

# M-Commerce in Bangladesh –Status, Potential and Constraints

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**Abstract**—Mobile Commerce often referred to as “M-Commerce” or “mCommerce” is a new dimension or extension of e-Commerce that is performed by mobile devices and Personal Digital Assistants (PDA) using mobile phone networks. As the number of mobile users is increasing dramatically the prospect of m-commerce is also increasing day by day in developing countries like Bangladesh. Though there are a lot of researchers has written about the prospect and adoption of M-commerce but in my research, I tried to find out the statistical analysis of mobile users, mobile internet users; M-commerce current status in Bangladesh. Research also has been done for a number of visitors of stakeholder’s site, using the ranking tools, uses of mobile apps by customers and limitation of mobile commerce adoption in Bangladesh those were not discussed earlier. Here, I collected data through web and phone call from various stakeholders, in the top line m-commerce business, studied and identified the problem, shown the current status and major barriers of M-commerce and suggested a methodological framework.

**Index Terms**—M-Commerce, Barriers, Mobile Commerce, Mobile operators, Bangladesh.

## I. INTRODUCTION

The expansion of the technology and revolution of mobile communication in the rural area of Bangladesh it has eventually been a motivating variable in the development of M-Commerce. In the present Business organizations, mobile commerce has been presented to account, administration, retail, and telecommunication and data innovation administrations. In these areas, M-Commerce is not just being broadly acknowledged additionally it is by and large more utilized as a well-known method for business/commerce. In this paper, I attempt to give an outline of the essentials about m-commerce present statistics and limitations.

M-commerce is on a development track. It is increasing expanding acknowledgment amongst the various areas of Bangladesh. This development can be followed back to innovating and demographical advancements that have affected vital parts of the socio-economic condition in today's reality. The requirement for adaptability is by all accounts an essential main motivation behind M-Commerce applications, for

example, Mobile Entertainment, Mobile Banking and Mobile Marketing.

In Bangladesh, there is an amazingly developing number in the reception of wireless technologies in the range of M-commerce as there are more purchasers have a cell phone than having a PC at home. This is again clear in the figures reported by the Ministry of Finance, Bangladesh that currently the quantity of mobile users in Bangladesh is increasing rapidly. Notwithstanding, M-commerce is still generally new wonder contrasted with different markets in Europe and in Asia Pacific to be specific Japan, Hong Kong, Taiwan, and Singapore. The greater part of the organization in Bangladesh is still slow in giving M-commerce administrations because of lack of timely and reliable systems for the delivery of physical goods, low bank account and credit card penetration, low income, and low computer and the low rate of internet users in Bangladesh.

The main objective of the research are to discover the current statistics of m-commerce, future prospects and the main barriers on M-Commerce adoption in Bangladesh. Also suggested some recommendations to implement M-Commerce successfully in Bangladesh.

The research also considers the opportunity for online payment methods and delivery systems that would enable it to help more mechanisms of the business transaction process in a developing country such as Bangladesh.

## II. LITERATURE REVIEW

### A. M-Commerce History and Current Statistics

The rapid growth of the mobile phone users and mobile applications over the year mobile has become a vital part of human life. With the rise of mobile user, mobile commerce gets the highest priority to do business using it.

The use of mobile technology as a payment gateway was started in 1997 when Coca-Cola introduced the initial two cell telephone empowered candy machines in Finland. They could send portable installments to the candy machines by means of SMS instant messages. At the same time and nation that an M-Commerce based managing an account administration was presented as well.

The first mobile commerce on the online was started in 1999 by a Japanese organization name was I-mode. I-Mode was permitted clients the capacity to peruse the net,

read email, download entertainments and access other services. In the U.S.—limitless mobile phone arrangements have been none existent among significant carriers little a long time back, whereas, in the European markets, it has been the standard and now and again are the law. While Japan and Europe started 3G in 2001, the U.S. didn't introduce 3G until 2003 what's more, in Bangladesh 2012.

#### B. M-Commerce in Bangladesh

Before the end of 2008, the number of mobile subscribers was 44.6 million in Bangladesh from six operators. Where Grameenphone (47%), Warid (5%), Aktel (18%), Banglalink (23%), Citycell (4%) and Teletalk (2%) (BTRC, n.d).

Now, as of February 2016 the ratio becomes Grameenphone (43%), Airtel (8%), Robi (Atket) (21%), Banglalink (24%), Citycell (.064%) and Teletalk (3.25%) (BTRC, n.d).[11]

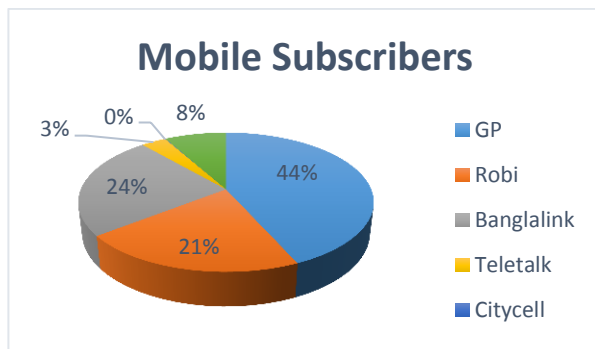


Fig.1. No of mobile phone subscribers as on February 2016

### III. PROSPECT OF M-COMMERCE

#### A. Increasing Number of Mobile Subscribers

Currently, there are six mobile operators are providing mobile services to country peoples. At the end of June 2008, the number of subscribers was 43.7 million (BTRC, Annual Report, 2007-2008). Now it has reached to 133.05 million subscribers report at the end of February 2016[11] during the same period last year was 122.657 which means the number of subscribers increased by over 10 percent in one year.

The telecom base any nation influence the online benefits directly, cause it is to a great extent relied on upon it. The telecom selection rate expanded considerably in later years, which means more individuals are near the edge of utilizing e-business or take an interest as a part of e-trade exercises.

Comparative scenarios of mobile phone subscriber Till February 2016 [11]

Table 1. No of subscribers in Bangladesh

Operator	No. of Subscribers
Grameen Phone (GP)	56.132
Banglalink	31.960
Robi	27.553
Airtel	10.351
Citycell	0.833
Teletalk	4.257
<b>Total</b>	<b>131.085</b>

The data analysis has shown below using graph depending on the above number of subscribers of different mobile service providers.

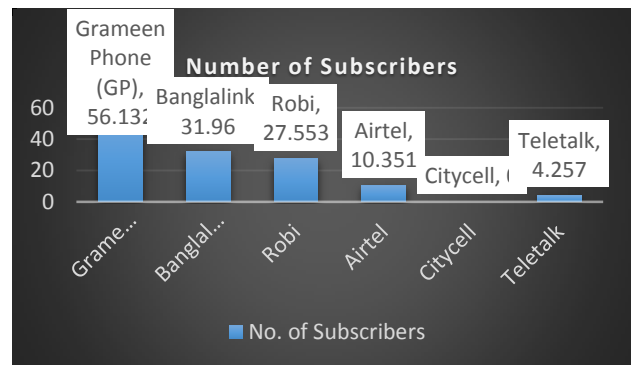


Fig.2. Comparative scenarios of mobile phone subscribers

#### B. Increasing number of Internet users

According to BTRC, the current mobile internet users has reached to 53.431 million at the end of January 2016 whereas ISP and PSTN internet users are 2.594 million. This expansion in web usage sets off the utilization of various e-business destination's past said in this task.

### IV. TYPES OF M-COMMERCE SERVICES OFFERED IN BANGLADESH

The central bank has given guidelines on "Mobile Financial Service for Bank" in September 2011. It has given 10 licenses to bank to perform full-fledged financial services using mobile. The two leaders have come forward with largest customer based and agent networks. The bKash was provided by BRAC bank and DBBL Mobile banking is provided by Dutch Bangla Mobile bank. Now mobile banking has become a very popular media to perform any financial activity. Now a day's mobile transactions has expanded to the following areas-

- ✓ Bill pay through mobile phone
- ✓ Mobile Remittance/ Banking
- ✓ Buying Ticket of Bus, Train, Launch, movie etc.
- ✓ Booking Hotel and Restaurant
- ✓ Mobile Marketing
- ✓ Shopping

## V. THE PROBLEM OF THE RESEARCH

In 1997 the internet was functioning for the first time in Bangladesh. (Debnath, 2007). At the starting point, the young population of the higher class used the internet for chatting and other web surfing. Internet was out of reach for poor people. On the other hand around 32% of total population use cellular telephones. So the risk of development of mobile commerce is more than that of e-commerce. However, the mass individuals can't get the benefits of most recent innovation of M-commerce or electronic commerce.

The research proposed to do this examination to discover the suitable rule for installment framework for the association with the goal that it will convey many offices to mass individuals. Also, it is important to identify the constraint to implement m-commerce business in Bangladesh. As the mobile subscribers are increasing rapidly the government also should implement the new rules and regulations to expand m-commerce business. So that all customer shopping anywhere at any time without any hassle.

## VI. CURRENT SCENARIOS OF M-COMMERCE IN BANGLADESH

### A. Survey and Data Analysis among different providers

There are a number of online businesses are found in Bangladesh those are doing M-Commerce. Most of the vendors are using the same policies for payment and other aspects. According to Alexa ranking few Bangladeshi sites are enumerated below-

Table 2. Subscribers site rank statistics

Provider	Alexa Rank	BD Rank
bikroy.com	5,671	28
ekhanei.com	17,136	98
kenakata.com	9,800,265	no
daraz.com.bd	14,555	77
shoppersbd.com	168,855	794
busbd.com.bd	437,464	2,231
shohoz.com	118,286	523

According to the data's, a highest number of users are using Mobile commerce for buying tickets of different categories and second highest no of users are using mobile commerce for online shopping then third highest no of users are using C2C for buying or selling products through online using mobile.

The graphical representation of site ranking using Alexa ranking is presented below-

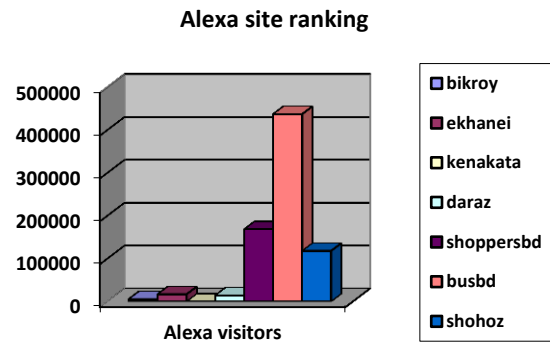


Fig.3. Alexa rank statistics

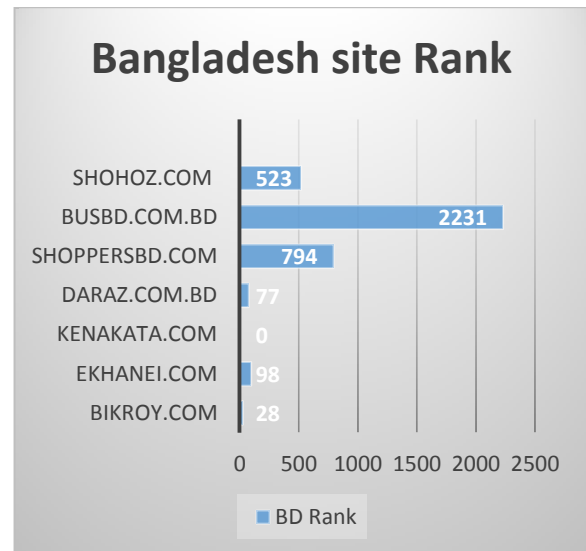


Fig.4. Bangladesh rank using Alexa

## VII. RESEARCH METHODOLOGY

Statistical data analysis depending on following criteria's are done for the bellow service providers. In these findings, most of the companies are using almost same payment system and policies.

- ✓ Model B2C model
- ✓ Target Audience
- ✓ Payment System
- ✓ Coverage Area
- ✓ Language Support
- ✓ Revenue model- Sales of goods Ads, Subscription fees, transaction fees.

## VIII. DATA ANALYSIS

### A. ekhanei.com

Table 3. ekhanei.com statistics

Model	C2C model
Target Audience	All Populations
Coverage Area	Six Divisions
Payment System	Hand to Hand when delivering the product.
Site Access	No need to register.
Language Support	English, Bengali
Shipping Policy	Hand to Hand

B. *bikroy.com*

Table 4. bikroy.com statistics

Model	C2C model
Target Audience	All Populations
Coverage Area	Six Divisions
Payment System	Hand to Hand when delivering the product.
Site Access	No need to register.
Language Support	English, Bengali
Shipping Policy	Hand to Hand

C. *daraz.com.bd*

Table 5. daraz.com.bd statistics

Model	B2B, B2C, C2C model
Target Audience	Bangladesh, Pakistan, Myanmar
Coverage Area	International provider (Bangladesh, Pakistan, Myanmar)
Payment System	Credit Card, bKash, Home pay, Courier pay.
Site Access	No need to register.
Language Support	English, Bengali
Shipping Policy	Hand to Hand, Courier

D. *shoppersbd.com*

Table 6. shoppersbd.com statistics

Model	B2B, B2C model
Target Audience	All Populations
Coverage Area	Six Divisions
Payment System	Hand to Hand when delivering the product.
Site Access	No need to register.
Language Support	English
Shipping Policy	Hand to Hand, Courier.

E. *chaldal.com*

Table 7. chaldal.com statistics

Model	B2B, B2C model
Target Audience	All Populations
Coverage Area	Dhaka city, except certain parts of Old town.
Payment System	Hand to Hand when delivering the product, credit card bKash
Site Access	Need to register.
Language Support	English, Bengali.
Shipping Policy	Hand to Hand, Courier.
Products	Food, Groceries, Home appliances etc.

F. *shohoz.com*

Table 8. ekhanei.com statistics

Model	B2C model
Target Audience	All Populations
Coverage Area	Whole Bangladesh
Payment System	Credit Card, Mobile bank bKash and DBBL, SureCash, MTB
Site Access	Registration required
Language Support	English
Shipping Policy	Hand to Hand, Courier.
Products	BUS, Train and Lunch, event and movie ticket

G. *busbd.com.bd*

Table 9. busbd.com statistics

Model	B2C model
Target Audience	All Populations
Coverage Area	Whole Bangladesh
Payment System	Credit Card, Mobile bank bKash and DBBL, SureCash.
Site Access	Registration required
Language Support	English
Shipping Policy	Hand to Hand, Courier.
Products	Bus ticket.

## IX. MOBILE APPS STATISTICS OF M-COMMERCE PROVIDERS

To explore M-commerce business, the first step is to develop mobile apps for the client for surfing and placing an order through mobile phone. Good mobile apps should be user-friendly, so that client can place an order without any hassle. For statistical analysis, I collected some data's from Google play store where few points are shown below in tabular format-

Table 10. Apps statistics from Google play store

Providers	Google Play Data
biroy.com	Updated -April 1, 2016 Size- 4.5M Installs- 500,000 - 1,000,000 Current Version- 0.9.57 Requires Android- 4.0 and up Content Rating- Rated for 3+ Offered By- Bikroy
ekhanei.com	Updated- June 9, 2015 Size- 5.5M Installs- 500,000 - 1,000,000 Current Version- 10.1.3.28 Requires Android- 2.3.3 and up Content Rating- Rated for 3+ Interactive Elements Users Interact, Shares Info
kenakata.com	Updated- December 5, 2014 Size- 4.5M Installs- 10,000 - 50,000 Current Version- 2.0 Requires Android- 3.0 and up Content Rating- Rated for 3+ Offered By- Tech Fiesta

daraz.com.bd	Updated- March 23, 2016 Size- 8.0M Installs- 1,000,000 - 5,000,000 Current Version- 1.8.1 Requires Android- 4.0.3 and up Content Rating- Rated for 3+ Interactive Elements Digital Purchases
bdonlineshop.com	Updated- September 13, 2015 Size- 13M Installs- 1,000 - 5,000 Current Version- 3.0.1 Requires Android- 2.3.3 and up Content Rating- Rated for 3+ Offered By- NameLess
shoppersbd.com	Updated- January 8, 2016 Size- 2.6M Installs- 1,000 - 5,000 Current Version- 1.0 Requires Android- 2.3 and up Content Rating- Rated for 3+ Offered By- DigiWebApps
chaldal.com	Updated- December 16, 2015 Size- 17M Installs- 5,000 - 10,000 Current Version- 1.1.3 Requires Android- 4.0.3 and up Content Rating- Rated for 3+ Offered By- Chaldal
busbd.com.bd	Updated- December 29, 2015 Size- 2.2M Installs- 1,000 - 5,000 Current Version- 1.2 Requires Android- 4.0 and up Content Rating- Rated for 3+ Offered By- MR Soft BD
Shohoz.com	Updated- March 9, 2016 Size - 6.0M Installs- 1,000 - 5,000 Current Version- 2.2.0 Requires Android- 4.1 and up Content Rating- Rated for 3+ Offered By- Shohoz.com
bdtickets.com	Updated- July 24, 2015 Size- 4.7M Installs- 500 - 1,000 Current Version- 1.1 Requires Android- 3.0 and up Content Rating- Rated for 3+ Interactive Elements Digital Purchases Offered By- Boss Devs

[Data collected from Google play store as on 01<sup>st</sup> April 2016]

According to downloaded and installed mobile apps of specific stakeholders, a statistical analysis has been done-

Table 11. Downloaded apps by users

Provider	Installed mobile apps by No. Users
bikroy.com	500,000 - 1,000,000
ekhanei.com	500,000 - 1,000,000
kenakata.com	10,000 - 50,000
daraz.com.bd	1,000,000 - 5,000,000
shoppersbd.com	1,000 - 5,000
chaldal.com	10000-50000
busbd.com.bd	1,000 - 5,000
Shohoz.com	1,000 - 5,000

## X. CHALLENGES AND OPPORTUNITIES

There is no doubt that the main cause of the increase of mobile commerce is customer demand. The shopper like to have the flexibility and choose to shop online anytime at anywhere. Consumers are using more and more Smartphone and trying to compare the product and pricing from different online stores. At the same time, demand is creating for retailers to satisfy the customer by providing good services and building trust. The reality of the most customers of Bangladesh is that they would like to buy products by investigating on their own hand. Though there are a lot of M-commerce providers doing business around the country but still there are a lot of challenges are there those should be overcome to explore the possibility of this business. This research has found the bellow constraints or challenges –

- High internet uses cost
- Poor knowledge of internet promoting
- Absence of Government and Private companies' involvement
- Lack of ICT education and Training
- Poor literary knowledge
- Absence of shipping policy
- Lack of Privacy policy
- Restriction of online payment gateway
- Achieving of Client trust
- Lack of awareness

## XI. CONCLUSION

This research has examined some important factors of M-Commerce those were not written earlier like the current growth of mobile and mobile internet users in Bangladesh, research also has been done on m-commerce providers site rank using tools and statistics of mobile apps uses by customers. M-commerce business scenarios and limitations those includes an absence of secure payment systems, lack of awareness, lake of achieving client trust and poor ICT knowledge.

## XII. LIMITATION AND FUTURE RESEARCH

This research is neither a technical research of m-commerce nor does it discuss the government policies, rather finding out the opportunities and challenges of m-commerce in Bangladesh based on the experimental study. It would be better if I could collect data using questionnaires to survey that could have helped address the specific issue that emerged later in the study.

Future exploration could quantify the financial effect of m-commerce. Investigation of Governmental strategies in this field could be a decent research work. The other significant examination could be to perceive the total amount of revenue generated from mobile commerce.

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