



## PROSPECT OF E-BANKING IN BANGLADESH: NEW WAY TO MAKE BANKING ELECTRONIC



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### ABSTRACT

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Being a developing country E-banking opened up tremendous opportunity to the financial sector and economic development of Bangladesh. This paper studies prospects of e-banking in Bangladesh, considering the performance of Dutch Bangla Bank Ltd. (DBBL) and BRAC Bank Ltd. To evaluate the performance of DBBL and BRAC bank seven trend equations have been tested for different activities of DBBL and BRAC Bank. Among them trend value of number of ATM, recoveries from clients, number of branches, charges from services, income from IT service, card expenses, depreciation on computer equipment and software, other operating expenses, cash carrying charges, net income and EPS are positive in case of both banks during the period of 2008-2015. The square of correlation coefficient ( $r^2$ ) of number of ATM, recoveries from clients, number of branches, income from IT service, card expenses, depreciation on computer equipment and software, other operating expenses, cash carrying charges, net income and EPS is more than 0.5. It indicates the prospect of E-banking in Bangladesh is very bright

**Contribution/ Originality:** The study highlighted different types of E-banking instrument in Bangladesh and also focused on E-banking performance of two pioneer banks i.e. DBBL and BRAC Bank which showed there is a tremendous opportunity of E-banking in Bangladesh.

### 1. PORTRAIT OF E-BANKING IN BANGLADESH

In the past few years electronic banking has been growing in Bangladesh at a rapid rate. The Central Bank of Bangladesh (BB) is playing the key role in this growth as it is providing environment as the regulator of the financial sector. It has continued its effort to frame regulations to improve quality of banking service and ensure its security. Banks are going online in view of the demand and inevitability of paper less fast banking. E-banking provides banking facility as well as assists a country to get attached to the international economy and business.

To avail the opportunity of e-business, banking sector in Bangladesh has been initiated e-banking system which has opened a new horizon of e-business, creating immense opportunities for marketing products and managing banking organizations internationally. Progressively, internet system has been creating a new standard and electronic fund transfer can have a suitable formation.

E-banking operations in Bangladesh showed a modest growth in year 2015 with higher volume of ATM based transactions. Number of plastic card holders also went up about 10 percent in year 2015. 55 out of 56 banks had at least one online branch and 40 banks introduced internet banking facility in December 2015. To address the customers' demand, today's banks are more inclined to utilize technological advantages. (*Bangladesh Bank, Financial stability report, 2015*)

E-Banking Scenario at End-December, 2015

Type of Bank	No. of ATMs	No. of Total Branches	No. of Online Branches	% of Online Branches
State Owned Commercial Banks	155	3,697	2,673	72.30
State Owned Development Banks	0	1,408	94	6.70
Private Commercial Banks	7,429	4,278	4,258	100
Foreign Commercial Banks	165	75	75	100
Total	7,749	9458	7100	279

Source: Quarterly Review Report on Green Banking activities of Banks & FIs and Green Refinance Activities of BB

## 2. LITERATURE REVIEW

[Abaenewe et al. \(2013\)](#) investigates Nigerian banks profitability performance with the implementation of electronic banking system. The paper shows that implementation of e-banking in banking of Nigeria has positive impact and significantly improve the ROE but not significantly improve the return on asset.

[Biswas et al. \(2011\)](#) reviews the various forms of e-banking accompanied by a field survey and explored the challenges and prospect of e-banking in Bangladesh. He argues that having wide spread poverty and illiteracy, e-banking is an important issue and significant for Bangladesh as in the most countries of the world.

[Salehi and Alipour \(2010\)](#) examines that Iranian banking sector get several advantages with the adoption of e-banking. The authors reveal that Iranian banks are less efficient in banking transaction due to the customer's lack of sufficient information regarding e-banking facilities. Introducing a good initiative of bankers as well as Iranian legislators of e-banking services at mass level the problem can be resolved.

[Ali \(2010\)](#) inspects the present status of e-business and online banking system in Bangladesh. Mainly the paper focused on how e-business facilitates improved productivity and eventually impacts on GDP growth. Overall, the e-business fulfils the customer need of faster operation through alternative delivery channels.

[Agboola \(2006\)](#) analyses Nigeria's tele-banking and electronic payment services. The study depicts primary hindrance behind effective tele-banking business in the country, specifically lack of proper infrastructure such as telecom services, power supply. They also explore that with the help of tele-banking services, customer relationship and loyalty can be enhanced and market share for the banking operation can be expanded.

[Malarvizhi and Geetha \(2008\)](#) investigates that Indian customers are more concern about the security and privacy issue in acceptance of e-banking services. The study uses Descriptive statistics and Regression analysis using 200 respondents through a structured questionnaire. The study finds that if banks can ensure adequate safety and proper guideline, only then customers will adopt e-banking services deliberately.

## 3. OBJECTIVE OF THE STUDY

The objectives of the study are:

- To describe different types of e-banking services around the world.
- To analyze the importance and prospect of e-banking in Bangladesh.
- To depict the performance of DBBL and BRAC Bank Ltd in terms of their e-banking services.
- To make the essential suggestion of e-banking system in Bangladesh.

#### **4. SCOPE AND METHODOLOGY OF THE STUDY**

Both quantitative and qualitative analysis has been done in this study. All the information has been collected from secondary sources like journal article, annual report, brochures, magazines and various articles. The study tried to analyze the performance of two leading private commercial bank DBBL and BRAC bank by evaluating their activities from year 2008 to 2015 through the statistical measures i.e. growth rate analysis, trend equation, square of correlation coefficient etc.

#### **5. DIFFERENT FORMS OF E-BANKING**

Different forms of E-banking system provide various customer services through various techniques or products.. In this section, the basic types of E-banking products are presented:

##### **5.1. Automated Teller Machine (ATM)**

ATM is the extensively used e-banking services among the other electronic fund transfer services. With this automated computing machine, clients can deposit or withdraw any time of 24 hours a day. Through ATM service, bank can render its retail services to the clients' door which save their time and earn profit by providing services at lower cost.

##### **5.2. Debit Card**

Debit card is one of the systems of electronic fund transfer. It is called cash card or asset card. Through debit card, money can be withdrawn from deposit account and fund can be easily transferred in electronic way with this card.

##### **5.3. Credit Card**

Credit card is a popular process in retail electronic banking. Clients who have enough money in their deposit account are the main holder of this card. This card is used for payment of product or service or for withdrawing cash from some specific instructions.

##### **5.4. Point of Sale (POS) Service**

Under POS service, card owner's accounts became debit and seller's accounts became credit for the amount of the purchased goods or services. Fund can be transferred by two ways: Seller is required to make a sales draft like credit card. Then this sales draft would debit the card owner's account and credit the seller's account. Respective clients/financial institution/sellers account's are to be debited or credited by transferring taka from online point of sale terminals.

##### **5.5. Home Banking**

Through developed electronic fund transfer system, banks can offer its financial services to the doors of customers. Banks start home banking service through launch of telephone bill payments (TBP) process. TBP is a process by which People can communicate with their respective person via telephone and make the telephone bill. The financial institutions collect the bill to debit their client's account and transfer the funds to the client directed payee account.

##### **5.6. Wire Transfer**

People can easily transfer money from one person to another or from one to another place through wire transfer. In order to make a wire transfer an individual needs to visit a bank and provide detailed order of making the wire transfer. Banks require IBAN and BIC codes for knowing exactly where they need to send the money.

## **6. PROSPECT OF E- BANKING IN BANGLADESH**

### **6.1. Global Aspect**

The extent and opportunity of E-banking spreading not only in develop country but also in developing countries, like, Thailand, Malaysia, Nepal and Singapore and a less significant extent in Philippines. Various e-banking services used by Nepal's commercial banks i.e. credit card, tele-banking, and SMS-banking to make the banking system electronics. In Korea e-banking has increased at a faster way mainly focus on online brokerage and Mobile banking. In Bangladesh the government's emphasis on building a digital system, setting up ICT park, raising allocation for developing ICT infrastructure, waiving taxes on computer peripherals and other Measures including the automation program of banking sector led by the Bangladesh Bank.

### **6.2. Government Scheme**

The Bangladesh Railway owns a high-speed optical fiber network (1,800 km) parallel to the railway path that covers most of the important parts of Bangladesh. This high-speed optical fiber network has been used by the Foreign Commercial Banks and Private Commercial Banks (PCBs) for conducting online transactions. Government makes a plan to standardize 389 upazilas by establishing Digital telephone exchanges and 17 growth centers.

### **6.3. Banking Sector**

Banking sector performs customer friendly services to make banking transaction easier. In Bangladesh foreign banks invested adequate fund in e-banking services and play the pioneer role among the private and public banks. Now as like the activities of foreign bank, private banks are using E-banking systems by offering different types of electronic facility like ATM services, electronic fund transfer, debit card, credit card etc.

### **6.4. Plastic Money Boom**

Plastic money i.e. debit, credit and pre-paid cards, is increasing through a number of people is using plastic money to avoid long queues in banks' counters to withdraw cash or risk of carrying cash. With the passage of time withdrawal of cash from the ATM increased by around 26 percent in 2015-16. Total ATM transaction stood at Tk. 1.04 trillion or Tk. 1047.64 billion in 8,571 ATM booths across the country at the end of June 2016. In 2014-15, banks' clients withdrew some Tk. 832.40 billion from 6,800 ATM booths across the country. Plastic money becomes one of the accepted ways where customers need not to carry cash at the time of shopping and payment of bills in hotels and restaurants.

## **7. E-BANKING PERFORMANCE OF DBBL AND BRAC BANK LIMITED**

### **7.1. Number of ATM**

Table-1 showed the growth percentage of number of ATM of DBBL and BRAC bank. The number of ATM increased tremendously both in DBBL and BRAC Bank Ltd. from year 2008 to 2015. In 2009 number of ATM was double in DBBL and 41.60 percent growth of ATM in BRAC Bank Ltd. which was highest growth rate of these banks.

### **7.2. Recoveries from Clients**

Table: 2 demonstrated the growth of recoveries from clients of DBBL and BRAC Bank Ltd. from year 2008 to year 2015. By providing continuous online services banks charges some cost which sometimes due from client intentional or unintentional movement. To recover these banks initiate many techniques which help bank to recover from clients. DBBL and BRAC Bank Ltd. recoveries from client showed an increasing trend up to year 2011 but drastically decrease from year 2012 to year 2015.

Table-1. Number of ATM

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	350	--	125	--
2009	700	100.00	177	41.60
2010	1100	57.14	230	29.94
2011	1940	76.36	293	27.39
2012	2366	21.96	293	0
2013	2454	3.72	333	13.65
2014	2705	10.23	374	12.31
2015	3588	32.64	386	3.21

Source: Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

Note: US \$1 = BDT 78

Table-2. Recoveries from Clients (BDT)

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	32,314,959	--	N/A	--
2009	44,097,703	36.46	N/A	N/A
2010	62,273,689	41.22	N/A	N/A
2011	74,927,309	20.32	1,006,773,258	N/A
2012	108,851,292	45.28	1,006,773,258	0
2013	100,217,593	-7.93	N/A	N/A
2014	101,831,928	1.61	101,831,928	N/A
2015	109,342,613	7.38	109,342,613	7.38

Source: Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

Note: US \$1 = BDT 78

Note: N/A- Data not available

### 7.3. Number of Branches

Table: 3 revealed that DBBL branches increased to 155 in year 2015 which was 64 in year 2008. Number of branches increases every year of DBBL and BRAC Bank Ltd. branches increased to 103 in year 2015 which was 86 in year 2008. The increasing trend of branches indicated that both banks are performing well from previous year.

Table-3. Number of Branches

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	64	--	86	--
2009	79	23.44	70	-18.60
2010	96	21.52	79	12.86
2011	111	15.63	81	2.53
2012	126	13.51	81	0
2013	136	7.94	88	8.64
2014	145	6.62	97	10.23
2015	155	6.90	103	6.19

Source: Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

Note: US \$1 = BDT 78

### 7.4. Charges from Services

By introducing e-banking services to all the branches, DBBL and BRAC Bank Ltd. providing better customer service to all clients. To do those services bank entail different service charge this is one of the major sources of bank income. Table: 4 showed that charges from services of DBBL and BRAC Bank Ltd. increased from year 2010 to year 2013. On the other hand charges from services of DBBL decreases to Tk.24,533,337 in year 2014 which was Tk.29,281,939 in year 2013 and BRAC Bank Ltd. experienced Tk.24,523,337 charges from services in year 2014 which was far below from year 2013 which was Tk. 222,546,342 i.e 88.98% decreased from previous year.

**Table-4.**Charges from Services (BDT)

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	14,310,722	--	131,256,562	--
2009	19,490,353	36.19	121,056,989	-7.77
2010	21,946,876	12.60	165,432,788	36.66
2011	30,931,596	40.94	220,138,299	33.07
2012	26,363,155	-14.77	220,138,299	0.00
2013	29,281,939	11.07	222,546,342	1.09
2014	24,523,337	-16.25	24,523,337	-88.98
2015	25,115,945	2.42	25,115,945	2.42

**Source:** Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

**Note:** US \$1 = BDT 78

## 7.5. Income from IT Services

Table: 5 explicated the growth of IT service of DBBL and BRAC Bank Ltd. It is observed that DBBL has experienced a high growth of income from IT services from year 2008 to year 2015. The highest growth of income observed from IT services in DBBL in year 2010 which was 109.74%. On the other hand BRAC bank income from IT services shows an ups and down trend which did not consistent every year. The highest income BRAC Bank achieved in year 2008 which was Tk. 5,217,412,505.

**Table-5.**Income from IT Service (BDT)

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	119,586,189	--	5,217,412,505	--
2009	203,572,587	70.23	4,765,890,098	-8.65%
2010	426,977,936	109.74	2,980,768,987	-37.46%
2011	712,189,748	66.80	957,890,876	-67.86%
2012	1,033,471,918	45.11	1,098,767,654	14.71%
2013	1,236,680,465	19.66	897,676,554	-18.30%
2014	1,345,607,542	8.81	1,345,607,542	49.90%
2015	1,425,111,822	5.91	1,425,111,822	5.91%

**Source:** Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

**Note:** US \$1 = BDT 78

## 7.6. Cards Expenses

Managing business with cash only can be a risky application and can be unsafe to carry large amounts of cash to make payments and buy things for business. To reduce the riskiness, carrying a ATM card, debit card and credit card can make payment a lot easier. For the maintenance of these cards banks have to bear some cost which must be controllable to increase the revenue. DBBL and BRAC bank cards expenses show a (**Table: 6**) decreasing trend from year 2009 to year 2013. In year 2012 and year 2013 growth of card expense of BRAC Bank Ltd. was zero and in year 2015 growth of card expense of DBBL was 19.75%.

**Table-6.** Cards Expenses (BDT)

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	37,081,629	--	6,117,410	--
2009	49,040,291	32.25	20,851,669	240.86
2010	66,790,854	36.20	26,381,961	26.52
2011	83,053,661	24.35	41,632,638	57.81
2012	102,269,816	23.14	75,074,914	80.33
2013	125,234,995	22.46	75,074,914	0.00
2014	233,368,570	86.34	233,368,570	210.85
2015	279,461,049	19.75	279,461,049	19.75

**Source:** Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

**Note:** US \$1 = BDT 78

### 7.7. Cash Carrying Charges

Table: 7 showed the growth pattern of cash carrying charges of DBBL and BRAC Bank Ltd. It is reflected from the table that cash carrying charges of DBBL was highest in year 2012 and lowest in year 2009. From year 2013 to year 2015 the growth of cash carrying charges showed a decreasing trend which was a positive impact on revenue of DBBL. Consequently cash carrying charges of BRAC Bank Ltd. was same in year 2011 and year 2012 i.e Tk. 45,852,411. The growth pattern was following a decreasing trend of BRAC Bank Ltd. year after year and in year 2014 the growth was 1.98%.

**Table-7.** Cash Carrying Charges (BDT)

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	13,292,910	--	29,444,851	--
2009	8,952,171	-32.65	34,797,360	18.18
2010	11,465,802	28.08	53,757,543	54.49
2011	34,681,507	202.48	45,852,411	-14.71
2012	46,083,465	32.88	45,852,411	0.00
2013	39,942,217	-13.33	56,550,265	23.33
2014	29,722,795	-25.59	57,667,278	1.98
2015	29,575,151	-0.50	29,575,151	-48.71

**Source:** Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

**Note:** US \$1 = BDT 78

### 7.8. Other Operating Expenses

In carrying out an organization's day-to-day activities, various operating expenses i.e. rent, salary, commissions, transportation etc. has been occurred. Table: 8 depicted growth of Other Operating Expense of DBBL and BRAC Bank Ltd. It is observed that DBBL growth of other operating expenses was very low during year 2009 to 2011 which was 7.21%, 2.25% and 1.93% but during year 2013 and year 2014 it reached a highest range. Other operating expenses of BRAC Bank Ltd. were high from year 2009 to year 2010 but after that it decreases spontaneously.

**Table-8.** Other Operating Expenses (BDT)

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	9220324	--	77,940,198	--
2009	9876456	7.12	155,559,931	99.59
2010	10098654	2.25	274,343,794	76.36
2011	10293429	1.93	100,908,901	-63.22
2012	7794173	-24.28	93,786,567	-7.06
2013	13932564	78.76	56,789,409	-39.45
2014	34351081	146.55	34,351,081	-39.51
2015	37086358	7.96	37,086,358	7.96

**Source:** Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

**Note:** US \$1 = BDT 78

### 7.9. Depreciation on Computer Equipment and Software

The growth pattern of depreciation on computer equipment and software of DBBL and BRAC Bank Ltd. are reflected from table: 9. it is reflected from the table that almost every year depreciation on computer equipment and software of DBBL and BRAC Bank Ltd. has decreased from the previous year. The lowest growth observed in DBBL in year 2014 which was 2.04% and .04% of BRAC Bank Ltd. in year 2013.

**Table-9.** Depreciation on Computer equipment and software (BDT)

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	121,942,716	--	146,852,041	--
2009	178,838,495	46.66	190,468,050	29.70
2010	237,896,584	33.02	208,654,390	9.55
2011	433,467,027	82.21	194,230,484	-6.91
2012	307,634,674	-29.03	194,230,484	0.00
2013	353,164,601	14.80	194,304,384	0.04
2014	360,365,689	2.04	183,271,754	-5.68
2015	392,160,534	8.82	392,160,534	113.98

Source: Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

Note: US \$1 = BDT 78

### 7.10. Net Income

It is observed from the table: 10 that the net income of DBBL and BRAC Bank Ltd. increased from the previous year during 2008 to 2015. BRAC Bank Ltd. has earned net income in every year but has failed to increase the net income from the previous year in 2011 and 2012. The growth rate of net income is stable and high in DBBL.

**Table-10.** Net income (BDT)

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	821,665,049.00	--	973,450,830.00	--
2009	1,137,698,057.00	38.46	1,373,364,871.00	41.08
2010	2,002,315,963.00	76.00	2,073,059,083.00	50.95
2011	2,154,888,410.00	7.62	1,702,381,869.00	-17.88
2012	2,314,100,000.00	7.39	699,784,295.00	-58.89
2013	2,000,000,000.00	-13.57	1,397,000,000.00	99.63
2014	2,206,600,000.00	10.33	2,092,000,000.00	49.75
2015	3,020,300,000.00	36.88	2,435,000,000.00	16.40

Source: Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

Note: US \$1 = BDT 78

### 7.11. Earnings per Share (EPS)

It is reflected from the table-11 that the EPS of DBBL and BRAC Bank Ltd. is very high during 2014 to 2015. It is observed that the EPS of DBBL is more than Tk.75 during year 2009. It is also reflected that growth of EPS of BRAC Bank Ltd. is more than 40% in year 2010 and year 2014. It indicates DBBL and BRAC Bank Ltd. earning very high profit.

**Table-11.** Earnings per share

Year	DBBL	Growth (%)	BRAC Bank	Growth (%)
2008	54.78	--	62.3	--
2009	75.85	38.46	48.24	-22.57
2010	10.01	-86.80	68.17	41.31
2011	10.8	7.89	4.61	-93.24
2012	11.6	7.41	1.74	-62.26
2013	10	-13.79	2.47	41.95
2014	11	10.00	3.19	29.15
2015	15.1	37.27	3.43	7.52

Source: Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

Note: US \$1 = BDT 78



### 7.12. Trend Equation of DBBL

Table:12 showed the summary of trend equation and  $r^2$  of number of DBBL where number of ATM, recoveries from clients, number of branches, charges from services, card expenses, cash carrying charges, other operating expenses, depreciation on computer equipment and software, net income and EPS. It is observed from the table that all variables trend equation is positive except recoveries from client, income from IT services, charges from services, other operating expense, EPS and goodness of fit is higher than 0.50 except charges from services, cash carrying charges, net income, where  $r^2$  0.13, 0.10, and 0.22. It indicates trend equations are well fitted.

**Table-12.** Trend Equation of DBBL

Particulars	Yc= a+bx	r <sup>2</sup>
Number of ATM	Yc=1900.38+368.35x	0.96
Number of Branches	Yc=114+10.95x	0.98
Recoveries from client	Yc=79232135.75+9852084.7x	0.90
Income from IT service	Yc=812899775.9+176481577.1x	0.98
Charges from services	Yc=23995490.38+1140358.82x	0.39
Cards Expenses	Yc=122037608.1+27643449.23x	0.84
Cash Carrying Charges	Yc=298183790+28835942.25x	0.60
Other Operating Expense	Yc=26714502.25+3263260.4x	0.47
Depreciation on Computer equipment and software	Yc=16581629.87+3167609.58x	0.60
Net Income	Yc=1957195935+202597088.28x	0.74
Earnings per share	Yc= 24.89+(5.87)x	0.45

Source: Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

Note: US \$1 = BDT 78

### 7.13. Trend Equation of BRAC Bank

Table:13 showed the summary of trend equation and  $r^2$  of number of BRAC Bank where number of ATM, recoveries from clients, number of branches, charges from services, card expenses, cash carrying charges, other operating expenses, depreciation on computer equipment and software, net income and EPS. It is observed from the table that all variables trend equation is positive except EPS and Goodness of Fit is higher than 0.50 except charges from services where  $r^2$  0.13. It indicates goodness of fit of trend equations is high.

**Table-13.** Trend Equation of BRAC Bank Ltd

Particulars	Yc= a+bx	r <sup>2</sup>
Number of ATM	Yc=276.37+30.68x	0.94
Number of Branches	Yc=85.63+2.78x	0.61
Recoveries from client	Yc=929956015.03+(213586143.3)x	0.83
Income from IT service	Yc=2336140754.75+(490922641.5)x	0.66
Charges from services	Yc=141276070.12+(9998938.6)x	0.13
Card expense	Yc= 69891588.37+12753635.13x	0.91
Cash Carrying Charges	Yc= 44187158.75+1245273.3x	0.10
Other Operating Expense	Yc=103845779.87+(16154550.23)x	0.51
Depreciation on Computer equipment and software	Yc=-213021515.12+15515751.2x	0.50
Net Income	Yc=1593255118.5+94123105.45x	0.22
EPS	Yc=24.26+(8.42)x	0.69

Source: Author's calculation using the different issues of Annual Report of Dutch Bangla Bank Ltd. and BRAC Bank Ltd.

Note: US \$1 = BDT 78

## 8. FINDINGS AND CONCLUSION

E-banking facility not only make banking activities faster but also provides different online services like Internet Banking, ATM, POS terminals which help people to get banking facility in a faster way. Although e-banking swindle in large scale in the country and Central Bank of Bangladesh needs to take all the necessary measures to

prevent it. This can be done through proper education on information technology & sufficient software & hardware support.

Dutch Bangla Bank Ltd. and BRAC Bank Ltd. is the pioneer which provides the Electronic banking services among the people of Bangladesh. They have employed almost all types of modern day banking facilities to provide convenience to its customers. All automated delivery channels are providing round the clock service through the mentioned hardware and software. Due to their contribution to the society as well as national economy, they have made a clear distinction and have occupied a separate and respected position in the banking sector of Bangladesh. The Central Bank of Bangladesh (BB) should set a fully E-banking services which will help to reduce the usage of manpower by saving time & money and ensure security transaction.

It has been observed that number of ATM, recoveries from clients, number of branches, charges from services; income from IT service of DBBL and BRAC Bank has increased from the previous year during 2008-2015 which indicated that both banks are able to perform activities efficiently. Every year the two company's net income and EPS also increased.

The growth percentage of recoveries from client and charges from services of DBBL and BRAC bank was fluctuating. In order to increase e-banking activities and income both banks need to increase income. On the other hand the growth rate of net income and EPS is not in a satisfactory level. DBBL and BRAC bank will be able to overcome its existing problems by following the specified suggestion of this paper, which will contribute the economic development of Bangladesh.

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