

IMPACT OF TECHNOLOGY ON MARKETING

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Abstract

This paper discusses the impact of technology on the marketing methods used earlier and today. One approach would be to review online marketing using big data researching techniques along with data mining that has changed the marketing world and has provided market researchers a large pool of data to analyse and formulate strategies with accuracy. Also, social media has transformed the market research in a lot of new ways. It has created an environment that yields unfiltered feedback. Technology today has changed the scenario of customer relationship strategy. These technologies include enhanced search services, enhanced computational speed and e-commerce.

Keywords: online marketing, big data, market researchers, social media, customer relationship, e-commerce

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1. **Introduction:**

In the 21st century, technology has taken over and most of the work is completed using the global system called internet. This internet or World Wide Web has made it possible for the people to market their product and services online with the help of interconnected servers and reach out to as many people as possible.

This paper mainly focuses on various marketing processes and activities that use internet to publicise or sell their products and services. It also focuses on the changing scenario of customer relationship management strategies. It deals with the rising demand of e-commerce and social media marketing.

The easy availability of smart phones has given a tough competition to various companies to sell their products through these applications. Therefore, the growing demand of mobile based applications for online marketing can also be seen here.

This paper also shows how big data which helps to analyse patterns and trends has revolutionised marketing and sales making it possible for leading marketers to maintain consistency in delivering good customer services.

2. **Review of Literature:**

A lot of literature has been done in past few years about the role and relevance of big data analytics, data mining, warehousing, business intelligence and social media's impact on marketing trends.

Big data has changed the scenario of business. The Ellen MacArthur Foundation, in collaboration with McKinsey & Company, said at World Economic Forum: "Information technologies (IT) play a key role in enabling the transition towards circular business models. This role ranges from tracing materials and products, organizing reverse logistics and accelerating innovation to mining big data (for mapping resource and value flows and tracking indicators to measure progress)" (WEF, 2013).

Data Warehouse is a repository of enterprise databases which presents a picture of historical and current organization's operations [C. Date, 2003]. Data mining is a pure application based process that provides extraction of valid and understandable patterns from database, texts and web. It offers ways to make best use of data through rapid computerization [Pyle, 2003]. It uses techniques to make a model that is a set of examples or a mathematical relationship based on data from circumstances where the answer is known and then applying the same model to other circumstances where answers are hidden [Dunham, 2005].

In today's world, social networking sites have become a platform where traders can extend their marketing campaigns to a wider range of customers. Chi (2011, 46) has defined social marketing as a "connection between brands and consumers, [while] offering a personal channel and currency for user centred networking and social interaction."

A study by public relation firm Burson-Marsteller shows that maximum percentage that is 86% of 100 largest companies on the Fortune 500 list use at least one of the social media sites such as Facebook, Twitter etc.

According to Social Media Marketing Industry Report, about 64% of marketers spend approximately five hours per week on social media and 39% of them spend about ten hours or more weekly (Stelzner, 2009). These findings illustrates that more companies are becoming actively involved in social media that shows the emergence of social media sites as the new marketing platform. Also social media sites have enabled businesses to build closer relationships with their consumers and to expand the market to the customers that they could not approach before (Rooney, 2011).

E-commerce is a new avenue for examining most of the traditional principles, models and theories. This helps to connect with the customers on a personal level which is an important part of CRM plan, thus building strong customer relationships. According to research findings, customers are satisfied when they are provided with better discounts and offers. (Khalifa et al., 2002).

3. Analysis of Literature:

Data mining converts raw data into useful information and is used by organisations to enhance the marketing strategy.

Big data provides patterns and trends to various organizations so that customers can access relevant data in a timely manner. Segregation of data is done based on the patterns which impacts the marketing decisions and strategies.

Social networking sites have provided a huge platform to retailers for marketing. These sites have made the brands more approachable to consumers. Majority of the companies today use social media like twitter, Facebook etc. to advertise their products.

Ecommerce and online shopping have created a huge market worldwide and are giving a tough competition to the standard marketing practices.

4. Objectives of the study/Paper:

The prime objective of this paper is to emphasise on the changing scenario of online marketing and customer relationship management strategies. Technological developments continue to affect the organisation and the marketing of its products and services. These technologies include enhanced search services, enhanced computational speed and e-commerce.

Another objective is to focus on big data researching techniques along with data mining that has changed the marketing world and provided market researchers and business analysts a large pool of data to work with. Big data basically reveals useful trends and patterns that can lead to huge improvements in a company's various business strategies including its marketing strategy.

Along with this, the launch of mobile applications has benefited the marketers to reach out to a wider audience.

This paper also aims at social media marketing that uses social networking sites as an interface/medium of publicising their products and services.

5. Research Methodology:

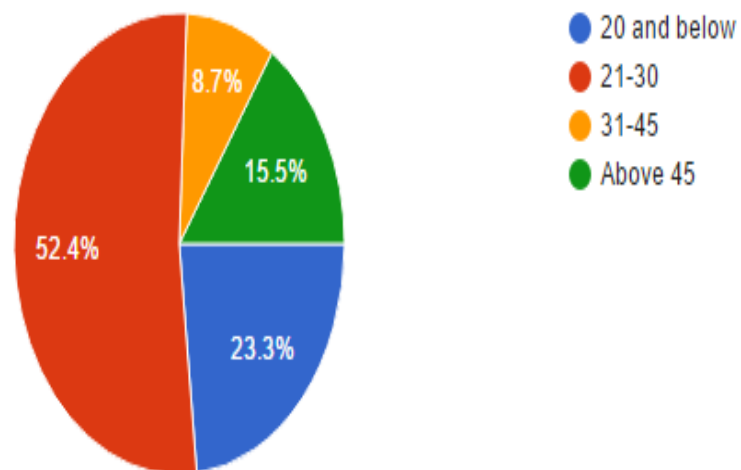
In this paper, we have collected data through questionnaire. The questionnaire discusses various marketing strategies used in today's world along with the analysis of effective marketing medium with respect to a certain age group. This review has been formed by conducting a survey among 100 people using google forms.

Along with google forms, we have used Microsoft excel for preparing pie charts based on age wise analysis.

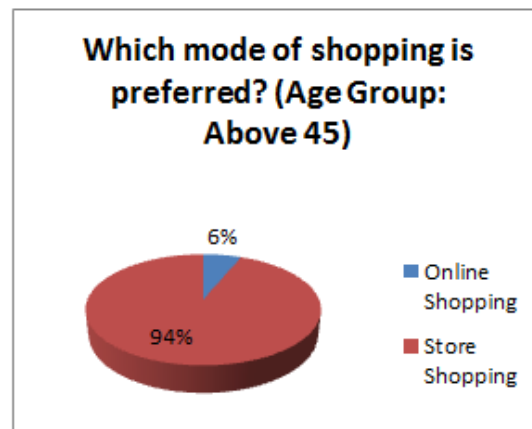
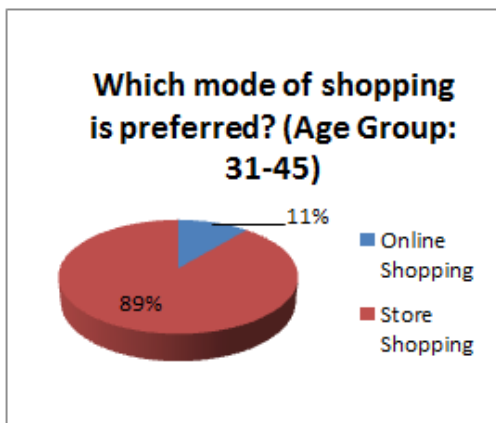
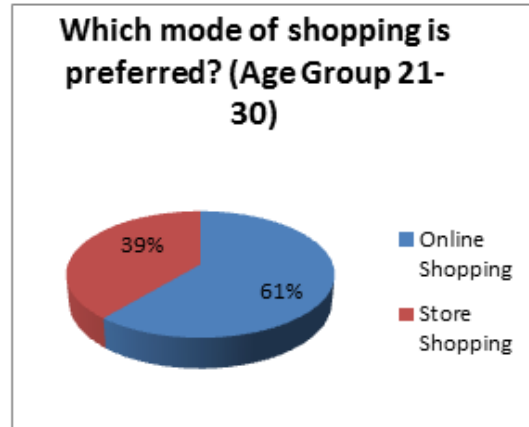
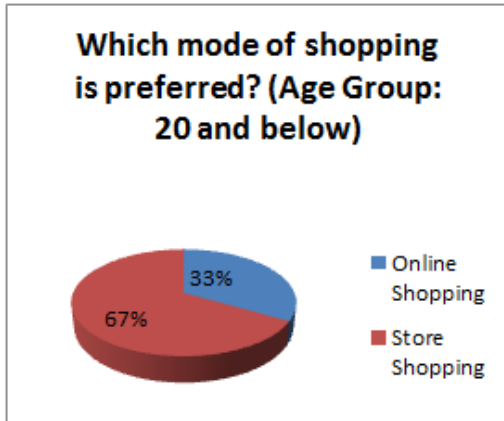
6. Analysis:

This term paper does not try to develop any new concept. It mostly researches on multiple categories of marketing techniques using technology based on age factor and examines the impact it has on them. It interprets the recent trends of changing technology on various marketing strategies and forms a conclusion on the most preferred medium of marketing.

What is your age group (103 responses)

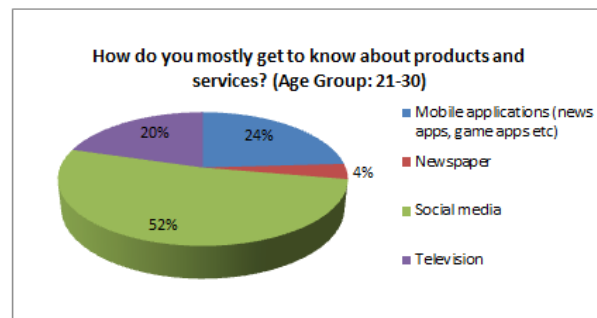
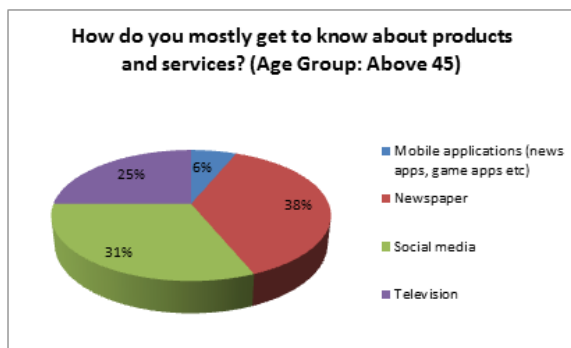
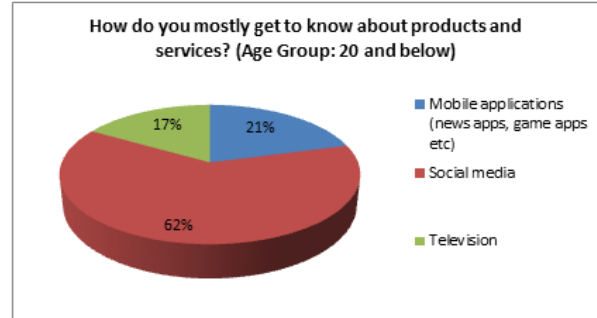
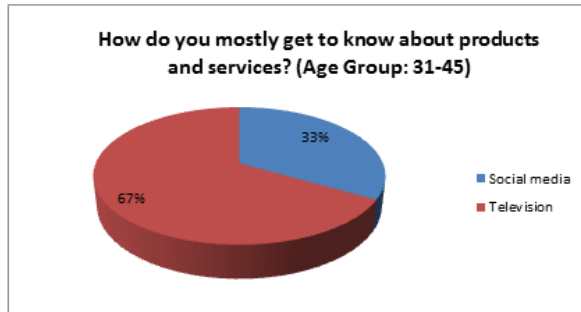


1. Which mode of shopping do you prefer?



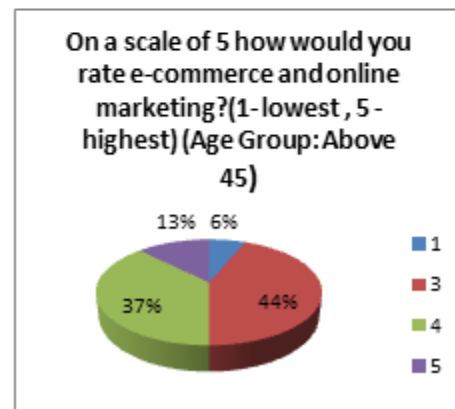
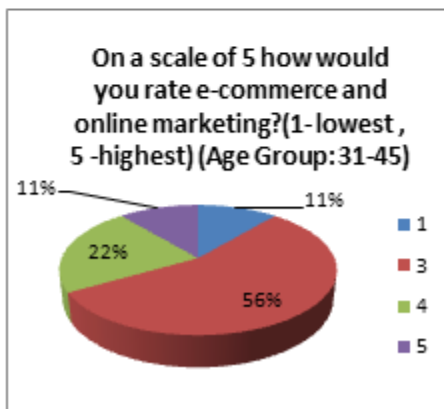
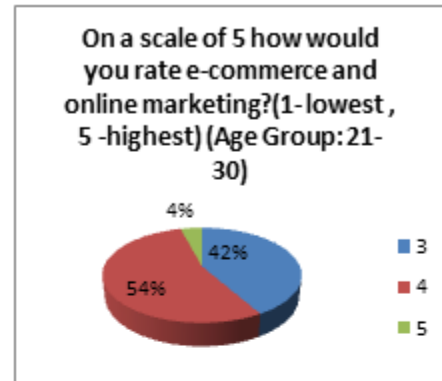
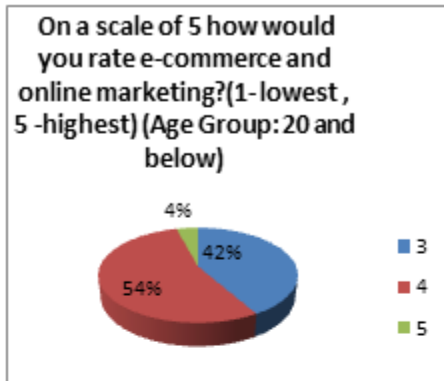
According to the survey here every age group prefers store shopping except for the age group 21-30. Various causes could have led to this, one being lack of services and poor quality products. Many customers prefer going to a store and purchase the product as it is much more efficient. For instance, in clothes the purchaser can't figure out the texture in online shopping, the real worth can only be perceived when it is purchased in a shop. The age group above 30 is not conscious of online shopping as much as the younger generation is and prefers the conventional method of shopping. Whereas the age group 21-30 picked online shopping because this is the age period where people use technology for every purpose as for them comfort is the utmost priority.

2. How do you get to know about products and services?



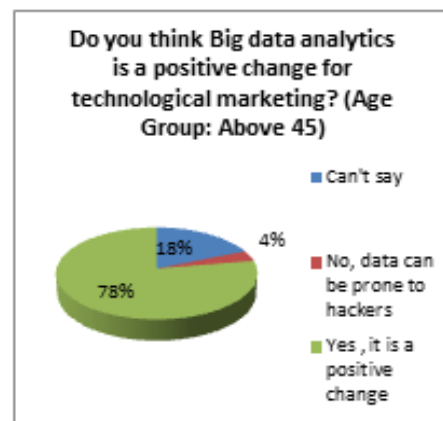
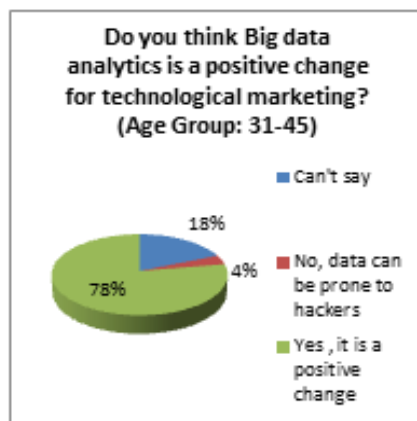
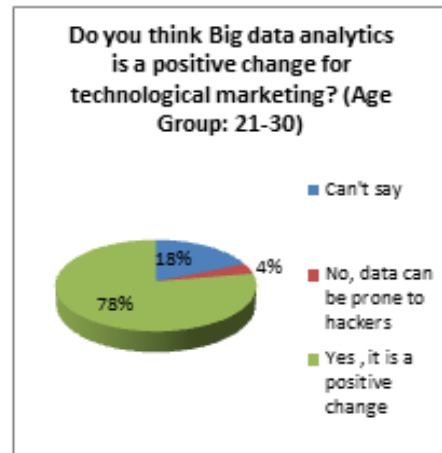
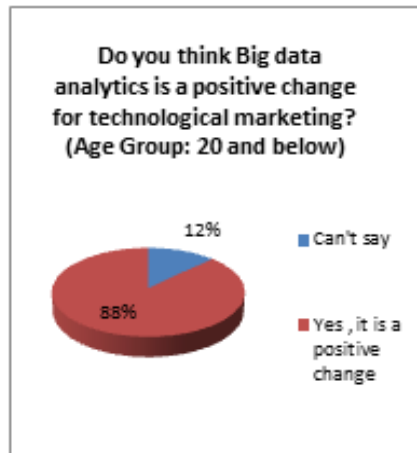
With the results of the survey it can be comprehended that the response is influenced by generation gap. The age group till 30 selected social media as this is the age group that is mostly into social media and thus gets to know about products which is a progressive impact of e-commerce. Whereas maximum consumers from the age group 31-45 gets to know about services through television and the age group above 45 gets to know through newspapers. Maximum customers belonging to this age group are not that engaged with technology. They have a particular mind set and prefer reading newspapers or watching television and thus get to know about a product. For instance, younger generation today would like sending mails or messages to someone if they want to talk to whereas the age group above 30 would prefer calling or meeting in person. So it's challenging for e-commerce to influence these age groups.

3. On a scale of 5 how would you rate e-commerce and online marketing?



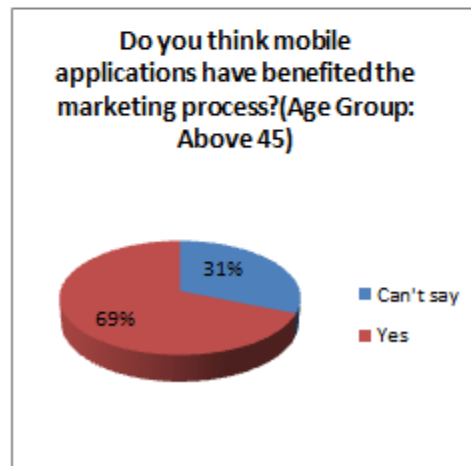
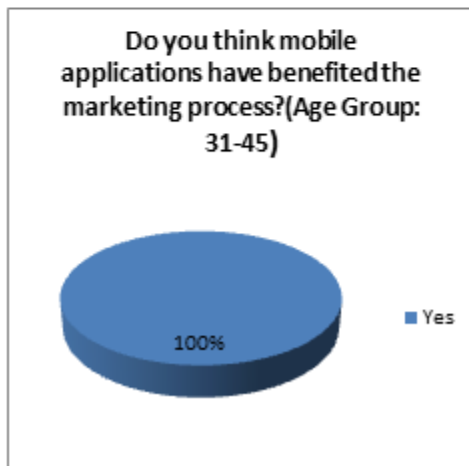
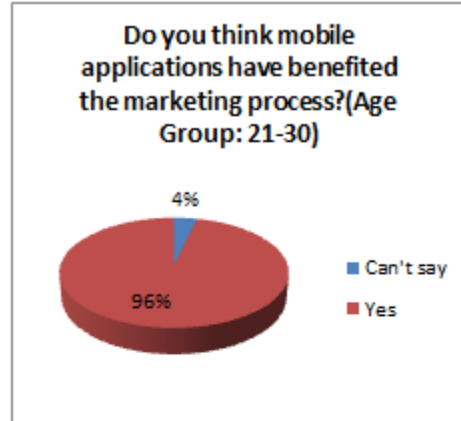
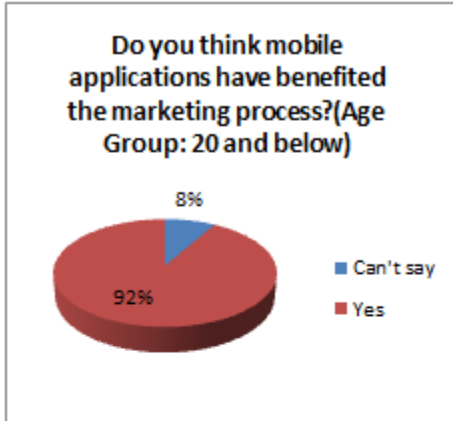
Maximum consumers belonging to the age group till 30 have rated online marketing as 4 as they are the ones who closely follow e-commerce. The age group from 31 and above have rated e-commerce as 3 but this is also the age group which favours conventional form of marketing than online marketing. Customer relationship management is an important aspect for marketing and approach should be made to attract customers belonging to the age group above 30.

4. Do you think big data analytics is a positive change for technological marketing?



Individuals belonging to almost all the age groups have said yes to this question which is a very affirmative response. It shows that everyone approves that big data analytics has changed the overall marketing strategy of e-commerce. It helps keep customers glued to sites by showing them relevant patterns that they want to buy by keeping a tab on their previous searches. It helps to segregate different products and their respective potential buyers which improve customer relationship management.

5. Do you think mobile applications have benefited the marketing process?



The survey results indicate that every age group agrees that mobile applications indeed have benefited the marketing practice. No matter what age group it is, almost every person uses mobile phone and thus mobile applications either in-built in it or by installing it. Unlike other gadgets mobiles are easy to carry and shopping through mobile is altogether a different experience which only advancement in technology can bring. It makes it easier to buy anything, anywhere and anytime.

7. Finding and Suggestions:

The survey was conducted among 100 people and it is found that online marketing plays a huge role in the marketing world and can be promoted more efficiently.

But most of the people still prefer conventional methods of shopping instead of online shopping. This may be due to lack of quality in products and poor services. In order to attract more customers belonging to older age group, these online shopping sites can be promoted through advertisements in newspapers and television. By making a better and user friendly interface for older generation, the demand of online purchasing can be increased tremendously. Also, to promote e-commerce, the needs and expectations of people should be taken care of by improving product quality and delivering better services. Companies can ensure customer relationship management (CRM) by providing discounts and coupons to frequent customers, thereby attracting more customers.

Another major thing that is analysed from the survey is the positive impact of big data and data mining applications on marketing strategies.

It has also been found that social networking sites have provided a huge platform for promoting various products which can be purchased through various online networking sites. For example, Facebook provides a set of pages and links for shopping purposes which when clicked redirects to the respective sites.

According to the survey most of the people agreed that marketing practices have been benefited by the launch of mobile applications. In order to approach more people through mobile applications, one solution is to give a first purchase discount to the customers who install this application and give some other benefits to the ones who share it with their friends and colleagues. For example, Make my trip, Oyo rooms etc. give such kind of discounts. Altogether, E-commerce has changed the marketing scenario and its approach towards customers, thereby becoming a more successful and convenient method of marketing.

8. Conclusion:

With the analysis of various marketing methods, it can be seen that technological development and advancement have affected conventional marketing processes, thus making online marketing more prevalent. Also, techniques like big data and social media have changed the patterns of overall marketing strategies. This paper provides a comprehensive approach on recent

technological trends and their impact on customer relationship management along with other marketing methods like mobile applications. To conclude, this paper covers most of the recent methods of customer oriented marketing and selling.

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