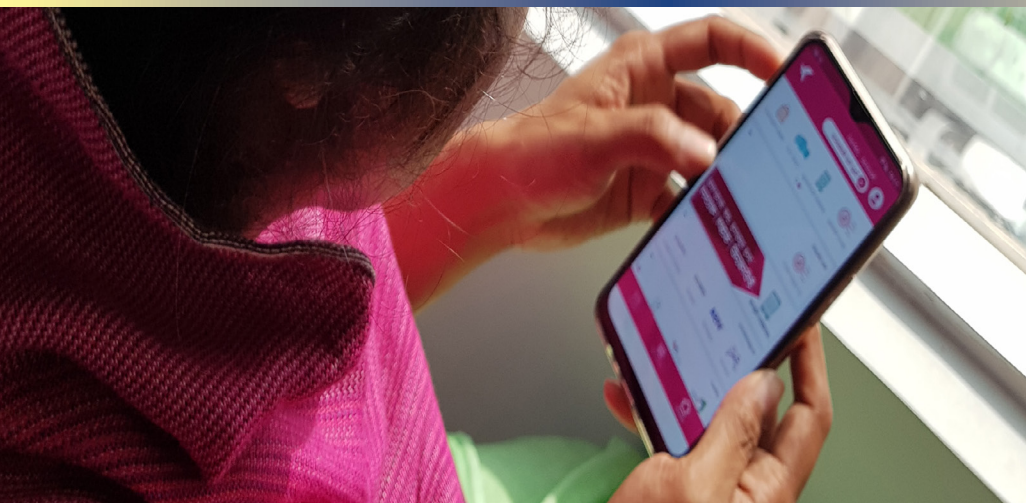




Policy Brief

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HIGH IMPACT BUT LOW CONSUMPTION OF PUBLIC E-SERVICES RELEVANT TO FINANCIAL INCLUSION IN RURAL BANGLADESH FINDINGS FROM THE FIELD

EXECUTIVE SUMMARY

The Government of Bangladesh (GoB) has been achieving commendable progress in digitising public services with an aim to establish a decent e-governance system. Keeping that in mind, Brac Institute of Governance and Development (BIGD), Brac University conducted a nationally representative survey on rural households (HHs) titled “Digital Literacy and Access to Public Services.” In view of the ongoing severe crisis caused by COVID-19 and considering a

large number of marginalised and vulnerable people who are unbanked, the e-services that address financial inclusion, namely a) Mobile banking, b) Agent banking, and c) Social Safety Net (SSN) allowance payment, are of great policy relevance. The first two issues of this new policy brief series will present the findings on these three services from the BIGD survey. In this particular issue, the rural HHs’ service-specific perceptions of impact, awareness, and

consumption level are communicated and the relationship of service consumption with important policy variables is examined. The upcoming issues will cover various aspects of consumer experience and satisfaction.

The findings show that all three services have left a significant positive impact on rural consumers, as the consumers realised that the experience of the services has increased their trust in government and made their lives more convenient. However, the actual consumption of these e-services is very low; although the rural HHs are relatively more aware of these services. There is also a significant variation in consumption and familiarity rates across the services.

An important contribution of this policy brief is the investigation of the association between the consumption rate and the digital literacy level of rural HHs. Based on the survey, a composite (standardised) rural HH-level Digital Literacy Index (DLI) is constructed using 22 indicators. A significant positive relationship between digital literacy and consumption of the two banking services were found, i.e. digitally literate HHs consumed these two banking services more than HHs that are relatively less digitally literate. As expected, digital literacy does not play any role in the consumption of SSN allowance payment, as the beneficiaries of SSN allowances are targeted based on their needs and they do not have the option to choose between manual or digital payment. Similarly, no spatial heterogeneity is observed for SSN allowance payment; however, geographical location and both banking services consumption are significantly related. Significant income disparity is found for all of these services, but the direction of relationship differs between banking services and SSN allowance payment. The consumption of banking services goes up as income goes up while SSN allowance payment is largely consumed by the poorer HHs. In the case of mobile banking, one interesting finding is that female-headed HHs opt for mobile banking services more compared to other HHs. No significant disparity in terms of the gender of the HH head is found for agent banking and SSN allowance payment. Digital SSN allowance payment system is yet to be rolled out nationwide and the scale-up of the project

is very slow. Survey findings show that 80% of the rural HHs still get the payment manually which means only 20% of the HHs were receiving payment digitally during this survey.

Awareness-building campaign to increase awareness about the availability and benefits of the services can be helpful to increase the consumption rate. To accelerate the scale-up of digital SSN allowance payment, possible policy actions include scrutinising and reviewing the existing service process, establishing better inter-governmental coordination, and deploying a more efficient and centrally coordinated management information system (MIS) for quick verification of beneficiaries.

1. INTRODUCTION

Information and communication technology (ICT) plays a vital role in a fast, efficient, cost-effective, and inclusive public service delivery mechanism. Developing a coordinated, decentralised, and accessible public e-service (or simply e-service) system is among the top priorities of the Government of Bangladesh (GoB), especially at a time like this when massive scale-up of transfers are required with minimal contact. Innovative and widespread application of ICT is expected to reduce the inequality and improve citizen's trust in public sectors—particularly among the marginalised and vulnerable group—by promoting transparency, accountability, and participation. It is crucial and very timely to make an evidence-based critical assessment of the status, coverage, and citizen's experiences related to e-services in Bangladesh. This will allow policy-makers and other stakeholders to make informed choices in the policy-making exercise.

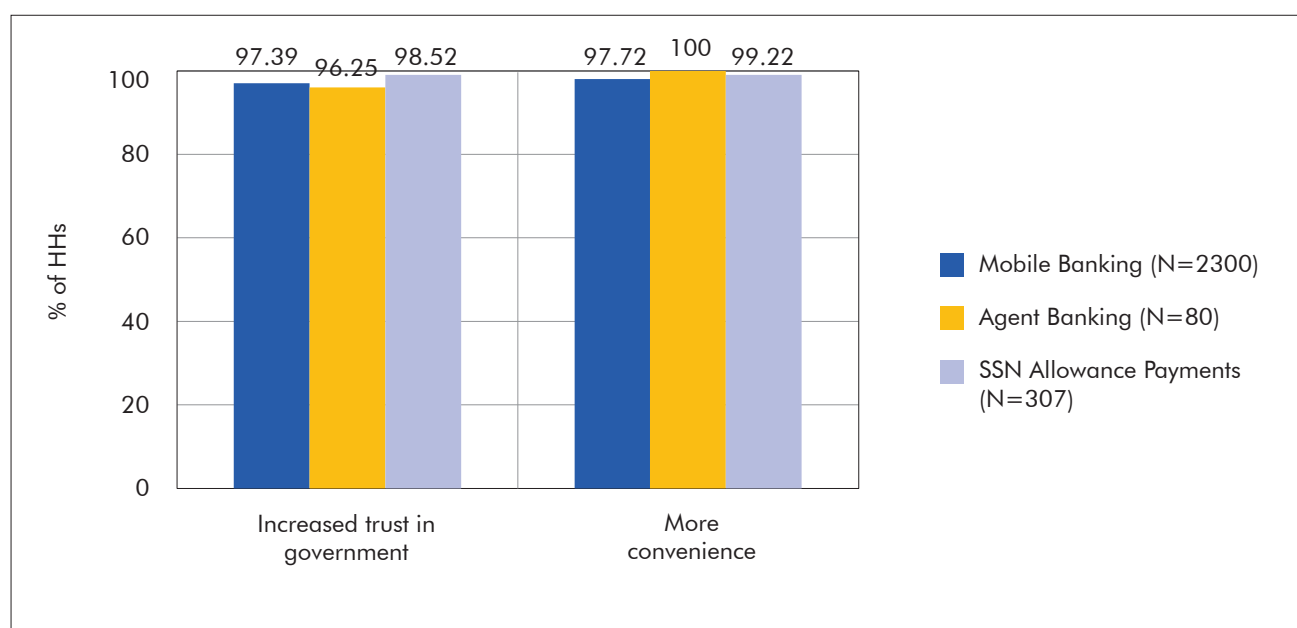
Brac Institute of Governance and Development (BIGD), Brac University conducted a nationally representative rural household (HH) survey titled “Digital Literacy and Access to Public Services” from September to November 2019.¹ In the first two issues of this policy brief series, the focus of our discussion will be on the three important e-services (out of the 50 services covered in the survey) that aim to promote financial inclusion and have high policy relevance during this unprecedented COVID-19 crisis and subsequent lockdown situation. These services are: a) *Mobile banking*, b) *Agent banking*, and c) *Social Safety Net (SSN) allowance payment*. In this particular issue, we present the rural HH’s service-specific perceptions of impact, awareness, and consumption level. We will also examine the relationship between service consumption and HH’s digital literacy level and investigate any potential sources of spatial and socio-economic disparity. The next issues will

cover various aspects of consumer experience and satisfaction.

2. IMPACT OF THE E-SERVICES AS PERCEIVED BY RURAL HHS

One of the striking findings is the high and profound positive perceptions of the impact of the e-services among rural consumers. For the three services under consideration, more than 95% of the recipient HHs opined positively that the experience of receiving the services has increased their trust in the government and has brought more ease in their life (Figure 1). The challenges of the rural people to access the formal banking channel are strongly reflected by their unanimous verdict that agent banking makes their life much easier.

Figure 1. High impact of the selected E-services: Increased trust in government and more convenience in life



Source: BIGD Survey on Digital Literacy and Access to Public Services

¹Acknowledging the fact that there exists a significant digital divide in urban and rural Bangladesh (see, for example, Waughen, 2015; Romke, 2012), the survey covered only the rural Bangladesh. The objective is to provide benchmark information on a) the state of rural digital literacy and skill levels and b) a range of issues for 50 selected public e-services. The full report will be published shortly.

3. THE PROBLEM

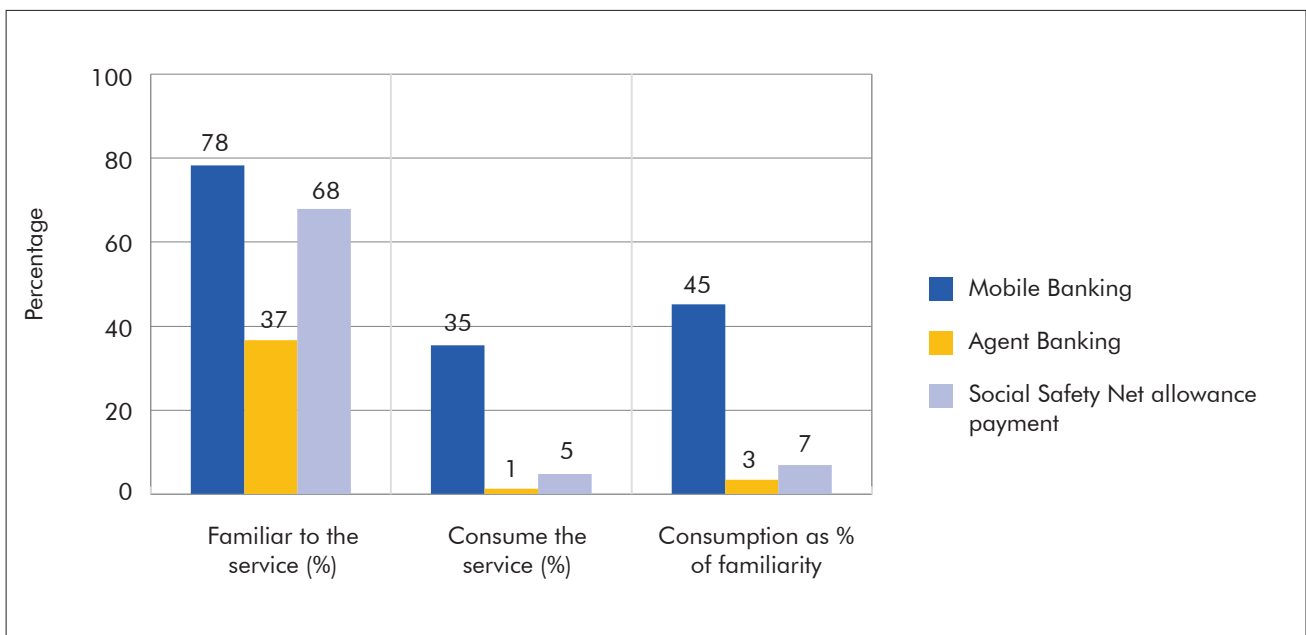
VERY LOW CONSUMPTION RATES

In spite of considerable variations across the three services, Figure 2 below shows that rural HHs are relatively more aware of the services, but the actual consumption of the services are painfully low. Agent banking is the worst performer—both in terms of the awareness level (37%) and the consumption rate (1%). SSN allowance payment has a better familiarity rate (68%), yet the consumption rate is below 5%. Mobile banking has the highest familiarity (78%) and consumption rate (35%), with 45% of the HHs who are familiar to and also consumers of the service.

By using the evidence from the baseline survey data, this policy brief aims to address the following key questions:

- What have we learned about the familiarity rate, consumption rate, and perception of the impact for these e-services?
- Is there any association between HH’s digital literacy level and their e-service consumption decision?
- Is there any evidence of socio-economic, geographical, and structural inequality between consumer and non-consumer groups?
- How the services differ in view of the above questions?

Figure 2. High Familiarity and Low Consumption Rate (N=6500)



Source: BIGD Survey on Digital Literacy and Access to Public Services

4. HOW ARE DIGITAL LITERACY AND SERVICE CONSUMPTION RELATED?

From the survey data, a composite (standardised) rural HH-level Digital Literacy Index (DLI) is constructed based on 22 indicators.² For each service, the average and median DLI scores for consumer and non-consumer groups of HHs are presented in Table 1. For mobile banking and agent banking, it is evident that the average and median DLI scores for the consumer group are considerably greater compared to the non-consumer group and the mean difference is highly statistically significant. On the other hand, for SSN allowance payment, both mean and median scores of the non-consumer group are marginally higher compared to the consumer group; but the mean difference is not significant.

Figure 3 demonstrates the digital literacy status within the consumers for each group, where more (less) digitally literate HHs are defined if the HH DLI score is above (below) the median DLI score obtained from the full sample. In case of agent and mobile banking, the share of more digitally literate HHs is noticeably higher among the service recipient HHs. Whilst for SSN allowance payment, the share of more and less digitally literate HHs are almost equal. Pearson's chi-squared (χ^2) test shows that both mobile banking and agent banking have a statistically significant association with HH's digital literacy level while SSN allowance payment does not have such an association.

In the case of the mobile and agent banking, HH-level digital literacy and HH's choice of e-service consumption are significantly associated. The consumption rate is considerably higher among more digitally literate HHs—again a statistically significant result.

²To construct the HH-level DLI, the responses are solicited from the most digitally literate person within the HH and in the presence of all available members. The detailed conceptual framework and estimation methodology will be available in the forthcoming full study report.

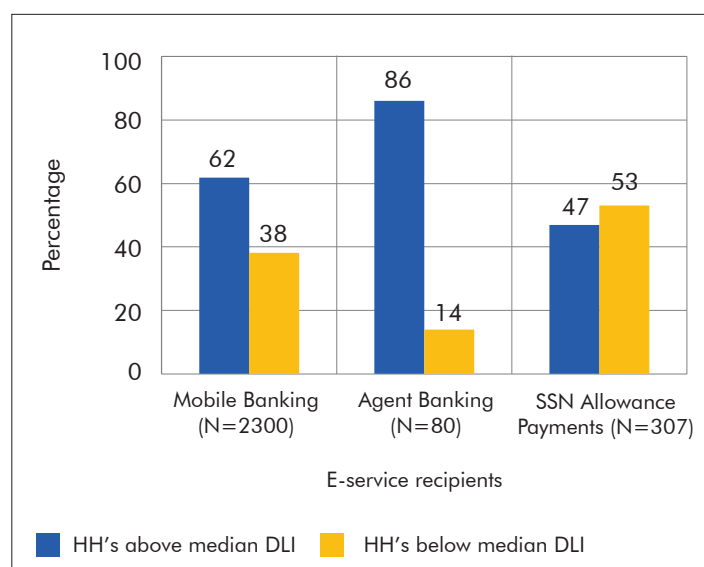
In contrast, HH's digital literacy level does not—quite expectedly—play any significant role in consuming SSN allowance payment.

Table 1. Average Digital Literacy Index (DLI) of HH Categories (based on consumption status)

Service Name		Average (SD) DLI Score	Median DLI Score
Mobile Banking	Consumer (N=2,300)	0.28 (1.05)	0.02
	Non-consumer (N=4,200)	-0.15 (.93)	-0.43
	Mean Difference*	0.44	
Agent Banking	Consumer (N=80)	1.01 (1.05)	1.04
	Non-consumer (N=6,420)	-0.01 (.99)	-0.31
	Mean Difference*	1.02	
Social Safety Net Allowance Payment	Consumer (N=307)	-0.04 (1.03)	-0.41
	Non-consumer (N=6,193)	0.00 (1.00)	-0.28
	Mean Difference	0.06	
Full Sample	N= 6,500	0.00 (1.00)	-0.29

Note: * indicates significant mean difference (at 1% level)

Figure 3. HH Digital Literacy Level among Service Recipients



Note: The median DLI score for the full sample (-0.29) is used to categorise each HH's digital literacy level

5. WHO MAY HAVE BEEN DISADVANTAGED?

Regional heterogeneity

For mobile and agent banking, statistically significant regional heterogeneity is observed. For these two services, Chattogram, Dhaka, and Rajshahi Divisions have better consumption rates whilst Rangpur, Khulna, and Mymensingh Divisions experienced lower consumption rates. In the case of SSN allowance, no significant regional differences are observed (Figure 4 and Annex Table).

Income disparity

The results presented in Figure 5 and Annex Table confirm the presence of strong statistically significant income disparity for all three services. For mobile and agent banking, wealthier HHs

are more likely to consume these services. Conceivably, for SSN allowance payment, the order is reversed, i.e. poorer HHs are more likely to be the recipients of the service.

(HH head’s) Gender disparity

In case of agent banking and SSN allowance payment, no statistically significant disparity in terms of the gender of the HH head is found. Interestingly, we observe that female-headed HH’s mobile banking consumption is higher compared to the male-headed HHs, and the difference is significant at the 10% level. (Figure 6 and Annex Table). However, within the female-headed HHs, the use of mobile banking is not associated with the head’s migrant status.

Figure 4. Evidence of Regional Heterogeneity

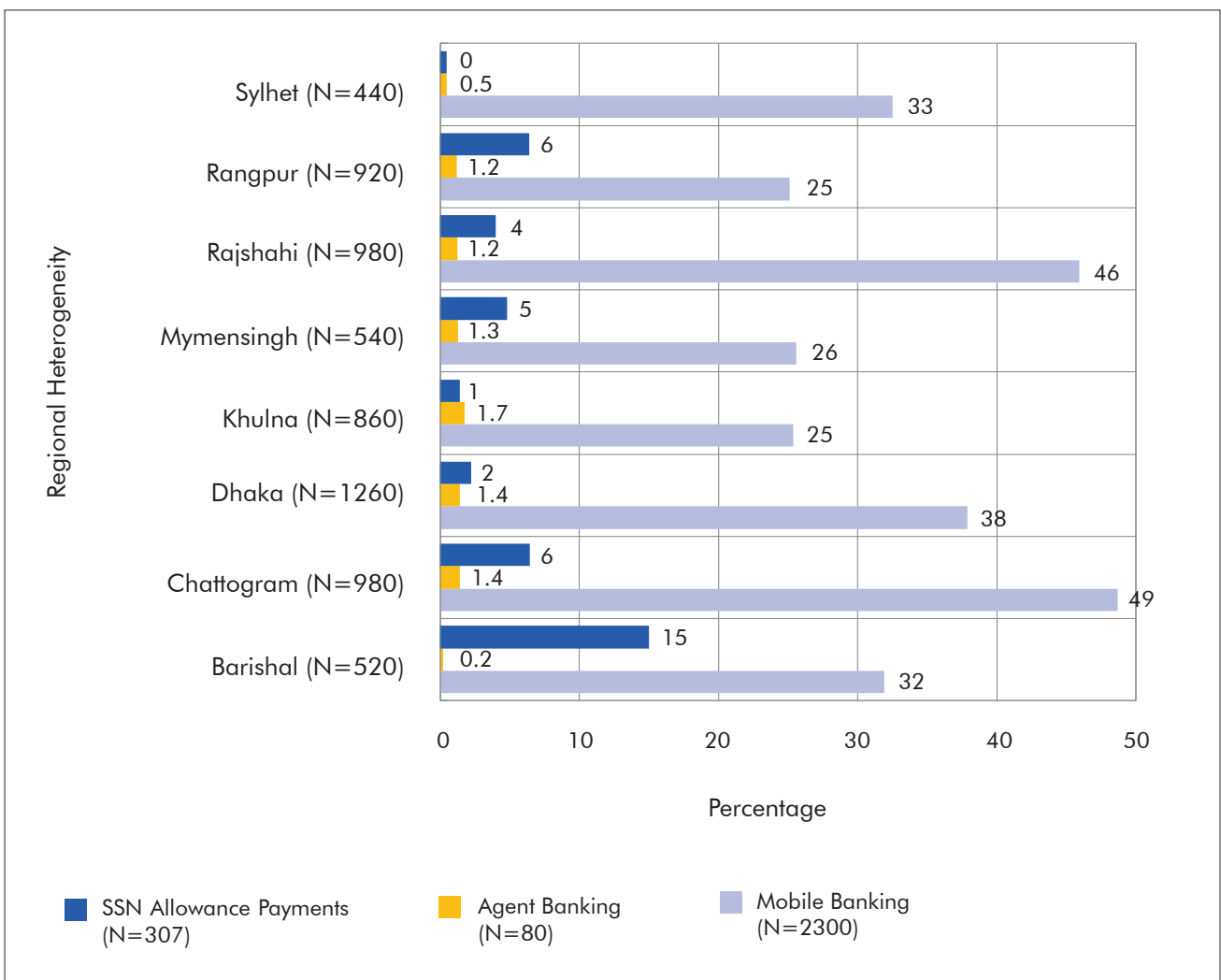


Figure 5. Significant Income Disparity

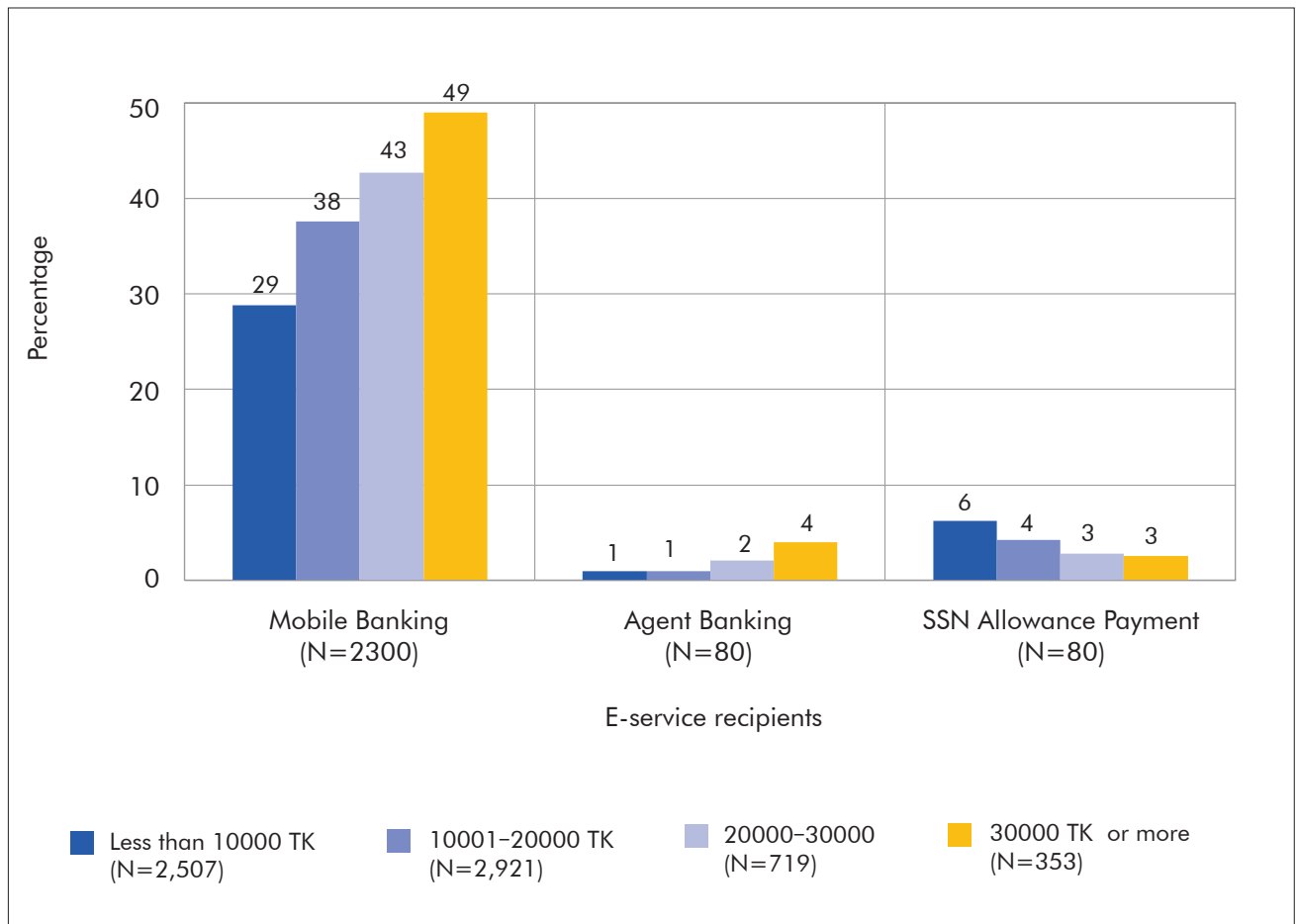
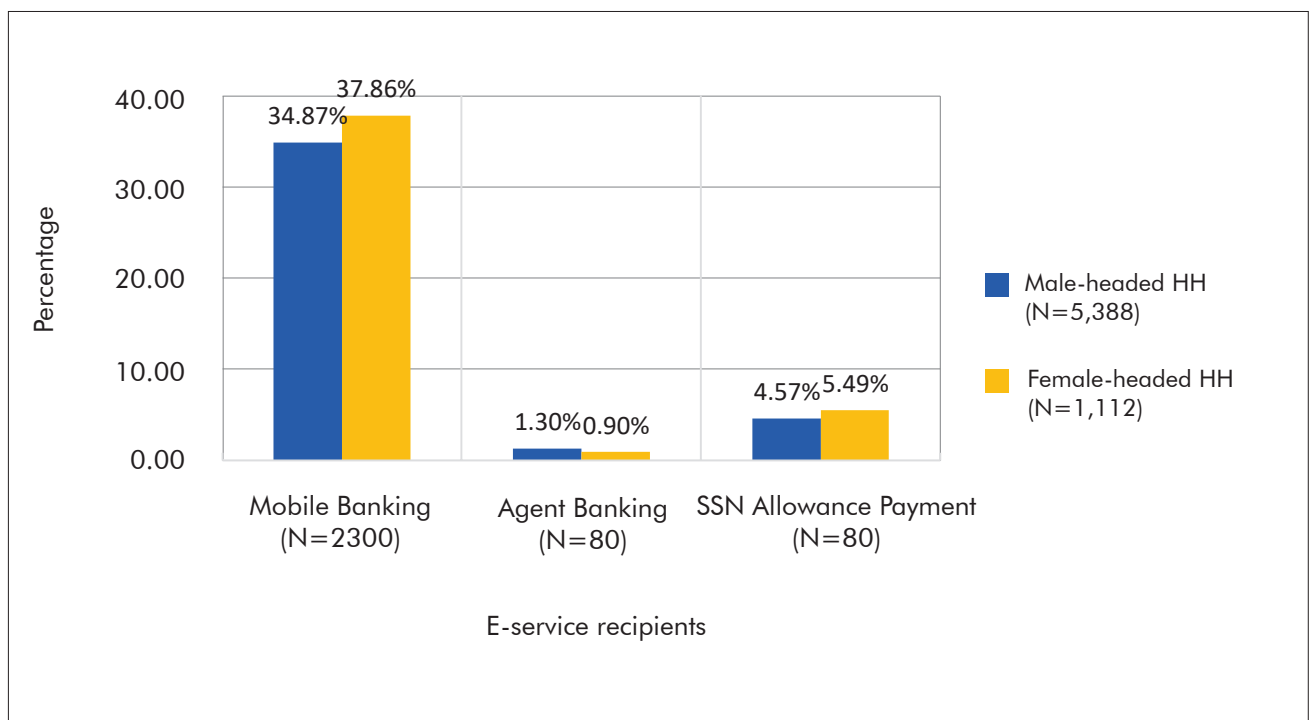


Figure 6. Consumption of E-services: Male Versus Female-Headed HHs



6. DO SUPPLY-SIDE ISSUES RESULT IN POOR DIGITISATION RATE OF SSN ALLOWANCE PAYMENT?

The pilot of the government-to-person (G2P) payment digitisation process included 11 upazilas and three SSN programs³ and the first payment was made in August 2018. This was scaled up to include a total of 21 upazilas in November 2019 when the BIGD survey ended (as of February 2020, the service is available in 51 upazilas). Moreover, Figure 7 shows that among the recipients, only 20% of the rural HHs could receive this service. In other words, only 20% of the residing HHs in these 21 upazilas where this service was rolled could use it.

Apparently, the pace of the scaling up of the digitisation of the SSN payment process is very slow. To accelerate the pace, all relevant government organs and stakeholders need to reflect on the experiences gained and lessons learned in the past. It is vital to scrutinise and review the total payment process flowchart to simplify it as much as possible. This may be achieved by

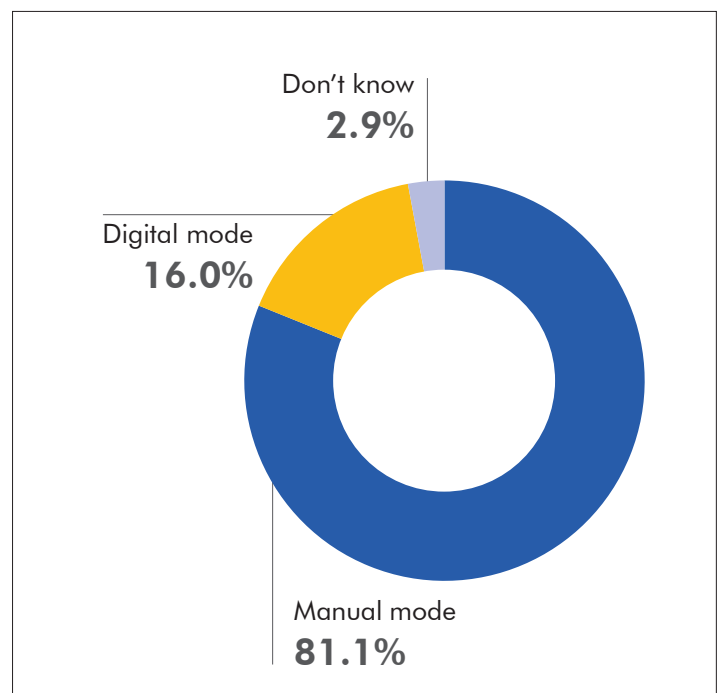
7. CONCLUDING REMARKS

In this policy brief, some salient features of three selected e-services, all of which having a common goal to increase the financial inclusion of the disadvantaged and marginalised groups, are presented based on the findings from the BIGD benchmark survey. Despite the overwhelmingly positive responses from the rural citizens, we observe noticeable differences in the familiarity and consumption rates among the services. In particular, a low consumption rate of the services is a big cause of concerns for achieving the financial inclusion and increasing the consumption rate quickly is the overarching policy challenge.

³These are: old age allowance, widow allowance, and disabled allowance

establishing better inter-governmental coordination and by deploying a more efficient and centrally coordinated management information system (MIS) for quick verification of beneficiaries.

Figure 7. SSN Allowance Payments: Mode of Service Consumption (N=307)



An awareness-building campaign to inform rural people about the benefits and availability of these services may help the familiarity rate to climb up, which in turn may lead to an increase in consumption rate. This is particularly true for the agent banking, a service which is available at over 80% Union Digital Centres (UDCs) but only 37% of the HHs are aware of this service.

One important distinction among these three services is that consuming mobile and agent banking are demand-side decisions while SSN allowance payment is a supply-side induced service. Moreover, the coverage of SSN allowance is decided centrally based on geographical diversity, rural and urban combination, socio-economic condition, and strength of field offices (a2i, 2019). This fundamental difference is supported by the evidence from the field.

For example, the digital literacy level of households is significantly associated with the consumption of mobile and agent banking, but have no bearing on the consumption on SSN allowance payment. Similarly, no spatial heterogeneity is observed for SSN allowance payment; however, geographical location and both banking services consumption are significantly related. Significant income disparity is found for all of these services, but the direction of relationship differs between banking services and SSN allowance payment. The consumption of banking services goes up as income goes up while SSN allowance payment is largely consumed by the poorer HHs.

In the next issue, various aspects of the consumer experience and satisfaction of these services will be presented.

REFERENCES

- a2i (2019). DFS Insight Newsletter, January 2019. Available at <https://a2i.gov.bd/wp-content/uploads/2019/09/DFS-Insight-Newsletter-Jan-2019.pdf> (Last accessed: 20 April 2020).
- Waughen, K. (2020). The Digital Divide: A Digital Bangladesh By 2021. International Journal of Education and Human Developments, 1(3). Available at: <http://ijehd.cgrd.org/images/Vol1No3/1.pdf> (Last accessed: 20 April 2020).
- Romke, R. A. (2013). May E-Governance Create Digital Divide?. Asian Business Review, 3(6), [Online]. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.398.304&rep=rep1&type=pdf> (Last accessed: 20 April 2020)

Annex Table. The Distribution of Services Consumption by Regional, Income, and Gender of HH Head

	Mobile Banking	Agent Banking	Social Safety Net Allowance Payment
National Rural (N=6,500)	35.38 %	1.23%	4.72%
Divisions			
1. Barisal (N= 520)	31.92 %	0.19%	15.00%
2. Chattogram (N=980)	48.67 %	1.43%	6.43%
3. Dhaka (N=1,260)	37.86 %	1.43%	2.22%
4. Khulna (N=860)	25.35 %	1.74%	1.4%
5. Mymensingh (N=540)	25.56 %	1.3%	4.81%
6. Rajshahi (N=980)	45.92 %	1.22%	3.98%
7. Rangpur (N=920)	25.11%	1.2%	6.41%
8. Sylhet (N=440)	32.5%	0.45 %	0.45%
p-value of Pearson's (χ^2) Test	0.00	0.00	0.23
Income Group (based on reported monthly HH income)			
Less than 10,000 (N=2,507)	28.8 %	0.92%	6.18%
10,001 to 20,000 (N= 2,921)	37.59%	0.96%	4.21%
20,001 to 30,000 (N=719)	42.7%	2.09%	2.78%
More than 30,000 (N=353)	49.01%	3.97%	2.55%
p-value of Pearson's (χ^2) Test	0.00	0.00	0.00
HH Head's Gender			
Male (N =5,388)	34.87%	1.30%	4.57%
Female (N =1,112)	37.86%	0.90%	5.49%
p-value of Pearson's (χ^2) Test	0.06	0.27	0.188



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