
Mobile marketing campaigns: practices, challenges and opportunities

Vikas Kumar* and Saurabh Mittal

School of Business Studies,
Sharda University,
Greater Noida, UP, India
Email: prof.vikaskumar@gmail.com
Email: sau275@gmail.com
*Corresponding author

Abstract: Increased use of smartphone and other mobile devices means more frequent contact between the brands and consumers. Interactions happen on anytime, anywhere basis, going much beyond the boundaries of traditional customer connect. Starting with the traditional e-mail, to pay per click, search engine optimisation, content writing, social media marketing, video and in-game advertisements, there are multiple channels to reach every segment of the audience as per their comfort. Considering the mobile communication media, optimisation of corporate website, e-mails, SMS, MMS channels, and building a native app are the prominent aspects of the present day mobile marketing campaigns. Present work highlights the importance of optimum mobile marketing campaigns as the mobile phones are serving as a preferred mode for accessing the information about the products and services. Suitability of various mobile marketing channels have been analysed to suffice the needs of different customer segments. Along with this, most important challenges and opportunities have been outlined, considering the present day market scenario. The work is very much helpful in strategic planning of the mobile marketing campaigns and selection of specific channels to cater to the targeted customer base.

Keywords: mobile marketing; mobile advertisements; online marketing; marketing communication.

Reference to this paper should be made as follows: Kumar, V. and Mittal, S. (2020) 'Mobile marketing campaigns: practices, challenges and opportunities', *Int. J. Business Innovation and Research*, Vol. 21, No. 4, pp.523–539.

Biographical notes: Vikas Kumar received his MSc in Electronics from the Kurukshetra University, India. This was followed by MSc in Computer Science and further PhD from the same university. He has designed and conducted a number of training programs for the corporate sector and is a trainer for a number of Govt of India departments. Along with the six books, he has more than 100 research papers to his credit in reputed conferences and journals. He was the Editor of International Quarterly Refereed Journal *Asia-Pacific Business Review* during June 2007–June 2009.

Saurabh Mittal has an experience of 13 years in academics and industry. Currently, he is serving as an Area Chairperson in IT and Digital Marketing Department at the Asia-Pacific Institute of Management, New Delhi. He is pursuing his Doctorate from School of Business Studies, Sharda University,

India. He has 16 publications in the domain of IT, CSR and digital marketing in the reputed journals/book chapters and magazines. He has chaired various international conferences in India and abroad. His research interests are e-business, digital marketing and CSR.

1 Introduction

Mobility is the most transformative trend in modern business, affecting every brand, employee and customer. Searching for information, shopping, social networking, communication and leisure have all been brought in to a single device smartphone. A new term ‘mobile moments’ has been coined to describe a phenomenon, where “a person just pulls out a mobile device to get whatever, he or she wants, immediately in the context.” This becomes critical for the businesses to know, what makes smart mobile moments, how to seize them, boost revenue and establish even stronger relationships with the customers (Vibes, 2017). Hence, pushing the organisations to implement mobile initiatives in a more strategic and competitive manner. Mobile analytics on the other hand, provides digital intelligence to gain a more comprehensive picture of the customer interactions by connecting their virtual experiences to the real world behaviour. Mobile marketing is a technological frontier and is an attractive area for research because of its rapid growth and potential applications (Ngai and Gunasekaran, 2007; Sadeh, 2003). Correspondingly, many researchers have defined mobile marketing in different ways. Evolution of mobile marketing has been presented in Table 1. The initial description of mobile marketing depicts the ‘one way’ communication from the advertisers to the customers (concentrated on calls and SMS) and does not cover the relevant areas served by modern mobile marketing as highlighted in the newer definitions (video streaming, gaming, apps etc.). Thus the significant features of the present day mobile marketing campaigns include:

- 1 *ubiquity*: large scale adoption and the versatility of smart mobile devices across the world
- 2 *multi-way communication*: marketer to consumer, consumer to marketer, consumer to consumer communication along with interaction with the platforms serving these marketing campaigns to the customer
- 3 *24 × 7 availability*: mobile phone is normally switched on even while the target customer is sleeping or travelling hence ensures the delivery of marketing content anytime anywhere
- 4 *marketing channels*: availability of multiple channels and tools for mobile marketing with the growth of smart phones with latest features and enhanced computing powers
- 5 *personalisation*: offers high potential for highly personalised and localised campaigns with better targeting due to effective use of analytics.

Table 1 Evolution of mobile marketing

<i>S. no.</i>	<i>Definition</i>	<i>Reference</i>	<i>Major implications</i>
1	Mobile marketing is focusing on the mobile channel as a tool to improve consumer relationships to brands.	Nysveen et al. (2005)	Consumer relationship.
2	Advertising or marketing related messages sent to a mobile phone.	Standing et al. (2005)	Highlights the importance of messages (SMS and MMS) as a channel of advertising.
3	The emphasis of the marketing communication is via short message services (SMS) but can also include e-mails accessed by mobile phones and multi-media messaging services (MMS).	Leppaniemi and Karjaluo (2005)	Highlights the importance of messages (SMS and MMS) and e-mails via mobile phones.
4	Using a wireless medium to provide consumers with time- and location-sensitive, personalised information that promotes goods, services and ideas, thereby benefiting all stakeholders.	Scharl et al. (2005)	Highlights the importance of time and location sensitive, personalised campaigns for promoting goods and services and ideas.
5	Mobile marketing is the use of the mobile medium as a means of marketing communications.	Leppäniemi et al. (2006)	Personalised and location aware marketing communication.
6	A tool for front-line staff improving person-to-person interactions between insurance agents and consumers, defined as internal mobile marketing.	Lee et al. (2007)	Improving person to person interactions.
7	Text- and graphics-based commercial messages that are sent to consumers via mobile devices, including cellular phones, pagers, and personal digital assistants (PDA).	Peters et al. (2007) and Soroa-Koury and Yang (2010)	Highlights the importance of text messages, graphical messages (MMS and banners).
8	A set of practices that enables organisations to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network.	Mobile Marketing Association (2009)	Importance of mobile phone as CRM communication channel and engagement.
9	The two-way or multi-way communication and promotion of an offer between a firm and its customers using a mobile medium, device, or technology. Mobile marketing is primarily interactive in nature, and could include mobile advertising, promotion, customer support, and other relationship-building activities.	Shankar and Balasubramanian (2009)	Two way or multi-way communication, customer support, relationship management and interactivity.
10	Any marketing activity conducted through a ubiquitous network to which consumers are constantly connected using a personal mobile device.	Kaplan (2012)	Ubiquity of mobile marketing.

Table 1 Evolution of mobile marketing (continued)

<i>S. no.</i>	<i>Definition</i>	<i>Reference</i>	<i>Major implications</i>
11	Mobile marketing is a multi-channel, digital marketing strategy aimed at reaching a target audience on their smartphones, tablets, and/or other mobile devices, via websites, e-mail, SMS and MMS, social media, and apps.	Marketo (2016)	Multi-channel approach to mobile marketing via e-mails, SMS, MMS, social media, apps.
12	Mobile advertising strives to influence brand attitudes and build brand equity in the long run, e.g., a mobile banner ad that only displays a brand name, such as Ralph Lauren.	Grewal et al. (2016)	Banner advertisements, influence brand attitudes, brand building.
13	Mobile marketing is the interactive multi-channel promotion of products or services for mobile phones and devices, smartphones and networks. Mobile marketing is similar to electronic advertising and uses text, graphics and voice messages.	Techopedia (2017)	Interactivity and multimedia content for promotions and advertisements.
14	Mobile marketing makes use of features of modern mobile technology such as location services to tailor marketing campaigns based on a customer's location or frequently visited places. Mobile marketing is a way in which technology can promote personalised goods or services to a user who is constantly connected to a network via their mobile device.	Investopedia (2017)	Ubiquity, location services, personalised campaigns and importance of analytics.

2 Growth of mobile marketing

The growing demand for smartphones (which are becoming more affordable across the world), coupled with the strong social network usage has led advertisers to increase their advertisement budgets on mobile alongside traditional media options.

2.1 Growth of mobile phone usage

In the year 2016, mobile internet user penetration has already crossed more than half of the global population, while the average daily time spent accessing online content from a mobile device (smartphone, a tablet computer or wearable devices like smart watches etc.), has reached 185 minutes daily among teenagers, 110 minutes for mostly working professionals in the age group of 25–45 years and 43 minutes for seniors in the age group of 45 years or more (Statista, 2016).

The smartphone industry has grown from 123.9 million units sold in 2007 to \$1,471 million in 2016 (IDC, 2016). Decreasing costs of mobile handsets and data subscriptions, coupled with the low penetration of fixed broadband, have spurred the high

uptake of mobile internet across the world (Kumar and Kumar, 2017). This huge growth in the number of mobile users as well as the number of smartphones has opened up a plethora of opportunities for the marketers. Zenith (2016) estimated that mobile devices will account for 73% of time spent using the internet in 2018, up from 70% in 2017. Owing to this, the marketers are spending a good amount of their total marketing budgets on the mobile-based marketing campaigns with innovative design of these campaigns.

2.2 Growth in mobile advertisement budgets

Organisations across the world are increasing their spending on mobile advertisements and shifting their budgets from desktop/laptop-based marketing to mobile-based marketing channels. As per marketing research firm IAB (2017) report, advertisements delivered on a mobile device had a share of 54% in the total internet advertising revenues in year 2017. Mobile will account for 60.3% of internet expenditure and 23.3% of all expenditure in 2018 (Austin et al., 2016). The mobile advertisement has six year compound annual growth rate (CAGR for 2012–2017) of 76.8% with an year on year growth of 40% in the USA (IAB, 2017). It is also estimated that by year 2019, mobile ad outlays will reach \$82.31 billion – eclipsing TV by \$6.29 billion (McNair, 2017). These figures in turn, provide a very high motivation towards the mobile marketing campaigns.

2.3 Growth of mobile apps

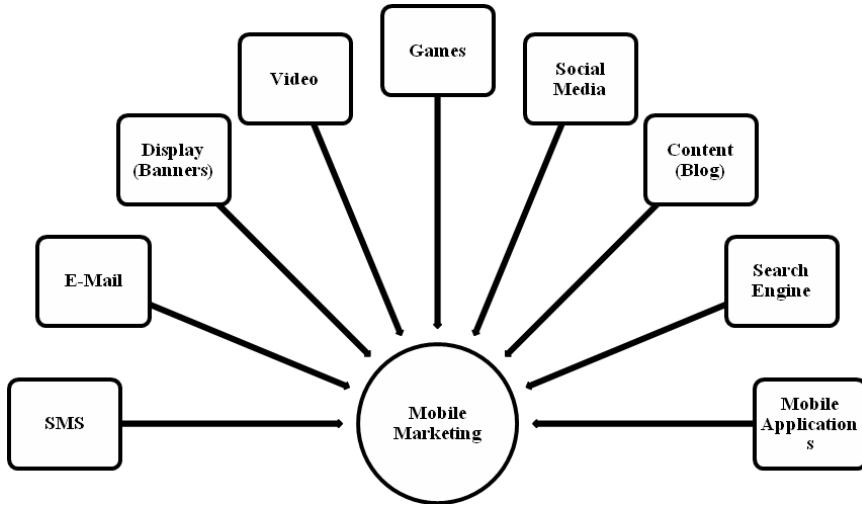
Mobile apps have become the latest tool for the businesses to interact with their customers repeatedly. The mobile apps are relatively easier to create than computer apps and they are affordable for the organisations too, because of which large number of apps are being launched every year. Mobile users are able to choose from more than 3.8 million apps from the android store and among 2 million apps from the Apple's app store as on March 2018 (Statista, 2018). Usage of mobile apps is finding a variety of applications, ranging from fitness to animated gaming. With the growing popularity of mobile and availability of faster and affordable internet, the applications-based revenue has recorded rapid growth. There are multiple ways for generating revenue by apps like charging a small amount for every download or payment for upgrade from a free demo version. Users are also excited to pay for some special features or virtual objects in the mobile gaming environments etc. While user may not be ready to spend money on paid apps before experiencing them, upgrade on payment basis from free application to a more enhanced or ad-free version is also popular. Total consumer spend through Google Play, the iOS App Store and third-party android stores has more than doubled over the past two years to over \$86 B (App Annie, 2018). Data analytics organisation Statista has also predicted that in-app advertising revenues are set to reach 117.2 million USD in the year 2020, up from 40.5 billion USD in year 2015 (Statista, 2017).

3 Mobile marketing channels

Mobile phones have evolved with time and starting from SMS and voice calls, they have provided multiple channels to reach out to the customers. Mobile internet opens up all internet specific channels now accessible on smartphones with bigger screens and much

improved computing powers than the feature phones. Effective mobile advertising means understanding the audience, designing content with mobile platforms in mind, and making strategic use of SMS/MMS marketing and mobile apps (Marketo, 2016). Common understanding of the term mobile marketing is largely device centric, which revolves around the marketing activities performed on the mobile phones and tablets. Hence, depending upon the particular focus of the marketer, strategy of the marketing campaigns may involve one or more channels. Most prominent mobile marketing channels have been shown in Figure 1.

Figure 1 Mobile marketing channels



3.1 Display marketing

Display marketing involves the digital banners, which have resemblance to the traditional banners/poster for branding and awareness campaigns. Banners of various sizes are displayed on the popular mobile apps, web portals with high number of visitors or the domain relevant websites like Yahoo (general web portal), Shiksha (education portal), Cardekho.com (automobiles web portal) etc. Most of the websites have their mobile friendly layouts and show these banners prominently. Large numbers of mobile users are browsing these websites on their mobile phones. These banners showcase the new offerings, CSR campaigns, and special deals and discounts etc. With their interesting graphics, real-time pictures and rich multimedia content (animations, gif etc.), they attract the customers and result in to effective marketing campaigns. Mobile banners, although less effective than video, can benefit when placed in contextually relevant environments (e.g., related magazine or newspaper article). The AT&T study provided early evidence that larger banners were more efficient for driving awareness, compared with the smaller 'pencil' mobile banners. AT&T, Coca-Cola, and Walmart findings also demonstrated that the banners have a 'linear' relationship with frequency, which meant that additional exposures to the banners to build more impact, even at a higher frequency (Bakopoulos et al., 2017). Selection of the right mobile app or website, colours, graphics quality and

content quality are major challenges for the success of display marketing on mobile phones.

3.2 *Video marketing*

The popularity of mobile-based video platforms is increasing day by day. YouTube (2018) has now more than one billion users worldwide. YouTube has also been the leading video streaming app in USA and UK in terms of active users (Techcrunch, 2017). At the same time, videos are also playing important role for businesses. 80% of millennials consider video content, when researching a purchase decision (O'Neill, 2015). Revenue of top video mobile apps is also increasing as the customers are finding it convenient to pay for subscription-based services via the video apps. This has opened-up a large set of opportunities in video marketing area. Taking this into account, Instagram increased its max video length to 60 seconds, Twitter implemented live video streaming, whereas Facebook launched Facebook Live. These videos grab the user attention and serve the interstitial or superstitial advertisements to the viewers.

3.3 *Games-based marketing*

In the year 2018, with more than 2.3 billion active gamers in the world, the games market was projected to reach \$137.9 billion. For the first time, mobile gaming will contribute more than half of all revenues, with smartphone and tablet gaming growing +25.5% year on year to \$70.3 billion (Newzoo, 2018). The smartphone gaming market had revenue of approximately \$46 billion globally in year 2017. Mobile gaming brings almost the similar revenue within the similar time too as Hollywood movies. For example, the movie Avatar raised \$3.18 billion in 55 months, whereas Clash of Clans brought in \$3.84 billion over the same time (Newzoo, 2016). By adding gaming elements to the marketing mix, the marketers can harness the power of play to boost sales.

In-game advertising considers embedding of products and corporate brands within computer or video games. There are two types of in-game advertising. Static ads are fixed in the game and cannot be lately removed, which are the major disadvantage of static ads (Terlutter and Capella, 2013). Dynamic ads are replaceable and hence they can be used to express up-to-date information. They allow the incorporation of new advertising messages, which prevents obsolescence of advertisements (Nelson, 2002). Advertising games are designed for the special purposes of promoting certain brands or products. Terlutter and Capella (2013) noted that the major advantages of games are: short time necessary for playing, possibility to play during breaks and effectiveness due to ubiquity. However, they are sometimes criticised for unethical nature since many of them may promote unhealthy products (Štavljanić et al., 2017).

3.4 *Social media marketing*

With the growing user base and high level of engagement, social media has emerged as a prominent tool of marketing. 80% of the social media time is spent on mobile phones, however, the question of how to translate this into revenue has often been unclear. Instagram launched Instagram Stories in the year 2016, as well as a suite of easy-to-use advertising and analytics tools. Within the next three months, Instagram's share of

iPhone ad impressions on the Facebook ad network increased by over 50%. Social media platforms offer different ways of marketing for the advertisers, right from company pages, interest groups, banner advertisements, embedded videos or social media platform-based games (e.g., Farmville) to direct sales activities (subscribe and buy online). Social media mobiles apps like Facebook Messenger, Whatsapp, WeChat and Telegram have been added for person to person communication. From customer engagement, branding, product launch to customer research, social media platforms present tremendous opportunities to the marketers.

3.5 Content marketing

According to the Content Marketing Institute (2018), “content marketing is the marketing and business process for creating and distributing relevant and valuable content to attract, acquire, and engage a clearly defined and understood target audience – with the objective of driving profitable customer action.” Content (popularly known as blog) were the first major product of internet in the 1970s till 1990s, being utilised by the researchers and scientists to share their findings and collaborative work. Advertisers have a great opportunity to write stories, product utility and provide the insights which are otherwise not possible in other channels. Today, content marketing is practiced not only by large corporations like P&G, Microsoft, Cisco Systems, and John Deere. It is also developed and executed by small businesses and one-person shops around the globe.

3.6 Search marketing

Mobile phone is always on and is very handy to the customers. They can always pull out the mobile phone and search for the information which might excite them. Users can enter the search query using the qwerty keyboard, or they can speak the query, which is recognised by the search engine and best matching results along with some sponsored links are shown as output. These unique features make search marketing over mobile phones even more attractive for the advertisers in comparison to laptops or desktop. Basic strategy to tap this opportunity involves making the websites more mobile friendly and optimise the content for the search engines. Special mobile friendly website version or the responsive websites are important for the advertisers. Advertisers need to consider the organic as well as paid advertisements for increasing the effectiveness of their campaigns.

3.7 In-app advertisements

With the growing types and number of apps, marketers have a new channel for mobile marketing campaigns. Apps for social media, ecommerce, news and games, etc., have opportunity for the banners, sponsored content and interactive forms/survey and animations. Marketers can showcase their content to this channel and get additional revenues. App developers too have an opportunity to create space for accommodating these marketing contents. Global average share of mobile-only users hovered around 30%. According to the analytics company Comscore, Indians spent 89% of all their online minutes on a phone. Indonesia (87%), Mexico (80%), and Argentina (77%) were the other markets that were spending most of their online time on mobile phones (Times of India, 2017). This affinity towards in-app immediately changed the industry's

ad spend model. For example, Facebook went from virtually no mobile advertising revenue to earning 41% of overall revenue through mobile app in 12 months. Other than the mobile commerce, the mobile app-based advertisements contribute a major share in the revenue. This revenue from video and display advertisements in the gaming and non-gaming apps is significant for the developers and also highlights the acceptance of the mobile-based apps as a platform from the marketers for showcasing products to customers.

3.8 Short message services (SMS) marketing

SMS services became dominant with the growth of mobile communication in the initial years. Marketers as well as customers consider SMS as easy, cost-effective and very much result oriented. These messages are not dependent on the internet and hence suitable for the customers of feature phones as well. In the modern times, SMS might include some links to websites or mobile app download along with the normal text. Many brands and advertising companies include text message numbers in their advertisements to enable interested consumers to obtain more information. This mode of advertising takes advantage of valuable channels of wireless communication to enhance customer relationships, and to carry out direct marketing and promotional activities (Frolick and Lei-Da, 2004). SMS presents the opportunity to share the small text (140–160 characters) about the product/service, which may result in a reply message or a purchase decision. SMS advertising was also reported as a very effective communication medium for marketers and in future also it has rapid growth prospects. This is very much suitable for both the pull and push promotions, and allow marketers to maximise campaign effectiveness (Frolick and Lei-Da, 2004; Roozen and Genin, 2008).

3.9 E-mail marketing

Smartphones are the primary device for checking personal e-mails and all the e-mail service providers have their mobile apps. Modern day marketers need to rethink their e-mail marketing strategy to account for where, when, and how the target audience is engaging with the e-mail marketing campaigns sent by them. Growing popularity of iPhone, android, and tablet devices means that businesses must adopt a 'mobile-first' strategy. 75% of the customers prefer to use mobile phones for regularly checking their e-mails and this number is very close to the desktop or laptop (79%) due to more respondents using desktops/laptops for accessing their official e-mails (Dietzen, 2017). When it comes to personal e-mail, which is ideal for the marketers, the preference of the mobile phone is more. Marketers get an opportunity to share the more detailed information as well as embed the links to their apps/website within the e-mail body.

4 Opportunities and challenges

The ability to make a highly personalised offer, to a highly targeted audience, at the most opportune time has been the major challenge for the marketer for long time, but the mobile technology has made it attainable. There are some great opportunities in terms of localisation, user preferences, timeliness, personalisation, on demand and accessibility.

On the other hand, marketers have been facing challenges in the form of security of transaction, privacy of user information and designing the non-intrusive advertisements. Many of the studies earlier in this decade focused on technology related issues of mobile advertising (Saladow, 2012; Li and Du, 2012) rather than on the influence of recipient's attitude toward the mobile advertising of specific brand or products. As per some researchers, marketers need to check how the factors in mobile advertising can positively affect consumers' attitude or purchase intentions for the products advertised (Nittala, 2011). The major factors researched regarding the effects of mobile advertisements include users' product involvement (Drossos and Fouskas, 2010), type of message service shared with the users (SMS versus MMS) (Koo et al., 2012), design attributes like colour/copy/content and style of mobile advertising (Chen and Hsieh, 2012), kinds of products advertised (Ma et al., 2009), and devices in mobile advertising for consumers' privacy concerns (Hardt and Nath, 2012). Therefore, some researchers indicated the need for more diverse discussions regarding as to how and what one can guarantee in order to produce better effects of mobile advertising (Kolsaker and Drakatos, 2009).

Since there are various types of mobile advertisements and stiff competition among mobile advertisements, there is a clear need for research dealing with the effects of mobile advertising (Nittala, 2011). The most important opportunities and challenges include:

4.1 Permission-based marketing

Inaccurate, improper, or irritating information can reduce the efficiency and trust of any media. A business therefore needs to avoid the marketing campaigns becoming spams. Customer demands, expectations, and objectives have been the driving force of mobile marketing, while the fundamental demand was 'receiving agreement'. Mobile marketers need to make strategy to ensure that the customers are not irritated by unwanted notifications on their mobile screens. Permission of the customer is a critical component of a successful mobile messaging campaign. Asking the audience clearly for permission to send them the marketing content will help distinguish these campaigns from spam. More popular in the e-mail world, SPAM in mobile marketing framework (unwanted SMS, e-mail, banners etc.) is a far more sinister threat to undermining the value of permission-based marketing.

People are accustomed to being asked whether they would like to receive additional offers/news when downloading content from the web, managing notifications or even receiving SMS, e-mail and push notifications. However, the number of messages they can receive in a day, topics of messages, time of day for receiving these messages becomes very much important. This selection or permission will result in happy and satisfied consumers. Rather than asking customers for permissions to track their locations or to get consent about pushing them some ads messages, companies can ask them to sign up a location specific list or SMS list. This selection or opt-in process mostly followed in the e-mail marketing is even more critical in the mobile marketing. Each campaign should feature a quick and easy opt-out process. Most important concerns and their possible solutions have been presented in Table 2.

Table 2 Concerns in permission-based marketing

<i>Concerns</i>	<i>Results</i>	<i>Solution</i>
Inaccurate, improper information, unwanted messages (spam)	Irritation, blocking	Permission-based marketing Opt-in and opt-out
Campaign relevance, location sensitive and timeliness	Negative branding, irritation, blocking, rejection, ignorance	Behavioural analytics and profiling of customers to identify the preferences proximity, IP address or other technical tools for location specific campaigns Timely delivery of campaigns and providing the convenience of transaction completion
Privacy issues	Customer uneasy to complete transaction Risk of identity theft Hacking	Clear policy about the data collection and usage Code of conduct Ethical guidelines
Security concerns	Frauds	Security strategy IP-based location tracking Admin control for content access Identity management and encryption
Personalisation	Better conversions Brand recall	Location mapping Behavioural analytics
Effective campaign tracking	Check and balance Optimising the marketing spend A/B testing	Availability of campaign statistics Real-time monitoring Re-design or re-orient the campaigns

4.2 Campaign relevance, location sensitive and timeliness

Marketers need to use the mobile devices to share the right information, at the right time, relevant information to the target customer. For the modern advertisers, it is imperative to understand the intent and motivation of customer before deciding the how and where to best engage with those customers on mobile platforms. The possibilities for targeted marketing on mobile are huge, and mobile engagement can further improve with the power of artificial intelligence (AI) and mobile analytics.

Once the marketer knows the preferences and details like location of customer, they can send a push notification via an app to keep the customer updated on the status of an order or send a promotional offer when the customer is near a favourite brand's brick-and-mortar location. Proximity or location-based marketing involves interacting with customers in local areas on mobile devices. QR codes, bluecasting and social interactions through Foursquare, Gowalla, Facebook places and Google hotspot are good examples of the same.

Mobile marketing channels enjoy the strength to marketers with immediacy and timeliness. There are specific times that would be best to target the niche audiences. For example, users searching for restaurants on mobile phones often make immediate

transactions. The 85% of these users convert within a day of researching for the restaurant deals on mobile phones. Similarly, in the auto industry, nearly 49% of searchers show purchasing intent when they look for information, and over half of those people end up buying the same day they investigated their options (Jones, 2016).

4.3 Privacy

Privacy of the data, collected by various mobile applications and websites is a widespread issue. Many a times the user is doubtful whether or not these websites or the mobile applications have the legal right to record their personal or transaction data without explicit consent. This data can be used by companies or the hackers for identity theft or spamming, risking the individual as well as financial information of the users. Also, tracking of individual's locations and movements over the websites/apps may be considered crossing the line by some (Investopedia, 2017). Data has a great importance in the marketing world and companies invest heavily in acquiring and maintenance of its data assets. More data about customers helps the companies in providing better information and services, resulting in increase in sales and profits. Mobile apps and website need to give a choice to the customers to make them more comfortable about sharing their data. Marketer can give option for hiding the identity of the users, which gives him an opportunity to specify the locations for which he is willing to reveal his position (Xu, 2009).

4.4 Security

Security has always remained a challenge for the ICT-based tools and the same is applicable to the mobiles as well. For mobile marketing strategy of organisations, security of sensitive data and systems should be among the priority areas. The mobile applications security strategy should be formalised and present early in the development lifecycle, rather than a consideration that is addressed in later stages (Clearbridgemobile, 2017). One of the possible threats to consumers is stealing their identities or using their information anonymously for the fraudulent and other purposes. Cheating or providing a fake location by the consumer is another threat. Different researchers have suggested various techniques for enhancing the security of location related information.

Balakrishnan et al. (2009) suggested 'address mapping' to geo-locate IP addresses to locate mobile phones. Address mapping can be used anywhere, and easy to implement at low cost by the business owners. As a real example of location cheating, Foursquare encountered some cases of the basic cheating method which worked in its early days. As a solution, Foursquare has adopted the cheater code to defend against the location cheating attacks which verifies the location of a device by using the GPS function of that device (Balakrishnan et al., 2009). In the 'bring your own device' (BYOD) model, mobile device management (MDM) solution (like SOTI or Airwatch) are really essential. These solutions create a sandbox, where the enterprise apps are stored and operated. These solutions allow the administrator to set compliance requirements, remotely wipe data, control the overall functioning of the devices. Iand control access of content by employees. Administrators can disable native apps, allow only trusted apps, remote device locking, and other techniques implemented. Generally all MDM solutions have data encryption, certificate underpinning, and strong authentication measures for the mobile security strategy. Strong authentication and authorisation mechanisms with

privacy, session management, identity management and device security features should be enforced along with the common usernames and passwords.

4.5 Personalisation

Personalised mobile experiences drive conversions, improve customer retention and make the marketing campaign more impactful. Particularly in mobile commerce, personalisation has been not just limited to welcome messages, but product recommendations, offers, articles, and promotions too. A mobile phone represented the 'individual' of the user. Background data of the mobile phone user is very important and it supports effective personalised marketing. While many brands are struggling to use mobile measurement to gain a holistic view of the customer, many are pioneering and changing the game for the rest.

In the recent years, companies have increasingly used the behavioural targeting, and personalisation tools and techniques for mobile optimisation. Standard web analytics are insufficient, when it comes to optimising consumers' mobile moments. While 43% of organisations offer a personalised experience to desktop users, but only 13% deliver the same level of personalisation to mobile users (Econsultancy, 2013). It results in missing the opportunity to maximise the impact of their mobile outreach. There are a number of ways to make the mobile experience personal for the intended audience. Offerings can be tailored on the basis of user's actual location, offering information or offers that apply only to that specific area (Segal, 2013). The more personalised mobile marketing campaigns certainly offer high potential impact.

4.6 Effective campaign tracking

Marketers can use the statistics for measuring effectiveness of their campaigns and hence optimising their campaigns on a very regular basis. Mobile marketing service providers should provide online reporting tools for campaign tracking. Various metrics should be viewable at both the aggregate and individual user levels. Captured statistics should include aggregate data: polling tallies, survey results, total messages sent, total messages delivered, total opt-ins, total opt-outs, next action of the user, clickstream, conversion to final objective (purchase/subscription/enrolment etc.). Individual customer data can also be captured, including: opt-ins/outs, forwarding, viral messages sent, delivery confirmation, date and time of opening, trail of visits, geographical location etc. E-mail marketing, SMS marketing, search engine paid campaigns (pay per click), affiliate marketers (banners) and social media platforms have options for the tracking of campaigns.

5 Conclusions

Mobile marketing campaigns have already acquired an important role in the overall marketing strategy of companies. A number of mobile phone-based marketing channels are available to the marketers and have significantly proved their importance. A right mix and preference of the suitable mobile marketing channel is very much important to design

a successful mobile marketing campaign. Challenges like customer response, tracking their actions, offering and changing personalised campaigns are very much important to ascertain the adequate return on investment as well as to customer retention. Marketers need to keep exploring the technological innovations like mobile analytics, enhanced security and privacy mechanisms. The availability of customer profiles, locations and other statistics enables the marketers to do better customer profiling and targeting as well as identifying changing preferences of the users. In the development of mobile website and application, e-mail or banner creative or using any third party plugin, due diligence is needed as any mistake or negligence can affect overall success of marketing campaigns. Mobile marketing is important and has the potential but it needs the regular monitoring, updates and control measures.

References

- App Annie (2018) *2017 Retrospective* [online] <https://www.appannie.com/en/insights/market-data/app-annie-2017-retrospective> (accessed 1 March 2018).
- Austin, A., Barnard, J., Hutcheon, N. and Parry, D. (2016) *Media Consumption Forecasts 2016* [online] <https://communicateonline.me/wpcontent/uploads/2016/06/Media-Consumption-Forecasts-2016.pdf> (accessed 3 March 2018).
- Bakopoulos, V., Baronello, J. and Briggs, R. (2017) 'How brands can make smarter decisions in mobile marketing: strategies for improved media-mix effectiveness and questions for future research', *Journal of Advertising Research*, Vol. 57, No. 4, pp.447–461.
- Balakrishnan, M., Mohamed, I. and Ramasubramanian, V. (2009) 'Where's that phone?: geolocating IP addresses on 3G networks', in *Proceedings of the 9th ACM SIGCOMM Conference on Internet Measurement*, ACM, pp.294–300.
- Chen, P.T. and Hsieh, H.P. (2012) 'Personalized mobile advertising: its key attributes, trends, and social impact', *Technological Forecasting and Social Change*, Vol. 79, No. 3, pp.543–557.
- Clearbridgemobile (2017) *State of the Nation: Enterprise Mobility Outlook 2017* [online] <https://clearbridgemobile.com/wp-content/uploads/2017/02/StateOfTheNation2017.pdf> (accessed 1 January 2018).
- Content Marketing Institute (2018) *What is Content Marketing?* [online] <http://contentmarketinginstitute.com/what-is-content-marketing/> (accessed 30 September 2018).
- Dietzen, R. (2017) *Email Use 2017 – EMEA Report* [online] https://blogs.adobe.com/digitaleurope/files/2017/08/20170815_Email2017_EMEA_Report.pdf (accessed 21 March 2018).
- Drossos, D.A. and Fouskas, K.G. (2010) 'Mobile advertising: product involvement and its effect on intention to purchase', in *2010 Ninth International Conference on Mobile Business and 2010 Ninth Global Mobility Roundtable (ICMB-GMR)*, IEEE, pp.183–189.
- Econsultancy (2013) *The Realities of Online Personalization* [online] <http://econsultancy.com/uk/reports/the-realities-of-online-personalisation-report/downloads/5686-sample-econsultancy-the-realities-of-online-personalisation-pdf> (accessed 2 January 2018).
- Frolick, M.N. and Lei-Da, C. (2004) 'Assessing m-commerce opportunities', *Information Systems Management*, Vol. 21, No. 2, p.53.
- Grewal, D., Bart, Y., Spann, M. and Zubcsek, P.P. (2016) 'Mobile advertising: a framework and research agenda', *Journal of Interactive Marketing*, Vol. 34, pp.3–14.
- Hardt, M. and Nath, S. (2012) 'Privacy-aware personalization for mobile advertising', in *Proceedings of the 2012 ACM Conference on Computer and Communications Security*, ACM, pp.662–673.

- IAB (2017) *IAB Internet Advertising Revenue Report* [online] <https://www.iab.com/wp-content/uploads/2017/12/IAB-Internet-Ad-Revenue-Report-Half-Year-2017-REPORT.pdf> (accessed 10 May 2018).
- IDC (2016) *Data Tracker Database on the Smartphone Industry, 2005–2015*, International Data Corporation, Boston, MA.
- Investopedia (2017) *Mobile Marketing* [online] <https://www.investopedia.com/terms/m/mobile-marketing.asp> (accessed 23 November 2017).
- Jones, M. (2016) *Relevance and Timeliness is Essential in Mobile Marketing* [online] <https://www.coxblue.com/relevance-and-timeliness-is-essential-in-mobile-marketing/> (accessed 25 November 2017).
- Kaplan, A.M. (2012) 'If you love something, let it go mobile: mobile marketing and mobile social media 4×4 ', *Business Horizons*, Vol. 55, No. 2, pp.129–139.
- Kolsaker, A. and Drakatos, N. (2009) 'Mobile advertising: the influence of emotional attachment to mobile devices on consumer receptiveness', *Journal of Marketing Communications*, Vol. 15, No. 4, pp.267–280.
- Koo, W., Knight, D.K., Yang, K. and Xiang, Z. (2012) 'Generation Y consumers' value perceptions toward apparel mobile advertising: functions of modality and culture', *International Journal of Marketing Studies*, Vol. 4, No. 2, p.56.
- Kumar, S. and Kumar, V. (2017) 'Technology integration for the success of B2C M-commerce in India: opportunities and challenges', *IUP Journal of Information Technology*, Vol. 13, No. 1, pp.24–35.
- Lee, C.C., Cheng, H.K. and Cheng, H.H. (2007) 'An empirical study of mobile commerce in insurance industry: task-technology fit and individual differences', *Decision Support Systems*, Vol. 43, No. 1, pp.95–110.
- Leppaniemi, M. and Karjaluo, H. (2005) 'Factors influencing consumers' willingness to accept mobile advertising: a conceptual model', *International Journal of Mobile Communications*, Vol. 3, No. 3, pp.197–213.
- Leppäniemi, M., Sinisalo, J. and Karjaluo, H. (2006) 'A review of mobile marketing research', *International Journal of Mobile Marketing*, Vol. 1, No. 1, pp.30–40.
- Li, K. and Du, T.C. (2012) 'Building a targeted mobile advertising system for location-based services', *Decision Support Systems*, Vol. 54, No. 1, pp.1–8.
- Ma, J., Suntornpithug, N. and Karaatli, G. (2009) 'Mobile advertising: does it work for everyone?', *International Journal of Mobile Marketing*, Vol. 4, No. 2, pp.28–35.
- Marketo (2016) *What is Mobile Marketing?* [online] <https://www.marketo.com/mobile-marketing/> (accessed 26 December 2017).
- McNair, C. (2017) *US AD SPENDING: the eMarketer Forecast for 2017* [online] https://murphyucladigitalanalytics.files.wordpress.com/2017/03/emarketer_us_ad_spending-the_emarketer_forecast_for_2017.pdf (accessed 10 May 2018).
- Mobile Marketing Association (2009) *MMA Updates Definition of Mobile Marketing* [online] <http://www.mmaglobal.com/news/mma-updates-definition-mobile-marketing> (accessed 29 December 2017).
- Nelson, M.R. (2002) 'Recall of brand placements in computer/video games', *Journal of Advertising Research*, Vol. 42, No. 2, pp.80–92.
- Newzoo (2016) *2016 Global Mobile Market Report* [online] http://resources.newzoo.com/hubfs/Reports/NEWZOO_2016_Free_Global_Mobile_Market_Report.pdf?hsCtaTracking=3e77290a-7910-4fb4-b1f3-ad764fa40e5c%7C7749642c-792d-4d04-97bf-672e849b236a (accessed 15 March 2018).
- Newzoo (2018) *Newzoo's 2018 Report: Insights into the \$137.9 Billion Global Games Market* [online] <https://newzoo.com/insights/articles/newzoos-2018-report-insights-into-the-137-9-billion-global-games-market/> (accessed 12 August 2018).

- Ngai, E.W. and Gunasekaran, A. (2007) 'A review for mobile commerce research and applications', *Decision Support Systems*, Vol. 43, No. 1, pp.3–15.
- Nittala, R. (2011) 'Registering for incentivized mobile advertising: discriminant analysis of mobile users', *International Journal of Mobile Marketing*, Vol. 6, No. 1, pp.42–53.
- Nysveen, H., Pedersen, P.E. and Thorbjørnsen, H. (2005) 'Intentions to use mobile services: antecedents and cross-service comparisons', *Journal of the Academy of Marketing Science*, Vol. 33, No. 3, pp.330–346.
- O'Neill, M. (2015) *Millennials Love Video (And Why You Should Too)* [online] <https://animoto.com/blog/business/millennials-video-infographic/> (accessed 31 May 2018).
- Peters, C., Amato, C.H. and Hollenbeck, C.R. (2007) 'An exploratory investigation of consumers' perceptions of wireless advertising', *Journal of Advertising*, Vol. 36, No. 4, pp.129–145.
- Roozen, I. and Genin, E. (2008) 'Can we compare SMS marketing to traditional marketing communications', *Hub Research Paper*, Vol. 50, pp.1–29.
- Sadeh, N. (2003) *M-Commerce: Technologies, Services, and Business Models*, John Wiley and Sons Inc. New York, NY, USA.
- Saladow, K. (2012) 'The iPhone/android hits the DR market', *Response*, Vol. 20, No. 12, pp.46–51.
- Scharl, A., Dickinger, A. and Murphy, J. (2005) 'Diffusion and success factors of mobile marketing', *Electronic Commerce Research and Applications*, Vol. 4, No. 2, pp.159–173.
- Segal, C. (2013) *5 Keys for a Successful Mobile Marketing Strategy* [online] <https://www.coxblue.com/5-keys-for-successful-mobile-marketing-strategies> (accessed 2 January 2018).
- Shankar, V. and Balasubramanian, S. (2009) 'Mobile marketing: a synthesis and prognosis', *Journal of Interactive Marketing*, Vol. 23, No. 2, pp.118–129.
- Soroa-Koury, S. and Yang, K.C.C. (2010) 'Factors affecting consumer's responses to mobile advertising from a social norm theoretical perspective', *Telematics and Informatics*, Vol. 27, No. 1, pp.103–113.
- Standing, C., Benson, S. and Karjaluoto, H. (2005) 'Consumer perspectives on mobile advertising and marketing', in *Australian and New Zealand Marketing Academy Conference (ANZMAC)*, Perth, Australia, pp.135–141.
- Statista (2016) *Average Daily Time Spent Online Via Mobile by Internet Users Worldwide as of 2nd Quarter 2016, by Generation* [online] <https://www.statista.com/statistics/428425/daily-time-spent-online-mobile-age/> (accessed 10 August 2018).
- Statista (2017) *Worldwide Mobile App Store Revenues in 2015, 2016 and 2020 (in Billion U.S. Dollars)* [online] <https://www.statista.com/statistics/220186/total-global-in-app-revenue-forecast/> (accessed 10 August 2018).
- Statista (2018) *Number of Apps Available in Leading App Stores as of March 2018* [online] <https://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores/> (accessed 10 August 2018).
- Štavljanin, V., Cvijović, J. and Kostić-Stanković, M. (2017) 'Research of indirect advertising in video game industry', *Industrija*, Vol. 45, No. 4, pp.113–132.
- Techcrunch (2017) *YouTube's App is Dominating Mobile Video by Monthly Users, Time Spent* [online] <https://techcrunch.com/2017/09/13/youtubes-app-is-dominating-mobile-video-by-monthly-users-time-spent> (accessed 21 February 2018).
- Techopedia (2017) *Mobile Marketing* [online] <https://www.techopedia.com/definition/14047/mobile-marketing> (accessed 23 November 2017).
- Terlutter, R. and Capella, M.L. (2013) 'The gamification of advertising: analysis and research directions of in-game advertising, advergames, and advertising in social network games', *Journal of Advertising*, Vol. 42, Nos. 2–3, pp.95–112.
- Times of India (2017) *We Use 90% of Online Time on Phone* [online] <https://timesofindia.indiatimes.com/india/we-use-90-of-online-time-on-phone/articleshow/63837903.cms> (accessed 12 February 2018).

- Vibes (2017) *Personalization and the Era of Individualized Mobile Experiences* [online] [https://vibes-marketing.s3.amazonaws.com/Website/Reports_\\$/Vibes-Personalization-Era-Of-Individualized-Mobile-Experiences.pdf](https://vibes-marketing.s3.amazonaws.com/Website/Reports_$/Vibes-Personalization-Era-Of-Individualized-Mobile-Experiences.pdf) (accessed 10 May 2018).
- Xu, H. (2009) 'Consumer responses to the introduction of privacy protection measures: an exploratory research framework', *International Journal of E-Business Research (IJEER)*, Vol. 5, No. 2, pp.21–47.
- Youtube (2018) [online] <https://www.youtube.com/intl/en-GB/yt/about/press/> (accessed 31 May 2018).
- Zenith (2016) *Advertising Expenditure Forecasts September 2015* [online] <http://zenithmedia.se/wp-content/uploads/2016/10/Advertising-Expenditure-Forecasts-September-2016.pdf> (accessed 13 March 2018) ISSN: 0968-2163 (print), ISSN: 2053-4930 (online).