THE ROLE OF INFORMATION TECHNOLOGY IN REVOLUTIONISING MARKETER'S APPROACH TOWARDS PERSONALIZED ADVERTISEMENT

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ABSTRACT

Digital transformation is the key to the success of any business today. Unlike the conventional approach, modern advertising media allows customers to interact with the web at a much more personal and intimate level thereby collecting consumer data - likes, dislikes, interests, and preferences. One of the main reasons for the high effectiveness of personalized online advertising is the use of emerging IT solutions which have been playing a major role in crafting impressive commercials, making it easier for marketers to target users at a very personalized level. Objective of the study: The objective of this research paper is to review and assess the role of Information Technology in delivering highly targeted personalized ads to the consumers by understanding the concept of personalization. Research Methodology: The research is basically qualitative in nature. This field has evolved over a period of time. So, it is an exploratory study. The research is based on an analysis of various research papers and an extensive literature review is used. It is based upon review and analysis of papers to arrive at a framework of adoption of these technologies in personalized advertisemen

1.   Introduction

1.1 What is Personalized advertisement?

A literature review was conducted to assess the definition of personalization and it was revealed that personalization varies from one field to another. One viewpoint on personalization [1] defines it: "Personalization is about targeting a small section of the market and building a meaningful relationship with the customers by understanding the individual need and thereby satisfying the need and demand".[2] defines it: "Personalization is the adoption of technology to tailor electronic commerce interaction between a brand and the customer". However, Personalization has been acknowledged differently by various authors. This kind of viewpoint varies among authors and hence we can say that "Personalized advertisement via the means of digital media refers to combining consumer data includes interest, browser history, etc with digital technology to predict consumer preference and thereby targeting consumers at a personal level" [3]. Such digital advertising can narrow down the gap between the consumer and the marketer. Such an advertisement intends to deliver relevant messages to users when they interact with the websites.

1.2 Evolution of Personalized advertising

In this section, we trace the evolution of personalized advertisement.
[4] The evolution of online advertisement has seen certain major changes over the years. It constantly changed and adapted to meet the requirement of changing consumer demand. Online advertisement is about delivering ads using social media, email, smartphones, etc [5]. Access to computers and smartphone around the world have led to huge consumption of Internet with around 4.57 Billion online users worldwide which have led to a big jump in various digital activities, increase usage of social media and increased opportunities for digital advertiser increase usage of online services. Most significantly marketers soon realized the potential of online advertisement combined with user data which helped them craft advertisements that targeted users at a personal level. It was found that [6] 93% increase in conversion rate when the organization chooses to personalize its search engine marketing followed by a 94% increase in conversion rate with a personalized website, and 92% of the companies saw a boost that personalized their emails. Clearly, personalization has a positive impact on the conversion rate when accurate data is used to target the audience. Personalization is a buzzword across various verticals that co-exist with predictive analytics, big data, and one to one marketing which is currently defining the age.

1.3 Role of IT in personalized advertisement

Due to the changing role of online advertisement, which has been increasing over the years, has followed its transformation moving into a new bandwagon of online advertising [7] The digital advertising industry is enjoying an enormous growth and the worldwide digital advertising spending is expected to

rise by 13.2% to $435.83 billion by 2021 [8]. Such exponential growth in online advertisement has led to the placement and targeting of users based on interest, demographic & preferences. Unlike traditional media which uses mass communication channel like newspaper, television, radio, etc for its distribution of message focused on delivering information to your prospect rather than user engagement i.e. advertisement was based on marketers' perspective but due to continuous technological advancement marketers are shifting the control of advertisement from advertiser to the consumer [8]. Today brands are incorporating multiple platform advertising strategy that helps them in communicating with the audience across multiple channels like email, blogs, social media & mobile for further extending the reach and capture the customer's attention and hence creating unforgettable experience & content that brings outstanding brand awareness. Although traditional ads spending has decreased over the past years. However, brands are leveraging both digital and traditional modes of advertising to target their audience.

2. Review of literature

[9] in their research concentrated to study the customization process and further discuss on the difference in the strategies adopted by mass communication, personalization, and one to one marketing and understand how it is different from customization. The study further suggested that the difference between one to one marketing, personalization, and customization where customization is more advanced form personalization where customization plays a major role in a firm's marketing strategy. Customization requires proper sync between Finance, R&D, marketing, and operations. Finally, it is observed from the study that the growing influence of internet have a major impact on the firm's business strategy and business failing to adopt this customization are unlikely to full fill the demand of tomorrow.

[10] studied the key problems, directions, and future implications of personalization. The key problems highlighted in the research paper are privacy, web design, and computation where personalization tends to compromise the consumers' privacy by collecting data about the consumer from multiple sources and such information should be entitled to enforcing policy compliance. The problem with web design is that a website is created by understanding the users objective which means the structure for any given site should follow a certain hierarchy which would allow users to scroll through their desired information with much ease but it is often found that users are unable to find or specify their goals and thereby experts should focus on adaptive web design to move personalization forward. In this data-intensive market, an organization requires higher computing power to create an adaptive web design to analyze consumer choice. Although organizations like amazon, google, and IBM has constructed a promising computational strategy by harnessing the power of hundreds of computers but still there is a bridge between such models.

[11] studied how e-personalization can be a factor of concern for an online invasion of data privacy and the study was on the case of travel websites. The objective was to examine consumer perceptions and opinions towards e-personalization and how likely are they satisfied with the privacy features offered on the travel websites. E-personalization is a method to enhance customer services on electronic platforms. However, with extensive data gathering for personalization of advertisements, also incorporates many privacy concerns. The results of the paper showed that the privacy of consumer data and personalization has a moderate and direct relationship. The majority of online users prefer those websites which offer better data privacy features, protecting their customer information. Thus, it is claimed that consumer is highly influenced and provide more value to the websites in which personalization and information privacy go hand in hand.

[12] studied the differences between the two methods of one-to-one marketing i.e., personalization and customization. Personalization is a type of marketing by an organization where the customer is fed with a personal marketing mix, whichever fits the most based on the research done and historical data collected. Customization is applied when the customers drive their marketing campaign by helping the organization understand the elements of their marketing mix. The author had put forth different circumstances on which one can evaluate the type of marketing mix that can be applied to the customer. Thereby, concluding that both personalization and customization brings in many challenging situations when applied and many new advancements are yet to be brought in to make them a success in marketing

3. Objectives of the study

In this digital age, customer purchasing behavior is often influenced by the marketers using personalized advertisements to target consumers' needs, interests & preferences. The purchasing of products or services is considered to be the end result of the consumer decision-making process. Today IT is playing a key element in delivering effective advertisement to consumers and creating higher conversions by altering the purchasing decision of consumers. A lot of research has been done on the advertisement front, but limited research has been done on the technological aspect of the personalized advertisement. Hence this paper tries to build on the literature by exploring the following aspects (1). Understanding the concept of personalized advertisement, (2). To conduct a comprehensive literature review in the field of personalized advertisement. (3) To understand the effect of Information technology on increasing the potential of Personalized advertisement

3.1 The Concept of Personalized Advertising

Today, marketers are opting for multiple Information Technology applications and techniques for improving the performance of their marketing by adopting different techniques to communicate with users. For example, Decathlon campaign on Singapore leveraged YouTube as their key platform to reach out

to their targeted audience. Hence creating a personalized experience using YouTube TrueView application to turn user's attention to website visits and adopting YouTube to their marketing mix to achieve their business goal to drive higher traffic to their online and offline store using personalized advertising on YouTube [13].

Personalization is slowing being adopted by large organizations to directly communicate with their targeted audience and meet their demand. [14] Information and technology are creating multiple opportunities for advertisers to collect and analyze data gathered using multiple sources and design targeted advertisements. [15]

Personalization can vary from organization to organization so as their adoption of different strategies to reach out to their audience. As the competition is getting tougher and businesses today are adopting strategies to satisfy the consumer needs by displaying relevant [16] advertisement. Through ads personalization, a brand can create a strong communication channel with its consumers thereby creating brand loyalty and positive experience.

3.2 Classification of personalization

[17] Discusses about the personalization classification scheme which is divided into three-dimension (a) Type of content to personalize (b) target audience and (c) who does the personalization. This scheme helps in understanding the process of achieving personalization.

The content personalization can be achieved by tailoring content based on individual user attributes like search queries, website visit, visitor frequency, purchase history, etc, customers expect brands to understand their need and further provide helpful suggestion which leads to large e-commerce brands to analyze users buying behavior and further provide recommendation and suggestion to individual users. Leveraging technologies helps the brand in keeping constant track about the user's behavior and use personalization tools or application like adobe target to deliver content based on the user's behavior. This helps brands in designing and delivering personalization to users.

Personalization can be done in order to target a specific individual or a larger group of audience. It has been found that customers are more attracted towards advertisement which focus on individual customer need rather than advertisement caters to target a larger social group. Showing products that exactly match individual lifestyles create a positive attitude towards the brand and enhance the chances of conversion.

Personalizing of advertisement or content is just not limited to large brands but often individual users adopt personalized advertisements to target its audience. There are two different approaches for implementing personalized advertisement i.e. implicit personalization and explicit personalization.

Implicit personalization which adopts an algorithmic approach for making an assumption on the type of content, product or price is more suitable or applicable for the customers which can be achieved either by deterministic method of assumption about customers past purchase behaviour [18] whereas

predictive technique uses algorithm as well as machine learning to automate the entire process of predicting the content and price of the product best suited for the customer which helps in-accurately identify the traits of the buyer and the type of product the buyer would be more interested in. Such personalization mostly relies on customer data and various applications.

Explicit personalization is a kind of approach where the customer provides data about their preference and need to the brands. [19] Such data are usually collected by brands through an online survey and registration forms which provides valuable insight about the customers to the brand. Such information is then combined to create a set of personalization attributes about the customer and further enhance the customers' experience of shopping.

3.3 Personalized advertising process

Personalized advertisement involves gathering consumers' data from multiple sources through data extracting software or application for the brand to create buyer personas that represent their target audience [20]. Creating buyer personas helps brands in targeting their audience with relevant content and at the same time understand consumers habits, behavior, and likes. Understanding the buyer persona helps brands to design personalized ads that are relevant to their targeted audience and such personalization allows brands to perform better sales online. [21]

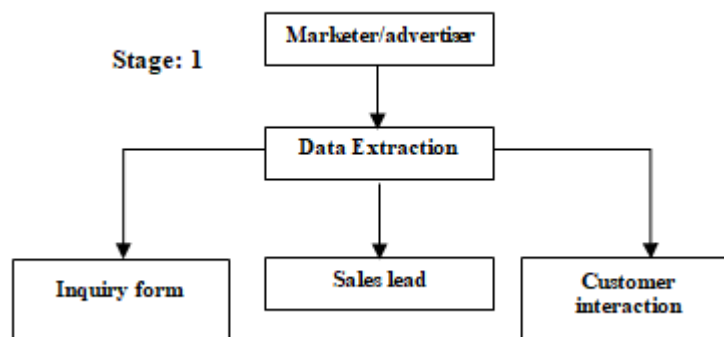The model below helps in understanding the entire process of personalization of ad

Fig.1 Data Extraction

• Data extraction: Today brands using personalization are collecting user's available information like name, email address, mobile number from surveys, campaign, webinar, etc to learn more about their audience interest, like, buying habits and preference. The user's online activity on the brands website is often analysed to understand user's website activity, actions, and time spent on a specific page which is later used for developing a suitable profile that is used to predict and meet consumers' needs and demand.
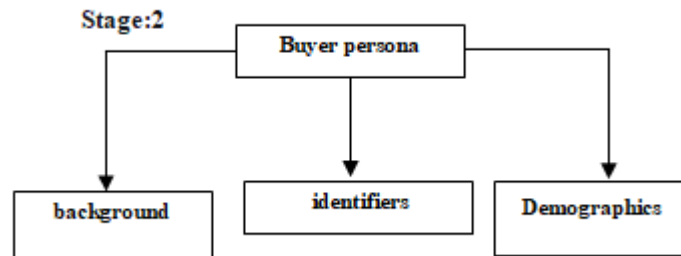
Fig.2 Buyer persona

• Buyer persona: Once a brand builds a centralized system consisting of consumer information consisting of income, location, purchasing behaviour, pain points, age, gender, name, and frequency of purchasing this can be used to track individual traits and personalities by creating a buyer persona. This buyer persona can be created by understanding consumer needs and demands and thereby building a plan to meet the need and demands of the individual. This helps brands to target both new as well as existing users with relevant ads by addressing their individual needs

Fig 3. Content mapping

• Content mapping: In this stage, a brand must identify unique content based on buyer persona that would be of greatest interest to their targeted buyers. Through content mapping, brands can target users based on their characteristics and measure the chances of a user making a final purchase. Though personalized content is just one half of the equation. To better target a user, a brand must identify the individual and how close the individual is to making a purchase.

• This can be identified using the buying life cycle.

- Awareness: In this stage, a buyer has realized the problem and started searching for a solution.

- Consideration: In this stage, the buyer looks for different alternative to your product.

- Evaluation: In this stage, the buyer will think whether the brand is good for collaboration or not.

- Decision: In this stage, the buyer has selected a potential solution.

- The time span between awareness stage to the decision-making stage of consumers can vary from days to months. Hence a marketer should finally start targeting the consumers using personalized ads through multiple online channels.

• Ads personalization: In this stage, a company has collected data on consumers, created a buyer persona, mapped content, and is well aware of its target consumer. As the company has access to the data hence it can choose to address the need of the customer. Based on the need a brand can design personalized ads targeting customers based on persona. Therefore, creating a relevant ad as well as personalized experience for the cu

4. Systematic Research Paper Review

The study is a contribution to the existing body of literature by providing a comprehensive Systematic review of 20 research papers that focus on Personalized Advertisement. Further, effect is made to highlight the main findings in the area of Personalized advertisement wherein the focus of this paper is on the application of Information Technology over Personalized advertising.

Sl.no	Authors	Research methodology	Sample method	Main Findings
1.	K Pongiannan Et al. (2019) [22]	Conceptual	N/A	In the context of interactive advertising which involves a creative way of delivering messages that attracts the consumers using animations, audio-visual effect using multiple channels like email & display advertising. Thereby helping marketers to understand consumer needs and demands.
2	Manfred Mayer. Et al (2011) [23]	System	N/A	It has explained that the concept of Admotional that identifies issues for long term enhancement of online ad considering multiple factors into account. The Admotional system selected the appropriate campaign while dynamically creating customized ads depending upon the extensive database for efficient evaluation. It helps in optimizing and exploit template-based personalization ads, further enhancing personalization by combining existing targeting strategies with a new dimension of emotional targeting.
3	Nural Zarirah Nizam. Et al (2018) [24]	Survey	N=200	The study reveals that consumer who tends to believes the information printed on the product or are likely to have a favourable attitude of purchase which reflects the attitude towards the product and brand. Consumers also have a positive belief in web advertisement as a convenient source of good

				information about products available online by careful consideration of available information.
4	Harshita Bhatnagar. Et al (2014) [25]	Survey	N=120	The research was to see the comparative difference between traditional and online media and its effect on customer preference and awareness. Today online and traditional advertisements are both complimentary in nature. 35% of viewers trust advertisements displayed on the brand website. Both medium have their benefit and drawbacks.
5	D S Soegoto. Et al (2018) [26]	Observation	N/A	The paper focuses on the role of IT in media and advertisement. The observation indicates that Business owners can use technological developments to reduce cost, increase market share, and target users using promotions.
6	Lisette de vries. Et al (2012) [27]	Model	N/A	The research aims to understand factors driving brand post popularity based on a conceptual model considering multiple characteristics (eg. Vividness, interactivity.) Brand posts based on such characteristics can enhance the number of likes. Hence providing insights on the effective use of social media for managing customer relations and branding.

7	Ong Choon Hee. Et al (2018) [28]	Survey	803,00 (Apprx)	This research was to understand the influence of online advertisement on consumer purchasing behavior. The study further suggests that social media advertising tends to have a higher influence on consumer purchasing behavior and had maximum effects and coverage to reach the targeted markets in terms of food and beverages.
8	Rodgers & Thorson (2013) [29]	Model	N/A	The research focused on identifying the model of online processing and its internet function. It further provides insight on the classification of Internet ads followed by common features among these advertisements to understanding the measuring factors for interactive advertisement which includes time spent on the website, response time, and total time devoted to the information on the interactive ad.
9	Martins. Et al (2018) [30]	Conceptual model	N/A	The study tried to understand the effect of smartphone advertisements on consumer purchasing intention due to the changing landscape and adoption of digitalization. The findings suggested that consumer find smartphone advertisement to be credible and good referencing of information whereas smartphone advertisement can also create negative feelings towards a brand due to information that do not create any value to the customer.

10	Schumann et al. (2001) [31]	Trend analysis	N/A	This paper focused on understanding the the future implication of online interactive advertisement through Integrated marketing communication lens and further concluded that Interactive advertisement will likely evolve, expand and will remain a key successful advertising and product/service interaction.
11	Busen and Mustaffa (2014) [32]	Conceptual	Consumer based model	The study proposed various domains of advertisement and brand equity development explaining, the management of studying the effectiveness of advertising. The paper also examines the role of advertisement in the growth of brand equity measurements.
12	Cheung and To (2017) [33]	Structural Equation Modeling	480 Young Mobile users	The in-app advertisement is an evolving feature of interactive advertising and is considered to be more reliable than an online advertisement as it provides various options like swipe, sensor, and GPS which helps in making the message smaller, engaged, and uninterrupted.

| 13 | Mishra Et al. (2017) [34] | Survey | N=750 | Online advertising is becoming a challenge for print ads as various online applications, social sites help to lead towards the data instantly than other advertisement media existing. The research considered multiple factors in defining the effectiveness of the online advertisement. |
| 14 | Ana Maria Soares. Et al (2014) [35] | Survey | N=126 (students) | The paper is concentrated on perceived enjoyment and the influence of the responses to OSN advertisements. Perceived enjoyment is considered to be a predicting variable for both the social influence and advertisement variables. It is often associated with the use of OSNs, as it offers rich entertainment functions. The study also claimed that the relevance of perceived advertisement has a direct impact on the perceived advertisement value. |

15	Davidavičienė. (2012) [36]	Conceptual	N/A	In this study it points out the effectiveness of online advertising is often measured by higher click through rates while missing out on other contributing factors like attitudinal responses. It also points out the effectiveness of online advertising format and concludes that pop-ups, interstitials, and the sponsored result were least effective whereas Banner advertisements, rich media, and contextual sponsorship were considered to be the most effective formats.
16	Aktas. Et al (2015) [37]	Interactive advertising model	N/A	The research points out the factor that falls short during traditional communication to capture the online behaviour of consumers but at the same time, the interactive advertisement model succeeds in gaining insight on consumer purchasing behaviour. Hence the changing advertising concept has started to reflect on the interactive advertisement.
17	Perlich. Et al (2015) [38]	System	N/A	Machine learning system has been deployed over the years for targeted display advertising. ML system plays a key role in the ad optimization process and is deployed for regular use in M6D company that finds prospective customers for targeted display advertising campaigns and executes those campaigns on the many advertising exchanges.

18	Kietzmann Et al (2018) [39]	Conceptual	N/A	Due to the advancement in Artificial intelligence, the advertiser can gain various insight on consumer-generated data collected from various sources and imperceptibility combining the data to deliver consumer insight which helps advertisers communicate actively with the customers.
19	Shannak (2011) [40]	Experiment	N/A	Web analytics provide marketing researchers to measure the effectiveness of online techniques for driving traffic to organizations using matrices such as redirect traffic, number of visits, total visits resulted in sales, and total time spent on the website.
20	Vargiu Et al (2012) [41]	System	N/A	The research is focused on collaborative filtering-based web advertising system which aims at finding relevant advertisement by exploiting web scraping. The proposed system focuses on calculating the performance of the system in suggestion k relevant advertisement and understand the degree of relevance for each retrieved advertisement.

5.1 Effective personalization using IT application

Information technology has been growing at a fast pace, Internet consumption has exponentially increased over time. Worldwide internet consumption has grown by 13.2% since 2015-2020 with 4.57 billion people online.[42]. Due to the increasing growth of the internet, it is becoming the stop point for consumers in finding their desired needs. Today Brands are leveraging the Internet to communicate with their customers and build a positive relationship [43]. Brands are constantly using innovative tools for marketing their product or services through online channels which gives rise to the increasing use of the application to understand consumer behaviour, purchasing pattern, Website visit duration in the website which is followed by displaying a personalized

advertisement to remarket their product to the past visitors by keeping their product or services top of mind.

The different types of online advertising that are scattered over the internet are currently very diverse. The variety of types of online advertising certainly has the character and advantages of each.

The types of online advertising on the internet are:

• Video advertisement which has been around us for a long period of time and has seen a variety of paradigm changes in the recent past right from billboards to pop up video advertisement. Technologies such as artificial intelligence allowing marketers to deliver a successful AI video strategy in deciding which content to create and make personalized satisfying ads to the viewers [44]

Pros: Video advertisement which incorporates audio and visual combining with AI makes personalized ads easy to deliver to viewers in real-time.

Cons: Evolving impact of Artificial intelligence on video software could lead to the development of deep fakes.[45]

• Social media advertising which refers to leveraging multiple social channels to the target audience using paid advertisement. Brand increasingly promoting their product, services, and influence consumer purchasing behavior using media application like social aggregation, automation, and analytics which provides deep insight about the consumers.[46]

Pros: Social media advertising backed by data and analytical application helps in creating a better marketing strategy

Cons: susceptibility to misleading information could mislead users into believing in fake content and news about a brand.

• Email marketing advertisement which allows firms to directly communicate with customer for brand promotion but with changing time email marketing has improved in the recent years and adopted multiple added features which help in crafting powerful email backed by automation sequence and predictive analysis.[47]

Pros: Email advertisement backed by predictive analytics offer a better experience with personalized content thereby identifying an email promotion offer that could target the user like never before.

Cons: The Email spam factor where often some recipients tend to dislike the commercial email especially when they are not targeted.[48]

• Display remarketing which tend to bring the potential consumer back to their website who have shown interest in a company product by keeping track of consumer browsing habits by placing a piece of code or a remarketing pixel on the visitor's website. Hence allowing the advertiser to track visitors and discovering the optimum time to serve advertisement to the visitors. [49]

Pros: Remarketing feature helps the brand in reconnecting with induvial by reminding them of your product.

Cons: Constant remarketing of your product can sometimes drive your customer away.

• Referral marketing refers to promoting your services or product through referrals from either existing customer. This could be achieved by either word of mouth or by implementing of effective marketing strategy. Referral marketing has been a highly effective marketing strategy but often marketers find difficulty to report upon due to poor tracking and measurement option but with the growing digital landscape referral marketing have adopted an automated system which helps marketers to run an efficient measurable and profitable campaign. [50]

Pros: Increase engagement, spread brand awareness & Gain loyal, customer
Cons: legitimate referrals & inability to compensate referrers.

• Affiliate marketing refers to using of a partnership between the induvial and the affiliate (referred to as "publishers" and "partners") tend to earn a commission for promoting the product or services of another company. Most import aspect of affiliate marketing is engaging with the individual and to achieve this use of technology to collect data about their customer plays a crucial part. While the affiliate website has started gathering data through an automated process and categorize them which helps the affiliate to better draw a conclusion and suggestions. [51]

Pros: low investment cost, pay per sale, pay per click & pay per lead
Cons: uncertainty & high competition.

5.2 Advantage of Personalized advertisement

Personalized advertisement allows organizations to effectively target users creating higher engagement and conversions rate through custom-tailored advertisements. This type of advertisement can be tracked using applications like google analytics and at the same time show targeted advertisements to the right people and at the right time creating higher effectiveness of advertisement with minimum resources. Personalized Advertisement backed with Information technology not only leads to higher sales volume but also increase customer experience by displaying relevant targeted advertisements.

There are various other benefits of Personalized advertisement with IT application which are as follows: -

• Minimize cost: Marketers can minimize the advertisement spending budget by targeting the right audience for their businesses based on demographics, location, behavior, and Interest. Finding the correct audience can help marketers to tailor or craft messages that can help to create visually appealing messages to gain the attention of their target audience. Application such as Google Analytics allows businesses to keep track of affinity and in-market audiences allowing businesses to identify and segregating users based on lifestyle and product purchase interest.

• Increase conversions: Marketer want a higher conversion rate and each conversion bring businesses closer to making sales. Today businesses use multiple online campaigns to boost conversion rate by using retargeting which is the perfect way to nurture potential users from their point of discovery to the point of sales. There are multiple micro-conversion or small steps that help

marketers to make users perform the desired CTA (Call to action) to make sales, submitting a form, or registering to the website. Application like google ads, google analytics, and woopra helps in identifying users' behavior on the website by tracking unique activity performed by users. Hence personalized targeting can give multiple chances to marketers to interact with the users and convince them to convert.

•   Improve Engagement: Users are more likely to click on advertisements crafted or tailored to target at a personal level based on users' need and interests. User engagement plays a critical factor in business growth and hence retargeting allows businesses to connect with users in a more meaningful manner. Marketers today use responsive and personalized discounts and offering to attract customers. Application like heatjar which provides heatmaps to monitor on-page user engagement.

•   Increase Customer Experience: Personalization is based on providing users with the right information product or services at the right time. The information used to personalize advertisement comes from sources like database, survey, etc with all the information marketer create powerful universal emotions to better target users and hence providing a better customer experience. Application like Optimizely allows the marketer to track personalized experience by using parameters like visitor segmentation, geotargeting, and cross-browser testing.

5.3 The disadvantage of Personalized advertising

Personalization can be highly effective for brands to attract customers but at the same time personalization can raise deep consideration about data privacy. Today marketers should manage data used for personalization carefully. Brands must collect consumers' data responsibly and ask for their consent while collecting their data to avoid any solution that isn't compatible with consumer's expectations for data privacy.

5.   Implications of The Study

In this paper, we tried to achieve three purpose. First, we have discussed the definition of personalization and the role of such personalization on consumers followed by personalization ads process model to better understand the journey of advertiser right from collecting data of the consumers to crafting a personalized message for the consumers. Second, we conducted a systematic literature review of various paper to understand the key findings of personalization from various paper. Third, we discussed about the role Information technology in enhancing the ability to deliver a better personalized ad. This research will provide an original framework in the adoption of IT techniques in advertisement and can be used by various companies or firms to enhance the quality and reach of advertisement at a large customer base more effectively. The study will prove helpful to marketers by providing insights into the impacts of personalized advertisement on the present society, in turn, developing means to build trust in the consumer's market.

6. Conclusions

The purpose of this paper was to find out the role of information technology on the personalized advertisement and how IT application has been playing a major role in enchaining brands capability to target audience at a personalized level through various multiple advertisements. Today brands need constant access to consumer information which helps them in creating campaigns for their targeted users. In case of innovation unavailability of information about consumer preference, it becomes difficult for brands to targeted users with personalized ads. We also found that due to the constant advancement of technology. Brands constantly use multiple applications to keep track of user's activity on their website through various applications and analytical tools. The use of such applications has enhanced the use of advertisements which now can be used to maximize profit at a lesser expense. Hence, we can say that the effectiveness of advertisement has increased due to the use of IT applications for personalization. The theoretical model for this study is therefore accepted.

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