

EMPIRICAL STUDY OF ORGANIC AND INORGANIC ANDROID MOBILE APPLICATION MARKETING TECHNIQUES

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Abstract

In this digital age and with the widespread use of internet enabled mobile phones, there has been tremendous growth in mobile applications development field. There are numerous start-ups and well established players who are developing applications to deliver to various requirements of clients and customers. This paper focuses on the study of understanding customer preferences and its related factors regarding Android Mobile Applications which is both exploratory and descriptive in nature. Statistical tools such as Anova was used to test the hypothesis. Study made for the same found that ease of use and Unique and appealing design were the most important factors for downloading and using an application.

Keywords: *Android Mobile Applications, Organic Marketing, Customer Preferences, Anova tool*

I. INTRODUCTION

Today, Digital era has begun promoting the global world to move in a new direction of technologies. Organizations are redirecting assets and reevaluating their conventional outreach procedures. The opportunity has already come and gone that each business embraces social media marketing and considers it important! Social media advertising comprises of the endeavour to utilize social media marketing to influence purchasers that one's organization, items and/or administrations are advantageous. Social media marketing advertising is showcasing utilizing online groups, interpersonal organizations, blog advertising and that's just the beginning.

Social media Marketing (SMM) offers three unmistakable preferences. One, it gives a window to advertisers to not just present items/administrations to clients additionally to listen to clients' grievances and recommendations. Two, it makes it simple for advertisers to distinguish different associate gatherings or influencers among different bunches, who can get to be brand evangelist and help in natural development of a brand which is done at about zero expense (when contrasted with traditional client outreach programs) as a large portion of the long range interpersonal communication destinations are free. This makes not just rehash purchasers, yet client steadfastness.

It is hard to say whether the reputation of cell phones is driving the mobile application business sector, or the other way around. It is evident that mobile application stores are multiplying. Programming also given importance as application are built on it. The mobile application store business sector is firmly connected with the advent of mobile phone penetration and utilization by purchasers around the world. Mobile applications keep running on mobile phones, which are effective handheld specialized gadgets with complex working frameworks. To comprehend the versatile application store market, one should first comprehend the elements of the mobile phone market. The business sector for in-application publicizing took off amid 2010 as a method to gain by free applications. The mobile phone market and the mobile application business sector is blasting up in civility with mobile phone

shipments assessed to twofold in 2016 and with roughly 1,00,000 new versatile applications being transferred consistently to App store and Google Play consolidated that the mobile application business sector is developing.

Advanced publicizing is becoming brilliant and significant and less user bases are required to be ready to benefit from versatile publicizing. Even though a lot of applications enter the business sector just few will get by after some time and a few will have the capacity to create income from publicizing. Games additionally appear to be in the top layer with regards to income. Another conclusion from examining the mobile application business sector is that numerous clients are escaping from informal organizations (like Facebook and Twitter) to interpersonal organizations where clients just associate with few clients.

India has a tremendous interest with rebates and takes gigantic pride in the force of dealing. Remembering this attribute, cashback and coupon locales are attempting to pick up a dependable balance in the nation, and the pattern of partner promoting is slowly picking up prominence. The usual way of doing things for these models might be distinctive, yet the centre quality continues as before – which is to help the shopper spare extreme cash and furnish them with an extraordinary shopping background. Also, additionally work to produce deals and draw activity for the numerous online retail accomplices they tie up with. The new payment framework expects to consolidate the qualities of the more established frameworks while decreasing taking care of expenses. The motivation behind this article is to hypothetically describe the harmony expenses forced on electronic money card and charge card exchanges and their outcomes on the level of relocation of coin by this new payment medium, under various business sector structures in which the two-card issuing commercial enterprises work helping in clarifying why electronic money cards have not yet turn out to be generally embraced by crediting it the absence of shoppers' trust likely cash stockpiling innovation. We characterize electronic money as method for payment with the accompanying qualities. To begin with, payments made with it at the POS (purpose of offer) are electronically settled and not physically performed and second, they don't include huge accounting or check costs in any focal registry. The main trademark is closely resembling credit and platinum card exchanges, though the second trademark is comparable to coin exchange. Electronic money dispenses with real expenses connected with cash exchanges at the POS, however it lessens check and accounting costs which portray traditional card-based exchanges. From this cost sparing, it could create the impression that e-money would rule all different method for payments. In any case, electronic money bears certain holding costs (inadvertent misfortune, predestined premium, and card disappointment). These settled and holding costs give a conceivable clarification why electronic money card may not re-place other payment instruments in any event not totally. We are completely mindful of the way that most e-money frameworks that have been gone for include some focal recording, so the above depiction of the e-money card innovation was admired. Right now, accessible Mondex framework looks like particularly our above portrayal as in two people can execute with each other by utilizing exclusive card peruses that are not connected to any focal recording framework. In all economies, few methods for payment coincide in parallel to each other. However, ordinarily every payment instrument overwhelms a specific exchange size or sort. This is known as the exchange space of a payment instrument. The examination of conjunction of a few payment media and the comparing exchange areas requires a point by point investigation of the commercial centres and the specific exchange costs connected with every instrument. The utilization of coin as a method for payment gives heaps of favourable circumstances and a couple hindrances.

- Cash is circled uninhibitedly and is the legitimate delicate so it must be acknowledged all over in each economy.
- It is transferable in both headings amongst customers and retailers.
- The utilization of money infers a prompt settlement since no banks are included, and no clearing through banks is required.
- It is generally hard to fashion.

- It jams secrecy and security of the executing operators.

The apparatus and methodologies for speaking with clients have changed incredibly with the development of social media marketing; organizations must figure out how to utilize social media marketing so that it is steady with their business plan. Thus, social media marketing gives another phase to brand advertising and purchasers are effectively adding to the correspondence by showcasing brands, organizations have ended up imaginative when attempting to pick up control of their marketing. Social media locales are an awesome stage for retailers to make an ordeal and retailers can utilize data put away on social media marketing destinations to enhance customer involvement with their image confirmed that huge organizations are seeing social media marketing locales as vital apparatuses. Shoppers are no more detached beneficiaries of promoting messages; rather, they are utilizing Facebook, MySpace, YouTube, and Twitter to voice their assessments. Buyers' cooperation with a brand on social media marketing fortifies the requirement for retailers to be dynamic members in personal communication and the virtual brand groups they create. Since social media marketing destinations can be abused for the data, it gives on purchaser conduct respects their acquiring aims, examine further that organizations ought to have long range informal communication locales into their plan of action or limited time blend.

Inorganic development procedures like mergers, acquisitions, takeovers and spinoffs are viewed as essential motors that help organizations to enter new markets, extend client base, cut rivalry, solidify and develop in size rapidly, utilize innovation as for items, individuals and procedures. Inorganic techniques are viewed by organizations as quick track procedures for development and opening of quality to shareholders. Natural methodologies allude to inward development procedures that emphasis on development by the procedure of benefit replication, abuse of innovation, better client relationship, advancement of innovation and items to fill holes in the commercial centre. Development systems allude to outside development by takeovers, mergers and acquisitions. It is quick and permits prompt usage of gained resources. It is less unsafe as it doesn't bring about extension in limit.

II. LITERATURE SURVEY

1. Latha Chari (2008), explained that ever since the 1990's, Indian industries have been gradually exposed to both domestic and international competition. This has led the Indian corporate segment to reorganise, to be inexpensive and deliver value to shareholders. Indian organisations have adopted organic and inorganic strategies to enrich value for their stakeholders. In advanced countries like the United States, it has been shown that inorganic value enhancing strategies like mergers, acquisitions have higher failure rates. The intention of this study is to determine whether mergers and acquisitions are noble value enhancing strategies for acquirers or for the target company, in India.
2. Peter Marburger, Marzel Stratmann and Notis Pagiavlas discussed with respect to the US airline segment's mobile business. They analysed that with an efficient business model, a competitive advantage can be achieved. Significant success aspects for creating value to airline customers through mobile commercial are user involvement, the value impact of mobile technology, and customer wants. Key elements found for matching these features are accelerated facilitating processes i.e. process developments, the capability to assimilate systems into a mobile infrastructure and the devices consumers already use.
3. Ting-Peng Liang, Shu-Chun Ho and M Tsang analysed that the rapid spread of mobile phones and other mobile devices has created a new channel for marketing. The use of SMS to access customers via their mobile devices is gaining acceptance, making the mobile phone the ultimate medium for direct marketing. An instrument for gauging attitudes toward mobile advertising is developed, the results of a research show that one consumer usually have negative attitude toward mobile promotion unless they have precisely agreed to it and there's a direct association

between consumer attitudes and consumer behaviours. Thus, it's not a good idea to send SMS ads to probable customers without prior consent.

4. Nikolaos and Georgios discussed the dominant definitions of mobile business do not successfully capture the perceived spectacles. They are also restrictive in terms of the research questions and suggestions that can be drawn from them. Here, it is discussed on how mobile business would be defined if we are to develop scientific concepts that exceed the rapidly changing preparation. Finally, it introduces the studies done in this special issue explaining the importance of the projected method.

5. James I Magid analysed the mobile industry is substantially a valid need in the housing market which other forms of industry is not met. The companies (corporates) are increasing their volume faster than the basic demand and many newcomers are entering the industry. In few years, ability in local markets may surpass demand, leading to loss of profitability of those companies which are unable to regulate the advertising of their production.

III. PROBLEM STATEMENT, SCOPE, OBJECTIVES AND HYPOTHESIS

1. PROBLEM STATEMENT

There is a large online market for applications created called Google play store, Apple App store which basically perform the function of digital distribution platforms for applications released by companies. The objective of this study is to understand the latest techniques employed to market Android applications and its impact and to understand Application marketing while launching new product applications and marketing of existing applications for continual survival.

2. SCOPE

The study revolves around customer preference and its related factors. The study can be extended to Mobile application marketing in general for Mobile applications on android platform.

3. OBJECTIVES

- To study the latest organic and inorganic Android application marketing techniques and its impact.
- To understand major factors that influence customers' preference in downloading and using Android applications.
- Identify areas of development in existing techniques being used.

4. HYPOTHESES

- H0: The usage of web and usage of mobile applications are independent of each other.
H1: The usage of web and usage of mobile applications are dependent on each other.
- H0: The usage of web browser (Usually I search for a general term, rather than needing a specific application) and usage of mobile apps (better use, tailored to mobile phone) are independent of each other.
H1: The usage of web browser (Usually I search for a general term, rather than needing a specific application) and usage of mobile apps (better use, tailored to mobile phone) are dependent on each other.
- H0: The usage of web browser and usage of mobile apps (being faster) independent of each other.
H1: The usage of web browser and usage of mobile apps (being faster) dependent on each other.
- H0: The usage of web browser and usages of mobile apps (easier to find, straight on my main screen, application list) independent of each other.
H1: The usage of web browser and usages of mobile apps (easier to find, straight on my main screen, application list) dependent on each other.

IV. METHODOLOGY

1) RESEARCH METHODOLOGY

The study is both exploratory and descriptive in nature and depends on both primary and secondary information. Secondary data information was gathered from the accessible sources like diaries, articles, journals and site. A sample test of 82 individuals is chosen for the present study. The respondents were from various age bunches, gender and educational qualifications.

A close ended questionnaire was arranged and administered to discover their inclinations or preferences. As Descriptive research design are utilized when the specialist has generous information about the problem and of the variables that are to be measured. For this situation, investigated altogether and findings are

i. Details of the population

The study was conducted on individuals who use mobile applications and cash back sites.

ii. Sample size

The total sample taken was 100, out of which 18 were incomplete, 82 were completed, and hence the number of respondents considered in the study were overall 82 in number.

iii. Sampling method

Convenience sampling method: Convenience sampling is a very generic term that covers wide variety of Adhoc techniques for selecting respondents. Convenience Sampling implies that the testing units are Accessible, Convenient, simple to gauge and understandable. Considering the accessibility factor, Bengaluru zone was chosen for the study.

2) LIMITATIONS OF THE STUDY

- The respondents may be careless in responding to the questionnaire.
- People are at times hesitant to respond to surveys.
- Authenticity of the response of the customer cannot be ascertained.
- The study is limited to the area Bangalore only.

V. DATA ANALYSIS AND INTERPRETATION

▪ DATA ANALYSIS AND INTERPRETATION

Descriptive statistics is used to break down this information. The mean reactions, standard deviation and other applicable insights were figured to better comprehend the information.

The information gathered was assembled and altered to check for legitimate irregularities. The information was then coded by responses. Relationships between responses were evaluated using tables and analysis was done utilizing SPSS.

Table 1: Relationship between various variables

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.902	.914	64

Table 2: Devices used by the respondents to access the internet

Which of the following devices do you use to access the internet?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Smart phone	19	23.5	23.5	23.5
	Tablet	40	49.4	49.4	72.8
Valid	Laptop	15	18.5	18.5	91.4
	Personal Computer	1	1.2	1.2	92.6
	Others	6	7.4	7.4	100.0
Total		81	100.0	100.0	

Inference: With respect to devices used to access internet, it is observed that 23.5 percent of respondents use smart phones, 49.9% used tablet to access internet, 18.5% used laptops as means to surf the internet, 1.2% was personal computers and the rest were other type of devices.

Table 3: Devices owned by the respondents

Which of the following devices do you own?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Android phone	52	64.2	64.2	64.2
	Windows phone	12	14.8	14.8	79.0
	Valid Iphone(ios)	10	12.3	12.3	91.4
	Xiomi	7	8.6	8.6	100.0
	Total	81	100.0	100.0	

Inference: With respect to devices owned, it is observed that 60.2 percent of respondents use android phones, respondents owning windows phone are in 14.8 percent, Iphone users constitute to about 12.3 percent and Xiomi phone users constitute up to 8.6%.

Table 4: ‘Unique and appealing design’ as a feature

Unique and Appealing Design					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	9	11.1	11.1	11.1
	Very Important	32	39.5	39.5	50.6
	Extremely Important	40	49.4	49.4	100.0
	Total	81	100.0	100.0	

Inference: Out of the analysed respondents, 49.4% found the attribute ‘unique and appealing design’ extremely important in a mobile app, 39.5% found it important and only 11.1% were neutral in their choice.

Table 5: Chi square test relations between various variables.

Hypothesis	Significance level		Sig observed value	Accepted/Rejected
The usage of web browser and usage of mobile apps (less complicated) are independent of each other.	0.05%		0.026	H ₀ is rejected
The usage of web browser (‘Usually I search for a general term, rather than needing a specific application’) and usages of mobile apps (better use, tailored) independent of each other.	0.05%		0.006	H ₀ is rejected
The usage of web browser and usage of mobile apps (being faster) is dependent of each other.	0.05%		0.575	H ₀ is accepted
The usage of web browser and usage of mobile apps (easier to find, straight on my main screen, application list) independent of each other.	0.05%		0.007	H ₀ is rejected

VI. FINDINGS AND SUGGESTIONS

1) CHART FINDINGS

- With respect to devices used to access internet, it is observed that 49.9% of respondents use smart phones, 23.5% used tablet to access internet, 18.5% used laptops as means to surf the internet, 1.2% was personal computers and the rest were other type of devices.
- With respect to devices owned, it is observed that 60.2 percent of respondents use android phones, respondents owning windows phone are in 14.8%, iPhone users constitute to about 12.3 percent and Xiami phone users constitute up to 8.6%.
- With respect to the hours spent on apps per week, 45.7% of the respondents spent only 7 hours per week, 22.2% spent up to 14 hours a week on mobile apps. While 16% of the respondents spent 21 hours and above 28 hours.
- Out of the analysed respondents, 45.7% felt that 'simplicity for the user' as a feature in a mobile app is extremely important.
- Out of the analysed respondents, 71.6% found the attribute 'ease of use' extremely important in a mobile app.
- Out of the analysed respondents, 49.4% found the attribute 'unique and appealing design' extremely important in a mobile app.
- Out of the analysed respondents, 63% were neutral with respect to using the app 'pennyful', 14.8% were pleased, 1.2% were extremely pleased, further 16% were displeased with 'pennyful', 4.9% were extremely displeased.
- Out of the analysed respondents, 35.8 % found web browsers more useful than mobile applications as they were more used to it, 40.7% strongly agreed for the same, 16% could not draw a conclusion as they remained neutral, the remaining 4.9% and 2.5% strongly disagreed and disagreed to the same.
- Out of the analysed respondents, 40.7 % found web browsers more useful than mobile applications 'Usually I search for a general term, rather than needing a specific application', 27.3% strongly agreed for the same, 27.2% could not draw a conclusion as they remained neutral, and the remaining 4.9% strongly disagreed to the same.
- Out of the analysed respondents, 45.7 % found web browsers more useful than mobile applications 'Better use, tailored to mobile phone' and strongly agreed for the same, 37% agreed, 11.1% could not draw a conclusion as they remained neutral, the remaining 2.5% and 3.7% strongly disagreed and disagreed to the same.
- Out of the analysed respondents, 48.1 % found web browsers more useful than mobile applications because 'it is faster' and strongly agreed for the same, 29.6% agreed, 13.6% could not draw a conclusion as they remained neutral, the remaining 1.2% and 7.4% strongly disagreed and disagreed to the same.
- Out of the analysed respondents, 42 % found web browsers more useful than mobile applications 'It is easier to find, straight on my main screen, application list' and strongly agreed for the same, 37% agreed, 16% could not draw a conclusion as they remained neutral, the remaining 1.2% and 3.7% strongly disagreed and disagreed to the same.
- Out of the analysed respondents, 35.8 % found web browsers more useful than mobile applications because it is 'less complicated' and strongly agreed for the same, 42% agreed, 14.8% could not draw a conclusion as they remained neutral, the remaining 3.7% strongly disagreed and disagreed to the same.

2) OVERALL FINDINGS AND SUGGESTIONS

- Smart phones are the devices used to access internet the most, it is observed that 49.9% of respondents use it to access internet, hence the company should concentrate on mobile phone users to increase their customer base and make the app more mobile operating systems compatible applications.

- With respect to devices owned, it is observed that 60.2 percent of respondents use android phones, respondents owning windows phone are in 14.8%, iPhone users constitute to about 12.3 percent and Xiami phone users constitute up to 8.6%, the android users/play store users, the app fixes should be concentrated more on this platform as the potential users are more.
- Among the many features an application should possess performance, support and updates, lastly, security were the features which were considered extremely important by the respondents, so the company should make sure their app has the above features in an upgraded form.
- The interesting attributes in an application, which were extremely important per the respondents was 'ease of use' and 'unique and appealing design', so the company should make sure their application is simple and designed well.
- Based on drawbacks about using mobile applications, the major apprehension was found to be 'privacy and security' and storage limitation'. The company should develop solutions to these negative apprehensions and future application releases should address these concerns.
- As Per the pleasing level of five cash back sites, namely pennyful, out of which most the respondents could not draw a conclusion about how pleased or displeased they were using these apps, hence the company should increase promotions and customer loyalty.
- With respect to the platform, respondents would look to download mobile applications, Word of mouth is the most used platform, further directly on the platform (play store, app store, store recommendations) is the next most effective method, it should encourage word of mouth marketing.
- When asked about the features a futuristic app should have, about 64.2% thought that 'customization' is an extremely important feature, followed by 'offline capabilities', 'privacy control', 'prioritise speed', 'user friendly for all age groups' which were considered equally important, the company could include these features and if present already could enhance these for more customers.

VII. CONCLUSION

A company like should work more on customization and design of the apps, constantly undertake study of its profits and the cause for it. Regularly take up customer's reviews and should make necessary efforts on improving apps. Be creative in advertising and grabbing customer attention and make a sustainable development.

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