



MAKING A SUSTAINABLE MODEL FOR

G2P PAYMENT DIGITIZATION



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a2i - Innovate for All

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ACRONYMS

Abbreviation Elaboration

a2i	Innovate for All
AB	Agent Banking
ATM	Automated Teller Machine
BDT	Bangladeshi Taka
CapEx	Capital Expenditure
CSR	Corporate Social Responsibility
D2C	Direct to Citizen
DBBL	Dutch-Bangla Bank Limited
DSS	Department of Social Services
EBEK	Ektee Bari Ektee Khamar
EGPP	Employment Generation Program for the Poorest
FI	Financial Institutions
G2P	Government to Person
GoB	Government of Bangladesh
HR	Human Resource
MFS	Mobile Financial Service
NID	National Identification
OpEx	Operational Expense
PESP	Primary Education Stipend Program
PIN	Personal Identification Number
PSP	Payment Service Provider
SESIP	Secondary Education Sector Investment Program
SESP	Secondary Education Stipend Program
SSNP	Social Safety Net Program
TCV	Time, Cost, Visit
USD	United States Dollar
USSD	Unstructured Supplementary Service Data

EXECUTIVE SUMMARY



Government of Bangladesh (GoB) implements a number of Social Safety Net Programs to aid the underprivileged and vulnerable population of the country. Currently, there are 130 social safety net programs; implemented by 22 line ministries, with budget of BDT 641.77 Billion (FY 2018-19), accounting for 13.81% of the Government budget, at a level of 2.53% of GDP. a2i commissioned a research study to pi STRATEGY to explore viable business solutions for GoB and PSPs to deliver the SSN payments.

This document has been prepared from primary research conducted through baseline surveys, in-person interviews with the leading PSPs, one on one interviews with field level agents and extensive secondary research for a comprehensive understanding of the global scenario in similar context.

The report outlines estimation of annual cost from beneficiaries', as well as, PSPs' perspectives which stands at USD 150 million and USD 41 million respectively. The annual cost for the beneficiaries has two components- direct cost and economic value of invested time.

It further explores four scalable and sustainable business models, namely, Float, Commission, CSR+ Tax Rebate, and GoB Adds Withdrawal Fee Directly to Beneficiaries' Disbursement

Float model, however, is not suggested due to the ongoing intervention of D2C model. The most widely practiced, Commission model, shows that the acceptable range of commission lies in between 0.9-2%. The third model, CSR+ Tax Rebate, shows how the annual cost of disbursement of 41 million US dollar can be compensated by repurposing the CSR expense and cutting down on tax. The fourth model, GoB Adds Withdrawal Fee Directly to Beneficiaries' Disbursement, shows how the government can pay a certain amount of withdrawal fee to the beneficiaries' disbursement directly. If any PSP has a withdrawal fee less than the fixed amount, they can keep the difference. Conversely, if the PSPs have withdrawal fees more than the fixed amount, the PSPs will pay that surplus amount. This will, in effect, incentivize the PSPs to charge smaller withdrawal fee by driving them into a competitive scenario.

The study has concluded that the 'GoB Adds Withdrawal Fee Directly to Beneficiaries' Disbursement' model would more likely lead to a sustainable business model for digitization of SSNP payments. This model is also closely aligned with the future direction of broader D2C aspirations of the Government of Bangladesh.

1 - CONTEXT

Social safety net programs represent a critical government intervention aimed at preventing citizens from falling into extreme poverty and supporting them so that they can strive for a better life. The current manual, paper-based system for transferring the payment (starting from beneficiary identification and application, all the way to final disbursement) is fraught with inefficiencies that result in substantial costs to the government and beneficiaries alike. Digital platforms that facilitate beneficiary management and electronic payments can provide the required speed, security, transparency and cost efficiency.

Organizations like The World Bank / CGAP have been supporting efforts in digitizing payment systems with Government of Bangladesh to improve financial inclusion. This report builds on some of those initiatives to take a closer look at the SSNP digitization opportunities and identifies a few business model options that the Government could take into consideration.

1.1 BUILDING ON PAST WORK

In 2015, a study titled Innovations in Social Safety Net was conducted with funding from CGAP. The a2i division within the Prime Minister's office of Government of Bangladesh, provided input and guidance. Reducing TCV has become the byword for innovation within the Bangladesh government. The study was commissioned to explain the rationale for digitizing payments from the governments perspective and estimate the potential benefits for digitizing payments from the perspective of the beneficiaries. The paper methodically quantified the estimated benefits in terms of reductions in TCV – required for citizens to receive payments from 14 social safety net programs across several ministries and savings for Bangladesh government in terms of reductions in administrative, human resource and transaction cost. The 6 programs selected from the 14 programs for research during the study were – Lactating Mother Allowance Program, Employment Generation Program for the Poorest (EGPP), Primary Education Stipend Program (PESP), Primary School Teachers' Pension Program, Old Age Allowance and Maternity Allowance Program for Lactating Mothers. It was found that, upon instigation of the D2C payment service, 1.5 crore citizens will require 58% less time to collect their payments, their cost will reduce by 32% and number of visits will decrease by 80%. The Government will benefit as well, as its expense will reduce by 10%.

A study on **G2P Payment Architecture** was conducted in 2016 through the joint efforts of a2i, pi STRATEGY, CGAP, PwC and World Bank explored Direct to Citizen (D2C) Payment Service in Bangladesh. D2C addresses citizen pain points and assures on time, predictable, full payment amount to each citizen, directly to the citizen's account. The service empowers citizens by allowing them their

choice of account, ease of cash-in and cash-out at any bank branch, ATM, agent banking point or MFS point, and portability.

Under this payment service, the NID number of each citizen is their unique identifier. A SSNP beneficiary can open a biometric/e-KYC verified small value account which will be linked to the beneficiaries' NID. The SSN Programs, after authorizing payment amount against NID number, send payment from Government bank account to a citizen's account directly. The beneficiary receives notification when payment arrives and by authenticating his identity through NID, can withdraw cash from nearby access points at any time. The Bank/MFS/Agent will receive a commission every time a beneficiary avail their service.

1.2 OUTLINE OF THE DOCUMENT

This report adheres to the following structure:

Context section discusses the motive behind the uptake of this study and past works relevant for this research.

Approach section elaborates four perspectives from which the study has been conducted to lay out viable business solutions.

Key Findings: Beneficiary Perspective section interprets the findings in terms of economic value of invested time and money from the beneficiaries' perspective.

Key Findings: PSP Perspective summarizes the cost implications of the PSPs with SSN payments as well as their needs and expectations.

Key Findings: Agent Network Perspective brings about insight on the cost implications of the agent network for SSN payment.

Go Forward Business Model presents four scalable and sustainable business models by exploring into different dimensions of incentivization if the SSN payment is decentralized.

Recommendations section concludes the research by giving fact based and thought provoked remarks as to which model will be most fitting for the GoB and PSPs.



2 - APPROACH

2.1 RESEARCH QUESTIONS

In order to formulate viable business models for GoB and PSPs to deliver the SSN payments, the following lenses were explored:

1. Beneficiary Perspective
2. PSP Perspective
3. Agent Network Perspective
4. Regulatory Perspective

The Beneficiary Perspective helped us determine the economic value of beneficiary's invested time and money to collect SSN payments. We identified the largest SSN Programs of the country, budget allocation for these programs in FY 2017-18, number of beneficiaries, frequency of payments and average payment size for each program. The beneficiaries' individual and level TCV was identified which helped in the calculation of total economic value of invested time and money every year in the macro level.

From the PSP Perspective, we tried to discern their cost implications to serve SSNP beneficiaries. This involved identification of the PSPs that are largely involved in SSNP payments currently to inquire about their cost components (CapEx, OpEx, HR) to serve the SSNP beneficiaries. Documenting their experiences and organizational policy regarding the SSN segment was also part of the mandate.

The Agent Network Perspective offered us valuable insight on their cost implications to serve SSNP beneficiaries. We identified and interviewed agents of DBBL and SureCash with SSN payment experience; the important query was to estimate the time and cost required to serve each SSNP beneficiary, from where the throughput of the system at each point of presence level could be calculated.

The Regulatory Perspective provided comprehension of global leading practices of alternative forms of incentives for G2P payments.

Together these finally led to exploring sustainable and scalable business models for the Government for delivering SSN payments. We developed several business model scenarios to understand and identify the best way forward to create sufficient incentives to serve the SSN segment.

This study looks at the business drivers from multiple lenses to identify a potential business model that the Government can use to make SSNP G2P payments.

2.2 METHODOLOGY

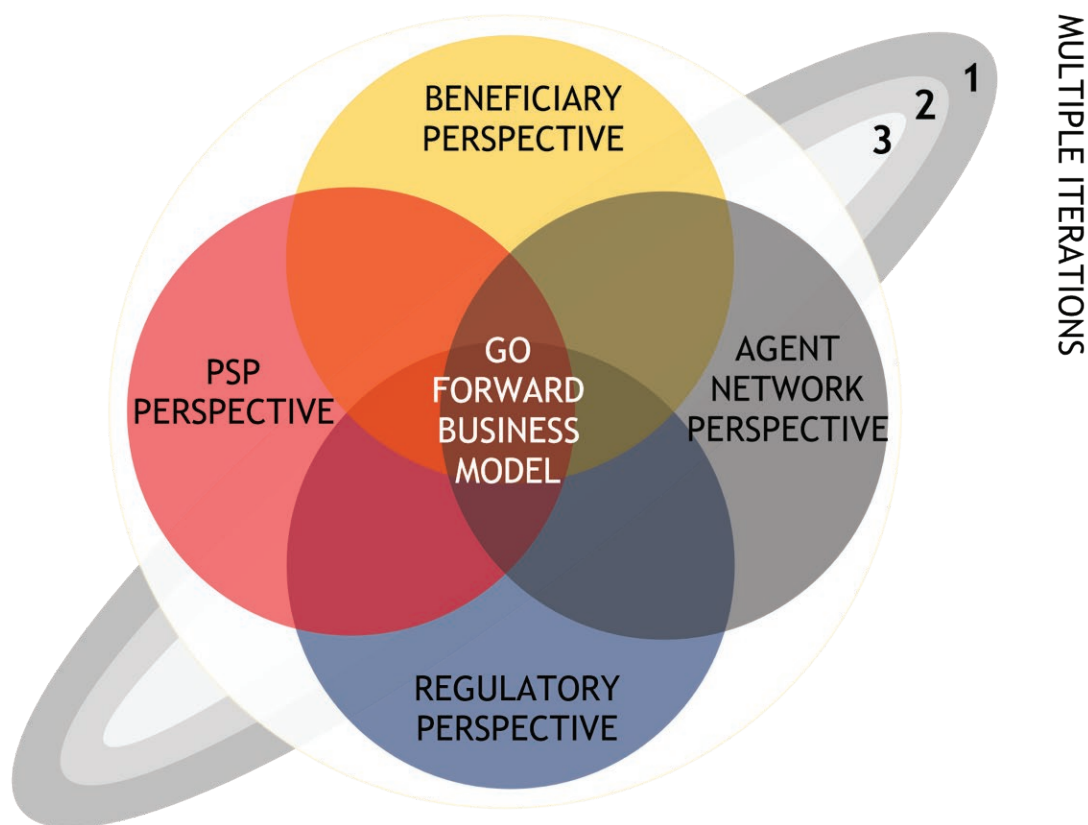


Figure 2-1: Methodology

Lens #1 looks at the beneficiary level TCV Analysis for 11 SSN Programs, which were extrapolated to derive decision for the total SSN segment

Lens #02 focuses on the SSNP experience and subsequent cost structure to serve SSNP beneficiaries of 5 leading PSP (Banks, MFS Providers and Fintech).

Lens #03 focuses on the SSNP experience of 8 agents who were interviewed to get service level TCV and commission expectations from the PSP.

Lens #04 explores the global leading practices of alternative forms of incentives for G2P payments.

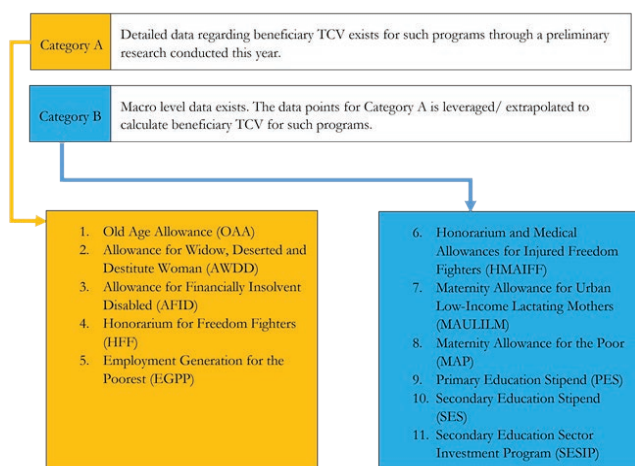
These led to the identification of 4 potential Business Models – Float, Commission, CSR + Tax Rebate and GoB Adds Withdrawal Fees Directly to Beneficiary's Disbursement - for the Government to offer to PSPs for delivering SSN payments.

3 - KEY FINDINGS: BENEFICIARY PERSPECTIVE

3.1 OVERVIEW

Devising and implementing functional safety net programs are important strategic measures of social protection. The Government of Bangladesh distributes close to BDT 30 billion per year for 50+ Social Safety Net Programs(SSNP). Each program focuses on different marginalised groups within the demographic; so naturally the size and the scope of the program varies. As part of the G2P payment digitization program, this study focuses on 11 SSN programs, based on the size of the program. The size of the program usually refers to 2 variables, the number of beneficiaries and total allowance disbursed in one calendar year.

The selected 11 high value programs are categorized as below:



These programs collectively constitute 33% of the total budget allocated for the social safety nets.

It should be mentioned that, pension is excluded from the evaluation, because there is a significant contribution from the recipients' part in every pension disbursement. Although GoB considers it as a SSNP, global best practices do not consider pension a part of social safety net program.

From the baseline survey conducted, the time, cost and visit dimensions for payment collection have been calculated at individual level. The aforesaid time dimension has three components, travel time, queue time and desk time. The travel time is constituted of the time required to make a return trip to and from the payment point.

In the second scenario, the macro level estimation has been done by taking the total number of beneficiaries and the individual level TCV into account. The macro level

estimation further explores the implicit cost incurred by the beneficiaries. The time spent for collecting the payments has been quantified in terms of monetary value to comprehend the actual economic bearings for the payment collection.

The third scenario calibrates the estimation of the economic value of the invested time and money in a oneyear time line for the total number of beneficiaries to lay out a clear presentation of the actual scenario behind the present method of payment collection.

3.2 BENEFICIARY PERSPECTIVE: PROGRAM LEVEL



3.2.1 CATEGORY A: OLD AGE ALLOWANCE

Old age allowance was first introduced in fiscal year 1997-98 with an objective to provide social protection as well as elevation of social and family dignity for the impoverished aged community of Bangladesh. In terms of number of beneficiaries, this SSN program is the largest. The budget allocation for the allowance stands at BDT 18.9 billion/ USD 236.2 million for the fiscal year 2017-18. This particular safety net program has a coverage of about 3.1 million beneficiaries at present. The payment has been increased to BDT 500 per month per person. However, the payment is disbursed 4 times a year to the beneficiaries. Hence, the average payment size amounts to BDT 1500 for each quarterly payment cycle per beneficiary.

At individual level, the queue time component of the time dimension alone takes 120 minutes. Moreover, the travel time required for the beneficiaries living in rural and remote areas is significantly higher than that of the urban areas. The beneficiaries living in the rural and remote areas necessitate 60 minutes and 120 minutes respectively for one round trip whereas the beneficiaries living in urban areas need about 30 minutes. Taking the three components of the time dimension into consideration, the time required for each beneficiary to collect one payment totals to 185 minutes. However, the beneficiaries do not necessitate more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 40. At macro level, the time required for 3.1 million beneficiaries

for one payment cycle accrues to 9.7 million hours. As it has been previously mentioned that the beneficiaries need one visit per person to collect the payment, the number of visits required equals to the number of beneficiaries, i.e. 3.1 million. The direct incurred cost by the old age allowance beneficiaries adds up to BDT 126 million for one payment cycle.

For the third scenario, the economic value of the time invested stands at USD 0.8 million and the direct cost incurred amounts to USD 6.3 million for the beneficiaries in one year. These two values add up to a total economic value of the invested time and money of USD 7.1 million every year for the beneficiaries of the old age allowance.

To reach the economic value of the time invested, the percentage of employment within this segment (28.4%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 1,000) has been multiplied with the average time to calculate the value of the time. For the calculation, median values have been used for both time and cost variables.



3.2.2 CATEGORY A: ALLOWANCE FOR WIDOW, DESERTED AND DESTITUTE WOMEN

Allowance for widow, deserted and destitute women was first introduced in fiscal year 1998-99 with an objective to bolster the disadvantaged women population of Bangladesh. The program started with 0.43 million beneficiaries. Since then, the program has witnessed considerable growth both in respect to coverage and budget allocation. The budget allocation for the allowance stands at BDT 6.9 billion/ USD 81 million for the fiscal year 2017-18. The coverage of this program has stretched to include about 1 million beneficiaries at present. The payment has been increased to BDT 500 per month per person. However, the payment is disbursed 4 times a year to the beneficiaries. Hence, the average payment size amounts to BDT 1500 for each payment cycle per beneficiary.

At individual level, the queue time component of the time dimension alone takes 120 minutes. Moreover, the travel time required for the beneficiaries living in rural and remote areas is significantly higher than that of the urban areas.

The beneficiaries living in the rural and remote areas necessitate 60 minutes and 120 minutes respectively for one round trip whereas the beneficiaries living in urban areas need about 30 minutes. Taking the three components of the time dimension into consideration, the time required for each beneficiary to collect one payment totals to 185 minutes. However, the beneficiaries do not need more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 60.

At macro level, the time required for 1 million beneficiaries for one payment cycle accrues to 3 million hours. As it has been previously mentioned that the beneficiaries need one visit per head to collect the payment, the number of visit required equals to the number of beneficiaries, i.e. 1 million. The direct incurred cost by the beneficiaries of this safety net program adds up to BDT 40 million for one payment.

For the third scenario, the economic value of the time invested stands at USD 0.5 million and the direct cost incurred amounts to USD 2 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 2.5 million every year for the beneficiaries of this allowance solely.

To reach the economic value of the time invested, the percentage of employment within this segment (44.2%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 1,200) has been multiplied with the average time to calculate the value of the time. For the calculation, median values have been used for both time and cost variables.



3.2.3 CATEGORY A: ALLOWANCES FOR FINANCIALLY INSOLVENT DISABLED

In the constitution of Bangladesh, sections 15, 17, 20 and 29 dictate equal rights for disabled population along with other citizens of the country. According to section 15 (D), as part of the responsibility, the allowance for financially insolvent disabled was first introduced in the fiscal year 2005-06. The budget allocation for the allowance stands at BDT 54 billion/ USD 67.5 million for the fiscal year 2017-18. This particular safety net program has a striking coverage of about 0.75 million beneficiaries at present. The payment has been increased to BDT 700 per month per

person. However, the payment is disbursed 4 times a year to the beneficiaries. Hence, the average payment size amounts to BDT 2100 for each payment cycle per beneficiary.

At individual level, the queue time component of the time dimension alone takes 120 minutes. Moreover, the travel time required for the beneficiaries living in rural and remote areas is significantly higher than that of the urban areas. The beneficiaries living in the rural and remote areas necessitate 60 minutes and 120 minutes respectively for one round trip whereas the beneficiaries living in urban areas need about 30 minutes. Taking the three components of the time dimension into consideration, the time required for each beneficiary to collect one payment totals to 185 minutes. However, the beneficiaries do not necessitate more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 60.

At macro level, the time required for 0.75 million beneficiaries for one payment cycle accrues to 2.3 million hours. As it has been previously mentioned that the beneficiaries need one visit per head to collect the payment, the number of visit required equals to the number of beneficiaries, i.e. 0.75 million. The direct incurred cost by the beneficiaries for this program adds up to BDT 45 million for one payment.

For the third scenario, the economic value of the time invested stands at USD 0.7 million and the direct cost incurred amounts to USD 2.2 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 2.9 million every year for the beneficiaries of the financially insolvent disabled allowance solely.

To reach the economic value of the time invested, the percentage of employment within this segment (32.2%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 3,000) has been multiplied with the average time to calculate the value of the time. For the calculation, median values have been used for both time and cost variables.



3.24 CATEGORY A: EMPLOYMENT GENERATION PROGRAM FOR THE POOREST

Employment Generation Program for the Poorest was introduced with two objectives. The first objective is to provide short term employment to the hard-core poor in lean seasons over two cycles.

Consequently, the second objective was to develop rural infrastructure by constructing various projects under EGPP, mainly earth works. The budget allocation for the allowance stands at BDT 16.5 billion/ USD 206 million for the fiscal year 2017-18. This particular safety net program has a coverage of about 0.82 million beneficiaries at present. The program is carried out over two lean seasons when the unemployment is most frequent. The workers are required to work for earning BDT 200 each day. However, it is compulsory to save BDT 25, which accumulates in their account. The workers can withdraw the accumulated saving for their labour over one season at a later date. However, the payment is disbursed on weekly basis to the beneficiaries which results in a payment frequency of 16 in one year. Hence, the average payment size amounts to BDT 1000 for each payment cycle per beneficiary.

Taking the three components of the time dimension into consideration, the time required for each beneficiary to collect one payment totals to 105 minutes. However, the beneficiaries do not necessitate more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 40.

At macro level, the time required for 0.82 million beneficiaries for one payment cycle accrues to 14 million hours. As it has been previously mentioned that the beneficiaries need one visit per head to collect the payment, the number of visit required equals to the number of beneficiaries, i.e. 0.82 million. The direct incurred cost by the beneficiaries for this program adds up to BDT 529 million for one payment.

For the third scenario, the economic value of the time invested stands at USD 94 million and the direct cost incurred amounts to USD 6.6 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 15.9 million every year for the beneficiaries of the financially insolvent disabled allowance solely.

To reach the economic value of the time invested, the percentage of employment within this segment (98.8%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 5,250) has been multiplied with the average time to calculate the value of the time. For the calculation, median values have been used for both time and cost variables. The payment for the EGPP beneficiaries are given on weekly basis.



3.2.5 CATEGORY A: HONORARIUM FOR FREEDOM FIGHTERS

The National Social Security Strategy mission of the Ministry of Liberation War Affairs is to ensure the welfare of the heroic freedom fighters and their dependents by creating safety nets for them. The Honorarium for Freedom Fighters was introduced to address that objective. The budget allocation for the honorarium stands at BDT 21.9 billion/ USD 274 million for the fiscal year 2017-18. This particular safety net program has a coverage of about 0.18 million beneficiaries at present. The payment has been increased to BDT 4,000 per month per person. However, the payment is disbursed 4 times a year to the beneficiaries. Hence, the average payment size amounts to BDT 1,200 for each payment cycle per beneficiary.

Taking the three components of the time dimension into consideration, the time required for each beneficiary to collect one payment totals to 75 minutes. However, the beneficiaries do not necessitate more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 40.

At macro level, the time required for 0.18 million beneficiaries for one payment cycle accrues to 225,000 hours. As it has been previously mentioned that the beneficiaries need one visit per head to collect the payment, the number of visit required equals to the number of beneficiaries, i.e. 0.18 million. The direct incurred cost by the beneficiaries for this program adds up to BDT 7.2 million for one payment.

For the third scenario, the economic value of the time invested stands at USD 0.23 million and the direct cost incurred amounts to USD 0.36 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 0.6 million every year for the beneficiaries of the Honorarium for Freedom Fighters solely.

To reach the economic value of the time invested, the percentage of employment within this segment (33.3%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 10,000) has been multiplied with the average time to calculate the value of the time. For the calculation, median values have been used for both time and cost variables.



3.2.6 CATEGORY B: PRIMARY EDUCATION STIPEND PROGRAM

The Primary Education Stipend Project (PESP) aims to increase the educational participation-enrolment, attendance, persistence, and performance-of primary school-aged children from poor families throughout Bangladesh by providing cash payments to targeted households. Initiated by the Government of Bangladesh (GOB) in July 2002, the Primary Education Stipend Project began its first official year of operation in January 2003, with the goal of supporting more than 5 million students. The budget allocation for PESP is BDT 14 billion/ USD 175 million for the fiscal year 2017-18. The number of beneficiaries under PESP is currently 3.2 million. In order to qualify for the stipend, selected students must maintain 85 percent monthly attendance and attain a minimum of 50 percent marks on the annual exam administered for each grade. Households of qualifying students will receive BDT 100 (about \$1.76) per month for one pupil (not to exceed 1200 taka annually) and BDT 125 per month for more than one pupil (not to exceed 1500 taka annually). At present, the payment is disbursed 4 times a year to the beneficiaries; hence, the average payment size amounts to BDT 300-375 for each payment cycle per beneficiary.

For this SSN Program macro level data regarding TCV is available. The data points from Category A SSN programs was leveraged/ extrapolated to calculate beneficiary TCV for this program. At individual level, the time required for each beneficiary to collect one payment is 185 minutes. The beneficiaries do not necessitate more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 40. For the TCV calculation, median values have been used for both time and cost variables.

At a macro level, the time required for 3.2 million beneficiaries for one payment cycle accrues to 9.8 million hours. As it has been previously mentioned that the beneficiaries need one visit per head to collect the payment, the number of visit required equals to the number of beneficiaries, i.e. 3.2 million. The direct incurred cost by the beneficiaries for this program adds up to BDT 128 million for one payment.

As a final point, the economic value of the time invested stands at USD 1.8 million. To reach the economic value of the time invested, the percentage of employment within this segment (44.2%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 1,380) has been multiplied

with the average time to calculate the value of the time. This monthly income has been derived from 2 sources: first is the widow allowances as a proxy for community within the same SEC, and second is the in-person interview with SureCash. The direct cost incurred amounts to USD 64 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 8.2 million every year for the beneficiaries of the Primary Education Stipend Project (PESP).



3.2.7 CATEGORY B: SECONDARY EDUCATION STIPEND PROGRAM

The Secondary Education Stipend Program (SESP) provides direct assistance to selective secondary level student for increasing the enrolment of student and improving the quality of education. The aim of this program are to increase enrolment rate in school and pass rate in JSC and SSC exams. The project also provide training to the teacher and management committee to improve class room performance and deals with infrastructural development of secondary level institutions & curriculum development. The budget allocation for SESP is BDT 2.4 billion/ USD 30 million for the fiscal year 2017-18. The number of beneficiaries under SESP is currently 0.45 million. The payment is disbursed 4 times a year to the beneficiaries and the average payment size amounts to BDT 300-450 for each payment cycle per beneficiary

For this SSN Program macro level data regarding TCV is available. The data points from Category A SSN programs was leveraged/ extrapolated to calculate beneficiary TCV for this program. At individual level, the time required for each beneficiary to collect one payment is 185 minutes. The beneficiaries do not require more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 40. For the TCV calculation, median values have been used for both time and cost variables.

At a macro level, the time required for 0.45 million beneficiaries for one payment cycle accrues to 1.3 million hours. The beneficiaries need one visit per head to collect the payment, hence the number of visit required equals to the number of beneficiaries, i.e. 0.45 million. The direct incurred cost by the beneficiaries for this program adds up to BDT 18.1 million for one payment.

Lastly, the total cost incurred by beneficiaries, in a year was calculated- the economic value of the time invested stands at USD 0.26 million. To reach the economic value of the time invested, the percentage of employment within this segment (44.2%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 1,380) has been multiplied with the average time to calculate the value of the time. This monthly income has been derived from 2 sources: first is the widow allowances as a proxy for community within the same SEC, and second is the in-person interview with SureCash. The direct cost incurred amounts to USD 0.9 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 1.17 million every year for the beneficiaries of the Secondary Education Stipend Program.



3.2.8 CATEGORY B: SECONDARY EDUCATION SECTOR INVESTMENT

The Secondary Education Sector Investment Program (2013-2023) in Bangladesh is designed with the assistance of ADB to achieve a more relevant secondary education in terms of quality, efficiency and equity through developing the secondary education sector as a whole. The program is prepared to facilitate the implementation guidelines and directives regarding secondary education as set forth in the National Education Policy 2010 as well as in achieving the targets predetermined in Vision 2021. It will make secondary education more relevant to job market by promoting efficient management, education quality and retention of students at secondary level. This program is undertaken as a follow-up initiative of previous ADB assisted programs i.e. SEDP, SESDP, SESIP & TQI to ensure the continuity of various reforms in the field of curriculum, teachers' capacity, examination & assessment, ICT based pedagogy, decentralized management, EMIS, planning, management & coordination including infrastructure improvement etc.

The budget allocation for SESIP is BDT 8 million/ USD 0.1 million for the fiscal year 2017-18. The number of beneficiaries under SESIP is currently 3.12 million. The payment is disbursed 2 times a year to the beneficiaries and the average payment size amounts to BDT 3,600- 12,600 for each payment cycle per beneficiary. For the TCV calculation, median values have been used for both time and cost variables.

For this SSN Program macro level data regarding TCV is available. The data points from Category A SSN programs was leveraged/ extrapolated to calculate beneficiary TCV for this program. At individual level, the time required for each beneficiary to collect one payment is 185 minutes. The beneficiaries do not necessitate more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 40.

At a macro level, the time required for 3.12 million beneficiaries for one payment cycle accrues to 9.6 million hours. As it has been previously mentioned that the beneficiaries need one visit per head to collect the payment, the number of visit required equals to the number of beneficiaries, i.e. 3.12 million. The direct incurred cost by the beneficiaries for this program adds up to BDT 125 million for one payment.

As a final point, the total cost incurred by beneficiaries, in a year was calculated- the economic value of the time invested stands at USD 0.9 million. To reach the economic value of the time invested, the percentage of employment within this segment (44.2%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 1,380) has been multiplied with the average time to calculate the value of the time. This monthly income has been derived from 2 sources: first is the widow allowances as a proxy for community within the same SEC, and second is the in-person interview with SureCash. The direct cost incurred amounts to USD 3.1 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 4 million every year for the beneficiaries of the Secondary Education Sector Investment Program.



3.2.9 CATEGORY B: MATERNITY ALLOWANCE PROGRAM

With a view of reducing maternal and child mortality rate, the GoB has brought poverty-ridden pregnant women of rural areas and the new-borns under the purview of the social safety net programme. Among the poverty-ridden people living in rural areas, women, especially poor, pregnant women, are in the most vulnerable condition and even at the risk of death. Considering the miseries of pregnant women in rural areas, and in view of the fact that the concept of maternal health is not only confined to

maternal and neonatal health but also closely related to human rights and morality, the government introduced the Maternity Allowance for Poor Mothers Programme, with a cash support of BDT 300 a month for two years, accompanied by maternal and neonatal health training programme, in the 2007–2008 financial year. Initially, Tk 170 million was disbursed for Tk 300 an individual in monthly allowance for two years covering for 45,000 poor pregnant mothers of 3,000 unions, which accounts for 15 mothers in every union.

There are certain conditions applied to become a beneficiary of this program, which include: (i) One time support either during the first or second time pregnancy; (ii) Age must be minimum 20 years or above; (iii) Monthly income must be less than BDT 1,500; (iv) Must be the main source of income of a poor family; (v) Poor disabled mother; (vi) Member of a landless and asset less family, owning only the homestead land or lives on else's land. Under this program each selected beneficiary used to receive BDT 300/month for a period of two years, which has been increased to BDT 350/month in 2010 for the same period. The selection procedure of the beneficiaries is the same as applied to other programs. One notable feature of this program is that experienced and reputed NGOs registered with the department are also involved to assist the government implement this program at the grass roots in various aspects, most importantly, in selection of the beneficiaries and distribution of allowances to them.

The budget allocation for Maternity Allowance Program stands at BDT 3 billion/ USD 37 million for the fiscal year 2017-18. This particular safety net program has a coverage of about 0.6 million beneficiaries at present. The payment has been increased to BDT 500 per month per mother. The payment is disbursed 12 times a year to the beneficiaries. For the TCV calculation, median values have been used for both time and cost variables.

For this SSN Program macro level data regarding TCV is available. The data points from Category A SSN programs was leveraged/ extrapolated to calculate beneficiary TCV for this program. At individual level, the time required for each beneficiary to collect one payment is 185 minutes. The beneficiaries do not necessitate more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 40.

At a macro level, the time required for 0.6 million beneficiaries for one payment cycle accrues to 1.8 million hours. The beneficiaries need one visit per head to collect the payment, the number of visit required equals to the number of beneficiaries, i.e. 0.6 million. The direct incurred cost by the beneficiaries for this program adds up to BDT 24 million for one payment.

Finally, the total cost incurred by beneficiaries, in a year was calculated - the economic value of the time invested

stands at USD 1.1 million. To reach the economic value of the time invested, the percentage of employment within this segment (44.2%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 1,500) has been multiplied with the average time to calculate the value of the time. This monthly income has been derived from the higher cap of the selection criteria. For the employment ratio, widows allowance has been used as a proxy since the beneficiaries are assumed to be within the similar SEC. The direct cost incurred amounts to USD 3.6 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 4.7 million every year for the beneficiaries of the Maternity Allowance Program.



3.2.10 CATEGORY B: HONORARIUM AND MEDICAL ALLOWANCES FOR MEDICALLY INJURED FREEDOM FIGHTERS

The National Social Security Strategy mission of the Ministry of Liberation War Affairs is to ensure the welfare of the heroic freedom fighters and their dependents by creating safety nets for them. In order to improve the socio-economic conditions of freedom fighters, provision of honorarium and medical allowances for medically injured freedom fighters have been introduced by the Ministry of Liberation War Affairs. The wounded freedom fighters, families of martyrs and sick freedom fighters who are financially insolvent were brought under this program with a view to improve their standard of living. The budget allocation for the honorarium stands at BDT 2.5 billion/ USD 30.7 million for the fiscal year 2017-18. This particular safety net program has a coverage of about 15,000 beneficiaries at present. The payment is disbursed once a year to the beneficiaries and the average payment size amounts to BDT 30,000 for each payment cycle per beneficiary.

For this SSN Program macro level data regarding TCV is available. The data points from Category A SSN programs was leveraged/ extrapolated to calculate beneficiary TCV for this program. At individual level, the time required for each beneficiary to collect one payment is 75 minutes. The beneficiaries do not necessitate more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 60. For the TCV calculation, median values have been used for both time and cost variables.

At a macro level, the time required for 15,000 beneficiaries for one payment cycle accrues to 18,750 hours. The beneficiaries need one visit per head to collect the payment, hence, the number of visit required equals to the number of beneficiaries, i.e. 15,000. The direct incurred cost by the beneficiaries for this program adds up to BDT 900,000 for one payment.

Finally, the economic value of the time invested stands at USD 4,800. To reach the economic value of the time invested, the percentage of employment within this segment (33.3%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 10,000) has been multiplied with the average time to calculate the value of the time. This monthly income and employment rate has been derived from the freedom fighters segment. This has been used as a proxy since the beneficiaries are assumed to be within the similar SEC. The direct cost incurred amounts to USD 11,200 for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 16,000 every year for the beneficiaries of the Honorarium and Medical Allowances for Medically Injured Freedom Fighters solely.



3.2.11 CATEGORY B: ALLOWANCES FOR URBAN LOW INCOME LACTATING MOTHERS

Allowance for poor lactating mothers was extended to urban areas in the 2008-2009 fiscal year under the Ministry of Women and Children Affairs. Breast feeding mothers working in the garment sector are the main beneficiaries of this extended programme.

The budget allocation for Allowances for Urban Low Income Lactating Mothers Program stands at BDT 1 billion/ USD 13 million for the fiscal year 2017-18. This particular safety net program has a coverage of about 0.2 million beneficiaries at present. The payment is BDT 500 per month per mother and is disbursed 12 times a year to the beneficiaries.

For this SSN Program macro level data regarding TCV is available. The data points from Category A SSN programs was leveraged/ extrapolated to calculate beneficiary TCV for this program. At individual level, the time required for each beneficiary to collect one payment is 185 minutes. The beneficiaries do not necessitate more than 1 visit to complete the payment collection process. The direct cost incurred by each beneficiary during this process stands at BDT 40. For the TCV calculation, median values have been used for both time and cost variables.

At a macro level, the time required for 0.2 million beneficiaries for one payment cycle accrues to 0.6 million hours. The beneficiaries need one visit per head to collect the payment, hence the number of visit required equals to the number of beneficiaries, i.e. 0.2 million. The direct incurred cost by the beneficiaries for this program adds up to BDT 8 million for one payment.

Lastly, the total cost incurred by beneficiaries, in a year was calculated - the economic value of the time invested stands at USD 0.3 million. To reach the economic value of the time invested, the percentage of employment within this segment (44.2%) was calculated. Then the average median value of monthly personal income of the beneficiary under this specific program (BDT 1,500) has been multiplied with the average time to calculate the value of the time. This monthly income has been derived from the monthly income cap of eligibility criteria. For the employment ratio, widows allowance has been used as a proxy since the beneficiaries are assumed to be within the similar SEC. The direct cost incurred amounts to USD 1.2 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 1.5 million every year for the beneficiaries of the Maternity Allowance Program.

3.3 SUMMARY

The above SSN programs allow a glance into the existent circumstances. This is further summarized here:

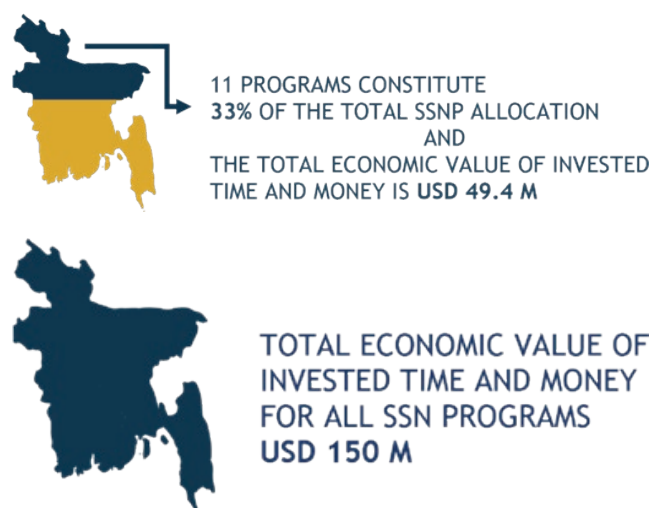
The budget allocation for 11 SSN programs amounts to BDT 93 billion/ USD 1.1 billion for the fiscal year 2017-18. These particular safety net programs have a coverage of about 13.5 million beneficiaries altogether.

At macro level, the time required for 13.5 beneficiaries to collect one payment is 40.1 million hours and the cost incurred during one payment cycle accrues to BDT 555.3 million. As it has been previously mentioned several times that, each beneficiary needs one visit to collect one payment. So, the number of visits required for 13.5 million beneficiaries for one payment cycle identical to the number of beneficiaries, i.e. 13.5.

Now, the total cumulative cost incurred by beneficiaries, in a year was calculated - the economic value of the time

invested stands at USD 16.3 million. The cumulative direct cost incurred amounts to USD 32.7 million for the beneficiaries in one year. These two values size up to a total economic value of the invested time and money of USD 49 million every year for the beneficiaries of the 11 programs, which constitute 33% of the total SSNP allocation.

As it is demonstrated by the figure shown above, the calculated total economic value of the invested time and money for the discussed 11 programs has been used to extrapolate the total economic value of the invested time and money for all SSN programs in one year. The fact that the 11 selected Social Safety Net programs account of 33% of the total budget allocation in the fiscal year 2017-18 has acted as the guiding principle here. To synopsise, the total economic value of invested time and money for all SSN programs measure up to USD 150 million.



4 - KEY FINDINGS: PSP PERSPECTIVE

4.1 OVERVIEW

Sonali Bank has been disbursing the major share of SSN payments on behalf of government for years. But recently, PSPs have come forward with their unique business models to facilitate the SSN payments. Notably, the MFS operators, and more recently agent banking service providers, have become a viable alternative in a matter of just few years. All these dimensions were taken into consideration while selecting to interview all types of PSPs with experience of SSN payments to fully apprehend the workings of this sort of payments. In order to realize PSP's perspective on the SSNPs the surveyor has visited the following Banks/MFS providers as they are involved in the SSNPs

1. Sonali Bank
2. DBBL
3. Bank Asia
4. bKash
5. SureCash
6. NRBC
7. Modhumoti

These PSPs, however, function in diverse means and approaches to serve the SSN beneficiaries. As such, the PSPs experience different cost structures, challenges and efficiency. These PSPs can be divided into 3 segments on the basis of how they are serving the SSNP beneficiaries:

- Branch Banking
- Agent Banking and
- Mobile Financial Services

These entities shared their experiences about serving the SSNP beneficiaries. The study takes the experience of the PSPs into account to understand what sort of difficulties they face while serving the beneficiaries.

pi STRATEGY conducted high level estimations of the cost structure needed to serve the beneficiaries in order to understand the reasons and business case behind the demands put forward by the PSPs to partake Social Safety Net payments. The following discussion also underscores the needs and expectations of the PSPs.

4.2 PSP PERSPECTIVE

4.2.1 BRANCH LENS (SONALI BANK)

Sonali Bank has been converted to a Public Limited Company with 100% ownership of the government and started functioning as Sonali Bank Limited from November 1, 2007 taking over all assets, liabilities and business of Sonali Bank. This bank has been conducting the payment of Social Safety Net Programs for years. Despite that, the cost incurred by Sonali Bank to make the payments is

considerably higher than other banks. This higher cost can be attributed to the cost structures of branch banking. Through an in-person interview with Mr. Subhash Chandra Das, CFO and GM, Sonali Bank, we found that, at present, Sonali Bank delivers payments of 51 SSN programs out of 91 SSN programs. The total budget allocation for SSN programs is USD 3.5 billion or BDT 295 billion. 70% of the allocated amount of SSN payments is actually disbursed which is USD 24 Billion or BDT 202 billion. Sonali Bank disburses 75% of the total disbursement. Furthermore, the cost for serving the beneficiaries was estimated to be to be USD 31 million or BDT 261 crores. However, Mr. Subhash Chandra speculated the annual cost for serving the beneficiaries to be USD 29 million or BDT 250 crore. Taking his cost estimation into account, the cost for serving each beneficiary stands at 3.03% (est.).

From the above estimation, the acceptable rate of commission as stated by Sonali Bank amounts to 3.03%.

It should be noted that the exclusive cost for the SSN payments cannot be estimated with accuracy due to overlapping infrastructure use for different services. The service fee is embedded within the annual account maintenance fees.

4.2.2 AGENT BANKING LENS (BANK ASIA)

Bank Asia has built a unique agent banking model with technology-based banking concept to ensure proper security as well as real-time banking for customers with network of 197 agent outlets in 39 districts. Agents booths are distinctly branded with Bank Asia agent banking logo to provide products and services of Bank Asia. All the agent booths are equipped with laptop/PC, image capturing device, POS machines etc. Agent banking transactions are on real time basis and integrated with bank's core banking solution. Customers get instant confirmation of transaction through mobile SMS and system generated printed money receipts. Through this innovative and effective agent banking model, Bank Asia is engaged in disbursement of the SSN payments. From an informative interview with Mr. Sarder Akhter Hamed, SEVP and Head of Channel Banking; Mr. Chandan Nag, Executive Officer, Alternative Delivery Channel, Md. Zakir Hossain Bhuiyan, Head of EBK Operations and Social Payments and Rumana Akter Tulee, First Assistant Vice President, we learned that, this PSP serves about 3% of the total beneficiaries of Old-age Allowance, Allowance for Widow, Deserted and Destitute Women along with Allowance for Financially Insolvent Disabled altogether and 0.3% of the EGPP beneficiaries. A total of 138400 beneficiaries are paid every year through the bank. Bank Asia is also participating in GoB's Ektee Bari Ektee Khamar (EBEK) project, which is targeting 51 lac ultra-poor members of the country.

For the SSN programs- Old-age Allowance, Allowance for the Widow, Deserted and Destitute Women and Allowance for Financially Insolvent Disabled, Bank Asia serves a total number of beneficiaries of 1,22,000 which have the payment frequency of four in one year. Moreover, this agent banking PSP serves 2,200 EGPP beneficiaries and 3,200 Shopno beneficiaries. The EGPP beneficiaries receive payment weekly for 40 days, whereas the Shopno beneficiaries receive payment for 1.5 years on weekly basis. For the SSN Shopno, Bank Asia receives a commission of 2%. Furthermore, the Shopno and EGPP beneficiaries are obligated to save a certain amount of their payments in the account for withdrawal at a later date. This saving also generates float interest for the PSP.

The beneficiaries do not carry any cost to avail the service. From the discussion the estimated cost for one pilot location amounts to BDT 2,900/day for a timeframe of 15 days considering the average costs for agents, distributors and infrastructure. For 30,000 beneficiaries, the cost of deployment is around BDT 1.2 million, which is roughly 2.2% of the total disbursement. At scale, the cost can be cut down to about 1.5%.

The acceptable rate of commission for this PSP is 1.25-1.5%. It should be further noted that, there is no explicit service charge, the fee is embedded within the annual Account maintenance fee.

4.2.3 AGENT BANKING AND MFS LENS (DBBL)

Dutch-Bangla Bank is an interesting PSP in the mix, from the perspective that they have strong foothold in both MFS and Agent Banking. As a result, their cost of infrastructure/service is combined. In the MFS sectors, DBBL Rocket has a widespread agent network. After the successful venture of Rocket, DBBL aimed to expand their reach by offering agent banking service through its 1,537 subagents across the country. Md. Abul Kashem Khan, SEVP & CTO, and Mr. Zahid Mansur, First Assistant Vice President, DBBL, in an interview, indicated that DBBL first engaged in the Social Safety Net Program payment in 2015. DBBL serves 0.3% of the total number of beneficiaries for EGPP; 100% of the beneficiaries of Secondary Education Stipend. In conclusion, about 4455,000 beneficiaries receive SSN payment every year through DBBL services.

DBBL has started serving the beneficiaries of Secondary Education Stipend since 2015. The amount received by the beneficiaries fall in the range of BDT 600-4,800. The payment frequency for this SSN is twice per year. In addition to that, DBBL also serves about 2,500 beneficiaries of EGPP and 2,000 beneficiaries of the SSN Cash Subsidy for Farmers. Maternity allowance and Allowance for Cancer Patients are the other SSN programs that this PSP is engaged in.

DBBL does not charge the beneficiaries for availing its service. The employee cost for 450 employees with an average salary of BDT 50,000/month for 2 months accrues to a total cost of BDT 47 million or USD 562,500. Here, the cost is calculated for 2 months as the days required to serve SSN beneficiaries is 60 days as articulated by Mr. Zahid Mansur, First Assistant Vice President, DBBL. For SSN payments, there is a monitoring team consisted of 6 members in head office, 193 employees in 77 offices and 250 employees in distribution channel. The capital expenditure for technology stands at USD 5-6 million and the operational expenditure requires USD 1 million per year. Hence, the cost calculated to serve each beneficiary is 0.9% if USSD is used and 1.13% if app is used. The higher cost for app usage is due to the offered incentives to the agents for using app.

For DBBL, the acceptable rate of commission is 1-1.1%.

It should be noted that DBBL proposed that the SSN expense to be allowed to fall under CSR for viable business model.

4.2.4 MFS LENS (BKASH)

bKash is the largest mobile financial service provider in Bangladesh working as a subsidiary of BRAC Bank Limited with country wide network of over 150,000 agents (2016). bKash has been serving 10.8% of the country's SESIP beneficiaries and a small number of the EGPP beneficiaries. A total of about 300,000 SSN beneficiaries are paid every year by bKash. This information was provided in an interview with Mr. Kamal Quadir, CEO and Mr. Moinuddin Raghir, CFO, and Mr. Mizanur Rashid, COO.

bKash first got involved in SSN payment in 2016 through SESIP (Secondary Education Investment Program). The amount of payment falls in the range of BDT 600- 4,800 with a payment frequency of twice per year. Under this program, this MFS serves about 290,000 to 300,000 beneficiaries in one year. bKash has also delivered in the past payments of EGPP beneficiaries, which is given twice a year. As it was mentioned by Mr. Moinuddin Raghir, CFO of bKash, the price to avail the service stands at 1.85%. The direct cost is 1.54% which includes cost of telecommunication company, AIT, commission, VAT, cash in, cash out. But, since the SSN payment has no cash in charge for bKash, the cost comes down to 0.85. However, it was emphasized by bKash that the end beneficiaries should not pay the service charge. It was proposed by bKash that VAT should be reduced for MFS to decrease cost per beneficiary. bKash had also applied for 15 lakhs more beneficiaries under SESIP.

The acceptable rate of commission for bKash values at 0.8%-0.9%.

4.2.5 MFS LENS (SURECASH)

SureCash started its journey in 2014 and created an open payment network in partnership with 5 local banks, including one of the largest state banks and more than 650 payment partners. It has focused on connecting schools, colleges, government education programs reaching the last mile. SureCash currently pays 70% of the country's Primary Education Stipend beneficiaries. A total of 9,225,000 beneficiaries are paid every year. This information was collected from an interview with Dr. Shahadat Khan, CEO, and Mr. Mohammad Zahirul Islam, AVP, SureCash.

SureCash delivers the payment of 9.1 million beneficiaries for the SSN Primary Education Stipend. The average payment per beneficiary varies within BDT 50 to BDT 200. This payment is given twice a year and generates a commission of 1.5% commission from the government. SureCash is also engaged in the payment of Agriculture Subsidy which is given once a year. This SSN derives a commission of 1% from the beneficiaries. Apart from these, Sugar Corporation Farmers Subsidy and Skills for Employment Investment Program (SEIP) payment are also given by SureCash. The Sugar Corporation Farmers Subsidy is given once a year to 1,25,000 beneficiaries and the average payment size is BDT 2,000 - BDT 3,000. SureCash receives a commission of 0.91% for this SSN.

The price to avail SureCash service is 1.8% or minimum BDT 4.

The acceptable rate of commission is 2%.

4.3 SUMMARY

As it has been discerned from the above discussion, the 5 PSPs do not share the same experience, needs or expectations. There are various factors and cost contributors which should be taken into consideration. Two examples follow.

Sonali Bank has been operating in Bangladesh since 1971 and disburses 75% of the G2P payments through its 1,183 branches. Although, among the PSPs that have been interviewed, Sonali Bank holds the highest cost structure, for other branch banks, the cost would probably be even higher (given lower economies of scale). At present, there are 58 banks and a total of 9,957 branches in Bangladesh. On average, a bank in Bangladesh has 172 branches. Owing to Sonali Bank's significantly larger scale and number of branches, their cost per branch is lower than that of other banks because of economies of scale. So, in reality, the 3% cost structure of traditional branch banking reflects the cost for Sonali Bank alone. It is likely that for other branch banks, the cost is higher. Another added advantage for Sonali Bank is its higher familiarity with the management of SSN payment.

The circumstances for MFS providers also follow a similar pattern. An MFS with a strong nationwide agent network and consistently large transaction volume will have a lower cost compared to an MFS that is smaller in scale. Because, an MFS provider of smaller scale, by definition, does not have significant infrastructure in place. Moreover, a smaller MFS might also lack the efficiency or management needed for a large number of customers at once. So, in reality, the 0.85% reflects the cost structure of the largest MFS. The cost structure for the other MFS providers is likely to be higher.

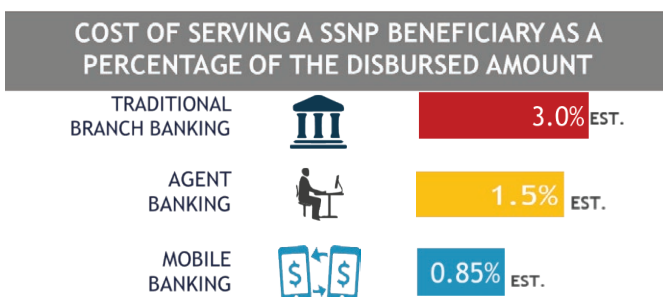


Figure 4-1: Cost of Serving SSNP Beneficiary as a Percentage of the Disbursed Amount

Global practices indicate that physical bank branches are relatively more expensive to establish and maintain than branchless alternatives such as agent banking and MFS; the cost differentiators are several orders of magnitude lower for DFS platforms. For example, Tameer Bank in Pakistan discovered that the capital and operating costs for an agent are 76% less than for its microfinance branches in the first year, and 89% cheaper over five years.

5 - KEY FINDINGS: AGENT PERSPECTIVE

5.1 OVERVIEW

Agents of Mobile Financial Service providers have been involved with SSNP payments for some time now. In order to understand their perspective on the SSNP programs we have interviewed agents of DBBL and SureCash. Dutch-Bangla Bank, who has a strong foothold in both MFS and agent banking, is involved with SSN programs such as EGPP and Secondary Education Stipend since 2015. SureCash started its journey in 2014, and has created an open payment network in partnership with 5 local banks, and has focused on serving schools, colleges, government education programs. Currently the MFS providers pay 70% of the country's Primary Education Stipend beneficiaries through its vast network of agents all over the country.

The agents of these entities shared their experiences about serving the SSNP beneficiaries. The interviews also tried to understand if there were any challenges faced during serving the SSNP beneficiaries particularly. Willingness of the agents to serve the SSNP beneficiaries was also explored. The interviews mainly focused on the following dimensions:


1. Operational expense for serving customers
2. Commission earned from serving customers
3. Number of customers served on a daily basis
4. The increase in number of customers during SSN payments
5. Time required to serve the regular customers as opposed to the SSNP beneficiaries
6. Time required to complete one payment cycle of SSN payment
7. Pain points while serving regular customers and SSN beneficiaries

In total 8 interviews were conducted; out of these one respondent provided Agent Banking Services (DBBL) and seven of them provided Mobile Financial Services. Of the 7 MFS providers, 4 of them represented 3 PSPs (bKash, Rocket and SureCash); 2 represented 4 PSPs (bKash, Rocket, t-cash and SureCash) and 1 represented 2 PSPs (bKash and Rocket). Out of 8, only 1 of the respondents was exclusively working as an MFS provider; remaining 7 provided their Agent Banking / MFS services from their

shops (ranging from computer training centers to grocery shops). The respondents' educational qualification varied as well; 4 of the respondents had studied up to Class 8; 2 of them passed SSC and 2 had studied up to Class 5. The monthly operational expense of the agents was on an average BDT 11,000. The number of customers served daily was, on an average 55; of these customers 80-85% use bKash, 15% use Rocket and 5% or less use other MFSs combined.

5.2 AGENT PERSPECTIVE

5.2.1 SURECASH PAYMENT TO PRIMARY STIPEND BENEFICIARIES



NAME: RAKIB HOSSAIN
PROPRIETOR: MAA COMPUTERS
LOCATION: SAVAR
EDUCATION: PASSED SSC
NUMBER OF AGENT-SHIP: 3: BKASH, ROCKET, SURECASH

AGENT BUSINESS DIMENSIONS

OPEX PER MONTH: BDT 4,800
REVENUE PER MONTH: BDT 8,000
AVERAGE TICKET SIZE: BDT 4,000

DBBL BUSINESS DIMENSIONS

TIME TO PROVIDE ONE PAYMENT: 1.5 MINUTES
NUMBER OF DBBL CUSTOMERS PER DAY: 20
NUMBER OF DBBL AGENTS NEARBY: 12
PERCENTAGE OF COMMISSION: 0.47% (USSD) 0.64% (APP)

ANECDOTES

DURING THE FIRST PAYMENT CYCLE, THERE WAS A RUMOR THAT THE MONEY WOULD STAY IN THE ACCOUNT FOR 2 DAYS, SO THERE WAS A RUSH. BUT NOW, STUDENTS WITHDRAW THEIR MONEY THEMSELVES, AND SOME DON'T. THEY USE THIS ACCOUNT FOR SAVINGS.

The average OpEx for the SureCash agents is estimated to be BDT 17,800 per month and the revenue amounts BDT 11,700 per month. From separate research conducted in 2013, it has been observed that 28.8% of MFS agent's revenue comes from the MFS operations. The assumption is that the portion has increased by 50% since then. So, 43% of the OpEx would be relevant here. On an average, SureCash agents had an agent-ship for 4 MFSes with an average ticket size of BDT 700.

A DBBL agent, on an average, required 1.5 minutes to serve one regular customer. The agents received 20 Rocket customers, on an average, per day. There were about 12 other DBBL agents nearby each of the agent. DBBL agents get a commission of 0.47% for using USSD and a commission of 0.64% for using App, on every transaction.

We have found that, for a DBBL agent, the time required to serve an SSNP beneficiary was higher than the time

required to serve a regular customer; on an average, it took 2 minutes to serve an SSNP beneficiary. According to the agents, it takes about 7 days to complete one payment cycle. When SSN payments are disbursed, the number of customers served in one day rises to about 135 beneficiaries. To serve the SSN beneficiaries, the DBBL agents are paid the same amount of commission - 0.47% for using USSD and 0.64% for using App, on every transaction.

The most common problem that the agents faced during the SSNP payment disbursement was related to PIN numbers; beneficiaries sometimes forgot their PIN number and had to call the head office to recover their PIN number. The entire process takes about 30 minutes to resolve, vastly increasing the time required to serve one SSN beneficiary. There were some complications regarding information dissemination among the beneficiaries regarding the payment procedure as well; for example, during the first payment cycle, there was a rumour that the money would stay in the account for 2 days only, so there was a rush among the beneficiaries to collect the payment as fast as possible. But now, after several payment cycles, the beneficiaries seem to have a better understanding of the procedure; a number of older students have started to use this account for savings as well.

5.3 SUMMARY

We imagined a scenario where all 13.5 million beneficiaries of the 11 SSN Programs with the largest disbursements, received their payment through agents. The average percentage of commission for the agents is 0.54% and the total amount of SSNP payment disbursement is estimated to be USD 1.1 billion. From these two numbers, it was found that the amount of commission required to pay all the agents is USD 6.2 million. A total of 90,000 agents will be required to serve all the SSNP beneficiaries of these 11 programs if 150 beneficiaries were to be served from 1 agent point and each agent could earn up to USD 70 (BDT 5,528) from serving the SSNP beneficiaries. Since it requires 2 minutes, on an average to serve each beneficiary, total time invested by the agents, in a year will be 2.7 million hours.



6 - GO FORWARD BUSINESS MODELS

6.1 OVERVIEW

The Government of Bangladesh implements a number of Social Safety Net Programs to aid the underprivileged and vulnerable population of the country. Currently, there are 118 social safety net programmes; implemented by 25 line ministries; the total budget allocation for SSN programs is USD 3.5 billion. 70% of the allocated amount of SSN payments is actually disbursed which is USD 24 billion.

The SSNP payments have been primarily conducted by state-owned banks - Sonali Bank, Agrani Bank, Rajshahi Krishi Unnayan Bank, Rupali Bank and Janata Bank. Sonali Bank alone disbursed 75% of the actual disbursed amount since Sonali Bank has more than 1,200 branches all around the country and provided the nearest access points for most beneficiaries. However, various researches have documented that the beneficiaries endure considerable difficulties to collect payments from traditional bank branches. The PSPs, on the other hand, have high opportunity cost as they spent significant number of work hours every year for SSN payment disbursement. One way to address these problems is to increase payment collection points; this would help reduce the TCV from the perspective of beneficiaries; and reduce workload among the agents at existing payment point. But the flipside to this approach would also mean reduced revenue for each of the agents (since each of the agents would be serving fewer customers).

Several commercial banks such as DBBL, Bank Asia and Mobile Financial Service providers such as bKash, have served the SSN beneficiaries as pilot projects or as temporary interventions. But going forward, sustainable and scalable solutions are needed if the Government were to decentralize SSNP payments by engaging other players in the financial market such as commercial banks with agent banking services or MFS operators in the SSN programs.

The total cost for Sonali Bank to serve the 75% beneficiaries amounts to USD 31 million; the total cost to disburse all SSN payments in one FY could therefore be extrapolated to be USD 41 million. This calculation was done from the assumption that other banks bear costs similar to Sonali Bank to serve SSNP beneficiaries. Using these information as a base, four models were explored, namely:

1. Float
2. Commissions
3. CSR + Tax Rebate
4. GOB Paying Withdrawal Fees directly to Beneficiaries Disbursement

The following section looks at each of these options.

6.2 BUSINESS MODEL

6.2.1 MODEL 1: FLOAT

The main component of this model is interest revenue generated from the float. Float interest can also be termed as the adjustable or variable interest that accumulates against loan, bond, mortgage or credit. Estimated total current cost for SSN payments in one payment cycle is USD 10416,667 (using the presently prevalent bank branch based disbursement mechanism). The Government of Bangladesh will be required to transfer the total amount of SSN payment prior to the payment date. The underlying principle behind this model was to demonstrate if the PSPs can receive cash transfer of the total amount of SSN payment for one payment cycle, how long will it take the principle to generate float interest equals to the operational expenditure of the PSPs. The table below shows the number of lead months each of the PSPs would require (using their published lending rates as of May 2018) to compensate for their costs using float generated revenues.

Standard Rates	Value(%)	Number of lead months needed to compensate for the OpEx
Average lending rate of Sonali bank	12%	1.7
Average lending rate of BRAC Bank	11%	1.8
Average lending rate of DBBL	10%	2
Average lending rate of BANK ASIA	9%	2.2

Table 6-1: Number of Lead Months Needed to Compensate for the OpEx

The above table shows that average rate for Sonali Bank, BRAC Bank, DBBL and Bank Asia are 12%, 11%, 10% and 9% respectively. At the respective lending rates, Sonali Bank will require 1.7 months, BRAC Bank and DBBL will require 1.8 months and 2 months and Bank Asia will need 2.2 months to compensate for the operational expenditure for delivering the SSN payments. (Calculations were made by assuming the payment frequency to be 4.)

In this model, the GoB will not be required to sustain any added expenditure. The operational expense will be compensated by transferring funds two months prior to the payment date. Another additional advantage of this model is that all the banks are already well acquainted of this process. So, the adoption of this model will be easier.

However, Bangladesh is heading towards Direct-to-Citizen or D2C payment service. As such, this model will lose its relevance once the D2C model is fully established. So, introducing this model at this point in time may hinder the progress of D2C model. This model will also necessitate formation of bilateral agreement between GoB and PSPs – there will be many agreements to administer. Another downside of this model is that float interest is susceptible to external market dimensions which

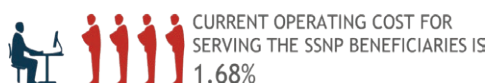
cannot be controlled. (If the interest rates fall, PSPs could come back to re-negotiate their agreements and require funds transfers with a longer lead time.)

6.2.2 MODEL 2: COMMISSION

As the name suggests, the main constituent of this model is commission. This model explores dimensions of introducing this model which is already used in different countries of Latin America, Pakistan and others. This model has witnessed traction in those regions.

The underlying principle of this model is to reveal the difference between the existent cost structure of GoB for delivering the SSN payments and the fees paid by GoB to PSPs for disbursing all the SSN payments to the beneficiaries.

The table estimates the difference between current (implicit) GoB cost structures and the fees paid by GoB to a PSP to disburse all SSNP payments (if that PSP were the sole service provider). (Calculations made by assuming a payment frequency of 4. For all PSPs, the ceiling of the range was used.)



PSP	Acceptable Commission (Percentage of total disbursement)	Amount of Total Commission for PSP, if the total SSN were disbursed by 1 PSP (USD)	Percentage difference from current cost structure
DBBL	1.1%	27,241,224	35%
bKash	0.9%	22,288,274	47%
SureCash	2.0%	49,529,497	-19%
Bank Asia	1.5%	34,670,648	17%

Figure 6-1: Business Model 2- Commission

As it has been previously mentioned, this model is a well-established model in other parts of the world. So, the uncertainty factor for this model to be a viable business solution is not as much of the other proposed models. Moreover, this model is also devoid of external market factors beyond control.

However, this model requires a bilateral agreement between government and PSP which might pose some unpredictable challenges. In addition to that, certain PSPs will have to be selected to serve the beneficiaries. This will demand for a procurement management, contractual management which could add further costs in the long run for the government.

6.2.3 MODEL 3: CSR + TAX REBATE

The third Business Model demonstrates an approach to compensate the Operational Expense by applying two different courses of action – CSR and Tax Rebate.

Corporate Social Responsibility (CSR) has become a standard of sustainable business practices among many organizations. The contribution of financial institutions including banks in this regard is of paramount importance considering their vital role in financing the economic and developmental activities. On the other hand, Tax incentive or rebate is an effective and widely used tool to encourage behaviour change towards the desired trajectory. The following chart represents the composition of CSR spending in the banking sector involved with SSN payments-

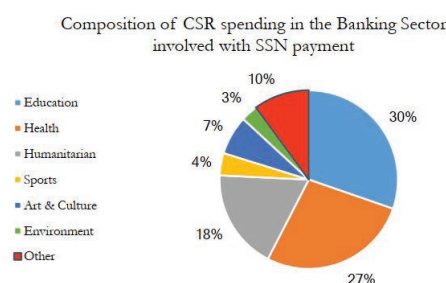


Figure 6-2: Composition of CSR Spending in the Banking Sector Involved with SSN Payment

Bangladesh Bank has very specific regulations regarding CSR spending that qualifies as acceptable. The chart shows that, among the various allowable expenditures under CSR, 10% falls within the “Other” category, which could potentially be repurposed as an allowable expense for SSNP payments. In 2015, total CSR spending among financial institutions was about USD 650 million. The 4 PSPs (Sonali Bank, DBBL, Bank Asia and bKash) collectively spent about 50% of this (although unevenly among the 4). The 10% of that under the “Other” category would translate to approximately USD 33 million. The remaining USD 8 million would need to be in the form of tax rebate.

It should be mentioned that, different PSPs have different mandates, budget and varying interests when it comes to CSR spending. Hence the suggested change will have to take place both at policy and mind set levels across multiple banks. Since, advancing financial inclusion is a core mandate for Banks and MFS providers, including SSN payments as part of CSR will most likely be considered as an admirable development. The Tax rebate for PSPs, however, will result in lost revenue for the GoB. In addition, the GoB will have to monitor the varying expenses incurred by the Bank Branches/Agents/MFS Providers and validate whether those can be considered under CSR, which will be both costly and time consuming.

6.2.4 MODEL 4: GOB ADDS WITHDRAWAL FEES DIRECTLY TO BENEFICIARY'S DISBURSEMENT

The fourth business model was developed in light of the emerging D2C model. This model demonstrates a route where the GoB can completely bypass having to deal individually with any (or many) PSPs, and instead, pay a certain withdrawal fee directly to the beneficiary along with their SSNP disbursements.

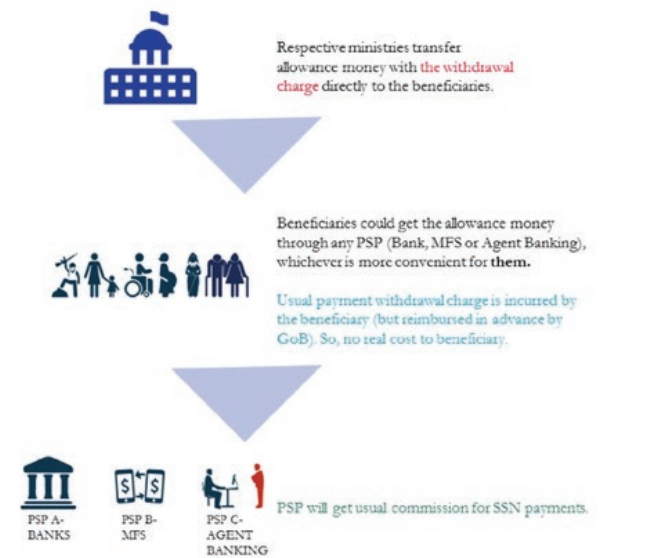


Figure 6-3: GoB Adds Withdrawal Fees Directly to Beneficiary's Disbursement

This model is in alignment with the Governments' vision of heading towards a D2C Payment Model. The GoB is planning to create a citizen centric payment architecture, under which, any citizen will be able to make transactions from anywhere, at any time. This model will decrease citizen TCV Index by a significant amount and provide the end-user with complete control over their transactions. The PSPs will serve the SSNP beneficiaries like any regular customer, which will encourage them to innovate effective payment methods in order to keep their costs down. the PSPs will also provide better customer service to retain their customers.

One limitation in this model is that the amount of withdrawal fee for all beneficiaries is not equal. If the maximum withdrawal amount is paid to all beneficiaries, GoB's expense goes up; whereas if an average amount is paid, some beneficiaries may have to pay for the withdrawal themselves. Though the government incurs a direct cost by paying the withdrawal amount to the beneficiaries under this model, the fact of the matter is, the government has been bearing an implicit cost to serve the beneficiaries anyway. Under this model, we can expect a reduction in that expense, as it will motivate PSPs to invent new ways of serving beneficiaries at a lower rate, for example creating a mobile app to disburse payment.

6.3 OVERALL EFFECT OF DIGITIZATION

The total budget allocation for SSN programs is USD 3.5 billion but only 70% of the allocated amount of SSN payments is actually disbursed which is USD 24 billion. Sonali Bank disburses 75% of the actual amount and the total cost for Sonali Bank to serve the beneficiaries amounts to USD 31 million. Assuming that other banks bear costs similar to Sonali Bank to serve SSNP beneficiaries, the total cost of SSN in one FY was estimated to be USD 41 million. USD 41 million is 1.68% of USD 24 million (the total disbursed amount). Business model 4, in which it is suggested that the GoB pays the withdrawal fees directly to the beneficiaries, would mean that if the GoB paid 1% of USD 24 billion (USD 24 million), as withdrawal fee, the net savings, from the PSP perspective would be USD 17 million.

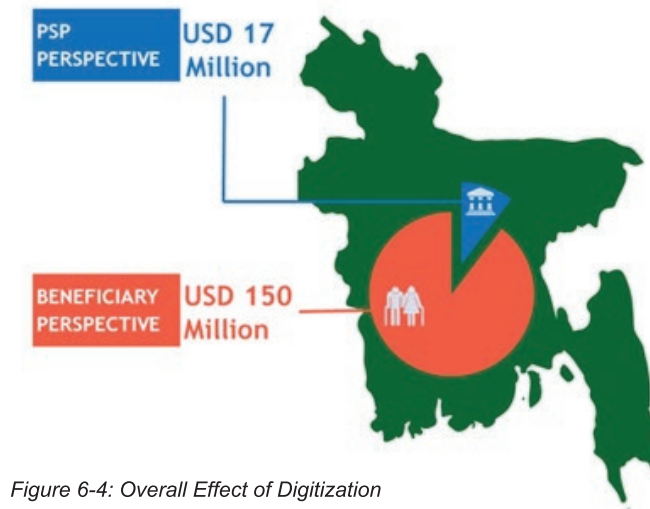


Figure 6-4: Overall Effect of Digitization

The beneficiaries will also benefit if this model is implemented as it provides them an opportunity to save USD 150 million. There are two components in this amount - one is the apparent cost of USD 99 million which beneficiaries pay from their pocket and the other component is the overlooked cost of USD 51 million, which is the economic value of the time spent by beneficiaries to collect their payment. Another way of looking at it is that the Government of Bangladesh would be investing USD 24 million to save a total of USD 150 million for the SSNP beneficiaries.

7 - RECOMMENDATIONS

Based on an analysis of the business models, we recommend Model 4 - which entails the Government of Bangladesh adding withdrawal fees directly to beneficiary's disbursement. Under this model, the SSNP beneficiaries will receive the withdrawal payment directly from the government along with their actual payment, which is in alignment with the Governments' vision of heading towards a D2C payment model. The GoB will be able to completely bypass having to deal individually with any (or many) PSPs, and instead, pay a certain withdrawal fee directly to the beneficiary along with their SSNP disbursements, allowing it to create a citizen centric payment architecture where beneficiaries could get the allowance money through any PSP (Bank, MFS or Agent Banking), whichever is more convenient for them. This will decrease beneficiary TCV Index by a significant amount and provide the end-user with complete control over their transactions.

There will be no requirement for forming complex bilateral agreements separately with the PSPs; instead the PSPs will serve SSNP beneficiaries like any regular customer which will encourage them to innovate effective payment methods in order to keep their costs down. The PSPs will also provide better customer service to retain their customers.

Since the amount of withdrawal fee is not equal for all beneficiaries, a decision regarding the exact withdrawal fee has to be made, simultaneously avoiding scenarios where the government's expense goes up needlessly or beneficiaries end up paying for the withdrawal themselves. The following figure demonstrates estimated OpEx per year for GoB for different withdrawal fee scenarios.

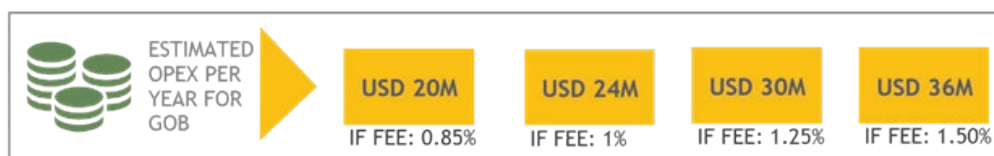


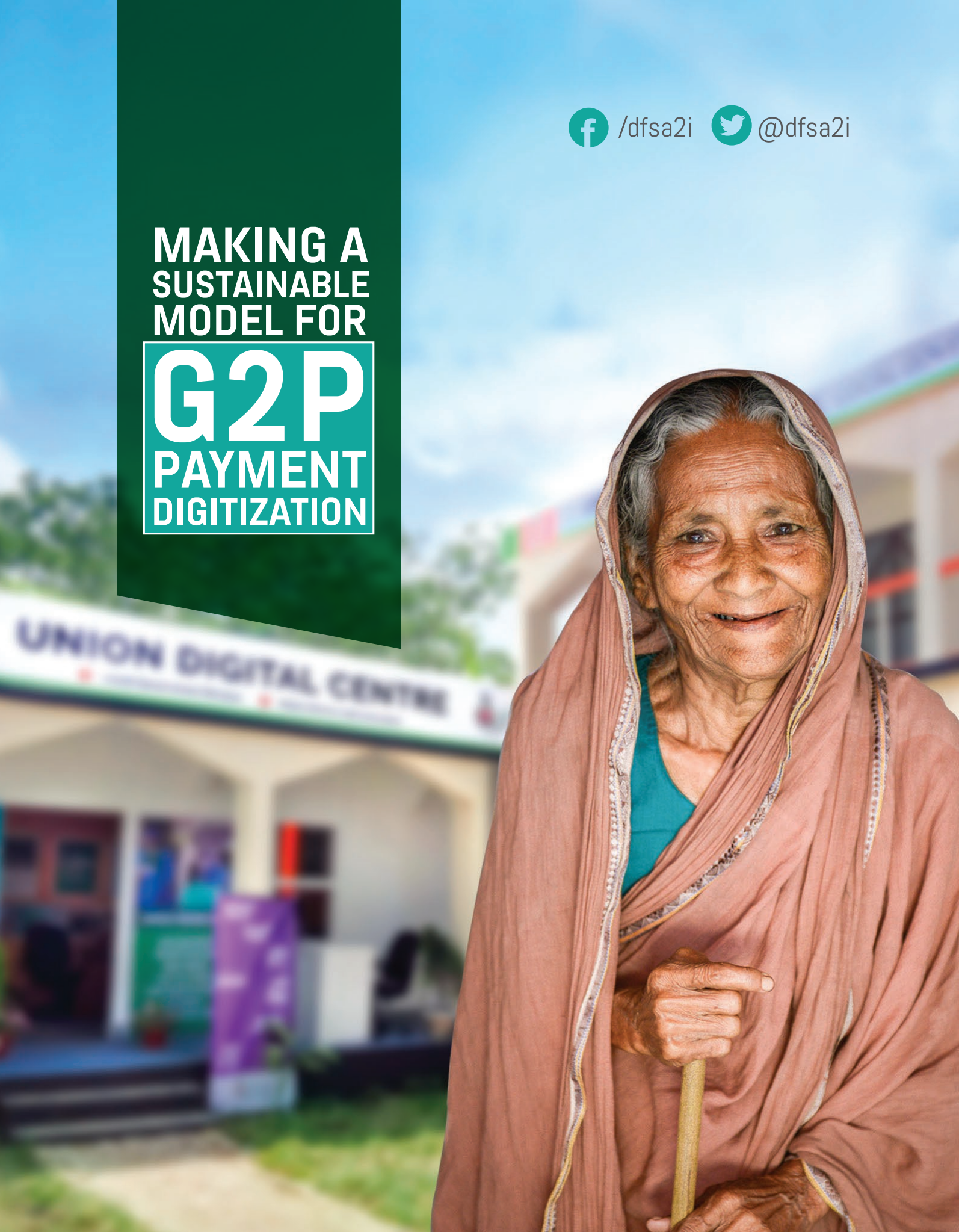
Figure 7-1: Estimated OpEx for GoB

We recommend beginning with a 1% fee, with clear indication that the rate will be brought down to 0.85% within 3 years. This will allow PSPs some time to reengineer their business processes, rethink their cost structures, and innovate on their business models to profitably serve the SSNP beneficiaries. It will also help GoB contain its costs over time. And most importantly, it will provide choice to beneficiaries.



MAKING A
SUSTAINABLE
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G2P
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