Mitigating Digital Divide Challenges of BISP Beneficiaries

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Poverty is considered as one of the highlighted issues in the world which can be curbed through the e-Government model that is identified as a significant tool for alleviating the poverty levels in the developing economies of the world [1]. Traditionally, social safety nets (SSNs) are used as a cushion to provide support to citizens facing poverty specifically in developing countries [2]. One way to eradicate poverty from its roots is cash transfer a form of SSNs, which is considered as a useful measure to impact the lives of people living at the base of the pyramid [3]. Benazir Income Support Programme (BISP), a government to citizens (G2C) service, is one of the largest and most innovative social safety net programmes in South East Asia with total disbursement of PKR 1,080 Billion from year 2008 to 2019 to more than 5 Million families across Pakistan [4]. Figure 1. represents a comparison of the number of payments beneficiaries have received in a year from 2014 to 2019.

Number of Tranfsers received by Beneficaries in a year

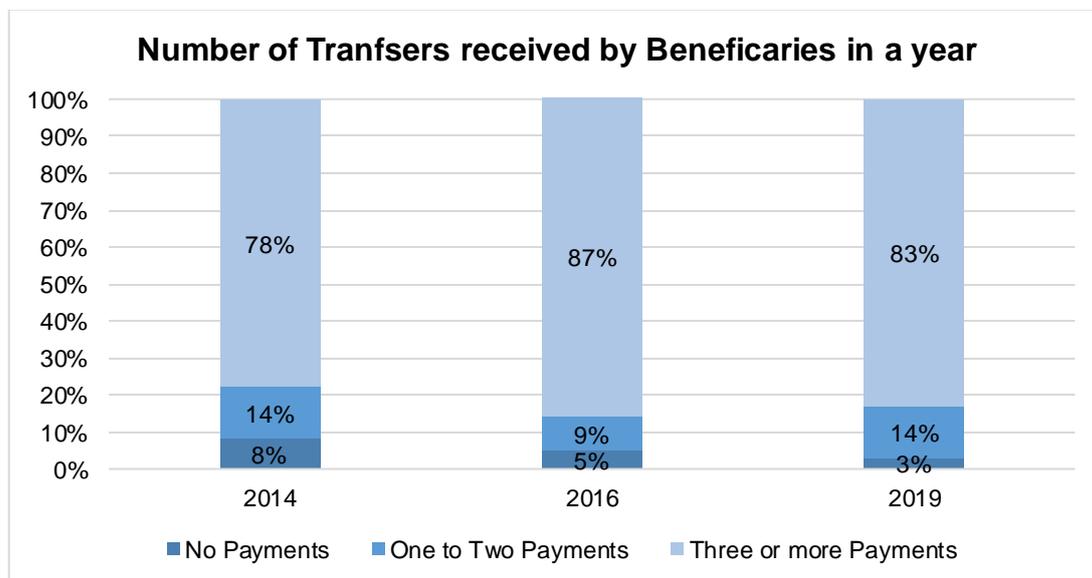| Year	No Payments	One to Two Payments	Three or more Payments
2014	8%	14%	78%
2016	5%	9%	87%
2019	3%	14%	83%

Figure 1. Adapted from *BISP Impact Evaluation Reports,* Oxford Policy Management

The programme is considered as a scalable example of e-Government initiatives in Pakistan and was initiated in 2008 with the aim to reduce the short-term economic burden of the people. Later, BISP focus shifted to long-term approach with the focus to reduce poverty and establish sustainability [5]. The first methodology of disbursement for BISP programme was based on physical cash transfers disbursed through the General Post Office (GPO) of Pakistan. Later when the government's focus started to shift towards to the e-Government model, it introduced the innovation in BISP by presenting technology-based solutions called digital social payments (DSP) to increase "transparency and reduce any possible pilferage" associated with the

payments [3, p. 150]. The new technology-based solutions initiated by BISP included BISP debit cards, smart cards, mobile banking, mobile wallets, and bio-metric verification system (BVS) to transfer cash digitally to the beneficiaries [2]. Despite the newly implemented initiatives of the government and the efforts to benefit the poor via engagement of technology, the results seem unfruitful. For instance, the BVS is used significantly lower than expected potential which can be achieved when 90% disbursements are distributed by this mechanism. Even though BVS is considered an innovative mechanism for disbursements the actual usage is significantly low [6]. The key reason behind the low usage of the new technological solutions is "digital divide" [7, 8] which is defined as "gap between those that have access to vital information technology resources and those that do not have access to those resources" [9, p.1]. This qualitative research by deploying Van Dijk's theory assessed the challenges that hinder the use of technology [7] and act as a barrier in the success of the new technological initiatives. The theory underpins four access issues; motivational, material, skill, and usage access to derive the adaptation of innovation (refer to figure 2).
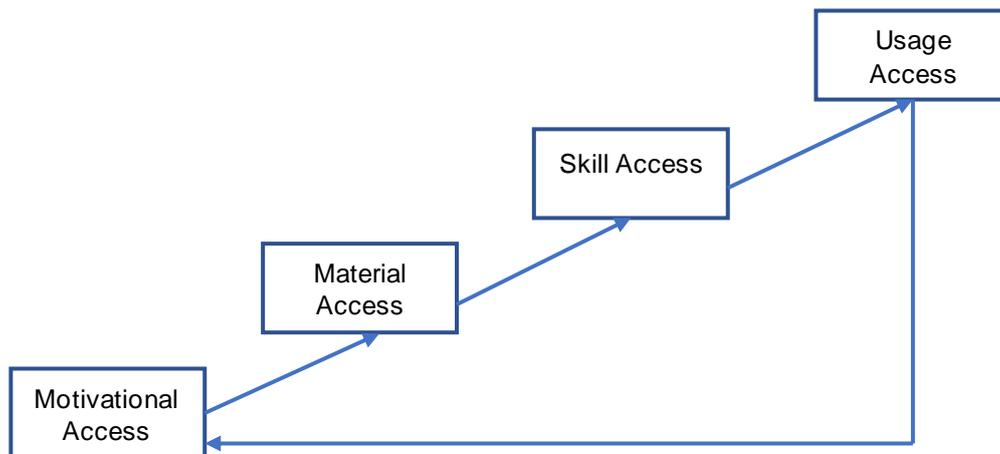

Figure 2. Adapted from *The Deepening Divide: Inequality in the Information Society,* (p.34), by Van Dijk (2005), Sage Publications.

By using the theory as the theoretical foundation, the study assessed BISP innovation from both the provider and receiver perspective. Below represented are the underlying challenges impacting the digital divide:

- **Factors Deriving Motivational Access:** The study found multiple factors associated with low motivational access of the beneficiaries. The key reasons for the lack of motivation to use BVS comprise of the low level of education, the

time investment in the technology, low-income level, low ability to read and write and the age factor. These results are in line with what Van Dijk [7] suggested that motivational factors are derived from economic, social, and personal variables [10] impacting the use of innovation.

- **Factors Deriving Material Access:** The second access was related to material access which is the actual technological access [7]. It was found that despite BVS implementation across the country the number of available machines to the beneficiaries is far less than expected. Also, the machines are not 100% accurate, and in case they are unable to connect to the server, people need to wait or even revisit the point of sales. This reduces the material access of BVS technology ultimately reducing the usage and preference of such technology [11]. The findings relate to suggestions of Van Dijk [7] who suggested that technology will not be used and favored if people are not able to access it with ease, near their vicinity and they lack other related access to the same technology.

- **Factors Deriving Skill Access:** Thirdly, the study assessed the issues regarding the digital skills of the beneficiaries. The results indicated that people severely lack even operational skills. The factors of age, gender (as all the representatives were females), education and lack of digital skills contributed towards the low level of operational skills [12]. Informational and strategic skills were not assessed as they both are the successor of operational skills and with its absence, it is not possible to determine the mentioned skills.

- **Factors Deriving for Usage Access:** Lastly, the digital gap for usage access was evaluated in the study. Usage access is either active or passive based on how successfully people transition from one usage stage to another. Since active usage is dependent on the three previously mentioned access. If motivational, material and skill access is absent, users are mainly passive users [10, 12] suggesting innovation adaptation will stay at a low level.

The Solutions:

The second contribution of the study is that it not only identified the issues pertaining to the digital divide but also explored various strategic options which can be used to narrow this digital gap.

- The results indicate motivational access can be improved by aligning the strategies with the root cause. For instance, culture is considered an important factor impacting the motivation of people to use technology [7, 9]. People prefer training in their language rather than the national language which can impact their motivation. Moreover, it was also identified that access plays a significant role in the use of technology. Literature suggests that access act as the main component of technological usage [13]. For improving access, based on the evidence it is suggested to use offline mobile-based training because the teledensity in Pakistan is 84.02% [14] which can be tapped as an opportunity to train people for other technologies. Another suggestion is to use customized language specific radio plays which are very popular among the rural people [15].

- For improving material access, it is suggested that the number of BVS/POS machines should be increased to serve more beneficiaries. Moreover, not only this a mobile-based helpline should be created through which people can get information regarding their nearest available BVS/POS machine along with the working status of the machine. This would save their time and money and will be a convenient method to use technology [16] as opposed to now because people have to travel at least 33 kilometers to reach their point to receive payments [5].

- In addition to this, to improve skill access which is the biggest challenge due to low literacy level and unfamiliarity with basic numeric and digital skills [3] it is suggested to use the "mother-leader" of BISP committees who can train the beneficiaries on basic numeric, financial, and digital skills [5]. Furthermore, the training should be customized according to the requirement of each district rather than generalized ones across the country. Research suggests that customized training have the impact thrice as opposed to generalized training [12].

- For, the last factor it was identified that the users are passive [10] in nature because of several issues with the previously mentioned factors. To cope up with this issue, it is recommended to bring back the model of Pakistan Post with some innovation. As Pakistan Post is in the process of digitization, it can be seen as an opportunity to find a solution by re-defining the model which was preferred by the beneficiaries providing the convenience and easy access [1].

Conclusion:

The below table represents a summary of challenges identified in this study along with the potential mitigation solution which can be deployed to reduce the gaps and improving beneficiaries' access to finance.

Theme	Identified Challenges	Potential Solution/Strategy
Motivational Access	- Low Literacy - Time investment in Technology - Low Income - Age	- Trainings in local languages - Mobile based customized trainings - Radio programmes to motivate people
Material Access	- Low availability of machines - Connectivity issues - Low accuracy rate of machines	- Increasing number of POS machines - Mobile helplines to locate nearest BVs/POS machine
Skill Access	- Lack of Operational Skills - Gender (females) - Age - Low Education Level - Lack of Digital Skills	- Mother-leaders as trainer for the beneficiaries - Include financial as well as digital skills training
Usage Access	Passive users	Re-defining Pakistan Post model with some innovation

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