HEALTHCARE QUALITY IMPROVEMENT THROUGH TECHNOLOGY

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Abstract

Globally, healthcare infrastructure and delivery is undergoing a sea change in order to meet diverse healthcare needs of customers, who are becoming more demanding in their service expectations. Adoption of technology in healthcare infrastructure is crucial to meet the expectations of the target group. Ease and convenience with which a service can be sought plays a major role in decision-making. When it comes to choice of facility, convenience in using the facilities is often the deciding factor. A kiosk that can fix appointment with ease and speed is more convenient than calling receptionists at different hospitals to do it. Online service providers bring together a large number of buyers and sellers on a single platform, reducing the searching cost of buyers and sellers and evaluating each other. This will ultimately reduce inter-firm co-ordination costs.

 Hospitals aim at quality service for its customers at reasonable price rather than profit maximisation

Key words:

Technology, service, customer, hospital, information

Introduction

With the advent of technology hospitals are coming up with new treatment for people, while technology is important for dealing with the health of an individual in terms of medication, surgery, physiotherapy etc. managing hospitals with overall interest of the community and environment becomes a vital aspect .The value placed on health has been increasing all the more as it is related to basic concerns about longetivity and survival. The issues which crop up in dealing with customer care include:

- speed and usage of alternative and contemporary methods available all over the world

- getting people with right attitude and commitment to the cause of health is the key variable as one will agree that technology in the right hands only will take us further

- training the people and keeping them competitive is also an important factor for providing the right management

- information availability and fantastic networking is also essential " what if a push of button can make all the difference to life"

Global differences in consumer behavior can sometimes lead to alterations in marketing strategy in order to appeal to specific regions and countries, but for the matter of fact illness is all pervasive and the desire for well being is universal. So the basic service of treatment from the medical fraternity is an all time demand by the larger population. The requirements of alterations are on the add-on services enjoyed by the customer or perceived by them. Speed in terms of technology helps to serve mankind. Technologies significantly affect man's ability to control and adapt to the environment around him. Recent technological developments, including the printing press, the telephone, and the Internet, have lessened physical barriers to communication and allowed humans to interact freely on a global scale

Technology Management is set of management disciplines that allow organizations to manage its technological fundamentals to create competitive advantage. Any such technology that can deliver a competitive advantage or enhances the existing competitive advantage acts as strategic tool to that particular organisation. The strength of the technology management function of any organization lies in understanding the value of certain technology for that organization

One of the most exciting and recent development in segmentation has been the usage of database marketing by firms, which helps them to hold information about customers and retrieve it when necessary. Technology bridges the gap between a patient and the medical fraternity.

Methodology Adopted

Data collection

Primary data: First hand information is collected from a sample of 50 respondents and tabulated on a data sheet.

Secondary data: collected from reports on trials testing the customers' view on self-service technology. Along with that a literature review on basic concepts is being done.

Methods:

 Primary data was a randomized trial of convenience sample.

Secondary data was collected from relevant journals and magazines (source indicated)

The paper discusses the usage of kiosk in fixing the appointment with doctors at various hospitals and also represents the other attributes desired by the respondents in a kiosk

Literature Review

Strategy

Johnson and Scholes (Exploring Corporate Strategy) define strategy as follows:

"Strategy is the direction and scope of an organisation over the long-term*:* which achieves advantage for the organisation through its configuration of resources within a challenging environment, to meet the needs of markets and to fulfill stakeholder expectations".

Self-Service Technologies (SSTs) are technological interfaces allowing customers to produce services independent of involvement of direct service of employee. Self-Service technologies are replacing many face-to-face service interactions with the intention to make service transactions more accurate, convenient and faster.

TYPES OF SELF SERVICE TECHNOLOGIES

There are four primary types of SST.

1) Telephone & interactive voice response (IVR) systems - Many companies utilize this form of SST for customer orders, customer billing inquiries, and customer surveys.

2)   Interactive freestanding kiosks - Many malls and retail outlets offer these both inside and outside their stores as a way to help you determine availability of a product, as well as to where to locate it in their facility. Some even print coupons. We find kiosks at airports and hotels that print airline tickets and allow for quick checkout, and at movie theaters and malls that print movie tickets.

3)   Internet based or other on-line connection systems - ATM's and pay-at-the-pump gas stations are two widely used examples of on-line technologies. Internet banking and bill management services are also becoming quite popular. Package delivery services also allow you to track packages 24 hours a day now.

4)   Video/DVD/CD based technologies - This type of SST is typically used for educational purposes. Corporate entities use this media to train their employees, to familiarize sales representatives with new products, and to introduce new products to consumers. education classes by video and CD formats

Discussions

This paper aims to present a clear definition of SST (self-service technology) - Technology as a strategic tool, which it then focuses to its usage in medical technology. From the management perspective, technology refers to all the work and responsibilities of those providing a service. This perspective is asserted as more beneficial than the medical science perspective, which sees technology as the equipment and procedures that facilitate the diagnosis for a doctor. Rather than the treatment of a doctor being technology, it is the step that links doctors to patients is what the reference is. Researchers lay less emphasis on this aspect of technology. The computer interface links doctor with patient, which serves in fostering the relationship between both.

Choosing, implementing and managing effective self-service technologies are challenging tasks for most firms. While some self-service technologies could be quickly adopted, others are resisted. This paper examines what a firm should consider in order to encourage customers to at least try, and eventually adopt, the SST offered by a firm into the customer's regular routine.

"Have it your way." "Help yourself." These are the battle cries from the front lines of today's customer service campaigns. When it comes to knowing exactly what customers want, there are no better authorities than the customers themselves. Predicting what will appeal to customers can be tricky. So, why not make it easy for them to help themselves? They'll get the service they want, in just the way that suits their needs."

In a survey conducted by David Drain in The session, "What Self-Service Technology Do Customers Really Want," the report on the same named "2009 Self-Service Consumer Survey."

The results indicated as such

- 40 percent of respondents chose "quality of service" as their first preferential concern.

- Top three reasons for choosing SST's were speed, convenience and personal liking

- The reason for opting a full-service by firm was non availability of SST's

Analysis:

When service is delivered with the desired quality, people would always go for a faster and convenient mode and are more likely to explore new changes and technologies. So the kiosk which fixes appointments and suggests doctors and hospitals is more likely to be explored by the patients who are seeking information

A kiosk installed in public places which is accessible to everybody makes it more easy for the patients to fix an appointment with the doctor they desire in any hospitals which fits into their budgets

Strategies that help to provide a competitive advantage in the given environment after also considering its expected future developments can only be considered. This aspect is rather important as strategies cannot be altered time and again. They, however, should keep room for a little change as they have to stand the test of time and therefore need to be aligned correspondingly to dynamic environments.

Prospective beneficiaries all share certain common attributes. It is therefore useful for both hospitals and patients where they are mutually benefited. Among the lessons to be learned is the critical role of information technology, and its use in aiding the clinical care process. The ultimate goal must be real business process improvement. This is greatly facilitated in an environment where all departments of the business collect and share useful information in a timely manner. As the hospitals start using information technology in a manner that is fully integrated with the rest of the business, patients in their home will come to be viewed as a legitimate target for information systems with many of the same objectives we now have for the information systems used in other fields of management. They believe that technological advances

combined with increased data have caused an information revolution that has, in turn, metamorphosed the nature of communication.

It is evident that these technological advancements will   continue to be a significant component of customer-firm interactions. These technology-based interactions rise up to be a vital aspect for long-term business success.

Service Encounters has undergone a major change with the advent of technology

Historically, almost all the service encounters were with customer and a representative of the organization. And so the focus is always on interpersonal interactions in most researches that are been done on service encounters.

Recently, technology's importance in the delivery of service is recognized by the researchers. Self-service technologies are a classic example of market space transactions in which no interpersonal contact is required between buyer and seller.

An appointment fixing kiosks attract all age groups to use it. The reliability on information is inevitable for everybody. The following table makes it easy for the reader to understand the likeliness of the acceptance of such a technological aid

Age group	Buying behaviors	Reasons to rely on kiosks
0- 15 Children	Parental-influence on buying behavior.(decisions are taken by elders)	Wide range of choice available, where cost doesn't matter much when it comes to their offspring
15 – 28 Teens	Today's teens are more well travelled than their parents and are computer literate generation, interacting	Interaction to net is much and are in the age group of exploring new things

	heavily on the net	
28 – 50 Middle-aged	Increased income, social security and asset boom of the last decade relatively have more disposable income	Faster pace of life and due dearth of time wants a single platform for all options, so need a reliable source
50 and above Aged	Better medical care and healthier lifestyles have increased the size of economic clout of this group	Less likely to search information and more difficult to remember the information. So need a full of information every time they take some decisions

Uses of a self service technology

- The patient satisfaction can be increased with considerable attention towards managing the impact of technology.

- Sure, self-service is one way to reduce costs, but poorly implemented self-service technologies (SST) can also increase costs and alienate customers. It isn't just about operational efficiencies, it's about adding customer value also

- The continual reassessment of technology is necessary for managers in medical field to adjust to the changing technology.

- Technology can add convenience and enhance time-management as well.

- This applies to practitioners, to manage to keep up with current technology and
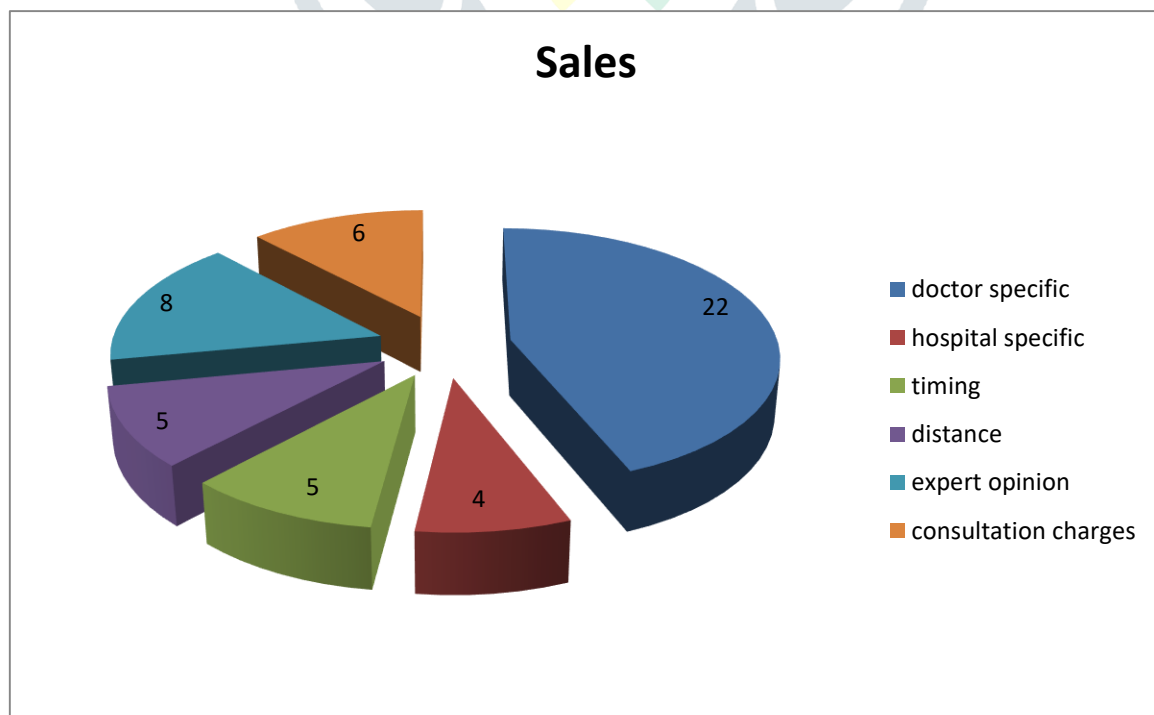
   Information

   As strategy developer one has to be harmonized with the vagueness of the opportunity costs for a particular strategic choice and once committed, should focus entirely on the chosen strategic direction. All actions are linked to the strategy of the organization and hence a thorough analysis of various mediating

factors is critical to its success. We should look into the cost analysis in the application of the strategy in its full fledge implementation after the pilot project is carried on and customers acceptance is sought for.

Many a times doctors of your choice are not available at the desired hospital which happens to be at a convenient location for you at desired time and costs still have to fit into your topic, so we look for a next best alternative giving preference to our own criteria, so the assistance from the medical fraternity would be a boon.

The study reveals that the customers would prefer the following criteria when choosing for an option:

1. The patients prefer to go to any hospital where the concerned doctor is available at that time

2. As that usually happens during an emergency they would prefer to seek an opinion from the reference group or experts

3. Patients would make preference of hospital depending on the consultation charges applicable there for sometimes it may not be affordable

4. When the issue in concern is minor any doctor available at that time is preferred

5. Sometimes the distance to be covered to reach that hospital becomes a major question when they choose the doctor from a hospital in their vicinity

6. A few people are specific with the hospital they visit and consult any doctor available at that time

Sales

- doctor specific — 22
- hospital specific — 4
- timing — 5
- distance — 5
- expert opinion — 8
- consultation charges — 6

The attributes desired in a kiosk by the respondents other than the service of fixing an appointment

- Consultation charges applicable

- Conveyance modes available to the destiny

- Insurances plans available in that hospital

- E-payment facility

- Maximum waiting time and service time

- Suggestions in those specializations or ratings from customers available

- Fixing follow up check-ups

- Emergency booking tabs
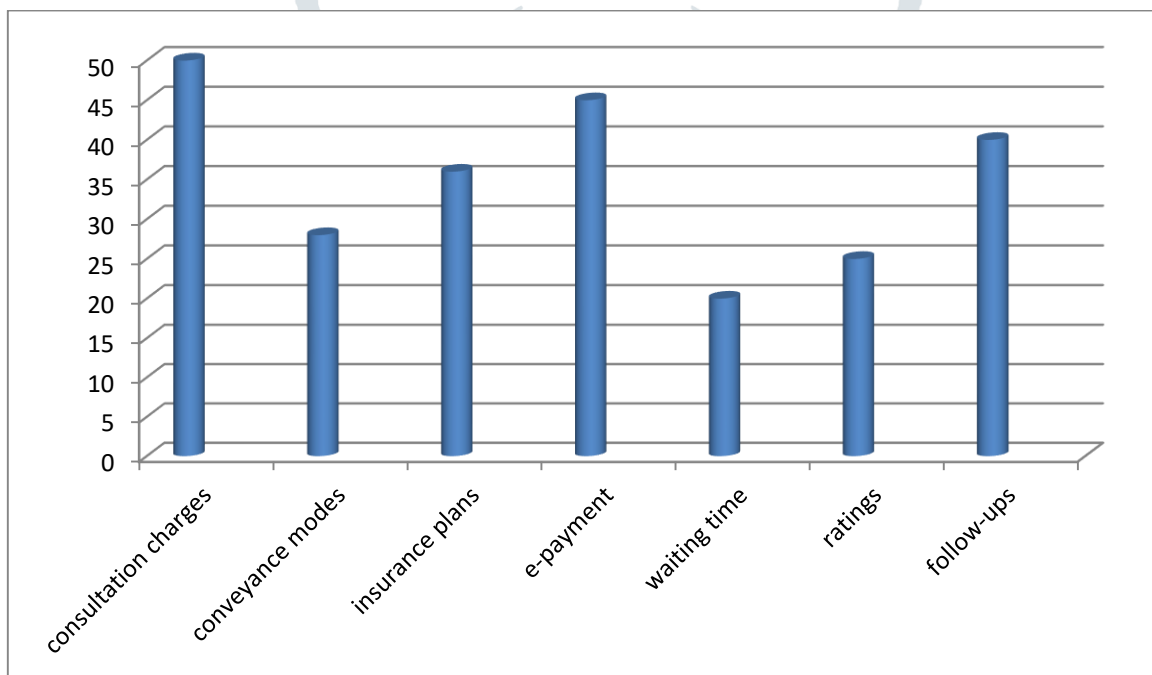
Limitations of the study

- This article comments on the benefits of a kiosk that fetches appointments but does not provide data

   about the costs.

- The sample opinions of the respondents for the study was too small to warrant bold claims about the future benefits

- The survey could only extract opinions, rather than the facts of their personal practice. They acknowledge the difficulty of comparing kiosk with a help desk in the hospital

Conclusion

Although the Internet is superior to previous generations of IT, it - just like its technological predecessors - does not respond to the foundational problems of the healthcare system, which are rooted in economic, legal, regulatory, organizational, and cultural concerns. Strategy will rarely be successful if it shows no adaptability

Despite difficulties, this technology should be pursued, due to its efficiency in linking and coordinating patients with varied health care providers, which is critical for bringing them all together on a single platform. Technological interventions have a high potential for being of great benefit. Unfortunately, the biggest stymie is lack of finances

Advancement expresses wariness of the blurring lines between financial institutions and medical service providers. To maintain integrity and maximize benefit, these institutions must retain their distinct roles in the advancement of technology

SSTs joining seekers to the service providers

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