

Pournima K.Jangle Asst.Prof. Tilak Maharashtra Vidyapeeth,Pune
Email:pournimakj78@gmail.com

Abstract

In our personal as well as in professional life we are adopting modern technology instead of traditional one for the fast and smart working for growth in all respects in all era. Artificial Intelligence, Cloud computing, machine learning are the booming technologies in today's digital world. In our daily life Internet of things plays an important role in all era. This paper includes how Internet of things is involved in marketing or business and its pros and cons.

Internet of Things (IOT) affects different areas of human activities: everyday life of ordinary citizens, work style of marketing teams, factories and even entire cities. Large companies try to implement the technology in their marketing strategy that reshapes not only communication style and product promotion but consumers' expectations, perceptions and requirements towards companies

Keywords:- Artificial Intelligence , Cloud Computing, Internet of things

Introduction

We are living in the world of smart devices. Everyone wants to live in comfort zone and for that they used smart appliances in their surroundings of daily routine. Nowadays we see the smart things in our surroundings which spanned s our life day by day.

The IOT is influencing our lifestyle from the way we react to the way we behave from projector or AC that you can control from your smart phone to smart cars providing the shortest route or smart watch which is tracking your daily activities.

Internet of thing is the field of computer technology, where physical devices are communicating over the Internet. In these technology devices such as sensors, actuators are used for automation. Sensors are embedded in every physical device. It can be your mobile phone, electrical appliances, traffic lights, pcos barcode sensors and almost everything that you came across in day to day life. Sensors continuously emit data about the working state of devices. Internet of thing provides the common platform for all devices and a common language for all devices which communicates to each other. These devices communicate and send information to each other on the web. It is an ecosystem where the interacting devices share data through a communication media known as the internet. Data is emitted from various sensors and Internet of thing platform security .IOT platform integrate the collected data from various sources further analysis is carried out on data and important information is wrested as per requirement. At the end output or result shared with other devices for better user experience automation and improving efficiency.

Methodology:

This paper is purely doctorinal and used secondary data.

- The applications of internet of thing is implementing the huge areas in our surroundings such as smart cities, smart homes, wearable, industrial automations and so on.AI and its impact is expanding very rapidly in all field. following ways Internet On things makes marketing smarter-



Fig 1- Source: <https://hackernoon.com/the-most-promising-internet-of-things-trends-for-2018-10a852ccd189>

Data collection and exchange of data is one of the main functions of business. It is also useful for the profit as well as business growth also. IOT is the technology which is burgeoning in industrial era now days. Now it becomes very easy to handle data in business or marketing as IOT is introduced in this field and in high demand. IOT devices are used for keeping track and record patterns in which consumer can interact with these devices. It is also useful for accessing consumer's data. This makes the devices smarter that allow them for a better user experience; simultaneously helping businesses in interpreting that data for improvement and growth. For businessman these data is used to study consumer's requirement, demands, methods or ways for marketing, advertisement and for innovative inventions. Using internet of things data is collected, shared and interpreted effectively.

Technology plays an important role in all aspects in business. Using technology in CRM, it is very easy and fast to communicate with customer. With the help of technology, effective communication is established and it will help to analyze customers need. Technology helps us to make customer relationship meaningful. Using internet it becomes very faster to collect data or information from user. According to customers feedback they can improve the product quality and quantity. Also they can think over how the customer satisfied and which type of innovation is required. Through this data they can decide their marketing strategy also. As the technology evolves, the CRM will also evolve to adapt the continuous demands of the customers.

Role of IOT in marketing-

IOT is a network of electrical devices that are connected with each other through the internet. IOT help in business to achieve their operational goal and fast and effective functioning .The devices could be highly sophisticated machines smartphones,tablets,computer,smart TVs,vehicles,smart appliances etc. These devices use sensors.

Product Design-

With the help of IOT company can understand what the customer can actually expect from their products which will help them to improve their product quality and design. IOT not only help to improve product quality but also helps to forecast, demand and plan for the new product.

1. Customer Insight-

With the help of smart devices, it is possible to understand the client's activity. Smart devices provide an enormous amount of data that makes insight deeper and vivid. Data on intelligent devices used to understand each lifestyle of consumers. It enables digital marketing specialists to promote products based on the data gathered.

2. Enhance customer experience with personalization: Personalization is one of the effective way to reach, engage and target audience.IOT helps business to connect with the customers on a real time basis. It helps to target audience more accurately and improves the effectiveness of marketing company.

3. Analyze customers behavior towards the brand: IOT helps digital marketers to understand the behavior of customer from start to finish and it gives the clear views of where the customer is there in buying journey. It also help to analyze need of customer, purchasing patterns of customers

and location that allows the marketers to customize the product accordingly can provide more accurate information about customers taste and preferences.

4. Big Data:-

Marketers campaign the product marketing smartly and effectively using huge amount of data which collect from customers with the help of IOT. Nowadays marketers used smart technology with using smart devices to increase the production and brand. Big data provides more data insights that help marketers to reduce risks and increase opportunities.

6. Data Tracking-

Tracking data from IOT devices helps digital marketing to anticipate customers requiring a specific product or service. It also used for timing insights of sales. Real time customer helps marketers to buy and sales.

5. Marketing Automation-

Internet of things assistance marketers to collect, analyze and use the data in proper way and in proper place and if sufficient data to run automatic campaigns. It reduces and save the time and efforts which customer takes while gathering data. In today's digital fast and smarter life style each one wants fast and quality based service with the huge of real time data. Marketers can provide fast and better customer service with solution which will help to increase the profit as well as business.

Pros and cons

As the use of applications of the internet of things is continuously increasing in various domains, importance of IOT is increased ultimately and it is on high demand in market. But still there are some challenges and issues that marketers are facing.

Efficiency and Increased Productivity

Increased Business Prospects

Because of the improved efficacy, the firm that employs IoT solutions may provide a broader choice of services or goods, or raise their standards in respect to rivals, all while charging the very same cost. As an option, such a business might take on more demanding jobs based on the production complexity, duration, or quantities. Overall, the implementation of smart solutions increases a company's current competitiveness and attractiveness as a possible business associate.

1 Lower operating costs

A fleet of IoT devices can help companies streamline operations and reduce operational costs by providing real-time data. Devices can provide proactive alerts on their status, allowing workers to schedule maintenance before it becomes a problem. It can be integrated into larger systems to increase operational efficiencies and reduce costs. IoT facilitates communication between electronic devices. Data packets are transmitted over a connected network, saving time and money. Help people with their usual activities.

Faster issue resolution.

A centralized IoTops administration stage permits for easy identification of root cause issues. With a single alarm from the framework, the security group can decide whether an issue could be a nearby one, such as a issue with a particular switch, or a worldwide one, such as a weather-induced blackout of the complete location. Prompt alarms spare the company cash and dodge any potential harm to the damage to the company's notoriety when frameworks do not work.

.Effective Operation Management

Another important advantage of smart device connectivity is automatic management over many operational areas, such as managing inventory, order tracking, fueling, and replacement parts management. For example, with this technique, RFID tags and a system of sensors are used to find the location of equipment and commodities.

Increase Business Profitability

Improved Comprehension of Consumer Behavior

Customers primarily decide the end result of each firm's product and repair, and that they are thence the kings to whom enterprises ask for across. As a result, having a powerful grasp of the preferences and expectations of all kinds of audiences aids in knowing what kind of product and service they relish and dislike, what any needs to be introduced, and what needs to be eliminated from product and service offerings.

Better Business Opportunities

Pricing

The primary goal of each firm is to form an amazing product. Finding the proper shoppers and delivering the products to them comes when properly stigmatisation the merchandise and taking advantage of it. However, cash are concerned in a way or another all told stages – expressly or implicitly – and one cannot afford to squander every cent in gratuitous expenditures instead of concentrating on the goods. IoT apps and technologies enlist facilitate during this situation. They forecast and warn regarding instrumentation failures by analyzing the device. As a result, the expenses of correcting discrepancies and breakdowns are considerably decreased. it's one in every of the foremost inherent advantages of IoT.Cons[1]

Better decision-making. Having a all encompassing see of the IoTops scene helps with settling repeating issues, such as distinguishing a flawed gadget some time recently an blackout happens. In expansion, future arranging and decision-making are more direct. For case, when a gadget end-of-life time outline is evident, the organization can superior arrange for gadget substitution, counting vital obtaining and budget arranging

Cons

1. Security and Interoperability

There are not any universally approved IoT encoding and security standards yet. Subsequently, several odds stories have hackers breaching sensible fridges and baby monitors have popped up. Most smart devices are developed by startups and non-tech brands like Absolut and L'Oreal. they're not designed to act with every other, that contradicts the concept of worldwide connected environment.

2. Management and storage

In case a company needs to utilize IoT-generated data for commerce purposes, it ought to be arranged to analyze tremendous sums of information in genuine time. The assignment cannot be performed physically and, thus, requires customized applications. Undertakings will need to expand capacity capacities and create dependable arrangements to utilize the information in a cost-effective way.[4]

3. Consumer Privacy vs. Advertising

4. Clearly, clients who buy keen observes and wellness trackers treasure their protection. They will not be cheerful to know brands utilize sensor information to showcase related products and services. Also, the Web of Things publicizing and promoting channels must be well-protected against noxious programs and programmers. A later ponder conducted by the Affiliation of National Sponsors uncovered fake advertisement activity taken a toll distributors over \$ 6 billion in 2015. Envision what the figures will be like within the close IoT-dominated future

Conclusion

Marketing is regarding quite the data-driven marketing context of the internet of Things and since there are additional opportunities than trying to vary the standard product relationship with sensible devices and wearable alone.

Advanced technical schoolnology solutions utilizing IoT tech can facilitate firms succeed and maintain a competitive advantage in their industry. Through investing the tools available, you'll be

able to increase workers productivity and reduce costs—your business can relish higher operative capability and deliver a superior client experience. The market for IoT devices is expanding rapidly day by day and becoming more popular as well with the drastic increase in the number of users who use them daily.

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