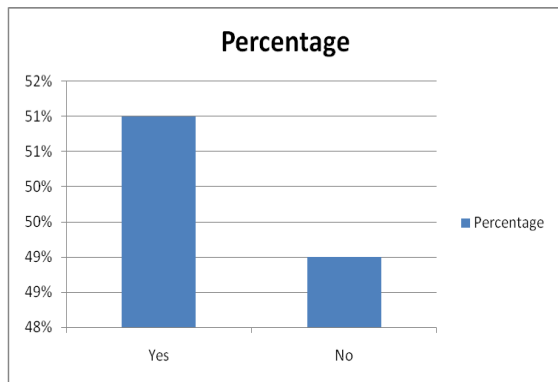
Interpretation:

78% of the people responded that they know about Health Care System and 22% of They don't know about Health Care System.

2. Are you enrolled in Kamineni's health care system?

- a. Yes
- b. No

| No Of Respondents | Percentage |
|-------------------|------------|
| Yes | 51% |
| No | 49% |



Interpretation:

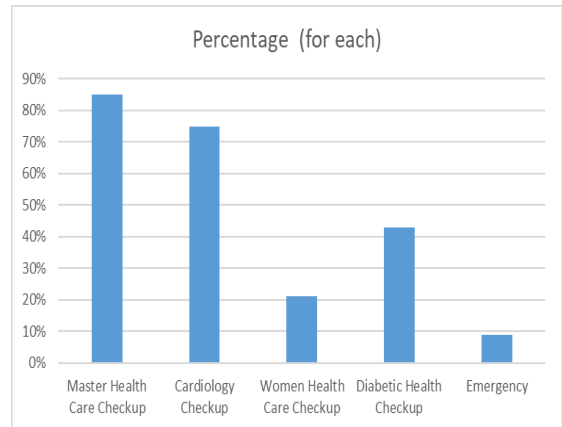
51% of the respondents Enrolled in Kamineni's Health Care System and 49% of the respondents are not enrolled in Kamineni's Health Care System.

3. What are the health care's services you know in Kamineni Hospitals?

- a. Master Health Care Checkup
- b. Cardiology Checkup

- c. Women Health Care Checkup
- d. Diabetic Health Checkup
- e. Emergency
- f. Any Other (Pls. Specify).....

| No Of Respondents | Percentage (for each) |
|----------------------------|-----------------------|
| Master Health Care Checkup | 85% |
| Cardiology Checkup | 75% |
| Women Health Care Checkup | 21% |
| Diabetic Health Checkup | 43% |
| Emergency | 9% |



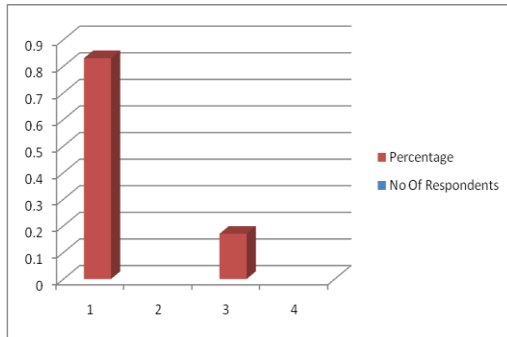
Interpretation:

By observing the above table it is to be said that most of the people doesn't know about emergence service in the Kamineni and most of the people know about Master Health Care Checkup

4. What is the response of Management in health care unit?

- a. Correct response
- b. In correct response

| No Of Respondents | Percentage |
|---------------------|------------|
| Correct response | 83% |
| In correct response | 17% |



Interpretation:

Most of the respondents in hear i.e.83% said that management is giving good response and A few i.e. 17% are not getting correct response.

IV. FINDINGS

1. Most of the people are not aware of health system in Kamineni.
2. Most of the services in Kamineni are regular services.
3. Kamineni is famous for its emergency service and they have to develop it.
4. Kamineni has to concentrate on the patients who are coming from village back ground because they don't know about health care plans.
5. Some of the customers\Patients are not getting the information properly so management has to take care about the disturbance.
6. The organization has to develop in all the aspects to reach its market goals.
7. To improve its market goals the Doctors play a major role and the organization have to gave continues training facility for them.
8. Finally for achieving the goals in the market it should concentrate in internal and external advertising i.e. promotional activates.

V. CONCLUSIONS

The research has brought to light various facts about customer perception on branding. The questionnaire that was contact customers to obtain their feedback had helped to understand customer

needs and wants and their feedback is providing to maintain better customer relationship.

1. Among the communication options about customer awareness there is significance difference.
2. KAMINENI is maintaining a good position in the market among its competitors.
3. Almost customers preferring KAMINENI, for good health services and especially for emergency services.
4. Among the customer perceptions about KAMINENI is significance difference. Most of the customers feel happy and satisfied with its service.
5. Most of the customers satisfied with Emergence services by KAMINENI.
6. Most of the customers rated the service is good.
7. Most of the respondents are feeling comfort and convenient with facilities given by KAMINENI.

VI. SUGESSTIONS

- There is a need to improve service to customers for this purpose there is a need to open another Branch for service in twin cities. And provide best service.
- The Company should develop the promotional Strategies like Advertisement to capture more market.
- The company needs to develop the branding strategies in a publicity point of view, because public relations are more important than advertisement.

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