FACTORS INFLUENCING CONSUMERS' ACCEPTABILITY OF MOBILE MARKETING IN THE NEW ERA OF GLOBALIZATION: A STUDY CONDUCTED IN KOLKATA

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Abstract:

Mobile devices have become increasingly popular to be used as marketing channel for all types of organizations in India in the recent years. The marketing strategists are being influenced for promoting their products or services through dissemination of relevant information to convince the consumers who are mobile users. The ready availability of smart phones at affordable prices, its portability, attractive 3G/4G data packs provided by the mobile service providers, and free downloadable mobile apps encourage the common mass for the choice of mobile based marketing or m-commerce (online buying and selling through mobile phones) rather than through the use of traditional internet via desktops, laptops, or notebooks. On the other hand different companies choose mobile phones as an alternate media other than traditional form of marketing through internet, telecalling, TV channels, newspapers, posters, hoardings and displays with the aim to maximize its effectiveness by reaching the more number of customers who are mobile users. The aim of the paper is to study different factors that influence the acceptability and adoptability of mobile marketing in the Indian context.

Keywords: Marketing Channel, Smartphones, Mobile Marketing, M-Commerce, Internet, Mobile Apps, Service Provider.

Introduction:

Marketing professionals have been trying their best to align their strategy and integrate their tactics to efficiently match with the customers' needs which are being reflected from the evolving behavior patterns and habits of the consumers. With the rapid development and upgradation in mobile technology, adoption of cellphones, smartphones, and other wireless hand-held devices have gained importance. The concept of ubiquity, i.e. the state of being everywhere at once, has become significant in considering mobile devices as the most ubiquitous personal item in the new era of globalization. Since mobile phone penetration rate and the number of mobile subscribers have tremendously increased, innovative corporate houses that have successfully integrated e-commerce in their business process are ready to implement mobile marketing as the emerging golden opportunity. This would enable them to reach their consumers through new techniques of marketing via new communication channel. The recent developments in mobile technology and mobile communication enable most marketers in scanning the market and developing their content accordingly to reach larger audience and create a new source of revenue.

The study aims at analyzing the factors influencing consumer behavior in their acceptance of mobile marketing in India.

1. Concept of Mobile Marketing

Mobile marketing is a multichnnel online marketing technique aimed at reaching a specific group of mobile users on their cellphones, smartphones, tablets, notes, or any other related devices through SMS, MMS, E-Mails, Social Networking Media or through Websites and Mobile Applications.

More theoretically, the term refers to "any marketing activity conducted through a ubiquitous network to which consumers are constantly connected using a personal mobile device". *(Andreas Kaplan).*

According to the *Mobile Marketing Association*, the worldwide trade association of mobile marketing, mobile marketing can be defined as "a set of practices that enables organizations to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network."

The main objective of mobile marketing is to reach large number of potential customers who are mobile users in order to catalyze promotion of a company's product(s) or service(s) that would make value addition to the customers while enhancing revenue for the company. Sometimes the term "mobile marketing" is misconceptually referred as mobile advertising, mobile commerce or viral marketing etc. Mobile marketing can provide customers with time and location sensitive, personalized information that promotes goods, services and ideas.

Different Facets of Mobile Marketing:

SMS Marketing:

The term SMS stands for Short Message Service. Marketing via SMS through cellphones have been increasingly popular since the early 2000s in the European countries and some countries of Asia when business organizations started collecting mobile numbers of the subscribers from the service providers. The main objective is to dispatch wanted (or unwanted) content in the form of textual, symbolic, pictorial notations that can be easily understandable. Some specific codes were also embedded in the message content with the provision for the mobile users in giving a response for further interaction either through SMS or voice calls.

Over a decade SMS marketing has become a legitimate advertising channel in major parts of the world. This is because the service providers who monitor their own networks have set principles and practices for the companies in using mobile phone as communication media to advertise their products and services. The IAB (Interactive Advertising Bureau) as well as the Mobile Marketing Association (MMA) have established guidelines in giving wide opportunity to the marketers in using the mobile channel.

SMS marketing services typically use a short code, that are 5 or 6 digit numbers assigned by all the mobile operators in a given country especially for the use of brand campaign and other consumer services. Due to the high subscription rates of short codes, a single short code is often shared by many small businesses in order to reduce costs. Every short code application is carefully examined by the mobile operators before purveying and the service is properly monitored to ensure strict adherence to the original service description.

MMS Marketing

The term MMS stands for Multimedia Message Service. Mobile marketing through MMS involves content comprising of text, pictures, audio, video and smiley to be delivered. Nearly all new phones produced with a color screen are capable of sending and receiving standard MMS message. Different brands use the advantage of both sending and receiving rich content through MMS to the mobile subscribers. In some networks, brands are also able to sponsor messages that are sent P2P (person-to-person).

Push Notifications

Push notification is a message that pops up on a mobile device. Such pop-up notifications are delivered through an application software (mobile app) installed in the mobile device

without any permission from the client or the user. They seem to be SMS notifications but they are transmitted only to the users who installed the mobile app. Push notifications were first introduced by Apple in the year 2009 with the Push Notification Service installed in its smartphones. For Android devices, Google developed Cloud to Device Messaging or C2DM in 2010. C2DM was officially deprecated on 2012, and in the year 2013 Google replaced this service with Google Cloud Messaging or GCM. C2DM has been completely shut down in 2015. Push notifications can be part of a well-developed inbound mobile marketing strategy.

Application-based Marketing

Due to high popularity in the use of smartphones, application usage has also greatly increased. On behalf of this, marketers have taken opportunity of smartphone apps as an important resource of mobile marketing. Marketers are aiming to increase the visibility of an app in a store (e.g. for android apps, Google Play Store) with the expectation of more downloads by the users. This allows for direct engagement, payment, and targeted advertising. The growth of a business highly depends upon the wise use of technology and Mobile App Development is one such technology that is benefiting various companies in order to maximize their profits.

In-Game Mobile Marketing

Brands are now delivering promotional messages within mobile games or sponsoring entire games to drive consumer engagement. This is known as mobile advergaming or ad-funded mobile game.

In in-game mobile marketing, advertisers pay to promote their products featured in the mobile games. For instance, racing games can be featured by the brands of real car manufacturers such as Ford Motors or General Motors. Games that use advergaming lead to remember the brands better by the users and this remembrance increases dissemination of the content to their friends, relatives and share them via social networks as recommended by the users. To integrate advertisements with the mobile games, advertisers have been both creative and aggressive in their attempts.

QR codes

QR (**Quick Response)** code is a matrix barcode (or two-dimensional barcode) that allows a customer to visit a web page address by scanning a 2D image with their phone's camera, instead of manually entering a URL. The resultant URL typically includes tracking features that would have been not effective if manually typed by the customer. In 1977 it was approved as an ISS standard pioneered by Denso-Wave for the purpose of tracking automobile parts in Japan. QR codes have been gaining importance in India since last 2-3 years.

Location-based Services

Location-based services are offered by some mobile networks as media to send custom advertisement and other information to mobile subscribers on the basis of their current location. The mobile service providers get the location information from the in-built GPS facility found in most of the smartphones. For the mobile phones having no GPS facility, the location can be tracked using radiolocation and trilateration based on the signal-strength of the closest mobile phone towers. In some countries, where trilateration is not used the location-based service uses a single base station, with a "radius of inaccuracy" to determine a phone's location.

Review of Literature:

Leppaniemi, **M. et al. (2006)** in their paper identified and evaluated the research conducted in the field of mobile marketing between January 2000 and February 2006. The articles that focus on mobile applications towards marketing activities and that fall within the domain of marketing, business, management and information systems were evaluated after uncovering them from different academic, industry and other sources.

Among 50 publications that were categorized as conceptual or empirical, a substantial number of studies have focused on user

behavior and attitudes towards mobile marketing and the gaining importance of the effectiveness of mobile as a new area of research. The discussion in this review can be considered as a reference guide and several key areas such as integrated marketing communications, mobile specific metrics, mobile marketing value system, trust in mobile marketing, and issues related to mobile marketing technology were assessed for further research.

Ismail, Md. et. al (2011) elucidated the major classification of the research in mobile marketing that provided a trend and common approach in mobile marketing research. Approximately 46 journals published between 2005 until 2010 were reviewed to identify some common areas that triggered consumers in the adoption of mobile marketing. Although the concept and phenomenon of mobile marketing remain unexplained, the review provided the basic road map for researchers to focus on significant areas in the field of mobile marketing to identifying the research trend and categorize those areas that would help in product and service design to point the target market. Categorization was base on the following:

General – Definition and concept

Strategy – Mobile marketing strategies, tools and applications

Consumer Behaviour – Attitudes & perception of the consumers towards mobile marketing, acceptance & adoption of the same and consumers' satisfaction and loyalty towards mobile marketing

Legal and Public Policy – trust, privacy, legal and political issues

Lamarre, A. et. al (2012) provided a direction for future research in Mobile Marketing. A research agenda was developed based on the frequency of Mobile Marketing articles published between 2008 and 2010. It was analyzed that among 126 articles published, 27 were Theory based, 38 were Strategy based, 53 were based on Consumer Behaviour and 78 were based on Legal Issues and Public Policy. Consumer Behavior based articles were focused for further research and were sub-categorized as articles based on (1) Acceptance & Adoption, (2) Trust, (3) Satisfaction & Loyalty, (4) Attitudes and (5)Value Creation. The articles categorized under Acceptance & Adoption dealt with SMS, Mobile Advertising, Mobile Shopping, Conceptual and, Technology. It has been concluded that the quantity of mobile marketing research is generally stable and gaining widespread interest. It is an emerging research area that presents an optimistic view of encouraging future opportunities of mobile marketing.

Moertini, V. S. et. al (2012) in the research aimed to develop a software model of e-commerce mobile marketing system, to be integrated with computer-based information system that addresses the criteria of consumers' acceptance and recommendation of the same. There were 13 criteria such as Customer Permission, Ease of use, Usefulness, Relevant content & personalization, Compelling Content, Timely/up-to-date content, Services compatible with customers life styles or habits, Location aware advertising, increasing gains in shopping performance, Incentive & rewards, Enhancing customers image, Interpersonal and external influence & social network, Security and privacy protection. The model was presented in the form of business model, system procedures, network topology, software model of the website and mobile application, and database models. The CBIS model must incorporate two sub-International systems – (1) the website used by the service provider and merchants, and (2) a mobile application used by mobile users. The organizations with e-commerce may adopt and work further with the proposed m-commerce model as an independent system to support product marketing activities. This model can be customized and configured to align with the business model and procedures.

Latto, J (2014) emphasized that in the recent years most organizations are implementing Mobile devices as a media for marketing communication and are becoming increasingly popular. These initiate marketers in conveying relevant marketing information for the consumers based on location, purchase history, time and technology available. It has been stated that mobile marketing will replace or may consolidate with traditional internet marketing since mobile phones are becoming a handy tool for internet access by the consumers. The study depicted the reasons to study mobile marketing, its technologies and its relations with traditional marketing channels. Through mobile marketing companies can sought better returns on marketing investments since traditional form of marketing has become less effective in targeted one-to-one marketing. Companies can even generate negative feedback from the consumers, to improve their strategies in delivering the best products or services.

Roushan, R. et. al (2015) emphasized that Smartphones on the account of declining price, low tariffs, greater bandwidth and faster connectivity has invoked the marketers and mobile marketing has become one of the best platforms for advertising, brand awareness, promotions and reaching the customers. Mobile marketing has become much more effective than that of conventional method of marketing communication. To understand the consumers' acceptance and behavior in the Indian context towards mobile marketing communication, the paper demonstrates the variations of acceptance and attitude with gender, age, city, education, profession and income groups. The research reveals that the penetrations of mobile phones are much greater among the common mass and can be a significant tool for the marketers for conducting marketing communications. To reach newer markets and customer target segments, mobile marketing poses an opportunity for the marketers with much ease and cost-effective manner to reach much deeper in the Indian population. This can enable companies to maximize their sales and create brand awareness.

Factors influencing consumers' acceptance of mobile marketing

The important factors that contribute acceptance of mobile marketing by the consumers and its success can be classified under four heads

(1) Demographic Factors
(2) User's Convenience Factors
(3) Communication Factors
(4) Economic Factors

Table 1: Factors influencing consumers' acceptance

1.	Demographic	Gender
		Age Group
		Education
		Income
2.	Uses' Convenience	Portability
		Anywhere and anytime
		Cashless Payment
		Privacy
		Easy mobile recharge apps
3.	Communication	SMS
		MMS
		Push based notification
		Application based marketing
		In-game mobile marketing
		Location-based services
4.	Economic	Cost-effective smart phones
		Free downloadable apps
		Attractive 3G/4G data packs
		Coupons and discounts

Objective of study:

· To understand the factors influencing consumers' acceptability of mobile marketing.

Method of the study:

The data were collected for the study by means of questionnaire. Questionnaire was framed to obtain the factors influencing consumers' acceptability of mobile marketing in the new era of globalization.

· **Research design**:

A research design provides the framework to be used as a guide in collecting and analyzing data. For this study the researchers have used **Descriptive Research** and the type of research design is **Cross-sectional**. Cross-Sectional design is a one-shot research study at a given point of time, and consists of a sample (cross-section) of the population of interest.

· **Sources of data:**

➤ **Primary:** The primary data has been collected for the study through a pre-tested questionnaire. The sampling method the researchers have used is proportionate random sampling and the respondents will be extracted from Kolkata.

➤ **Secondary:** Secondary data are those which will be collected from doctoral theses, magazines, research articles, credible sources etc. Researchers have collected information from different sources to conduct the study effectively.

· **Sampling plan:**

Samples are always subsets or small part of total number that can be studied. It is a portion selected from population/universe which should have same features as that of population. In this study researchers have collected the samples from the consumers of Kolkata.

· **Area of research:** The study is confined to Kolkata.

· **Sampling size & design:** Though the study area is Kolkata only, a convenience sampling method has been used to collect various perceptions of consumers from different domains. In total 400 samples have been collected.

· **Questionnaire design:**

A simple, easy to understand questionnaire consisting of **close - ended** questions has been used for data collection from Kolkata**.**

· **Tools for analysis:**

After collecting the data through questionnaire, the data were entered in SPSS version 21 to conduct the Factor Analysis and after that Multiple Regression Model has been applied to find out the suitable result.

Hypotheses of the study:

➤ Demographic factors have a strong relationship with consumers' acceptability of mobile marketing

➤ User's convenience has a strong relationship with consumers' acceptability of mobile marketing

➤ Communication has a strong relationship with consumers' acceptability of mobile marketing

➤ Economic factors have a strong relationship with consumers' acceptability of mobile marketing

Analysis and Result

Validity Analysis:

The construct validity contains convergent & discriminant validity. Here between the various variables of the factors is having the strong co-relation coefficient and most of the co-relation coefficients values are in higher ranges. So, here it proves that the convergent validity exists. Though there are high co-relation coefficients between the variables of a particular factor, very weak correlation also exists between the one factor's variable to another factor's variable. Here it also

proves that the discriminant validity exists.

Factor Analysis:

Confirmatory Factor Analysis (CFA) by SPSS 21 has been used in this study. By the measurement and model, validity test and fitness of the model have been examined.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-OlkinMeasure of Sampling Adequacy.		**0.724**
Bartlett's Test of Sphericity	Approx. Chi-Square	4588.184
	df	71
	Sig.	**<0.001**

Table 3: Overall Reliability Statistics

Cronbach's Alpha	Number of Items
.819	19

Total Cases: 400

Cronbach alpha greater than 0.70 for overall and individual factor means the reliability scaling is good under various items and from the analysis it has found that the Cronbach's Alpha result is .819. The value is well above 0.70. So the researcher can conclude that the Cronbach's Alpha result is acceptable and accordingly the researcher can proceed with further analysis. By the help of expert's suggestions face validity and content validity have been executed. Four different factors have been created with different items (above 0.5 factor loading) which are shown below in the Rotated Component Matrix. These extracted factors explain total 62.77 per cent of the variations. Variance explained (%) and Cronbach's alpha for individual factors have been given in the following table.

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

Here Demographic, Users' Convenience, Communication and Economic etc are the four major factors. In all the four factors there are 19 several variables. In "Demographic" related factors the most influencing variable is "Age Group". In "Users' Convenience" related factors the most influencing variable is "Anywhere and anytime", in "Communication" related factors the most influencing variable is "Push based notification" and in "Economic" related factors the most influencing variable is "Cost-effective smart phones" Now, to find out from these factors which is the most influencing factor for consumers acceptance level, the researchers have used regression analysis.

Regression Analysis:

The four factors which have been identified from the Factor Analysis are Demographic, Users' Convenience, Communication and Economic. Here the Consumer Acceptance Level has been used as a Dependent Variable and the remaining four factors have been used as an Independent variable.

Table 4: Result of Factor Analysis - Rotated Component Matrix

	Components			
	Demographic	Users' Convenience	Communication	Economic
Q7	.946			
Q6	.906			
Q5	.900			
Q4	.887			
Q8		.930		
Q10			.866	
Q9		.864		
Q11			.836	
Q14			.812	
Q12				.909
Q13				.908
Q15				.895
Q16				.878
Q19				.826
Q17				.784
Q18				.928
Q2				.922
Q3			.894	
Q1				.867

Table 5: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	872[a]	.761	.758	2.487	.761	314.126	4	395	.000	1.960

a. Predictors: (Constant), Demographic, Users' Convenience, Communication, Economic etc

b. Dependent Variable: Consumer Acceptance Level

Table 6: Anova[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7774.081	4	1943.520	314.126	.000[b]
	Residual	2443.897	395	6.187		
	Total	10217.977	399			

a. Dependent Variable: Consumer Acceptance Level

b. Predictors: (Constant), Demographical, Users' Convenience, Communication, Economical etc

Table 7: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	5.884	.599		9.819	.000	4.706	7.062
Demographic	1.544	.143	.267	10.794	.000	1.263	1.826
Users' Convenience	1.123	.102	.272	11.036	.000	.923	1.324
Communication	2.671	.114	.601	23.509	.000	2.448	2.895
Economic	2.091	.149	.358	14.002	.000	1.797	2.384

a. Dependent Variable: Consumer Acceptance Level

Table 8: Collinearity Statistics

Factors	Tolerance	VIF
Demographical	.989	1.004
Users' Convenience	.993	1.007
Communication	.991	1.002
Economical	.997	1.009

Multi-collinearity has been checked through Variance Inflation Factor (VIF) which needs to be less than 3 for acceptability range. Here all VIF values are in acceptable range and it can be concluded that the variables are free from multi-collinearity.

0.878 is the Correlation coefficient (R) for Model 1. It emphasizes an amount of correlation between the independent variables and dependent variable (Consumer Acceptance Level). The R square value explains the 0.771 or 77.1 per cent which is quite significant. Here the significance level also implies .000 significance level which means it is quite acceptable.

From the coefficient table the researcher has found that "Communication" related factors is having highest un-standardized B value of 2.671. So it is having the highest influence factor on consumer acceptance level. After that the second highest will be Economic factors with the B value of 2.091. Demographical (1.544) and Users' Convenience (1.123) are following after that.

So, here the multiple regression equation can be expressed as,
Consumer Acceptance Level = 5.884 + (1.544) X_1 + (1.123) X_2 + (2.671) X_3 + (2.091) X_4
Demographic = X_1
Users' Convenience = X_2
Communication = X_3
Economic = X_4

9. Testing Results of Hypotheses:

H_{a1}: Demographic factors is having a strong relationship with consumers' acceptability of mobile marketing

H_{01}: There is no significant relationship between demographic factors and consumers' acceptability of mobile marketing

Here it approves that alternate hypothesis that is H_{a1} has been accepted

H_{a2}: User's convenience is having a strong relationship with consumers' acceptability of mobile marketing

H_{02}: There is no significant relationship between user's convenience and consumers' acceptability of mobile marketing

Here it approves that alternate hypothesis that is H_{a2} has been accepted

H_{a3}: Communication is having a strong relationship with consumers' acceptability of mobile marketing

H_{03}: There is no significant relationship between Communication and consumers' acceptability of mobile marketing

Here it approves that alternate hypothesis that is H_{a3} has been accepted

H_{a4}: Economic factors are having a strong relationship with consumers' acceptability of mobile marketing

H_{04}: There is no significant relationship between economic factors and consumers' acceptability of mobile marketing

Here it approves that alternate hypothesis that is H_{a4} has been accepted.

Research Findings and Conclusion:

The findings for factors influencing consumer acceptability on mobile marketing shows that communication factors affects as a most influencing factor among all the factors as well as all the four factors are having a positive effect. It is a fact that an incredible number of consumers carry their mobile phones on a daily basis thereby establishing a potential network to pipeline communication between companies and consumers. The challenge resides in connecting these two access points by developing a desire from the consumer to grant access to their mobile phone to which access is privileged. A second challenge resides in managing how consumers will react to the company's communications and whether they will be perceived as too intrusive on such a personal mobile device. These challenges serve to illustrate that research into this area is relevant, timely and necessary.

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