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Smart Green Banking: Product with Deposit-Payment Mechanism in Education Discipline for Inclusive Financial Growth

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I. INTRODUCTION

The people of Bangladesh are afraid of using modern banking technology because of not having IT oriented education in all spheres and not having practical knowledge in this field. The uses are being advanced in different strata of lifestyles. Bangladesh Bank is working on inclusive finance targeting to add all publics into the banking system and using technology can be included in deposit based green banking. Only the green finance is noticed in the financial services. But automation of green banking products for savings and efficient payment purpose is one kind of banking upswing strategy. Creation and implementation of automated green banking products can teach the public how a person can be a part of green banking. Bangladesh Bank has been working to make banking services universal echoing the national aspirations and democratized the financial inclusion (Bangladesh Business News, 2015).

Learning is the heart of education. Uses of green banking technology from learning stage enrich the knowledge level of students who are the next driver of the economy. Targeting to the group of people, green banking automation will be a parley to financial services.

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Ready successors to lead a country are the university going students undoubtedly. Total number of university going student were 2849865 in 2014 of public university and 330730 in 2014 of private universities in Bangladesh (University Grant Commission, 2015). Since the large numbers of students have no boundary to be city based, the rural students in higher study level can enjoy banking services. In addition to this, the respective guardians are also to be accommodated with the banking facilities.

The Asian community is up growing with the automation in banking services. It is not only limited within the territory of a country, but also spread out over the boundary. The example is the establishment of payment mechanism for real time gross settlement, the 3rd cross border payment-versus-payment link between the two nearest nations of Thailand and Hong Kong in 2013 (Hong Kong Monetary Authority, 2013). Bangladesh also introduced Real Time Gross Settlement (RTGS) system in the clearing and settlement of cheques on October 29, 2015. Total 55 scheduled banks are the participants in this settlement procedure. Initially 5000 branches have been added to this service (The Daily Star, 2015). So, automation is everywhere. Now, the clue for automation in green banking services of Bangladesh is providing the customized products to a targeted group of people. The study has been done on the automation of green banking products applicable into education discipline with the uses of banking technology for the sustainable economic, environmental and financial development.

II. BACKGROUND FROM LITERATURES

David Le Blank (2015) emphasized on Goal-4 & 8 of Sustainable Development Goals (SDGs) where a link between the smart green banking & SDGs can be found in promoting sustained, inclusive economic growth and ensuring inclusive and equitable quality education and promote lifelong learning opportunities. He mentioned the SDGs have instrumental value and emphasized on the improvement of ecological and social phenomenon. Here, the outcome from integration of goal-4 & 8 is financial products that support economy, education and environment.

Dr. Sarita Bahl (2015) explained green banking as to promote environment friendly products in banking

services, where the product coverage includes green mortgage, green loan, green savings account, online banking, mobile banking etc. By imparting education and awareness green banking can contribute in sustainable development. In the field of education using of projector instead of marker and white board, interaction through video conferences, e-learning process also indicates green.

Elisa Tavilla (2015) identified in her case study on payment strategies that Asian people are apathy to make technology based transactions. Their preference is to do cash transaction in all the personal and business currency movements mentioning the Nelson Survey 2013 stated 68% people favor cash transactions.

Mustafa K. Mujeri said, "For sustaining inclusive growth, it is important to make adequate public investments in social sectors especially education and health along with other essential services so that the poor can enhance their capacity to avail newly created opportunities" (The Financial Express, 2015).

Savings are the root of banking fund. So, bank should take care of depositors rather than other services receivers. As a lender of resort, a bank must grow its savings base to get strength in financial market operations. According to J. L. Fontela (2002) the ways of growing savings base includes attracting new depositors, encouraging them to put money into account, convincing them for extra savings and doing this with lower turnover of savings. So, Education is a good platform of money savings.

III. OBJECTIVES

- To analyze the initiation of smart green banking with automation role in deposit payment mechanism.
- To highlight the involvement of student group into the financial inclusion program.
- To justify the students' habit in using green banking technology at higher study level for the sustainable economic growth.

IV. LIMITATIONS

Due to not having enough resources and data of different countries, the study has to be completed on the discussion of the present and prospective market leaders and experts. The costs involved into green banking product could not be concretely estimated in view of Bangladesh as the selected companies and financial institutions were not willing to provide to-the-point cost information. And the competitions of financial market participants were not supportive to gather data during the study period.

V. METHODOLOGY

Based on the qualitative approaches, data have been collected from the discussion with the students and PhD Scholars of different universities of various countries, financial market participants of Bangladesh

and abroad. Taking the data available from financial and research institutes, newspaper, articles of renowned journals, reports of Bangladesh Bank as well as Bank for International Settlement the study has been completed. Relevant data has been analyzed through the in-depth interview and consultation with financial experts and professional IT experts from different banks and universities based on qualitative approach. Mean calculation has been used in quantitative statistical analysis only. And decisions have been made through the cost-benefit analysis and inclusive financial contribution of smart green banking product, and the integration with Sustainable Development Goals (SDGs).

VI. SMART GREEN BANKING

The application of green banking in every sector shows the sustainable development. The idea generation of sustainability starts from education. The investment in the education technology system brings financial strength in an economy. Green banking indicates the eco-supportive products innovation as well as application by creating awareness to the people. Green card can also be issued to participate in the overall banking development work (Pal & Russel, 2015). For this reason, Automation of green banking products should be served from creation period, which not only contribute in enriching students' knowledge regarding green banking application, but also play role to the financial inclusion.

Core Banking products, generally two broad categories depending on the serving arena, are deposit and loan products, so does the Green Banking products (Fig.1). From the initiation regarding automation, green banking products can be initiated into the educational practices. No educational institute provides education without any fees. The fees include admission fee, semester/trimester fee, examination fee, improvement examination fee, monthly payroll and so on. These types of financial services are provided by the respective university itself.

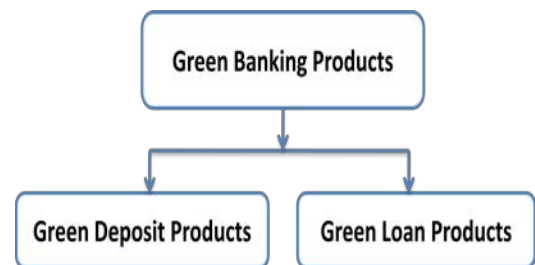


Fig.1 : Green Banking Products

Green banking products are segregated into Green Deposit Products and Green Loan Products. Bangladesh has a lot of loan products namely green finance to the specified sectors, here the green deposit products' initiation and rationality is necessary. Here, the focal point of the paper is smart green deposit product.

Green Deposit Products

The products that are provided to customer for the amount savings purpose, which are automated, are known as green deposit products. For the customization targeting to the student, higher study smart savings (HSSS) account, a green deposit product, has been introduced in this paper.

Higher Study Smart Savings Account (HSSS Account)

Higher Study Smart Savings Account is a deposit account where the students of bachelors, masters, M.Phil, PhD, Post-Doctoral level students can deposit money basically for the purpose of payment to university fees. Additional payment facilities by Point-of-Sale (POS) and withdrawal money from Automated Teller Machine (ATM) booth are also available. A student must have to open this account at the time of admission to a university for only higher study continuing purpose and after completing the higher study this account will be automatically converted into general savings account. Implementing the product will enrich the student knowledge regarding banking technology as well as habituate to stay into the banking system. The general criteria, requirements, facilities, restrictions and precautions, which should be inherited into, are below:

a) Criteria

Each and every account has some criteria fulfilling which one can open an account in the bank. For the customization of this product, the criteria are different from general savings account, where the customer must be:

- A candidate who is finally selected for admission to study into the University (Honors/Masters/M.Phil/PhD/Post-Doctoral Level)
- A valid National ID or Any other photo ID acceptable by bank

b) Requirements

At the time of opening this customized savings account, a customer (student) must provide followings demands to the bank:

- Photocopy of Valid National ID or another photo ID acceptable by bank
- Recent 03 Passport Size photograph
- 01 Reference Letter from Departmental Head and 01 from Legal Guardian with introduction.
- Photocopy of Nominee's NID or another photo ID acceptable by bank
- 01 copy Nominee's Passport Size Photograph
- A photocopy of University Registration Card (after completing registration)
- Photocopy of Student ID Card (when issued)

Initial Deposit as per bank policy and subject to the minimum amount to raise the student involvement into the banking system.

c) Facilities

The facilities provided to the customers (students) of this account, the reasons for which the students must open the account, are:

- More than general savings interest rate will be applicable.
- Account Maintenance Fee is as lower as possible can be taken bi-annually.
- Smart Student ID will be issued by the bank with Debit Card facility (See the features below in Fig.2).
- In case of not having chip supported ATM booth, an Automated Student ID will be issued and the word 'smart' should be avoided in the product name (Fig.3).
- ATM/POS supported Smart or Automated Student ID Card issuing charge is BDT 300 or more than the average cost of card (Table.1) and maintenance charge is free.
- A unique code from Bank will be provided using which a customer can generate Account Statement from bank's online services.
- Student (customer) must pay all the fees of university like Semester/Trisemester/Monthly Payment Fee/Year Change Admission fee/examination fee with or without delay charge applied by University Authority from ATM Booth placed in the university premises or nearest area selected by the bank.
- Student must input the Personal Identification Number (PIN) provided by bank in ATM booth for fee payment. Student can also download an auto generated admit card using the University ID Number from the University's web portal (If permitted by the university authority).
- Anyone can deposit money into the account from any branch of the bank using any branch banking facility.
- There is no maximum deposited amount. In case of depositing big amount the customer has to give the declaration to the bank showing the reasons behind that.
- Using Electronic Fund Transfer (EFT), anyone can transfer money into the account.
- At the time of depositing money, the respective depositor has to mention the source of money.
- A notification will be sent to customer's cell phone for any debit or credit transaction occurred in the account by message.
- Student can get the clearance certificate issued by the bank after the payment of university fees in yearly basis.
- Any scholarship and donation amount from university or outside organization to the student will be deposited into this bank account.
- If Smart Card is issued and facilitated by the respective bank, a customer can use it in any EMV enabled ATM booth or POS Machine, in addition to this s/he will also be able to use the same card in general ATM booth or POS Machine using the magnetic stripe on the back side of the card.

d) Restrictions and Precautions

Generally some restrictions and precautions must be placed into this account to utilize the facilities that are:

- No cheque will be issued for this account as an initiative for being green product.
- Minimum balance should be applied as there in general savings account.
- For transacting or paying fee more than BDT 01 Lac, consent of Departmental Head will be given to the nearest branch.
- In case of losing Smart Student ID Card, an additional charge of a little bit more than the issuing charge should be paid to the bank with a general diary copy from the nearest police station.
- After ending the study period and at the time of getting provisional certificate, the card must be submitted to the respective bank.

Features of Smart Student ID and Automated Student ID Card

Opening a HSSS account, a student will get a Student ID Card from the bank after the admission confirmation from university. Bank will issue the card with debit card facility, where the facilitated card will be either Smart Student ID Card or Automated Student ID Card.

a) Smart Student ID & Debit Card

Smart Student ID & Debit Card is one card with dual facilities including the ID and Debit Card. The smart card is facilitated with chip or EMV (Europay MasterCard Visa) enable card services. The card has a front side as well as the back side (Fig.2). A special chip with a microprocessor, where all information of customer is present, will be added in the front side of the card.

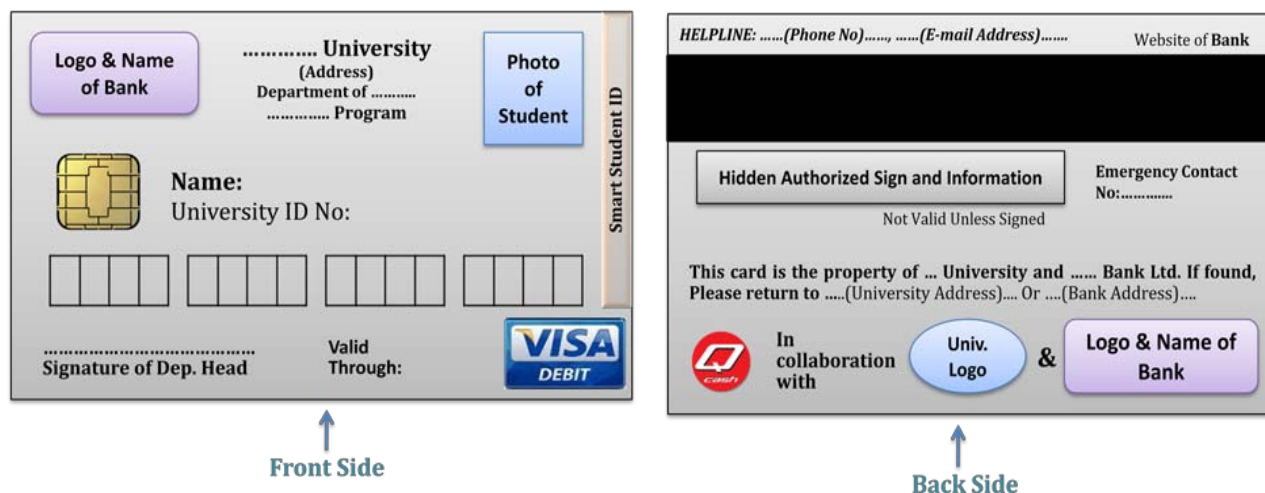


Fig. 2 : Smart Student ID & Debit Card

In addition to includes the banks logo and name, university name and address, student's photo, name and university ID number, Debit Card number, validity, signature of departmental head.

In the back side of the card, there are the helpline of bank for informing incase of immediate problem or breakage of card, the websites of bank, magnetic-stripe for ATM and POS uses, hidden authorized sign and bank information, emergency contact cell phone number by calling to which any return in case of lost to either respective department or bank, logo and name of bank and university. Bank affiliated card service providers' logo may be in the front or back or both sides of the card.

The facilities of the card are the uses the card in any university related work and verification for identity of the student, and to use the card for cash withdrawal

from ATM booths, purchasing things from Point-of-Sale, money transfer, balance check, mobile recharge, university fees payment and other basic work facilitated by the respective bank.

b) Automated Student ID & Debit Card

The Automated card is a debit card with no EMV chip. In case of no ease availability of EMV chip enable facilities, bank can render service to the students with as usual debit card facilities including the fees payment mechanism with it. In the front side the card includes the information as it is in EMV chip ID card without only chip (Fig.3).

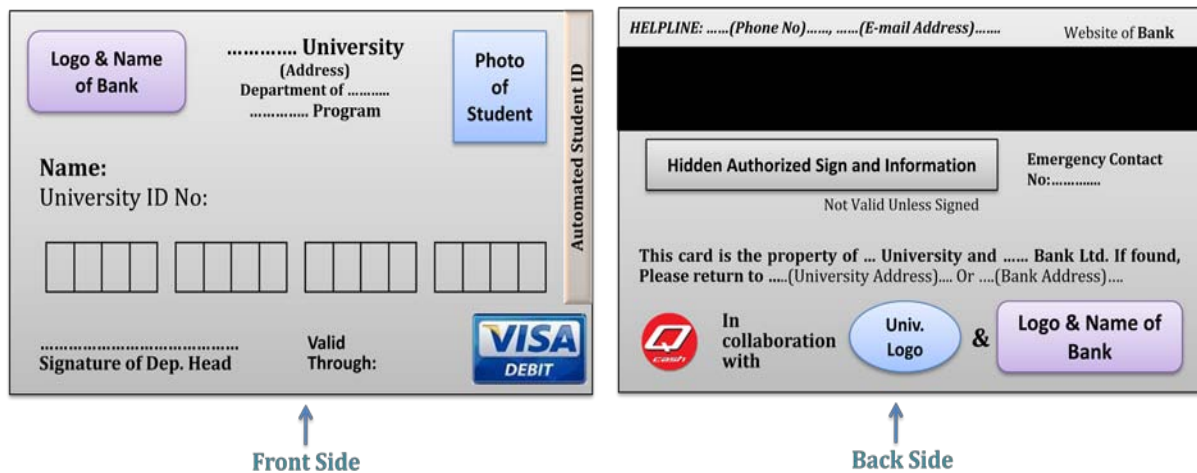


Fig. 3 : Automated Student ID & Debit Card

The chip is more secured in case of transaction. Although chip using is a little bit transaction time consuming, but the security is high. For the application of chip card, there must be an EMV enable ATM machine or POS machine to perform the transaction. In each time transaction, the 4 digit PIN code input is mandatory. The verification of customer's card with PIN number will be done through the chip enabled machine. University's basic and bank account information should be included into the chip. In Bangladesh, some banks are offering chip enabled card and rest of the banks are yet to issue chip card for their customers.

Personal Identification Number (PIN) is used both the chip enabled card and magnetic-stripe card, PIN is used for security purpose. But there is a problem with only magnetic-stripe card. In case of purchasing a product using POS, PIN is not a required input, only a

signature is enough to make transaction through POS. In 2000, 4 billion PIN based transactions and 5.5 billion transactions through signature were effected throughout the United States (Bank for International Settlement, 2003). In Bangladesh approximately with 17 crore people, it is possible and will be efficient to effect PIN based transaction through the card banking.

Service Flow with Deposit-Payment Mechanism of HSSS Account

Due to customization done for the higher study students, from the initiation of the product, a working flow is noted with deposit-payment mechanism. The flows are different and categorized into three segments mentioning the Admission Period, Study Period and Study Completion Period (Fig.4).

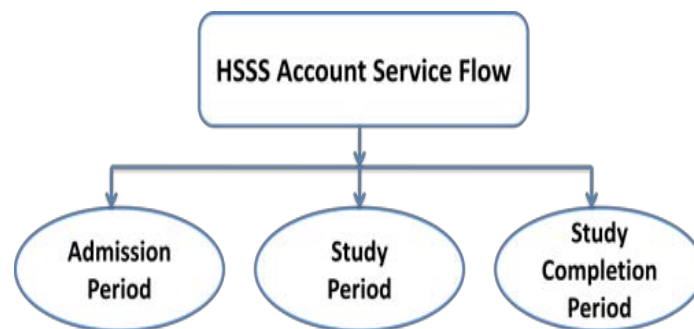


Fig. 4 : HSSS Account product and service flow in education level

a) Admission Period

A student has to follow some procedures to admit into a university. In Fig.5 the work flow are mentioned, which starts from application after the

circular for admission and ends when the students get finally admitted. The banking involvement is also mentioned here.

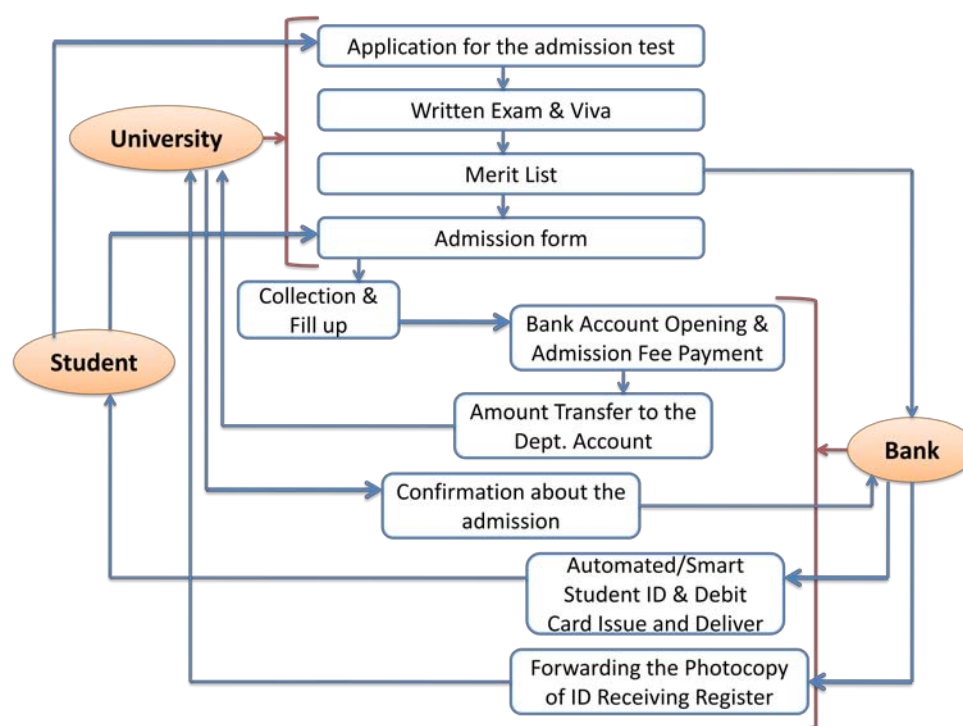


Fig. 5 : Product and service flow during the admission period in university

Here, the process of product and service is captioned in a short form. The details step-by-step procedures are below. After taking the mental preparation of student to get admission into a university-

1. A candidate has to apply for the admission.
2. In due date s/he must attend for the written test and viva-voce.
3. Final selection with merit basis and Subject (for which s/he is selected).
4. An Admission form will be collected from the respective department.
5. A formal notice with merit list will be sent to Head Office of the bank.
6. Bank will forward the notice to the selected branch nearest to university.
7. Student has to fill up the admission form and fulfill the documents.
8. S/he will go to the selected branch for opening a Higher Study Smart Savings Account.
9. Departmental Head and legal guardian will introduce into the account opening form.
10. Fulfilling the banking general requirement, the account will be opened.
11. The admission fee will be deposited into the account.
12. A portion of admission form (Bank Part) will be cut-off for the departmental head's confirmation.
13. The fee will be transferred to the account of the department.
14. Treasury of that university will collect the fund from departments' account (Function of the University).

15. A message will be automatically forwarded when the amount is debited from the student's account.
16. After confirmation from departmental head a smart student ID card or automated student ID card with debit card facility will be issued and forwarded it with pin number to the student.
17. A copy of ID receiving register will be forwarded to the respective department.

b) Study Period

After getting a student ID and debit card, s/he has to continue the study and during the period s/he will have to pay different types of university fees like semester or trimester fee, tuition fee, exam fee, development fee, library fee, penalty and so on. The duty of university is to give a notice for payment in the departmental notice board. The student will have to pay with the card going to the selected ATM Booth (Fig.6). Here, the student will see the notice board and,

18. At the time of any fee payment to the university student will go to the nearest ATM booth of that bank.
19. After pressing the ID card to the ATM machine and providing the pin number, the university fees payment (U-Pay) option will be found with the other general options there.
20. Selecting the University Fees Payment (U-Pay) option, the department selecting option will be found.
21. Going to the specific department option, there will be different types of fees payment options.

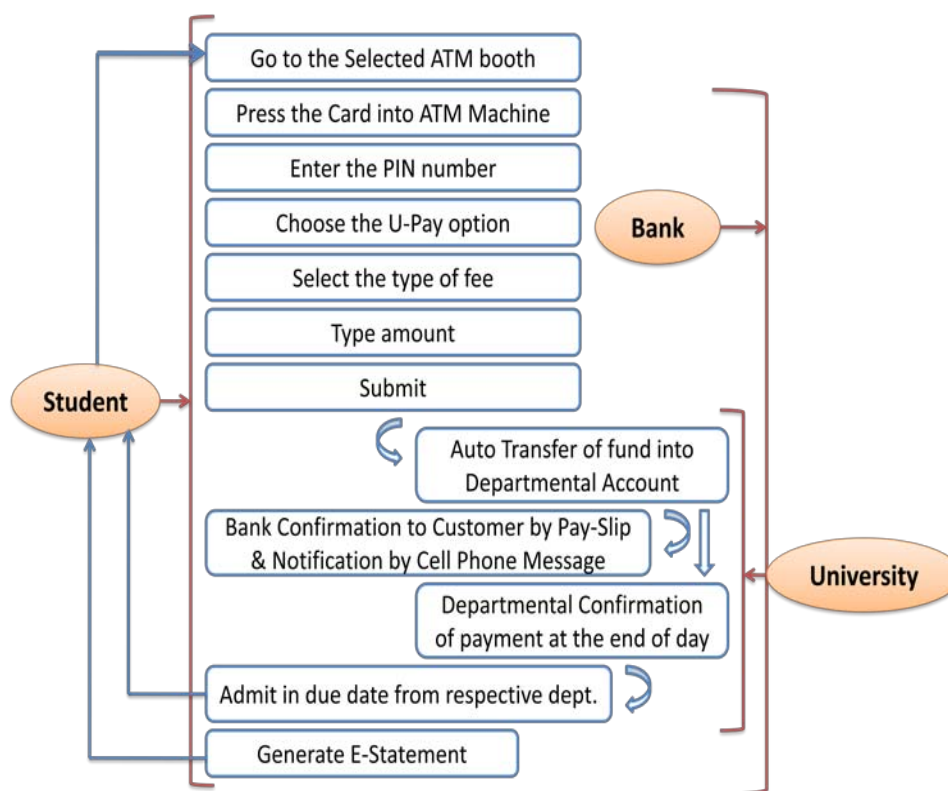


Fig. 6 : Deposit-Payment Mechanism of HSSS Account during the study period.

22. After Selecting option and typing the fees amount, student has to press confirm button.
23. The fees will be automatically deposited to the respective department.
24. Department will generate the e-statement at the end of day to confirm the students' fee payment and collect the account statement from the branch of the bank at the end of fee payment period.
25. At the departmental account statement, the account number and payment will be found with due time and date.
26. Payment will be confirmed by getting the pay-slip from ATM booth and notification message to his/her cell phone (provided in the account opening form).
27. Finding the payment into the Departmental Account Statement and confirming by the departmental head, admit card or student needed documents will be provided to the student.
28. Student can generate the statement from online using account number and pin sent to the e-mail address of the student by the bank authority.

c) Study Completion Period

During the study period student has to renew the card, when it expires. A renewal fee will be counted.

After the final exam university will publish the result and provide the date for collecting provisional certificate. The student should collect the certificate and a new debit card (Fig.7).

Then what a student should do:

29. After completion of study and result published, Student will go to the ATM booth and give payment for Provisional Certificate and Mark Sheet.
30. Student will take Pay-Slip from booth and go to the branch of bank.
31. Before taking provisional certificate student has to submit the student ID card into the bank and a confirmation slip will be provided from the bank to the students.
32. Students will submit a part of that confirmation slip to the counter of university from where they will collect the provisional certificate and mark sheet.
33. Since the Student ID card has been submitted, in due date given by the bank, customer (student) will have to go to the branch and providing the last part s/he will collect a new debit card as the account will be converted into the general savings account and a new debit card will be issued on behalf of the customer.

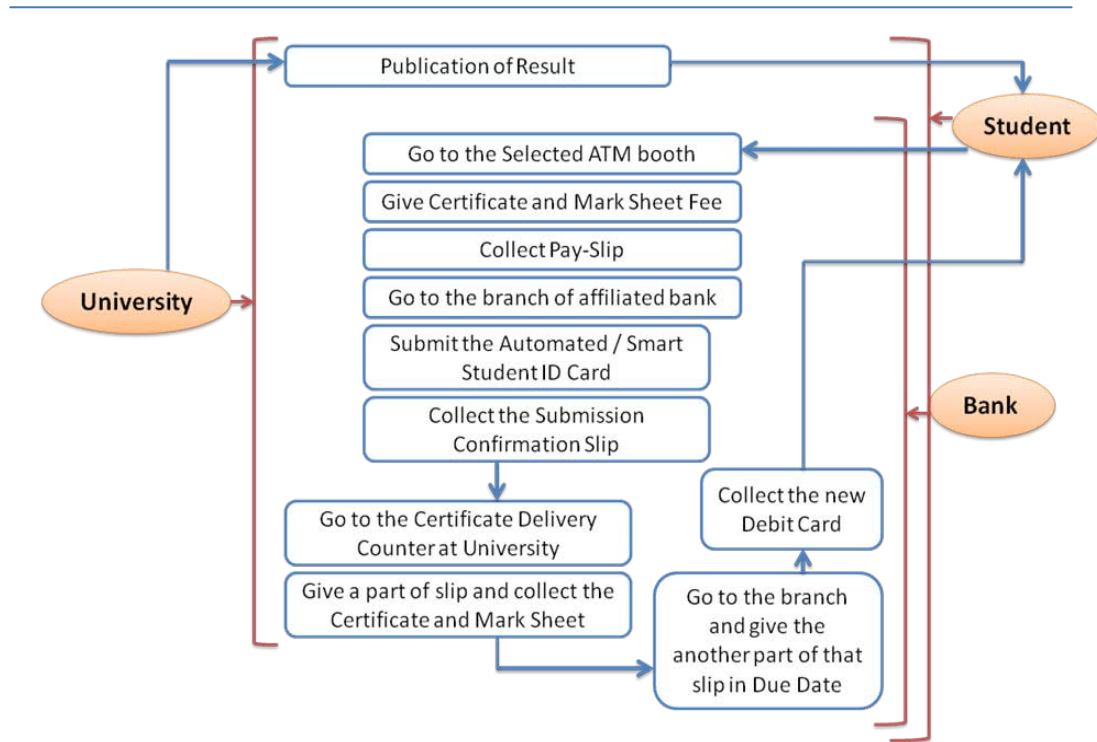


Fig. 7 : Process of work at Study Completion Period

VII. BENEFITS AND COSTS ANALYSIS OF THE SMART GREEN BANKING PRODUCT

For launching a product the market response with the cost and benefit analysis is necessary. No product is beyond benefit, that's why cost involvement is must into the product too. There are multi-level benefits

of the product. In a short way the segmented benefits will be enjoyed by the students, university and bank as primary beneficiaries of the product and government, economy as well as environment as secondary beneficiaries of the product (Fig.8).

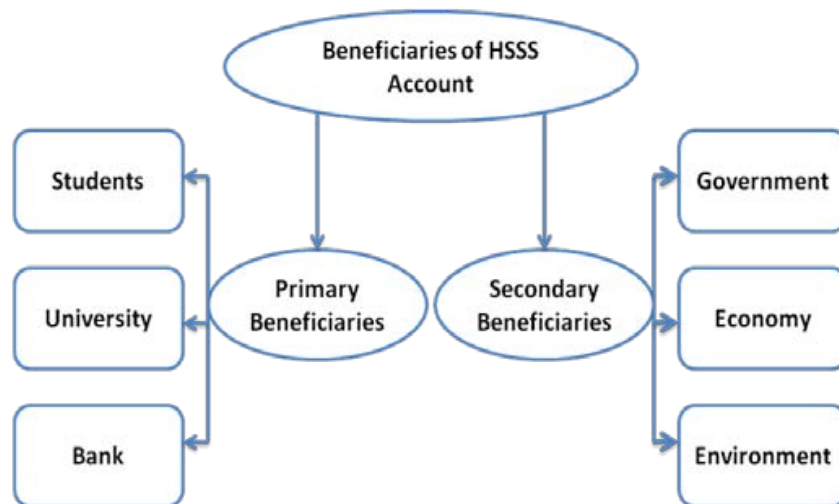


Fig. 8 : Beneficiaries of Higher Study Smart Savings (HSSS) Account

a) Benefits of Primary Beneficiaries

The persons or institutes who will enjoy the facilities of the products from the front level are the students, university and the respective bank. The benefits of them are different in the product nature, are below:

i. Benefits of Students

- Students can gather knowledge about green banking system from higher level study level.
- Students of different level will be habituated in payment technology.

- They can deposit money into their account from any branch of a bank through any branch banking system and any bank through electronic fund transfer.
- Students can pay fees from the selected ATM booth using the Smart or Automated Student ID Card.
- Time and Cost will also be saved.
- If the university claimed for non-payment of fees, student can generate an online statement and provide it to the respective department.
- Students are eligible for withdrawal of cash from ATM booths of the banks.
- Anyone can deposit money from anywhere of a country.
- After the study period, the account will automatically converted into the general savings account and the card will be replaced by the new general debit card, so, the student need not close the account.

ii. *Benefits of University:*

- University will get fees in due time from the students.
- Accounts departmental work will be under the banking services.
- University's Smart Student ID Card issuing responsibility will go to the respective bank.
- University education and premises will be free from terrorism as the illegal funding can be easily noticed, traced and notified by the bank.
- University authority will easily identify the income and expenditures from education services provided which will help to make budget for every department.

iii. *Benefits of Bank*

- Bank can enlarge its servicing scope.
- Bank can contribute in maintaining corporate social responsibility.
- Since the present general student savings account maintenance charge is free, bank can influx the higher study students and scholars into the banking services.
- Due to having no cheque, there is not any cheque issuing cost.
- The interest will be given onto the monthly minimum balance, so the extra balance of that account will be no cost deposit.
- Bank can include these types of account in green banking services.
- Bank will get a large amount of deposit in the University's Short Noticed Deposit (SND) Account where all the fees will be credited.
- Bank can identify the account holder if any illegal transaction done into the account.
- Students will be habituated in doing banking with that particular bank for a long period, which will enhance to grow trustworthiness to that bank.

b) *Benefits of Secondary Beneficiaries*

The product helps to the person, institutions or country indirectly are mentioned as secondary beneficiaries, who are the government, economy and the environment. The product provides benefits to them in the following way:

i. *Benefits of Government*

- The income level of students' legal guardian and source of fund will be informed to the government.
- The practical knowledge of banking in financial transactions will be gathered by the students. It's a long term achievement of the concerning government.
- Government will get more efficient officials in public services.
- Educational Payment System will be fully digitalized.
- Government easily can calculate the income of that university for tax calculation purpose.
- Allocation for government fund on higher education will be easily distributed.
- Government can take step if any illegal or terrorist financing done into these accounts.

ii. *Benefits to Economy*

- All the youth students will stay under the financial inclusion Program.
- Financial Literacy regarding green technology will be quickly gained.
- Central Bank will easily identify the person having illegal motive or connected with any terrorist group, if any unjustified transaction is occurred.
- Banking Service will be reachable to all groups of public like the parents or legal guardians of the students.
- Unbanked students' family will be under the banking services.
- University payment procedure will be done under the banking system.
- The yearly budget for every department of the university is possible through the departmental inclusion into the banking services.
- Money Laundering from these accounts will be noticed quickly.

iii. *Benefits to Environment*

- Uses of paper will be reduced for having electronic services to the fees payment system.
- Wastage can also be controlled.
- Reduction of paper will maintain the ecological balance.

c) *Costs involved in the product*

There are total 6422 own ATM and 71723 shared ATMs are operated and 86480962 total number of accounts in Bangladesh (Bangladesh Bank, 2015). And the numbers of universities were 75 in 2014

whereas public universities were 35 and private universities were 40 containing 2849865 and 330730 students respectively. Here, only National University carried 2097182 students in 2014 (University Grant Commission, 2014).

So, university based product will get coverage of 3180595 student with 30 lac connected families. The

HSSS Account can be an efficient inclusive financial green product in Bangladesh from the sense of knowledge generation, environmental positive response, and economic strength enrichment. So, we need count the cost for that product. The cost can be of three types mentioned (Fig.9).

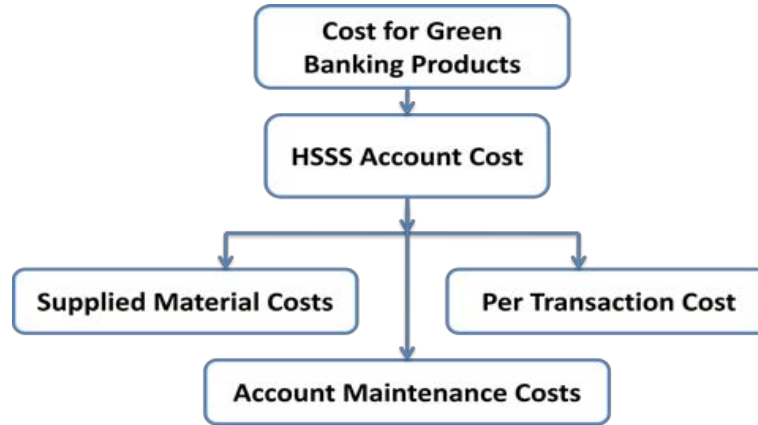


Fig. 9 : Costs involved in the Green Banking Product (HSSS Account)

i. Supplied Material (Card) Cost

There is a cost involved in chip debit card production and supply level. Financial institutions are thinking about high cost of chip card compare to magnetic-stripe card, which may be double. The estimated cost can be count on to the cost of countries implemented the debit card services with or without

EMV chip. From United States we got an idea regarding smart green card manufacturing cost (Table.1). The lowest average costs of EMV Chip Debit Card of Large Banking Corporations in United States is US\$2.17 and Credit Unions counts highest cost per chip card of US\$ 2.90.

Table.1 : Comparative cost position of manufacturing smart and magnetic-stripe card

Supplier	Cost	US\$	Conversion Rate	BDT
Large Banking Corporations (X1)	Per Chip Card	2.17	US\$ 1.00 = BDT 78.0925	169.46
Credit Unions (X2)		2.90		226.47
Mean [$\bar{x} = (X1 + X2)/2$]	Average	2.535		197.96
Per Magnetic-Stripe Card Cost		0.08		6.2474

Source: Business Wire, 2015, usd.fxexchangerate.com/bdt/, 2015 And Cyber security and Privacy blog, 2014

The average cost considering Mean is US dollar 2.535 equivalent to Bangladeshi Taka 197.96 per debit card. Suppliers of chip card in the banks and financial institutions in Bangladesh may take a little bit more. If they count 15 percent more costs per chip card stood BDT 227.66. A bank can charge for each card

amounting BDT 300.00 as HSSS Account is not only facilitated with debit card but also university ID card.

ii. Per Transaction Cost

A working report with special reference to State Bank of India (SBI) shows that, the cost allocation per transaction from different channel includes:

Table. 2 : Per transaction costs involved in HSSS Account

Type of Costs	India (Rupee)	Conversion Rate	Bangladesh (Taka)
Teller Cost	1.00	Rs. 1.00 = BDT 1.17	1.17
ATM transaction cost	0.45		0.53
Phone Banking	0.35		0.41
Debit Card Expense	0.20		0.23
Internet banking	0.10		0.12

Source: IRJER, October 2015 And inr.fxexchangerate.com/bdt/, 2015

The green deposit product will take the ATM transaction cost per transaction, phone banking cost as a message to be forwarded for each debit transaction, debit card expense is must, and per transaction internet facilitated cost which will Rs. 0.45, 0.35, 0.20, 0.10 in India. In Bangladesh, with total amount of ATM transaction cost with the referred facilities will be BDT 1.29 according to exchange rate calculation. As the Bangladeshi banking IT support and set up cost is not like India, per transaction cost may be a little bit more here. Students normally will not do frequent transaction; a bank can take the general average cost for the student transaction. Here, bank will only have to bear the per transaction cost.

iii. Account Maintenance Costs

In addition to the supplied card cost and transaction cost, there is account maintenance cost. Generally banks counts average per transaction cost as the account maintenance cost. Since all the transactional point and service are included into the per transaction cost. The other cost involved here is the initial costs namely the cost of account opening form, any other instruction form, reference letter format provided be the bank to the customer or any other form (Fig.10).

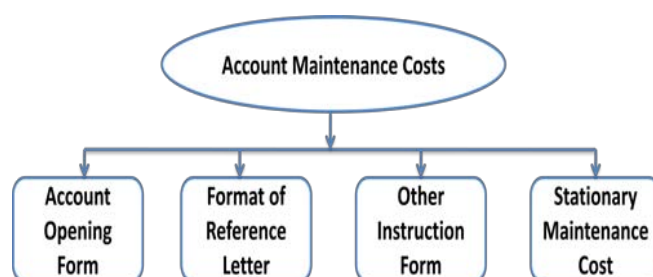


Fig.10 : Account Maintenance Cost for HSSS Account

Generally account opening form costs BDT 5.00 on average, reference letter costs BDT 2.00, other instruction form costs BDT 2.00 on average and stationary maintenance like deposit slip, ink of pen, ink of office seals etc. in the account opening time and each time cash deposit average combined costs BDT 5.00. So, the annual cost for each of the product is BDT $(5.00+2.00+2.00+5.00) = 14$ only. Thinking about the educational development and corporate social responsibility, the account maintenance fee can be waived by the respective bank.

VIII. FINANCIAL INCLUSION THROUGH THE SMART GREEN BANKING PRODUCT

Financial inclusion program of Bangladesh Bank (central bank of Bangladesh) is an effective initiative to add the un-served people into the banking service. But, how the product and what types of people will be added into the banking system is discussed below (Fig.11).

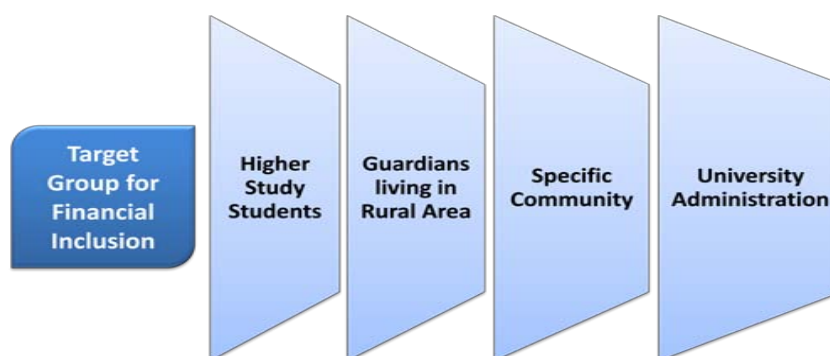


Fig.11 : Target group for Financial Inclusion through the product

The above figure shows the target group of people who will be added into the boundary of banking service for launching the product. They are specially the students (future leaders of an economy), the guardians and relatives living in the rural and remote area, specific community as well as the university administration. The way are-

- Since each and every student has to open account at the time of admission, higher study student group will be added into the banking system.
- Parents, legal guardians and relative who are living in the rural area are able to deposit money into the student savings account from anywhere, so they will open bank account.

- c) Various communities will be served by the banks due to the higher study of their child.
- d) Segment wise community addition to the banking service is the indication for unit banking in Bangladesh in future.
- e) All departments of a university as well as university administration will also be included into the banking service.

Inclusive finance always works for the people to generate knowledge to their mind, to support them to overcome their financial problems in the way of financial literacy. The idea regarding financial inclusion is the biggest financial program in Bangladesh. And the HSSS Account will be a part of inclusive financial revolution. The smart product will be the only witness of creating knowledge of students, future leaders of the economy, about the digitalized banking system. So, the

importance of Higher Study Smart Savings (HSSS) Account is not nuance.

IX. INTEGRATION OF GREEN BANKING PRODUCT WITH SUSTAINABLE DEVELOPMENT GOALS (SDGs)

The novelty of green banking products into the financial inclusion is the integration of the green banking with SDGs. The product has a good connection with the different goals. The initiation of those products can be economically viable which supports the environment, contributes in financial growth and broadens the technology based knowledge level of students. In this way, different goals of SDGs (ICSU & ISSC, 2015) have been interconnected with the financial products (Fig. 12).

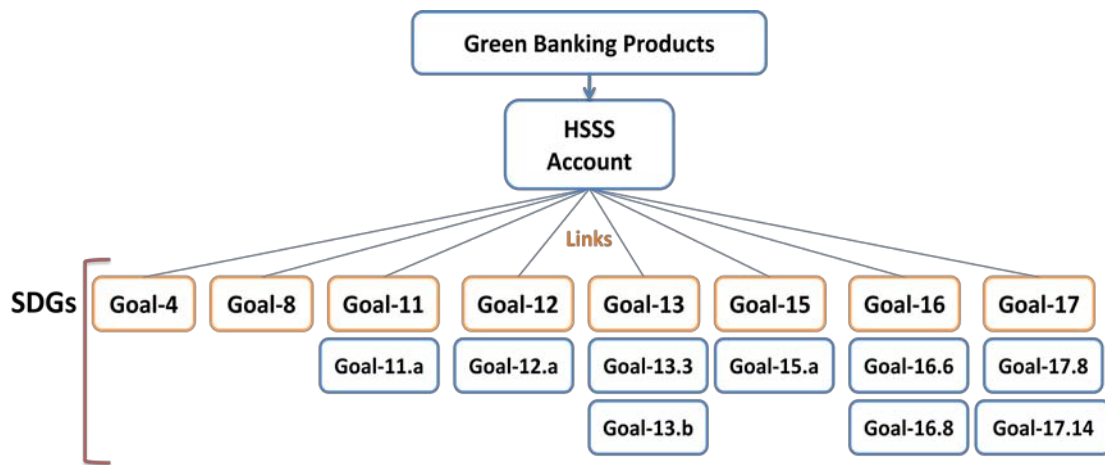


Fig.12 : Integration of HSSS Account with SDGs

o Goal-4 of SDGs

Green HSSS account ensures students achieving higher education with technical knowledge about updated technology in university level (4.3) and also indicates the ensuring knowledge and skill to promote sustainable development through education (4.7).

o Goal-8 of SDGs

The green banking product promotes inclusive and sustainable economic growth including per capita economic growth through environmental up gradation (8.1 & 8.4), drives innovation, technological upgrading through diversification (8.2), makes development oriented green deposit policies (8.3), involves in education and training to youths (8.6) and specially supports people for capacity building with expand excess to banking, insurance and financial services to all.

o Goal-11 of SDGs

The HSSS account makes a link between the people of urban area, peri-urban and rural area (11.a) as

the different students are from different areas and the guardians, relative are living in remote areas. To support the students for fees payment, they have to open bank account which will create a link among the people of all classes.

o Goal-12 of SDGs

This deposit product supports the developing countries like Bangladesh to strengthen the technological capacities (12.a) in the way of e-banking and paper less banking as the customer use the smart or automated debit card for all transactions.

o Goal-13 of SDGs

The green banking deposit product improves the education, awareness regarding climate change mitigation (13.3) through uses of card based savings product that focuses youth consciousness about the environment (13.b).

o Goal-15 of SDGs

The product mobilizes the financial services and resources (15.a) to the students of university as well as their guardians by supporting stable biodiversity and

ecosystems as the product offers savings with online banking facilities.

o *Goal-16 of SDGs*

An institution will be effective, accountable and transparent, when the customer or client will be able to know the services and efficiency level by using its products and services. The HSSS account develops institutional level transparency (16.6) and confirms the participations in global governance being an example of technology based product innovations (16.8).

o *Goal-17 of SDGs*

Smart Green Banking product is the means of technology based product implementation which enhances to tech-operationalize the bank (17.8). And since the most banking software is purchased from outside of Bangladesh, it maintains the international standard including the regarding policy for the sustainable development (17.14).

X. WHY THE SMART GREEN BANKING PRODUCT SHOULD BE INITIATED

The word, "Green" shows the sustainability strength of earth. Banking service for the environmental health development is green banking and Green Banking for Sustainable Development is a program of Bangladesh Bank (BB), central bank of Bangladesh. Under this program, BB introduced e-tendering, e-recruitment, online credit information bureau, automated clearing house, online documentation and leave management system, electronic and online fund transfer, e-commerce, e-noting and so on to give extra importance on eco-supportive banking in Bangladesh. Some of its product like mobile banking has driven a gigantic move within last few years. In this way it stands forward for financial inclusion in Bangladesh. As part of accelerating green products with ATM, POS, mobile banking, internet banking etc. services National Payment Switch of Bangladesh (NPSB) is also in operation since 2012. In addition to these, 13 types of under-privileged persons are taken into consideration for the financial inclusion program and school going children are one of them (Bangladesh Bank, 2015), as we know; literacy starts from school. Reminding the all initiatives taken from Bangladesh Bank a smart green deposit product is necessary, and the educated wing of our nation can be the perfect successor for green moves. However, the product, HSSS Account, is strongly connected to take part for the implementation of Sustainable Development Goals (SDGs) and to increase savings strength. In this view Smart Green Banking (HSSS Account) in education should be initiated.

XI. CONCLUSIVE REMARKS

Bangladesh is a low lying country. Natural calamity happens several times in this region that affected more that 13 crore people directly and indirectly

in last 20 years and Bangladesh stood third highest country of the world in terms of population affected in natural calamities that is 131 million after China and India (CRED & UNISDR, 2015). For safety of peoples' lives green banking works as a primal issue for the financial and ecological sustainable development. Due to having highest foreign currency reserve in Bangladesh currently, Banking institutions are trying hard to finance into the green projects. But, a large portion of our country people is poor and living in the remote area. The touch of technological development has not yet happened in the remote area. The rural people are generally not having the competencies to get a loan either for business or the green investment. But, they can save money, that's why they need consciousness and learning about banking. Taking these into consideration, green deposit product with technological impact can play a vital role for the conscious development as well as savings support. The product analysis shows the positive dictation to win-win effects on economic progress with savings, financial inclusion, enriching knowledge, time and cost savings and environmental sustainability with reduction of paper uses in banking service. Above all, undoubtedly the financial innovation (Smart Green Banking) combats against the pollution and performs as a lead arranger of financial inclusion of the educational system in Bangladesh.

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