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Extended Abstract

Investigation on factors influencing online information search:
Behaviour of doctors with reference to medical equipment

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Abstract

The purpose of this study is to investigate and draw out factors influencing information search among doctors with special reference to medical equipment through online. An attempt is made to highlight the traits of searching behaviour of doctors and information seeking before making a purchase decision through online for their professional requirement for which investigation on the factors which leads to information searching behaviour and purchasing behaviour. The study followed qualitative and quantitative approach enquiry approach questionnaire in the form of survey. Factor Analysis, Regression Analysis and Correlation analysis has been carried out to identify factors influencing online information search among doctors.

Key Words: Medical Equipment, Search Behaviour, Online Information, Purchase Intention

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Extended Abstract¹

1. INTRODUCTION

The cyber markets or electronic stores or e-commerce has revolutionized the way humans used to shop. It has not only changed the entire system of selling a product but affect the behaviour of buyers the way they use to buy the products. Brands now don't signify names or images, but constitute the whole buyer experience. All this has led to tremendous growth of the online retail industry throughout the world (Li et al 1999)¹. The development of network technology has made it more convenient to communicate information and has created a new style of business model. Unlike the traditional business model, the network provides a faster shopping environment that is less affected by time/geographical restrictions (Wani and Malik, 2013)². A purchase, bargaining, payment process can be completed through the Internet, which is a great convenience for people (Bhatnagar and Ghose, 2004)³. Today's retail environment is characterized by new, store and non store, retailing formats, a wide range of new products, use of new information and communication technologies and consequently, the changing consumer requirements. Moreover, changing conditions in people's personal environment has contributed to a profound change in consumer behaviour (Schroder and Zaharia, 2008)⁴.

2. OVERVIEW OF INDIAN MEDICAL INDUSTRY

Indian Medical sector could achieve the growth up to Rs 100 crore in 1962. In pursuit of the policies made by the Government of India out of five public sector companies in India two played very important roles- Hindustan Antibiotics Ltd. (HAL) and Indian Drugs and Pharmaceuticals Ltd (IDPL) in 1954 and 1961 respectively. IDPL was established in with technical assistance from USSR and HAL with the technical assistance of World Health Organisation (WHO) and United Nations International Children's Emergency

¹ The authors may be contacted directly for full version of the paper.

Fund (UNICEF). The two companies played a major role in building up technical competence in the industry as well in establishing a strong bulk drug industry in the country.

3. RESEARCH BACKGROUND

Information is inevitable in the health profession. The need to become informed and knowledgeable individuals is important among qualified health care professionals who have vital roles in achieving health goals of a given country (Pakenham-Walsh and Bukachi, 2009)¹⁴. Updating knowledge with relevant information is very important for health care professionals to deliver quality and sustainable health care services to their consumers. This is possible only when there is a sustainable access to information resources in health facilities (Ghebre, 2005)¹⁵. Despite healthcare system being indispensable in delivery of quality healthcare services, many health professionals have inadequate access to new information updates such as emerging diseases, medical equipments and medical technologies to enable them deliver quality care. Medical professionals can access various mediums, including websites, chat rooms, support groups, listservs, newsgroups and emails. Technology and the Internet have fundamentally altered the way the world interacts and communicates. Through technology, doctors have more ways to interact with companies and brands, medical equipments and medicines and importantly, have many means for initiating these interactions that never existed less than couple of decades ago. Traditional approaches to branding that put emphasis on mass media techniques are less and less effective in a marketplace where doctors have access to massive amounts of information about brands, products, equipments and companies, and in which online sources have, in some cases, supplanted brand networks (Selvi and Dhanavandan, 2012)¹⁹.

3.1 RESEARCH METHODOLOGY

This chapter deals with research design, sampling procedure, tool for data collection, structure of questionnaire, data collection, statistical techniques for data analysis and limitation of the study. The descriptive and exploratory research designs are chosen for the present study. This study attempts to explore various online sources by doctors and factors influencing online information search among doctors. Besides, descriptive research design attempts to derive meaningful relation between information searching

behaviour through online sources. Factors that influence online information searching behaviour of Doctors in special reference to Medical equipment.

4. DATA ANALYSIS AND INTERPRETATION

4.1 Kaiser Meyer Olkin (KMO) and Bartlett's Test of Sphericity

KMO and Bartlett's Test are used to test the appropriateness of the factor model. KMO test measures the sampling adequacy. The results of KMO and Bartlett's Test are presented in Table 3.1.

Table 1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.873
Bartlett's Test of Sphericity	Approx. Chi-Square	2.363E3
	Df	66
	Sig.	.000

Source: Primary Data

The value of KMO statistics is 0.873, which shows that factor analysis can be considered as the appropriate technique for analyzing the correlation matrix. Bartlett's test value is 0.0024, which is less than 0.05. Therefore, the correlation matrix is not an identity matrix. So, factor analysis can be deployed to compute the table of communalities.

Reliability- Cronbach's Alpha for Factors

The reliability for factors derived from exploratory factor analysis was tested through working out Cronbach's Alpha and the results are presented in Table 3.5. Cronbach's alpha is a tool to determine whether the response is consistent (Webb, (2006)²⁰⁰. Therefore, it is concluded that the response of the respondents are consistent.

Table 2 Reliability- Cronbach's Alpha for Factors

Sl. No.	Factors/ Constructs	Cronbach's Alpha
1	Efficiency	0.84
2.	Value	0.79
3.	Effectiveness	0.86
	Overall	0.83

Source: Primary Data

4.2 MULTIPLE REGRESSION ANALYSIS

To analyse the impact of factors influencing online information search on information searching behaviour of doctors, the multiple linear regression is done and the results are presented in Table 3.6. The factors derived from exploratory factor analyses are considered as independent variable and information searching behaviour of doctors is considered as dependent variable in the present study. The coefficient of multiple determination (R^2) is 0.51 and adjusted R^2 is 0.49 revealing the regression model is good fit. It is inferred that 49.00 per cent of the variation in dependent variable is explained by the independent variables. The F-value of 14.652 is statistically significant at one per cent level showing that the model is significant.

Table 3 Impact of Factors Influencing Online Information Search

Factors Influencing Online Information Search	Regression Coefficients	t-value	Sig
Intercept	17.705**	14.631	.000
Efficiency (X_1)	.645**	7.532	.000
Value (X_2)	.523**	5.951	.000
Effectiveness (X_3)	.377**	3.463	.000
R^2	0.51		
Adjusted R^2	0.49		
F	14.652		.000

Source: Primary Data

** Significance at one per cent level

The results indicate that efficiency, value and effectiveness have positive and significant impact on information searching behaviour of doctors at one per cent level. Hence, there is significant impact of factors influencing online information search on information searching behaviour of doctors.

SUMMARY OF FINDINGS

Efficiency, Effectiveness and Value are the three factors that are driving the online information search on Information searching behaviour of Doctors with special reference to Medical equipment. On the basis of findings, the following suggestions are made to improve online information searching and purchasing behaviour of doctors through online sources.

- Online sources should be easily accessible and user friendly to doctors. Online sources must be quick and updated regularly. Besides, online sources should provide large quantum of quality information and they must be reliable and accurate.
- Online shopping should be designed by service providers in such a way to meet expectations of doctors and online transactions must be secured and not overcharged. Online shopping providers must have good return policy and should improve their service delivery mechanism, which in turn increases the factors influencing online search on the searching behaviour of Doctors.

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