

The Impact of Social Media and Mobile Usage on E-Commerce: An Exploratory Study

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Abstract

The social media and mobile usage is exhibiting substantial growth throughout the past few years in India. The economy of India is also growing as well as internet usage and social media penetration. However, the growth of E-commerce in the country is not consistent with the growth of the forgoing factors or with the neighbouring countries. This paper is conducted to explore the effects of social media and mobile usage on E-Commerce by studying consumer behaviours and E-commerce websites in the country. A comprehensive online survey was created to collect valid responses from individual respondents. We examine the effects of social media and mobile usage resulted from our data analysis. We found that social media and mobile usage play significant roles on E-commerce in India. The use of social media helps in building a stronger customer relationship and increasing the product awareness. Social media has substantial impact on consumers' decision making for online purchasing. Social media, especially Instagram, can be a very effective tool in increasing product awareness and delivering the E-marketing promotion. The findings provide new guidance to the online retailers to better utilize the social media and mobile marketing to enhance their business.

Keywords: [E-commerce, internet, social media, mobile, m-commerce]

Introduction

Social media are computer-mediated know-hows that allow the generating and distribution of information, ideas, career interests and other forms of expression via virtual communities and networks. The adoption and implementation of E-commerce in developed and developing countries have been carefully studied with focuses on consumer behaviour and/or business issues. Mobile devices and social media constitute two rapidly evolving and expanding technologies, adopted and used globally, jointly contributing to shaping a dynamic and highly interactive mobile environment, where vendors can reach customers anytime anywhere. Thus, social media increasingly used on mobile devices emerge as a powerful tool for mobile commerce (M-commerce).

E-commerce adoption and implementation in developed and developing countries have been carefully studied with focuses on consumer behaviour and/or business issues. However, little is known about the evolution of E-commerce in India. Recent studies have reported factors that motivate or inhibit the evolution of E-commerce in India focusing on either businesses or

consumers. This paper will review and examine the effect of social media and mobile usage on E-commerce in *India*

The Indian people are increasingly logging into the Social Networking sites

- Number of internet users in India 2015-2023. In 2018, India had over 480 million internet users across the country. This figure was projected to grow to over 660 million users by 2023, indicating a big market potential in internet services for the south Asian country (as on May 26, 2020)
- Today, India is the leading country of using the Facebook in the world by 280 million people as on April 2020, followed by USA 190 million people.
- At present, there are 62 million LinkedIn users. With 62 million LinkedIn users, India is the second-biggest market, followed by China at 48 million.
- Many companies are also started their YouTube channel for promoting product and services and showcasing new development regarding their brands.

Review of Literature

Esraa Alfeel and Dr. Zaid Ahmad Ansari (2019) examined The Impact of Social Media marketing on Consumer Purchase Intention: Consumer Survey in Saudi Arabia. Companies' marketers must have recognized social media marketing as an important tool that must be a main part of their marketing strategies. The results of this research showed that Social Media Marketing influences the customer purchase intention positively, therefore based on the findings of this research Social Media Marketing cannot be avoided by the companies. In fact social media marketing should be appropriately planned and implemented to increase the sales and profit. However presently the Social Media have gained tremendous popularity in developing countries including the Middle-East in general and Saudi Arabia in particular.

Dr. B. Menaka and K.Seethal (2018), Ecommerce plays a vital role now a days. The number of people who are using ecommerce websites has widely increased. The introduction of smart phones has further accelerated the usage of ecommerce websites for purchasing. Ecommerce offers its customers a huge number of merits starting from wide comparability of the products, time saving, and quick delivery of products and offers discounts to the customers. Internet and smart phones has really changed the way we make purchases. It is further clearer that the number of people who are accessing ecommerce websites for their purchase will further increase in future. Dr. Fahed Khatib (2016), explores how the influence of Social Media is reflected on consumers' purchasing decision making process and if this influence differs at the various stages of this process. The study demonstrated thus that the influence of Social Media seemed to be very strong on the Information Search stage, and purchase decision stages. Personal attitude is a crucial factor which underlines during the course of information acquisition and evaluation. Alhadid and Alhadeed (2017) aimed is to examine the impact of social media marketing on purchase intention of used cars in Jordan. Results showed that increasing number of consumers use social media, all kinds of industries had to invest in social media to gain new consumers and reinforce relations with current ones. It also showed that the business can improve social media marketing in a way to ensure success thought long term strategy rather than simply concentrating on widely known applications and

social media. They suggested that corporations need a set of rules to efficiently handle numerous types of social media as instrument of strategic marketing.

Statement of Problem

The inadequate volume of research focusing on current issues conducted to study E-commerce in India and the lack of large assortment statistical reports create a chance for further research. Some common factors reported previously by other research may be weakening nowadays. Other aspects, such as social media and mobile usage, could be considered for further studies. In fact, mobile internet access overhauled personal computers for the first time worldwide in 2014 in several markets including, China, and Saudi Arabia. The research related to mobile and social media could result in more consistent findings. In this paper we study the impact of social media and mobile usage on E-commerce in Bengaluru. A comprehensive online survey was developed for our qualitative approach to gather Indian consumer's perspective on E-commerce and the survey was distributed by utilizing the social media.

Today, everything is about Social Media. Some industry scholars claim that, "if you do not participate in Facebook, YouTube, and Second Life, you are not part of cyberspace anymore" (Kaplan &Heinlein, 2010). The concept of Social Media must be in the top of agenda for businesses, decision makers and the most important for marketers. Social media collaboration has become now a days an important part of almost each individual's everyday life. Platforms such as Facebook, Twitter, Instagram or LinkedIn have a large number of the users and they continue growing every second of the day. Companies' dealers must have recognized social media marketing as an important device that must be a main part of their marketing strategies.

Objectives

The objective of this paper is to find the answers to the questions in order to determine the impact of social media and mobile usage on E-commerce in India to what extent:

- To study the role of social media and mobile usage on E-commerce in India to what extent.
- To study the gender wise effect of online purchase decision making on social media communication.
- To study the E-commerce sites in India nowadays utilizing social media and mobile marketing.

Significance of the Study

Now a days corporates are making provision for social media marketing, they spend up to 15% of annual budget exclusively for social media marketing. Companies are heavily investing their time, money and people in social media marketing to create more awareness about the product or to set the product in customer TOMA (Top of Mind Awareness). On the employment front, the report estimated the e-commerce industry to employ an additional

100,000 people in warehousing and logistics, over the around 25,000 persons working in the segment currently. Increasing internet and mobile penetration, growing acceptability of online payments and favourable demographics has provided the E-commerce sector in India the unique opportunity to companies connect with their customers, it said. There would be over a five to seven fold increase in revenue generated through e-commerce as compared to last year with all branded apparel, accessories, jewellery, gifts, footwear are available at a cheaper rates and delivered at the doorstep, it added. In India approximately 60-65 per cent of the total e-commerce sales are being generated by mobile devices and tablets.

Research Methodology

Data Collection Methods

Qualitative methods were used in this study aiming to collect an in-depth attentive of the persuaders and inhibitors of E-commerce in India. To accomplish the goal, we have developed an extensive online survey through Google forms to collect data from individuals and created a website to collect data from Indian E-commerce sites (or E-stores). Given the popularity of social media in the country, the survey was distributed to Bangaloreans using various social media channels. For the purpose of this paper we will focus on social media and mobile usage results.

The aim of this study can see the magnitude of the influence of social media on e-commerce business in online business. Through descriptive methods and data collection through interviews, observations and previous studies related to social media and e-commerce business. The results obtained by using the method are the identification of the role of social media in e-commerce business in developing the online business, and the factors that encourage consumers to buy products through online business. This research is done because the previous studies are still lacking in discussing what factors make consumers choose online business and the contribution of social media in online business.

Survey Data Collection: The established online survey collected total number of 500 replies from the respondents of Bengaluru. Demographic information satisfies with other research representing most respondents, 80% are young aged 18-35 and the majority, about 75%, are males. But, the level of education and work responses do not fulfil with cited study. Prior research specified that the mainstream of consumers have high school, degree or less and are unemployed. On the other hand, our study results indicate that 58% of respondents are pursuing a Bachelor degree and 65% are working (including 5% merchants) compared to 45% without a job. Perhaps the reason behind such diversity in results is time.

Results and Discussion

The website presents E-stores with details for each, like category, location, website link, social media accounts links, delivery methods, accepted payment methods, languages of website, currencies accepted, mobile compatibility and more. We have also established PHP plans that spontaneously repossess statistical data about each site in our system in a daily basis. The repossessed data comprises social media counts, Google Mobile-friendly (GMF)

test scores, Google, and more. We have carefully chosen more than 50 major virtual stores in Bengaluru, and information of each E-store was added physically by visiting its matching website and satisfying the Reviews form in our site. The actual number of E - stores in our site can be varied in time as we frequently add new E-stores or eliminate the out-of-business E - stores.

The number and the percentage of E-stores for each category under our study are shown in Figure 1.

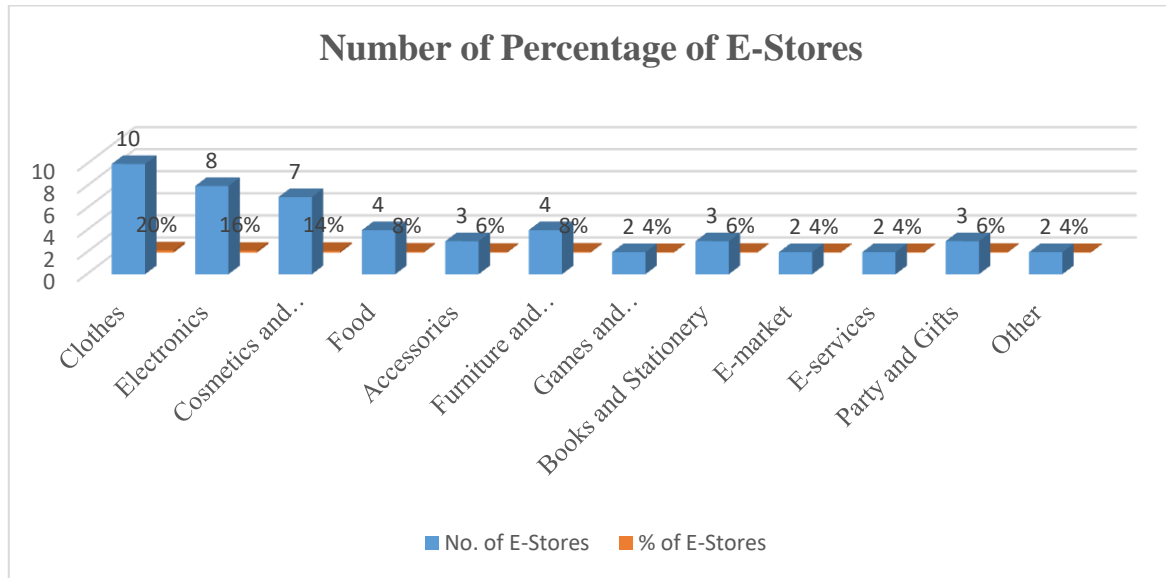


Figure 1. The number and percentage of e-stores by categories

Figure 2 indicates internet usage and the accessing strategies effect from the survey of Bengaluru people. This result demonstrates a substantial change in user's actions linked to previous research. The use of Smartphone in accessing the internet encouragingly exceeds our anticipation with an average of 4.02 hours per day for males and 2.03 hours for females. Female spent more time online using smartphones or personal computers (PCs) compared to the male. The average use of tablet in accessing the internet does not show a gender variation. In summary, the average use of mobile devices (smartphone and tablet) for an individual reaches about 10 hours online per day. It was also pointed out in an online article that the majority of Indian users access the internet using their smartphones instead of PCs. This may indicate that prospective customers wish to visit websites using mobiles and tablets. Therefore, merchant websites should be mobile-friendly (responsive) and should not rely only on traditional web otherwise merchants could lose many prospective customers.

The result also inspires dealers to have their own inherent mobile apps to reach out additional customers and to offer a more suitable way to shop online. This result matches with some recent reports showing high increase in internet access from mobile devices.

Table showing Average Time Spent on Internet per Day

What is the average time spent on the Internet per day using various handheld devices?							
Device used for access	Less than 3 hours	3-5	6-10	11-15	More than 15 hours	Answer Count	Average Hours
Using cell phone	44	74	50	18	12	198	6.05
Using PC	55	50	40	18	7	170	5.70
Using Tablet	30	48	25	12	5	120	5.69
Using other devices e.g. Smart TV	34	38	32	7	4	115	5.45

(Source: Primary Data)

Device used for access	Average Hours	
	Male	Female
Using Smart phone	4.02	2.03
Using PC	3.00	2.70
Using Tablet	3.52	2.17
Using other devices e.g. Smart TV	3.25	2.20

(Source: Primary Data)

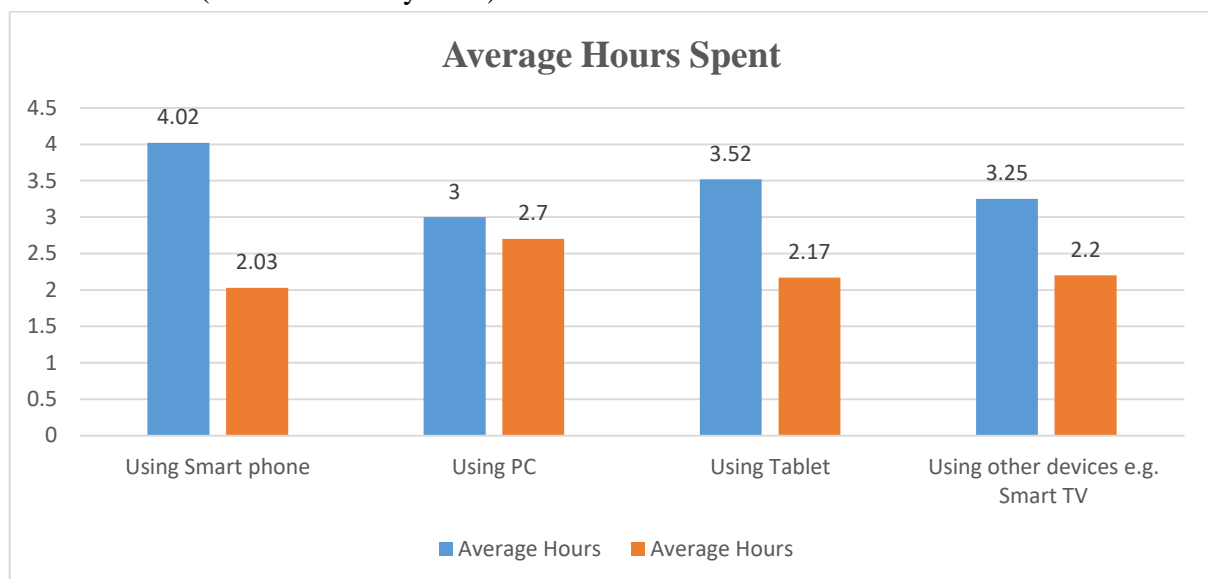


Figure 2. The average hours Indians spent online per day using various devices

Figure 3 shows interesting findings related to social media. It discloses in what way the online communication through numerous social media companies affecting the purchase decision making. We have calculated a normal rate in order to guess the influence of various social media affecting the purchasing decision by gender. The normal rate for an individual social media is defined and calculated with the effect amounts being weighted by one through five using the following formula:

The most influence comes from Instagram, an image sharing service, with average of 3.29 out of 5 for males and 2.75 for females. Result shows that Instagram is the only channel much preferred by females than males. Differently, Facebook is more preferred by male than female. This implies that merchants who target on females may focus more on Instagram and those who target on males may focus more on Facebook. Other types of social media and communication services also have good effects on online shopping decision making. Amazingly, E-mail and Short Message Service (SMS), the most popular ways companies use in the country, have lower impacts than expected on consumers especially on female consumers. Consumers get sufficient number of advertising emails and short messages from many companies due to the weak privacy laws in the country. Yet, the impact of such emails and short messages is low. Consumers were not convinced to go to their websites and to buy from them. Not only companies were wasting time and money on such ineffective mass messages, but they may also hurt their status when consumers get the impression that they have been spammed.

It is suggested that retailers should focus more on two or three types of social media and word of mouth rather than randomly distribute massive SMS and emails. In addition to E-marketing and consciousness, we recommend using social media for E-commerce itself as well, based on our result. Due to the significant increasing growth of social media usage in India, it might play a substantial portion in increasing the progression and approval of E-commerce in the country.

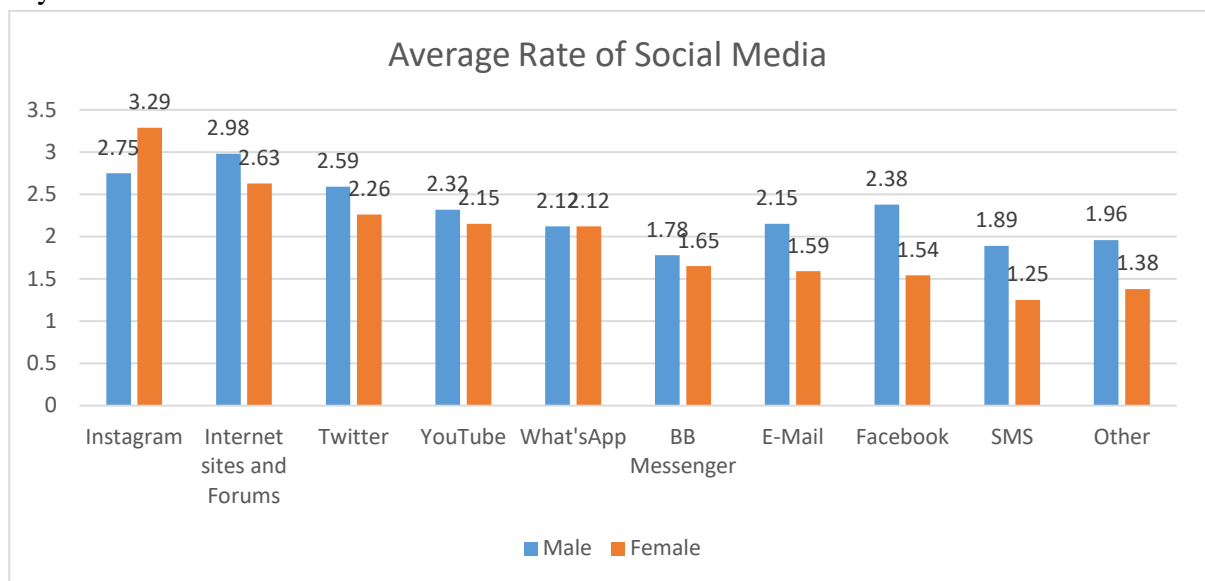


Figure 3. Estimated average rate of various social media affecting online purchasing decisions

Each E-store under our study used at least one social media account to associate to its customers. Even though having more social media accounts has the advantage to reach out more customers; it needs resources to manage those accounts to build a strong customer association. Amongst the 50 E-stores we studied, 4.9% has one, 8.6% has two, 32.5% has three, and 54% has 4 or more social media accounts. In terms of the popularity of four major social media companies, we found that Twitter is the most popular one in India, used by 92.02% of the E-stores, followed by Instagram, 65.64%, Facebook, 63.19%, and then YouTube 36.20%. It is interesting that Instagram is used by more Indian E-stores compared to

Facebook. As for YouTube, it is used only by 36.2% of business. The result related to Twitter is not surprising due to its popularity in the country. However, the result on Instagram is less than estimated even though it has higher influence on purchase decision making. Yet, Instagram usage by E-stores in some classes (Clothes, Accessories, Furniture & Decoration, and Games & Entertainment) is higher than Facebook, see Figure 4.

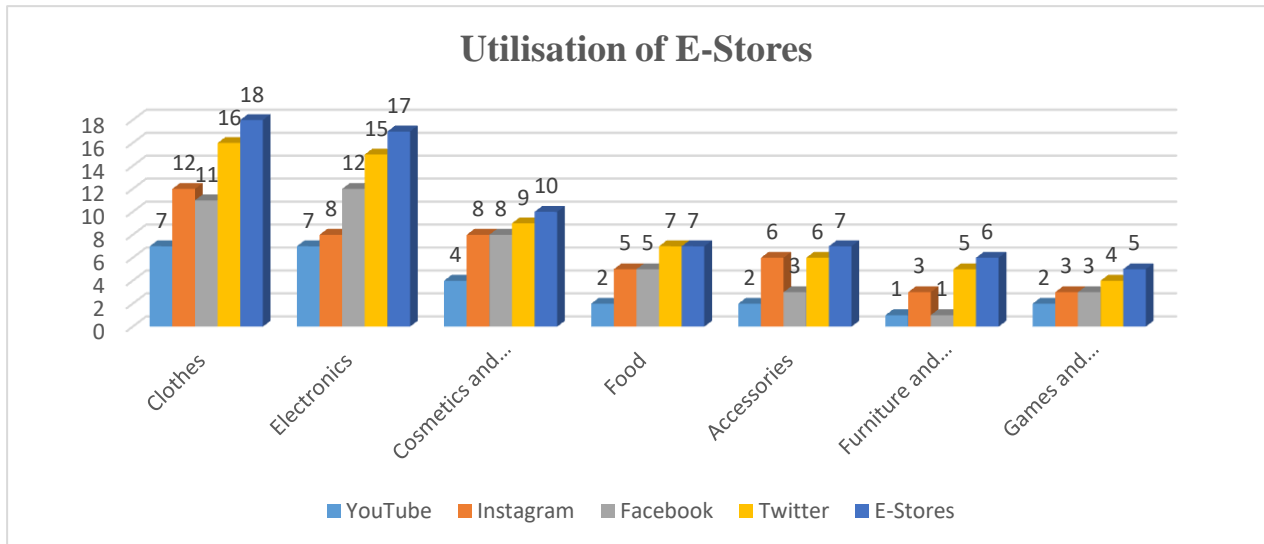


Figure 4. The number of e-stores utilized various social media accounts

As it was shown in Figure 2, mobile devices have been the most popular way for Indians to access internet. The customers access internet using either a smart phone or a tablet 3 times more than using a personal computer irrespective of the genders. It is a gigantic wake-up call to any business in local India without a mobile-optimized site or app. We use the Google Mobile-friendly (GMF) test (“Mobile Friendly Test,” 2015) to assess the readability and the usability of the 50 E-stores in local India. GMF test is introduced by Google for webmasters to check their mobile-friendly compatibility of their websites.

Hence, GMF test score is crucial for E-stores to be indexed by Google search. Consequently, we added this field in our E-stores records, among others, to evaluate their performance. The established PHP programs we stated previously use Google Page Speed Insight API to return GMF test score and pass/fail status for each E-store. The programs are set to mechanically run daily. Our result for GMF test shows that about 70% of E-stores passed the mobile-friendly test. The rest of 30% of E-stores may miss many prospective customers meanwhile their sites are determined to be low quality content and therefore no Google’s searchable index will be added. We highly recommend that those sites failed GMF test should familiarise to the growing mobile trend to keep on competitive.

Figure 5 exhibits the details in breaking down the GMF test results by categories. All Party & Gifts E - stores passed the test. Furniture & Decoration is next by 90% then 85.71% for Books & Stationary, Clothes and Food categories. The lowest percentage is for E-Services by 16.67%. Surprisingly, only 64.71% of Electronics E-stores passed the test which is considered low since those stores sell electronics and target mobile users who are most likely to visit. Correspondingly, Cosmetics & Perfumes E-stores percentage is 60% and since such stores mainly target females, who use smartphones a lot to access internet, those websites should be reshaped to be mobile-friendly.

As significant as having a mobile-friendly website, recommending a mobile application (native app) is also valuable since most of the consumers use their smartphones for internet access. Our analysis shows that only 7.4% of E-stores (4 out of 50) offer built-in apps for smartphones. The E-stores owners and administrations should consider such speculation to make available mobile built-in apps to further promote their business. Furthermore, a mobile app offers supplementary benefits than a old-fashioned website, like suitability, location-based information, and ability to push notifications for news, special offers and latest products.

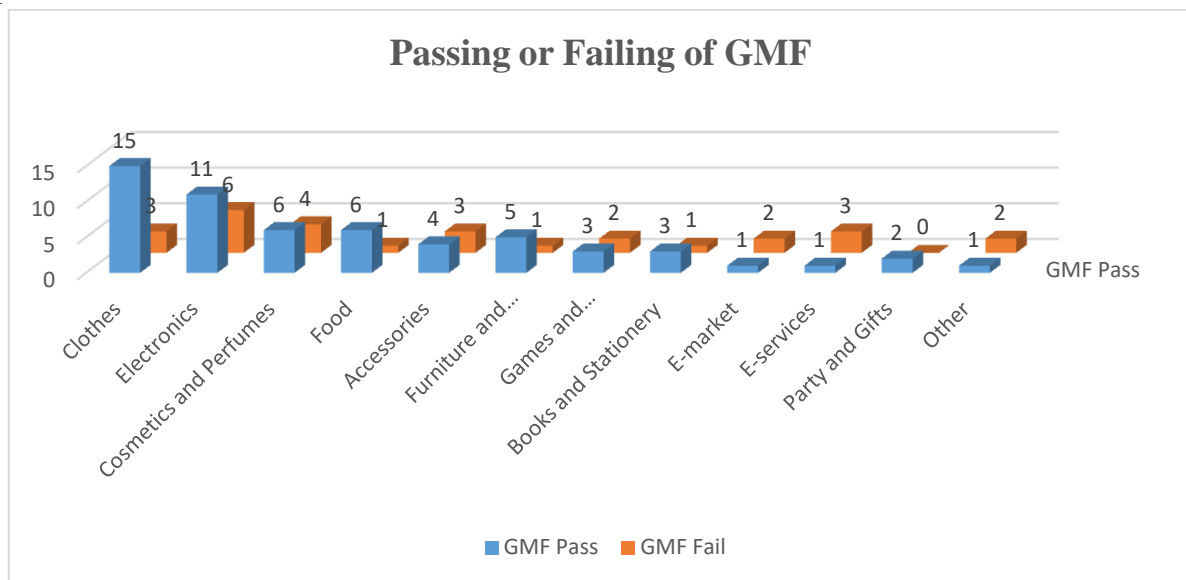


Figure 5. The number of E-Stores by categories passing or failing the Google Mobile-Friendly test

Based on the analysis of our survey data, social media, particularly Instagram, affects the online purchase decision for the Indian consumer. Instagram has more effect on female than Facebook, which has more effect on males. Email and SMS has the least effect on consumers' decision to purchase online. Also, consumers prefer to use mobile and tablets to visit websites, especially females. As for website results, 54% of E-stores have 4 or more social media accounts. The most used social media account is Twitter followed by Instagram then Facebook and the popularity varies by category. About 70% of E-stores passed GMF test and the performance depends on category.

Conclusions

This paper studies the impact of social media and mobile usage on the acceptance and application of E-commerce in India. A widespread online survey was designed to collect a detailed understanding of those aspects and data was collected from 500 local individuals. An energetic website was also created to collect data from 50 E-commerce sites.

The major inference of the study is that the use of social media plays a judgement role in online purchase decision making with more influence in female. The use of social media helps in building a stronger customer relationship and increasing the product consciousness. The overall social media accounts and the massive usage of them in the country also indicate consumers' readiness to employ social media on E-commerce. Mobile usage in India is

excessive, exclusively used to access the internet. Large companies should not be doubtful of the revenue generation potential of M-commerce. Mobile marketing should be considered seriously by companies when building their websites assuring that all visitors from different devices will have no issues accessing their sites such as when using devices with different screen sizes. Based on our result, 70% of E-stores passed the GMF test. The rest of 30% of E-stores may lose many potential customers since their sites are hard to read from a mobile device and cannot be discovered by Google's search engine due to the lack of Google's searchable index. We recommend that E-commerce sites should make the effort for a responsive web design ensuring their sites are mobile and tablet compatible. Merchants should also consider providing built-in apps to their customers to gain supplementary benefits containing increasing interactivity with customer and more regular visiting.

In conclusion, consumers prefer to shop online using mobile devices. Social media has substantial impact on consumers' decision making for online purchasing. Social media, in general, greatly assist in the increase of public E-commerce awareness. Social media, especially Instagram, can be a very effective tool in increasing product awareness and delivering the E-marketing campaign. The substantial prospective of social media and mobile usage on E-commerce in India warrant further study.

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