



ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
Department of Project Management

The Role of e-payment on Productive safety net Program (PSNP)
Implementation Performance in Ethiopia
(The case of M-birr service in Tigray Region)

By: Blen Tenaw

January, 2019

Addis Ababa, Ethiopia

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DECLARATION

I, Blen Tenaw, hereby declare that this thesis entitled “The Role of e-payment on Productive safety net Program (PSNP) Implementation Performance in Ethiopia; The case of M-birr service in Tigray Region” submitted by me for the award of the of Master of Project Management, St. Mary’s University at Addis Ababa, Ethiopia, is my original work. All sources and materials used for this thesis have been duly acknowledged.

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ENDORCEMENT

This master thesis has been submitted for examination with my approval as thesis.

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ACRONYMS & ABBRIVATIONS

ACSI-	Amhara Credit & Saving Share Company
ADCSI-	Addis Credit & Saving Share Company
BoLSA-	Bureau of Labor and Social Affairs
CBE-	Commercial Bank of Ethiopia
CCT-	Conditional Cash Transfer
CFSTF-	Community Food Security Task Force
CT-	Cash Transfer
CTP-	Cash transfer programs
DCT-	Donor Coordination Team
DECSI-	Dedebit Credit & Saving Institution
DFID-	Department for International Development
DFS-	Digital Financial Services
DPPA-	Payroll and Attendance Sheet System
DRMFSS-	Risk Management and Food Security Sector
DS-	Direct Support Households
EFIP-	Ethiopian Financial Inclusion Project
ETIFT-	Ethiopian Inclusive Financial Technology
FSCD-	Food Security Coordination Directorate
FSCD-	Food Security Coordination Directorate
JRIS-	Joint Review and Implementation Support
MMS-	Mobile Money Services
MNO-	Mobile Network Operator
MOARD-	Ministry of Agriculture and Rural Development
MoF-	Ministry of Finance
NBE-	National Bank of Ethiopia
NGO-	Non-Governmental Organization
OCSCCO-	Oromia Credit and Saving Institution Share Company
PEACE-	Poverty Eradication and Community Empowerment
PIM-	Program Implementation Manual
PSNP-	Productive Safety Net Program
PWH-	Public Work Households
RFSCO-	Regional Food Security Office
RMTTC-	Resource Management and Transfers Technical Committee
RUSSACO-	Rural Saving & Credit Cooperative
SCT-	Social Cash Transfer
TSP-	Technology Service Provider
WFP-	World Food Program
WFST-	Woreda Food Security Taskforce
WOFED-	Woreda Finance and Economic Development

ABSTRACT

The study tried to assess the role of electronic payment on the productive safety net program implementation of Ethiopia with a particular reference to Tigray region's M-birr mobile payment. Government of Ethiopia realized the importance of e-payment towards efficient and effective service delivery in the year 2015. This study therefore aimed at assessing what the role of e-payment affected the program's performance by in meeting the expected success factors previously set by the program owners. These success factors namely; convenience, timeliness, protection, cost effectiveness, financial inclusion will allow to see the effectiveness of the implementation & measure the customer's satisfaction on the payment modality of the program. The study covers Tigray Region's PSNP e-payment program addressing hundreds of thousands of beneficiaries. A causal research design is adopted with both qualitative & quantitative research approach. The target population of this research was program beneficiaries, implementing party informants which is 17,170 HHs and simple random sampling was used to select 376HHs for data collected by means of a questionnaire& an interview with 10 key informants representing different implementing parties. The findings of this study revealed that e-payment has had a very positive effect on the program's performance; has improved convenience, timeliness, protection, appropriateness & financial inclusion while enhancing clients' satisfaction but multiple challenges have been faced in the implementation period in attending perfection of the implementation as there is high agent turn over & limited cash holding capacity to meet expected convenience, visibility of pin card exposing clients to potential fraud cases & delays in attendance & payroll preparation to meet timeliness. This study recommends that for e-payment implementation to be effective as expected, stakeholders need to work as a team in achieving timeliness, network accessibility, engaging RuSaCCos in all kebeles to increase convenience & TSP should come up with a potential security mechanism to overcome the pin risk.

Key words

- *E-payment, Productive Safety net Program, Social Cash Transfer*

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

What is Social cash transfer?

Social Cash transfer is a regular non-contributory payment of money provided by government or non-governmental organizations to individuals and households. Cash transfer programs are direct transfer payments to victims of humanitarian crises to assist them in situations where opportunities for employment, income, livelihood, or economic production are extremely limited or have ceased to exist.

- Before a disaster occurs, cash transfers may be provided in preparation for a predictable shock or as a risk reduction strategy (e.g. expected drought, flooding).
- At the beginning and throughout a crisis, cash transfers may be provided to cover essential food, non-food, and income needs as well as to protect livelihoods.
- During the recovery or transition period, cash transfers may be provided to support livelihoods, the construction of shelters or short-term employment opportunities.

Cash transfers are also useful in chronic food crises and droughts to provide an income in communities between harvests and when families are at their most vulnerable (Samson, 2009, p.43).

Large cash transfer programs began in middle-income countries such as Brazil and Mexico in the nineties and have spread more recently to low-income countries such as Ethiopia and Kenya. In the past two decades, many Cash Transfer Programs have emerged in developing countries as a promising means for delivering social protection. According to Arnold, Conway & Greens lade (2011), at the present day between 750 million and one billion people in the developing world benefit from social cash transfers.

Since introduction of cash transfers as pilot programs in Latin America in the early 1990s, the popularity and support of cash transfers among national governments as well as the international development communities have increased considerably (Arnold, Conway & Greens lade , 2011). In the last few years the humanitarian community has begun to replicate cash transfer programs s that were used in development contexts, and applied them to emergency settings, with shorter timeframes (Lisa and Michael, 2014). Consequently, more organizations, donors and governments have started to use this type of intervention in crisis situations in order to help to meet basic needs.

Thus, Cash is increasingly offered to households in emergencies worldwide as a supplement to in-kind aid such as food, clothing and shelter. Under certain conditions, when local markets are able to accommodate increased demand and prices remain stable, cash hand-outs may offer

benefits to recipients and donors alike. Households have the flexibility to meet their own needs as they choose, often with great freedom as to what they can buy, and where and when they buy it. Meanwhile, humanitarian agencies may experience a lighter logistical burden as cash transfers may require less procurement, transportation and storage costs than in-kind goods (Ugo, 2011).

However, a suitable payment mechanism is important to precisely understand the effectiveness of cash interventions. In urban areas where the financial infrastructure is relatively available, cash transfer programs have access to multiple efficient payment modalities. Finding an efficient payment mechanism is much more troublesome in rural places where there is a lack of formal financial infrastructure to facilitate the orderly transfer of cash. Financial infrastructures are often very limited in the case of humanitarian crisis, which only makes cash transfer programs' efforts more challenging (Emmett, 2012).

What is E-payment?

An e-payment system is a way of making transactions or paying for goods and services through an electronic medium, without the use of checks or cash. The system has grown increasingly over the last decades due to the growing spread of mobile banking. As the world advances more with technology development, it is easy to see the rise of electronic payment systems and payment processing devices. As this increase, improve, and provide ever more secured mobile payment transactions the percentage of check and cash transactions is yet to decrease.

In the last ten years, many emerging markets have seen a spread of Digital Financial Services (DFS) solutions. New technologies enable Digital Financial Services providers to extend financial services to populations who previously lacked access. These services include the extension of traditional brick-and-mortar branches to agent branches and increasingly the use of mobile phone-based payments. These provide opportunities to transfer cash electronically (e-transfers) using technologies such as mobile phones, agents and branches to bring more efficiency than the manual distribution of physical banknotes to beneficiaries.

In Ethiopia, technological advancements have made cash transfers increasingly available and the use of mobile phones in particular has improved accessibility for beneficiaries. Mobile phone technology was first used in Ethiopia to transfer cash using a service called M-BIRR. The M-BIRR service was launched by MOSS ICT Consultancy, a leading mobile money technology service provider in Ethiopia. M-BIRR has been used by several organizations, including Ministry of Finance and Economic Cooperation, who used the service for Productive Safety Net Program (PSNP) beneficiary bulk cash transfers (Thompson, 2016).

Established in 2005, Productive Safety Net Program (PSNP), the largest cash transfer program in Ethiopia, aimed at enabling the rural poor facing chronic food insecurity to resist shocks, create assets and become food self-sufficient. PSNP provides multi-annual predictable transfers, as food, cash or a combination of both, to help chronically food insecure people survive food

deficit periods and avoid depleting their productive assets while attempting to meet their basic food requirements (Berhane, Gilligan, Jumar and Taffesse, 2014).

As such, one of the fundamental principles of the PSNP is to ensure appropriate, timely and accessible transfer of resources to beneficiaries (PSNP Program Implementation Manual (PIM), 2014). Several attempts have been made over the course of the program to maintain its principle and considerable achievements have also been registered in existing resource transfer mechanisms. However, it is still believed that the manual bank note physical distribution system could be significantly improved by introducing alternative payment systems that utilizes new technologies and innovative methods.

In line with this, the November 2013 PSNP Joint Review and Implementation Support (JRIS) Mission reached an agreement to pilot and prove the concept of using e-payment for channeling transfers to program beneficiaries. As a result, e-Payment was formally launched in 2011 to be established as an alternative payment system for PSNP. With the view of testing the applicability of different e-payment modalities, the M-BIRR mobile payment system method has been piloted in four Woredas in the Tigray region; namely, SassieTseadaemba, MedebayZana, TahtayKoraro & Enderta in 2016. The M-BIRR pilot implementation demonstrated how to electronically transfer donor's aid to beneficiaries account directly, using modern banking technology (MOSS ICT Consultancy, PSNP E- payment project report, 2016).

The comprehensive Ministry of Finance (MoF), Food Security Coordination Directorate (FSCD) and Donor Coordination Team (DCT) evaluation report (2016) revealed that, the implementation of M-BIRR PSNP e-payment system in the four pilot Woredas brought significant advantages to PSNP beneficiaries. According to the conclusion of the assessment the PSNP e-transfer pilot exercises were successful. As a result the Federal Steering committee approved the scale-up of the project to 8 additional Woredas around the country in November 2016; and currently there are 18 Woredas in the region that get monthly payments of the PSNP program through the M-birr system.

There is increasing interests within the government to scale up the advantages of e-payment to further new PSNP Woredas. E-payment offers a promising avenue through which to build the resilience of poor people, especially in the context of financial inclusion and food security. Understanding of how electronic transfer can also contribute to PSNP efficiency is growing amongst many government structures at different levels.

Triggered by these widespread implementation of cash transfers in Ethiopia, private organizations are currently pooling diverse resources towards modernizing the cash transfer infrastructure and projects are competing for these opportunities. Financial institutions are also trying to re-invent a way to manage a pool of resources towards the development of payment systems.

A broad range of scholarly literature has been published dealing with the impacts and transmission channels of CTs on the one hand and various operational aspects on the other

hand. However, whereas much of the literature deals with issues such as conditionality or targeting methods, payment systems have received far less attention. Against this backdrop and taking into account recent technological innovations, this research paper aims to outline strengths and weaknesses of electronic delivery methods in cash transfers in general and of the Ethiopia Productive Safety Net Program in particular. Moreover, the paper seeks to assess the contribution of these electronic payment methods in PSNP from the perspective of three key stakeholder groups, namely government, beneficiaries, and private enterprises.

1.2. Statement of the Problem

After the declaration of National Bank of Ethiopia's first Mobile and Agent banking directive in 2012, M-BIRR mobile money service was used in 2015 to pilot PSNP cash transfer in two Woredas of Oromiya regional state. Government pilot implementation reports indicated that, the introduction of this electronic payment in to the productive safety net program has contributed for the low income PSNP beneficiaries in Ethiopia (MoF, FS, WB e-payment evaluation report, 2015). The government realizes the positive impacts of this intervention, such as ensuring timelessness of transfer, bringing financial inclusion, minimizing fiduciary risk and reducing other economic and social problems, & convenience. The growing experiences with electronic cash transfers after 2016/17 are also promising and as much of government effort has been directed towards the expansion of electronic cash transfer in PSNP. The government of Ethiopia's interest towards e-payment has increased in great amount (i.e. from 2 woredas at pilot stage to nearly 150 woredas in 5 regions) of the country proving the effectiveness of the system.

However, two separate dimensions have emerged in the past 3 years experiences: On one hand, the Ethiopian government has sought to increase the use of electronic means for PSNP payments and to promote greater financial inclusion. Electronic payments were seen as likely to reduce the cost of payment for the program and make delivery more convenient for recipients, compared to the prevalent cash transfer schemes, which as designed require recipients to be in a particular place at a particular time to receive payment. Also, bank accounts were seen as the portal into the wider world of formal financial services, such as savings, transfers and loans. Using these services appropriately would enhance developmental benefits from social cash transfer schemes.

On the other hand, in practice most e-payment Woredas have not yet met the program's performance criteria how so ever better the implementation maybe compared to the previous payment modality. Reports show woredas still face multiple challenges to carryout monthly transfers clients still face the challenge of untimely transfers. It is also challenging to aware financially illiterates& requires need a lot of training to use their new cards and accounts effectively and there will not be enough time for this during an emergency.

In light of this conceptual gap on the ground, no published study has devoted its attention to investigate the real effect of electronic payment on PSNP cash transfers in Ethiopia, except two

attempts of MoF, WB and FS evaluation report in 2015 and 2016. The focus of these reports were on the qualitative description of the performance of the electronic cash transfer without identifying and quantifying the effect of e-payment on the PSNP cash transfer from different perspectives of the program objectives.

This paper has reviewed the existing evidence on the performance of alternative e-cash transfer. The analysis focused on the comparative performance of electronic transfer by comparing with other transfers in the same context and objectives. Based on available evidence, the paper has tried to identify the effect of PSNP electronic cash transfer through quantitative and qualitative data analysis to help decision makers understand the real impact of electronic transfer.

1.3. Research Question

The main research questions of the study include the following issues:

- What is the role & effectiveness of electronic cash transfer on PSNP program?
- What are the challenges of PSNP electronic cash transfer?
- What are the opportunities of electronic cash transfer implementation in PSNP?

1.4. Objective of the Study

1.4.1. General Objective

The main objective of this study is to investigate the principal role of electronic cash transfer in Productive Safety Net Program implementation performance in Ethiopia with a focus on Tigray region.

1.4.2. Specific Objective

- To measure the role of electronic payment in the performance of PSNP cash transfer.
- To identify the challenges associated with implementing electronic cash transfer in PSNP.
- To identify the opportunities associated with implementing electronic cash transfer in PSNP.

1.5. Significance of the Study

In countries with growing digital payment or mobile money ecosystems, such as Ethiopia, e-transfers are becoming a standard tool for distributing humanitarian assistance. But differences that affect the quality of humanitarian programs are just beginning to be understood. This study is very significant for Ethiopian government who face an increasing number of options in transferring cash to those in crisis. Choosing the best transfer mechanism is an increasingly important part of response analysis, which helps us to determine whether we are doing the right thing, for the right people, in the right way and at the right time.

The outputs of this study can be used as reference for decision making whether to fully scale up the electronic payment modality for the PSNP program throughout Ethiopia or to resolve

challenges faced & see other payment modality options. Furthermore, this close look at PSNP electronic transfer in Ethiopia may also interest donors looking to maximize the impact of each humanitarian dollar spent, and private sector actors hoping to better understand the humanitarian aid sector's product needs. This study is believed to indicate the effectiveness of electronic cash transfer (if any) as compared to the prevalent cash transfer methods in this regard.

1.6. Scope & Limitation of the Study

1.6.1. Scope of the Study

The scope of the study focuses on the implementation of the E-payment on the PSNP program in Ethiopia with a particular reference to the Tigray Regional State. The study tries to examine the implementation of them-birr e-payment system in the 18 e-payment woredas and the beneficiaries (clients) held under this program since the pilot phase of the M-birr service in the PSNP Program in the region up until the end of 2017 fiscal year. New enrolments of 2018 were not considered in the population of the research as the new beneficiaries do not have enough experience in using the new M-BIRR electronics cash transfer method.

1.6.2. Limitation of the Study

Despite its effort to provide a comprehensive indication of the effects of social electronic cash transfer methods, this study is expected to have the following limitations:

First, due to the shortage of resources and time, we expect the study to be carried out largely in the sample regional state of Ethiopia. The given time was not enough for the researcher to observe all of e-payment implementing Woredas so it is expected that sample Woredas of the region were taken. Under such circumstances, it is unlikely to expect a comprehensive result that may include all contexts.

Second, the rarity of well researched documents and information pertaining to the target area of this study is one of the major stumbling blocks to the tireless effort going to be devoted to make this paper successful.

Third, the endeavor to acquire all necessary reports from concerned stakeholders may encounter significant bureaucratic delays.

With the existence of these all shortcomings, the study might fail to encamp full information that needs to be raised and it may also fail to consider exhaustively all the factors that are associated with the problem of the study.

1.7. Organization of the study

The study is structured in to five main chapters. Chapter one of this study introduces the problem statement and describes the specific problem that needs to be addressed in the study. Chapter two presents a review of literature and relevant research associated with the problem

statement of study. Chapter three presents the methodology and procedures used for data collection and analysis. Chapter four contains an analysis of the data and presentation of the results. Chapter five provides a summary and discussion of the researcher's findings, and recommendations for future research, policies and decisions.

CHAPTER TWO

2. REVIEW OF RELEVANT LITERATURE

2.1. Introduction

This chapter reviews existing literature, and publication on the topic related to the research problem by credited scholars and researchers. It particularly covers the theoretical review of literature, conceptualization of research problem, empirical review of the literature.

2.2. Theoretical Review

This section reviews theories related to the study. A formal theory is syntactic in nature and is only meaningful when given a semantic component by applying it to some content such as facts and relationships of the actual historical world as it is unfolding.

Social cash transfer describes “regular non-contributory payments of money provided by government or non-governmental organizations to individuals and households” (Samson, 2009, p. 43). SCTs can be both conditional and unconditional and they are commonly targeted at households or persons fulfilling certain eligibility criteria such as income poverty or malnutrition. According to estimates, at the present day between 750 million and one billion people in the developing world benefit from SCTs (Arnold, Conway & Greenslade, 2011, p. 10). As the largest SCT programs are carried out in middle-income countries such as Brazil, South Africa, or Mexico, only a minority of beneficiaries originate from states with a low average income. However, recently several SCT pilot programs and nationwide initiatives have also been implemented in Sub-Saharan Africa and other low-income regions (Bankable Frontier Associates, 2008, p. 5; Barca et al., 2010, p. 1) demonstrating that SCTs are now too considered an adequate instrument of social protection for least developed countries.

The main rationale for the increasing support of SCTs is that, according to accumulating evidence, they are “effective in ameliorating vulnerability and chronic poverty fund has wider positive impacts within recipient households and communities” (Devereux & Vincent, 2010, p. 368).

2.3. Empirical Review

2.3.1. Ethiopia Context and Rationale

Ethiopia is the second-most populous country in Sub-Saharan Africa with estimated population of 100 million, and population growth rate of 2.5% in 2016. One of the world’s oldest civilizations, it is also one of the world’s poorest countries. The country’s per capita income of \$590 is substantially lower than the regional average (Gross National Income, Atlas Method, 2015). To revert this situation, the government is planning to reach lower-middle income status over the next decades. In order to actualize such economic development aspiration, the country

needs to assess both national and international development issues, and make changes to fit in. Thus, the government of Ethiopia and private sectors are trying to make changes that can push the economic development efforts of the nation forward.

Several changes since 2010 have a significant influence on the cash transfer program payments in Ethiopia. The political, economic and social context has dramatically improved during the last years and will most probably continue to evolve at the same pace in the forthcoming years (Thompson, T. 2016). From the 38.7% people living in extreme poverty back in 2004, this indicator was 29.6% in 2010 and is expected to decrease by 7.4% more by 2015. The poverty reduction effort is not yet translated into sustained improvements for Ethiopia's poorest, who suffers from recurrent drought and food insecurities. PSNP and other cash transfer programs are extending their cash distribution and food aid to this vulnerable people for the next few years to safeguard lives. In its endeavour of resource transfer, PSNP is assessing the ways to move from traditional systems to systems using information and communication technology (ICT) in light of the past experiences, the international best practices, and the context changes. Latest research evidences and "WB Guidelines" paved the way for taking this opportunity to accompany major reforms of the payments system (World Bank, 2016). The emergence of a "middle class" linked to rural to urban migration increases the need and occurrence of Solidarity Transfers which can also complement the "social transfers" in the perspective of poverty alleviation. The financial inclusion is still limited with 7.1 million bank accounts and an estimation of 3.6 million microfinance accounts but is rapidly developing (AMFI, 2013). In 2013, the National Bank of Ethiopia (NBE) took measures to evolve towards a cash light society through implementation of regulation on the matter.

The telecommunications sector is taking up on the quality of service while updating and modernizing its infrastructure, as demand sophisticates itself. In its 85% geographical coverage, Ethiotelcom is now serving more than 55 million clients (from less than 10 million in 2010). Following the telecom service growth, unexpected success stories are being registered by Ethiopian mobile money service providers in the past three years. More than 85 percent of Ethiopia population is now within telecom service coverage. The speed and extent to which mobile telephony usage has spreading caught the attention of mobile money service providers. Branchless banking has emerged as a promising new approach to accelerate financial inclusion. By changing the costs and risks of distributing financial services, channels outside the branch have enabled large commercial banks, MFI's and new entrants like Mobile Money Technology service providers (MOSS ICT and Hello cash) to contemplate reaching large numbers of unserved people (DFID, 2009).

This chapter reviewed literatures on the institutional framework of PSNP cash transfer and the actual evolution of PSNP M-BIRR e-payment to create clear bases for the intended research investigations in the next chapters

2.3.2. PSNP Institutional Framework

The institutional framework of the PSNP is predicated on the federal administrative structure of the Ethiopian Government. The federal state is comprised of nine autonomous regions vested with power for self-determination and two autonomous cities, which together cover about 710 woredas. A woreda is equivalent to a district, managed by a locally elected government. Each woreda is composed of kebeles. Kebeles can best be regarded as a neighborhood, a localized and delimited group of people or ward. A Kebele is the lowest level of elected local government in Ethiopia. In the rural areas, each kebele encompasses a number of villages or communities within one geographic area. Given the federal structure in Ethiopia, whereby regions have a great deal of autonomy, the PSNP was designed to respect the individual roles and responsibilities of each level of government, while building on the ability of the Federal Government to implement special purpose grants to achieve specific development outcomes (FDRE Ministry of Agriculture,2014).

The PSNP is a federal government program implemented largely through government systems and structures. The nature of the program does not fit neatly into the mandate of a single government agency or department. Rather the objectives of the PSNP span the mandates of two Ministries and multiple departments within each Ministry. The roles and responsibilities of these Ministries and departments are described below.

A. Ministry of Agriculture and Rural Development (MoARD)

The Ministry of Agriculture and Rural Development (MoARD) is responsible for the management of the PSNP, with the Disaster Risk Management and Food Security Sector (DRMFSS) responsible for overall program coordination. Within the DRMFSS, the Food Security Coordination Directorate (FSCD) previously called the Food Security Coordination Bureau) facilitates the day-to-day management and coordination of the PSNP. It is directly responsible for the timely delivery of transfers to beneficiaries and supports the implementation of public works. Its key responsibilities include:

- Coordination support and oversight of the PSNP;
- Ensuring proper linkages of the PSNP with other FSP and development interventions;
- Consolidating PSNP work plans and budget proposals from the regions, and making resource allocation proposals to be submitted to the Minister for approval;
- Allocating PSNP resources approved by the Minister to the Regions;
- Providing technical support to regional food security offices;
- Monitoring overall capacity to implement the PSNP; and,
- Monitoring and evaluating the efficiency, effectiveness and impact of the PSNP.

B. Ministry of Finance (MoF)

The Ministry of Finance and Economic Cooperation oversees financial management of the program and disburses cash resources to implementing federal ministries and to the regions based on the annual plan submitted by MoARD. These federal implementation arrangements are replicated by regions and woredas. Within the regions the ultimate authority for the PSNP resides in the regional council, which is the highest regional level decision-making body. Concurrently, the regional president is responsible for the performance of the PSNP through the regional bureaucracy. Similarly, at woreda level, it is the woreda council that approves the allocation of PSNP resources within the overall woreda development plan prepared by the woreda cabinet.

In addition to program implementation, regional and woreda bodies are responsible for ensuring sound multi-sectorial coordination of the public works. For example, they must ensure that health centers constructed by the PSNP are staffed by the Ministry of Health. They must also generate the development coordination necessary to promote household level graduation from food insecurity.

Public works planning and selection of PSNP beneficiaries occur within communities and kebeles. Communities, with support of kebeles, identify beneficiaries, mobilize community members to participate in planning exercises and periodically monitor public works. At community-level, this is undertaken by the Community Food Security Task Force (CFSTF), which is comprised of a Kebele official, the local Development Agent (DA) and elected villagers representing men, women, youth, and the elderly.

The PSNP is a government program guided by a single program document, PIM (Program Implementation Manual). Within this framework, NGOs and the World Food Program (WFP) play an important role in implementation because of their experience delivering food aid and the institutional requirements of some donor agencies to channel resources through NGOs and WFP. In addition, NGOs and WFP provide technical assistance to the program, while WFP supports the Government in procuring food stocks from abroad. The difference between NGO and WFP support for program implementation is most apparent in woredas. While both WFP and NGOs deliver food resources to PSNP woredas, in NGO supported woredas, responsibility for program implementation is shared between the NGO and woreda officials. The exact arrangements between the NGO and the woreda tend to differ depending on the NGO and may vary from involvement in direct service delivery to building woreda implementation capacity. In some areas, the NGO delivers all food transfers, while in other areas, particularly in Amhara Region, the NGO and woreda share responsibility for the provision of transfers, thereby providing a mix of cash and food. NGOs may also support woredas in the planning of public works and monitoring. Donor Coordination and Harmonization Donor agencies have pooled their financing—both cash and in-kind contributions—and formulated a unified stream of technical advice in support of a single program led by Government. This approach allows for

better harmonization and enables enhanced program supervision and monitoring, while avoiding excessive transaction costs for the Government and donor agencies.

The rights, obligations and coordination arrangements of the government-donor partnership for the PSNP are articulated in a Memorandum of Understanding (MoU). Several specific coordination and harmonization mechanisms operationalize the principles under this MoU and also minimize transaction costs:

The Joint Coordination Committee (JCC) provides joint oversight of program implementation including monitoring progress and providing technical guidance on specific components or cross-cutting issues. It is chaired by the State Minister for the Disaster Management and Food Security Sector and includes all donor partners.

- The PSNP Donor Working Group (DWG) harmonizes donor support and is chaired by each donor on a six-month rotating basis.
- A Donor Coordination Team (DCT) supports the functioning of the DWG. The DCT manages research and technical assistance commissioned for the PSNP.
- Donor resources to the PSNP are aligned through the use of a World Bank-administered co-financing Multi-Donor Trust Fund (MDTF) and pooled government accounts.
- Donors also commit significant resources through another MDTF that ensures harmonized technical advice to the Government. The MDTF finances implementation support and enhanced supervision of the PSNP.

2.3.3. Guiding Principles from PSNP

2.3.3.1. Memorandum of Understanding

The PSNP is underpinned by the following guiding principles:

- The Productive Safety Net Program will be used to transfer timely, adequate and guaranteed (multiannual) resources to vulnerable households to protect against destitution and increased levels of suffering.
- Ensuring protection of beneficiaries and their assets requires the primacy of transfers, i.e. if for any reason the woreda is not able to organize labor intensive public works sub-projects, identified beneficiaries should still be entitled to receive assistance.
- The productive nature of the program refers to labor-intensive public works sub-projects and the multiplier effects of cash transfers on the local economy.
- Transfers initially aim to benefit approximately 5 million chronically food insecure Ethiopians.
- Transfers are intended for the most chronically food insecure people regardless of their current land, labor and other assets in the targeted woredas. The ability to graduate will not be a beneficiary selection criterion. Graduation is the ultimate goal, to be attained through the combination of the PSNP and other food security programs.

- While the program is committed to the “cash first principle,” transfers under the Productive Safety Net will initially include both cash and food. Criteria to determine the type of transfers will include local market conditions, the existence of institutional capacity, and the availability of resources as stipulated in the PIM.
- The Government has agreed that the flow of funds will be made consistent with the long-term direction of its Expenditure Management & Control Program within the Civil Service Reform Program. MoF will develop a strategy to move financial management arrangements towards the mainstream government system through the BOFED. The Government confirmed January 2006 as the start date for Channel 1 for the PSNP.
- NGOs with relevant capacity and experience have played a part in the first year implementation of the program and involvement of such agencies will continue subject to their acceptance of the provisions of the PIM.

2.3.3.2. Charter of Rights and Responsibilities

2.3.3.2.1. Rights

- If you have been selected as a PSNP beneficiary you must be issued with a Client Card free of charge.
- You have the right to receive your transfer on time. You should receive your transfer no later than 45 days after the month to which the payment relates.
- You have the right to receive your full transfer. You will be informed of the transfer rates at the beginning of the year. No one should deduct any money for any reason from your transfer.
- If you are more than four months pregnant, in your first 10 months breastfeeding your child, or weakened through age, illness or disability you should not participate in public works. If your status changes in the course of the year due to sickness or pregnancy, you have the right to shift between public works and direct support.
- Your household should not provide more than five days of labor per household member per month. Furthermore, no one person should work for more than 20 days a month.
- You have the right to appeal if you have been incorrectly excluded or have not been categorized correctly as direct support or public works.
- You have the right to know the criteria for graduation and to remain in the programme if you do not meet these criteria.

2.3.3.2.2. Responsibilities

- You must provide accurate and complete information to targeting committees.
- Households with able bodied members must provide labor for public works and be committed to complete works to an acceptable standard.
- You must not send a child under 16 to contribute their labor to public works.
- You must present your Client Card at the transfer site to record the receipt of payment.

- Should you lose your card you must report its loss immediately to the Kebele Administration.
- You have a responsibility to build your assets and work towards graduation.
- You must report any abuses of these rights whether affecting yourself or your neighbor to the Kebele Appeal Committee. If you are not satisfied with the response you may pursue your complaint up to the Woreda Council.

2.3.4. Program Scale and Coverage

In 2017, the PSNP supported 7, 997, 218 million people in 319 chronically food insecure woredas in 8 of the country’s 10 regions. This is equivalent to roughly 10 percent of the national population, covering over 45% of the country’s woredas. The regional states coverage of the PSNP is shown in table 2.1.

Table 2-1 Regional Coverage of PSNP in 2017

Name of Regions	Total No. of Woredas	#Cash Only Woredas	# Food only Woredas	# Cash & Food Woredas	PW HH’s	DS HHs	Total HHs
Tigray	31	12	1	18	798,954	211,798	1,010,752
Amhara	64	51	8	5	1,624,618	266,367	1,890,985
Oromiya	80	49	17	14	1,505,228	228,400	1,733,628
SNNPR	79	76	0	3	916,467	123,492	1,039,959
Harari	1	1	0	0	20,045	2,056	22,101
DireDawa	1	0	0	1	58,740	5,963	64,702
Afar	32	0	0	32	513,427	48,655	562,082
Somali	31	22	9	0	1,446,063	226,946	1,673,009
Total	319	211	35	73	6,883,542	1,113,676	7,997,218

Source: MoF, 2017

In 2017, PSNP launched its IV generation, upholding two important core principles; the Cash first principle and the “primacy of transfers”. In PSNP IV, whenever possible, cash should be the primary mode of transfer and that, “transfers should not be delayed for any reasons. Clients have a right to receive their transfers regardless of technical or administrative delays and have a

right to know in advance how much is coming and when” (PIM, 2014: 59). As indicated on the above table, number of food transfer Woredas are thus highly decreasing replaced by cash and food and cash only. Electronic transfer is also scaled up 2017 in to 58 Woredas to ensure primacy of cash transfer, and currently 109 Woredas of 4 regions receive monthly transfers through the M-birr system.

2.3.5. Program Budget

The annual budget in 2016 was 2,136,734,460 ETB in cash and 457,966.21 MT of cereals. This is equivalent to approximately \$360 million—or about 1.2% of Ethiopia’s GDP. The budget increased in 2014 and 600 million USD was budgeted for productive safety net project four which launched in 2015. In addition, the Government estimates that roughly \$54 million in government staff time is devoted to the program annually (FDRE Ministry of Agriculture, 2016).

Based on these figures, the proportion of the program budget allocated to administrative costs such as staff time and other running costs in 2016 was roughly 16.9%. When resources dedicated to capacity building are added to this, the proportion of the budget allocated to non-transfer costs amounted to 17.2% for the year. Overall, this proportion of program funding dedicated to administrative costs compares favorably with safety net programs globally (MoF, 2017).

It is difficult to determine the actual number of staff working on the PSNP because the program is integrated into government systems and core staff functions. In 2016, the Government estimated that there were 725 regular staff members working on the PSNP at federal, regional and woreda levels. Additionally, the 14,295 DAs in chronically food insecure woredas spend much (but not all) of their time on PSNP related activities. Added to this are a number of contract staff and technical assistants (TAs) at all levels. Based on these figures, there are at least 1,780 regular staff and TAs working on the PSNP full-time, with support from 14,295 DAs.

2.3.6. Selection of Beneficiaries

Chronically food insecure households residing in PSNP kebeles are eligible to participate in the program. The PSNP Program Implementation Manual (PIM) defines a chronically food insecure household as:

- Households that have faced continuous food shortages (usually 3 months of food gap or more) In the last 3 years and received food assistance prior to the commencement of the PSNP.
 - Households that have suddenly become more vulnerable as a result of a severe loss of assets and are unable to support themselves (last 1–2 years).
 - Any household without family support and other means of social protection and support.
- Based on these criteria, households are selected to participate in the PSNP through a

community- based selection process. Once selected to participate in the PSNP, households are assigned to Public Works or Direct Support depending the number of able-bodied members.

2.3.7. Type and Amount of Transfers

Transfers are provided to households on a monthly basis for six consecutive months. All PSNP beneficiaries receive the same transfer regardless of whether they participate in Public Works or Direct Support. The cash and food transfers are set at the level required to smooth household consumption or fill the food gap. In 2009, the daily cash wage rate was 10 birr and the food transfer was 3 kg of cereal.⁴¹ Each Public Works household member is entitled to receive a transfer based on 5 days of work at the prevailing cash or food wage rate. The household allocates the work requirement among able-bodied adults. If the work requirement exceeds household labor capacity then the additional transfers are provided in the form of Direct Support.

Households with members unable to work receive Direct Support only. Households are provided transfers of cash, food, or a temporal mix of both resources. The mix of cash and food resources tends to be used in a way that addresses the seasonal rise in food prices leading up to the hungry season. Section 4.3: Determining the Type of Transfers and Payment Systems discusses design and implementation issues relating to the provision of cash and food transfers and the payment system.

2.3.8. Timing of Transfers

Based on agricultural cycles in rural Ethiopia transfers are timed to have heightened impact on food insecurity. For most of Ethiopia, the agricultural “lean season” extends approximately from April to September. This is when food stores are at their lowest, prior to the harvests. Public works are carried out from January to June, during the agricultural slack season, which is relatively dry. Since July 2016, Direct Support beneficiaries started to receive their transfer the whole year. Transfers are delivered for both PW and DS households on a monthly basis.

In practice, woredas aim to pay beneficiaries within six weeks after the end of the month. This administrative lag in transfers brings the Receipt of payments more in line with the months of heightened need, although this overlap remains Imperfect. This delay of transfer is remaining the program challenge which latter on forced the implementers to look in to other alternative transfer mechanism. This research attempted to identify the impact of the newly introduced transfer methods in the next chapters.

2.3.9. Cash Payment and Food Delivery Systems

PSNP cash resources flow directly through the MoF system. The food transfers follow the processes established for emergency response through Government, WFP or NGO systems.

Once procured internationally or locally, food is held in regional hubs and then moved by transport companies contracted by the EWRD (former DPPA) to predetermined woreda food distribution points where it is received by the storekeeper and held until payment day. Cash payments are made to beneficiaries on a monthly basis by WOFEC cashiers and accountants for cash transfers in communities, while food payments are delivered at collection points within the woreda.

The attendance sheet and payroll are processed using the computerized Payroll and Attendance Sheet System (PASS). For Public Works participants, payments are made on the basis of attendance, quantity and quality of work completed as determined by the DA and kebele chairperson, in consultation with the foreman. Payment to beneficiaries will delay mostly due to administrative coordination and arrangements needs to be fulfilled before the payment such as implementation verification resulting in delay of attendance & payroll preparation. In principle, unconditional payments to Direct Support beneficiaries are made monthly regardless of public works payments.

2.3.10. Flow of Cash Resources

Each donor deposits cash resources into their own USD accounts at the National Bank of Ethiopia or has their funds channeled to the National Bank through World Bank managed trust funds. The funds from all donor accounts are then pooled into a single Birr account when the program requires an injection of cash. MoF responsible for the management of designated USD accounts and the pooled Birr account. At the request of MOARD and based on the approved annual plan, MoF transfers funds to;

- The regional Bureau of Finance and Economic Development (BoF) for transfers and regional and woreda administrative budgets and
- The designated federal accounts for FSCD and NRMD for federal administrative budgets.

BoF then transfers resources to the Woreda Office Finance and Economic Development Office (WoFEC) at the request of the Regional Food Security Office (RFSCO) based on the approved annual plan. The WoFEC make payments to PSNP beneficiaries against a payroll and attendance sheet that is approved by the Woreda Food Security Taskforce (WFST).

By focusing only on the Cash flow, the process based on the figure above is the following:

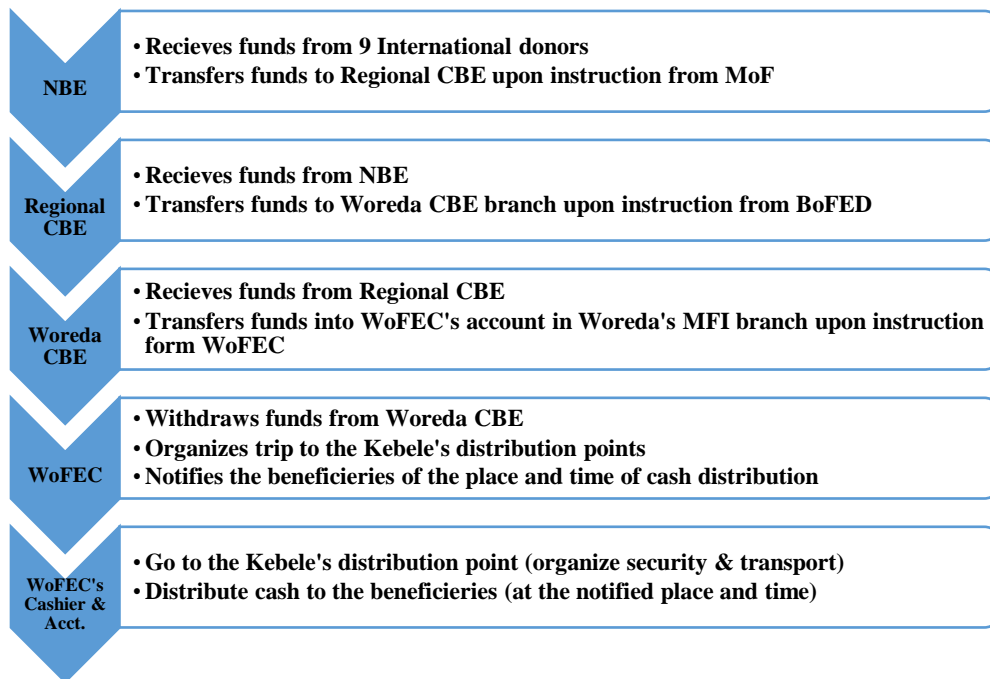


Figure 2-1 PSNP Cash flow Process

In terms of distribution, several challenges are faced on manual cash payment, at different levels of the delivery chain. It is costly in terms of time, human resources, planning and traveling resources, liquidity and it does not fulfill the effectiveness objective on the beneficiary's side.

2.3.10.1. Activities of Manual Cash Resource Transfers at Woreda FS's level

The communication process is heavy and sometimes it takes several backs and forth in order to precisely inform the beneficiaries on the day that the disbursement would take place. Moreover, the disbursement is not made at once for all, but it may take several days to be done therefore the FSTF have to inform specific beneficiaries about specific payments dates (risk of confusion, not being at the payment point on the right day). The payments may also occur on a work day, therefore instead beneficiaries doing their work days; they would be queuing all day long, to avoid the risk of cash shortage/ not enough time to serve everybody.

2.3.10.2. Activities of Manual Cash Resource Transfers at WoFEC's level

It takes important logistics to prepare the trips to the cash points: vehicle available, informed security forces to accompany the cashier and the accountant, on site organization, etc.... The distances to be covered on a daily basis may be up to 150 km one way trip, meanwhile beneficiaries having to travel up to 50km to reach the payment points. As there is only one vehicle at WoFEC's level, it happens often that the said vehicle is needed for other missions on the announced payment date (therefore, have to remake the disbursement planning, go in the

Kebeles and inform people, etc.) Several cashiers are needed only for the PSNP's disbursement, as they may have to serve 6,000 beneficiaries a day!

2.3.10.3. Activities of Manual Cash Resource Transfers at Woreda CBE level

The Woreda's CBE branch may be short on cash on the planned disbursement days (as they may have had a big credit disbursement around those dates), therefore delays in payment may occur from the CBE's side as well. In these cases, WoFEC decides whether they would go ahead with the payment for the available amount (and inform unserved beneficiaries about the future payment date), or re-plan the disbursement for a later date

2.3.11. Design Issues and Trade-offs

The main institutional design issues and trade-offs are:

- Aligning the PSNP to the existing roles and responsibilities in government systems;
- Creating a national government program with different implementing bodies; and,
- Building horizontal linkages across programs and departments for a coherent response to food insecurity.

It was decided that the PSNP would use government systems in order to strengthen long-term implementation capacity, although this had to be balanced against the need to quickly demonstrate that the PSNP could function as an effective safety net. Because of concerns with limited implementation capacity, particularly with regards to new or innovative elements such as the delivery of cash, a comprehensive capacity building program was initiated based on a series of assessments. Two capacity assessments identified insufficient technical skills and high turnover among government staff implementing the PSNP and recommended hiring extra staff. In addition, the logistical support and access to transport would need reinforcement. In 2004, a set of safeguards was put in place, such as the Rapid Response Teams to ensure that the basic objectives of the program were being met in all program woredas.

To adopt government systems, the program had to be aligned to the mandate of different ministries. Adopting a flow of funds through the line ministry, instead of one through the MoF system, meant that the PSNP was housed completely within the Food Security Coordination Bureau (FSCB) of MoARD. While this approach did not align the various components of the program with the comparative advantage or mandate of different line ministries, it did create central control for program implementation. As a result, one body—the FSCB—was responsible for program implementation, with clear lines of authority and communication to lower level implementers. Because cross-sectoral support is needed in order to deliver quality public works, the program design called for formal representation of sectoral agencies on all Federal, regional and woreda Food Security Task Forces.

Thus, while the FSCB is responsible for overall program coordination, implementation fell to the regions and woredas. At each level, food security line agencies were accountable to the

legislative and executive arms of the Government, with technical lines of communication to food security agencies at higher level. To respond to this complexity, the program design created task forces at each level of the bureaucracy to promote communication between different agencies.

2.3.12. The Origin of E-Payment in PSNP

One of the fundamental principles of the PSNP is to ensure appropriate, timely and accessible transfer of resources to beneficiaries. Several attempts have been made in the past to maintain this principle and considerable achievements have also been registered. Despite this, it is still believed that the manual cash distribution system could be significantly improved by introducing alternative payment systems that utilizes technologies and innovations. The first concrete step to introduce alternative payment system in PSNP started in 2010 with the launching of Ethiopian Financial Inclusion Project (EFIP) led by the Ministry of Finance and Economic Development (MoF) and funding from the Bill & Melinda Gates Foundation.

The EFIP has undertaken different projects and evolved over time but its first project in 2011 was a pilot of delivering electronic payment for PSNP beneficiaries using biometric bracelets and POS devices. This method involves creating MFI savings accounts to PSNP beneficiaries and making the services of MFI's accessible for the beneficiaries through satellite branches. This model was first piloted in 2011 in Libokemkem woreda in the Amhara region. The EFIP demonstrated the potential benefits of linking PSNP payments to financial inclusion. The better correlation between PSNP and savings accounts has been observed from the pilot and as financial literacy increases, the existence of formal financial instruments permits to save for later consumption or investments. The development of competition between Kifiya biometric and manual cash distribution also benefited the final PSNP customers under the form of beneficiary protection and, therefore increased liberty in daily trade levels.

According to different reports, the pilot study also showed important limitations in the capacity to deliver the required PSNP outputs. First, the KIFIYA biometric approach Technical outreach to the rural poor was questionable. Data coverage (GPRS and higher) is not enough developed, therefore data-based devices are not adapted to the Ethiopian rural context; deployment of fingerprint and biometric identification is a lengthy process, requiring "heavy" infrastructure and has been proven not so reliable. The speed of enrollment and transfers was not as expected with the biometric platform and the required costs are also beyond reference proportions.

After observing the progresses, and challenges, the November 2013 PSNP Joint Review and Implementation Support (JRIS) Mission reached an agreement to pilot and prove the concept of using different e-payment methods for channelling transfers to programme beneficiaries. As a further initiative to ensure predictability and timeliness of transfers, the mission agreed to (a) continue the pre-pilot of e-transfers using the Ethiopian Financial Inclusion Project in Libokemkem woreda in Amhara region and (b) implement PSNP electronic payment using the another e-transfer methodology, in order that the two electronic payments can provide

information and stakeholders can make a meaningful comparison about the benefits of scaling up the approaches.

In early 2014, EFIP discovered that, Bureau of Labor and Social Affairs (BoLSA), UNICEF, and Irish Aid were piloting M-BIRR, mobile payment method to deliver transfers as part of the Tigray Social Cash Transfer Program in the Tigray region of Ethiopia by an MFI called Dedebit Credit and saving institution (DECSI). During the EFIP biometric pilot in Amhara and the successful pilot of M-BIRR in Amhara the decision was made to test M-BIRR alternative mobile payment methods in PSNP. With the view of testing alternative electronic payment method, in 2014, EFIP passed decision to pilot M-BIRR mobile payment method in four PSNP woredas in Tigray region; namely, MedebayZana, TahtayKoraro, Enderta & SassieTseadaemba.

Piloting of M-BIRR new electronic payment in PSNP has thus been recommended with a special attention on:

- Focusing on the PSNP objectives: “predictable right amount payment to the right person at the right time” with potential for graduation (taking stock of the EFIP lessons learned),
- Developing a beneficiary / client centric approach (instead of a technology push one) potentially integrating gender considerations.
- Improving accountability and capacities from the different stakeholders involved in delivering PSNP Electronic Payment,
- Considering the technical solution to be adapted to the PSNP process and delivery areas.
- Putting in place a payment infrastructure which has a year-long sustainable potential taking into account that the JRIS mission agreed in principle that the next generation PSNP should provide assistance to households according to whether they need support for 3 months, 6 months, 9 months or 12 months.

Subsequently, in January 2015, regional MFI OCSCCO (Oromiya Credit and Saving Institution Share Company) launched its pilot to begin delivering PSNP transfers in Adami-Tulu and Bosat in partnership with its M-BIRR technology service provider, MOSS ICT Consultancy.

2.3.13. The M-BIRR Mobile Money Service & its PSNP E-payment implementation

Majority of Ethiopia’s populations are excluded from basic financial services i.e. having accounts, money transfers, access loans and the use of technologies, such as mobile banking, etc. As of June 2014 the number of adult account holders in the country was 44%. To reverse this situation, it was planned to push the number of adult account holders to 80 % by 2020. The Government of Ethiopia wants to assess the opportunity of using technology to expand alternative financial service delivery channels. The NBE expressed its intentions to promote financial inclusion by creating a more permissive regulatory environment by its commitment as part of the Alliance for Financial Inclusion’s. With the support of AFI, the NBE then

established a framework for the licensing and regulation of mobile and agent banking services effective 1 January 2013.

Not long afterwards in 2013, the M-BIRR mobile payment system formally launched. The first of its kind in Ethiopia, the platform was developed by MOSS ICT (an Ireland-based consulting firm). M-BIRR service is currently provided with the six leading MFIs (ACSI, ADCSI, DECSI, OCSSCO, OMFI and PEACE) and more MFI's and Banks on pipeline waiting NBE's approval to join. The M-BIRR Business Model is a bank based and a revenue sharing Model. It uses MFIs for providing financial services, contracting retail agents and to hold customers' accounts. In the MBIRR model the technology provider, MOSS ICT Consultancy, has a contractual relationship with the Ethiopian Inclusive financial technology (ETIFT). ETIFT was established in 2014 to become the IT Services Hub that empowers Ethiopian MFIs to achieve their financial inclusion and poverty reduction goal through the use of ICT service.

In 2014, when commercial launch given to ACSI, ADCSI, OCSSCO, DECSI and OMFI M-BIRR mobile and agent banking service, ETIFT continued administering the role the financial institutions and their M-BIRR technology service provider could together play in expanding the service nationwide. Not only with MOSS, is ETIFT contracting with MFIs and the Mobile Network Operator (MNO), Ethiotelcom on the management of the M-BIRR platform.

All actors involved in the M-BIRR MMS chain such as the technology provider, ETIFT, the MNO, the MFIs and retail agents receive a certain portion of the revenues collected from subscribers as service fees. The revenue collected from customers in the form of service charge is first split in to two; Forty percent usually goes to agents and the remaining is shared between all stakeholders based on their contractual agreement. The M-BIRR system relies on USSD codes rather than mobile data, effectively allowing transactions and notices to be sent over the system in areas where mobile network coverage is minimal or first generation (similar to an SMS)

Financial institutions are currently providing various services through M-BIRR mobile money. The live Services includes: money deposit, money withdrawal, domestic money transfer to both registered and non-registered users, interest bearing savings, bill payments, loan repayment, bulk disbursement, buy goods, Mobile airtime Top-up (Ethio telecom credit), checking account balances and other administrative services (PIN change, language change, and statement). Bulk disbursement is the most used product in M-BIRR service and it addressed the direst needs of the local communities in Ethiopia. Bulk disbursements are transfers that involve large amount of money/cash transfers to intend customers called beneficiaries in their respective accounts. The transfers include both salaries for the laboring and welfare aids for the destitute that are directly assisted with no work performed in return.

M-BIRR electronic bulk transfer was first started in 2014 by Dedebit Credit and Saving Institution (DECSI) for Tigray social cash transfer program. The pilot program aimed to

improve the quality of life for vulnerable children, the elders and people with disability who are labor constrained and food unsecured. The pilot made use of M-BIRR mobile money service and it's funded by Irish aid. DECSI M-BIRR mobile money has used in the pilot to conveniently and securely deliver cash to beneficiaries. M-BIRR was awarded by UN in Zambia for specific innovation employed in this electronic cash transfer method. With the view of testing alternative electronic payment method EFIP approached mobile money service providers in Ethiopia and was influenced by M-BIRR experiences in Tigray social cash transfer.

After detail initial assessments, EFIP decided to pilot PSNP transfer in two Woredas of Oromia in 2014. According to the PSNP Implementation Manual, two woredasin Oromia were selected on the basis of availability of better MFI branch staffs to handle the role. The pilot project began distributing PSNP transfers in this two Woredas through the M-BIRR platform in January 2015 and continuing monthly in the first phase up to July 2015. The pilot had transferred to participants monthly over six months each without any missed transfers or significant delays.

The implementing MFI for the pilot was OCSCCO, one of the “Big Five” owned partly by its regional government. Other stakeholders include PSNP donors, the World Bank, MoF, BoFED, MOSS ICT and FSCD bodies (“Food Security”). The partnership with the MFI and the development of a network of M-BIRR agents were crucial to the program as were the points of contact for PSNP beneficiaries and their points to “cash-out” transfers. The MFI (OCSCCO) plays a crucial role both in the financial literacy training of participants in the livelihoods component of PSNP and in the pilot project.

2.3.14.M-BIRR PSNP E-Payment Overview

Electronic payment method (both biometric POS and m-payment method) does not change the payment process of PSNP until the “last mile”. Flow of fund transfers and work processes remain the same till preparation of payroll by WoFEC. The only difference between direct cash payment and e-payment methods (and between e-payment methods themselves) lies in the way the money is distributed to beneficiaries.

M-BIRR PSNP payment process involves the creation of mobile accounts (also known as transaction accounts or store-of-value accounts) for recipients to which payments can be made electronically. Instead of a physical delivery of cash by WoFEC, the MFI offers regular access to safe M-BIRR transaction accounts, and PSNP transfers are deposited in that account. Beneficiaries then withdraw their money from any M-payment agent. Beneficiaries access their account through their own mobile (if they have one) or using agents or cashiers mobile as a proxy. Beneficiaries can also use their mobile accounts to save part of their transfers, receive transfers from other sources (solidarity transfer), buy goods and services (such as air time), send/transfer money, conduct transactions, pay loans, and use other financial services provided by the MFI.

2.3.15.M-BIRR PSNP E-payment process

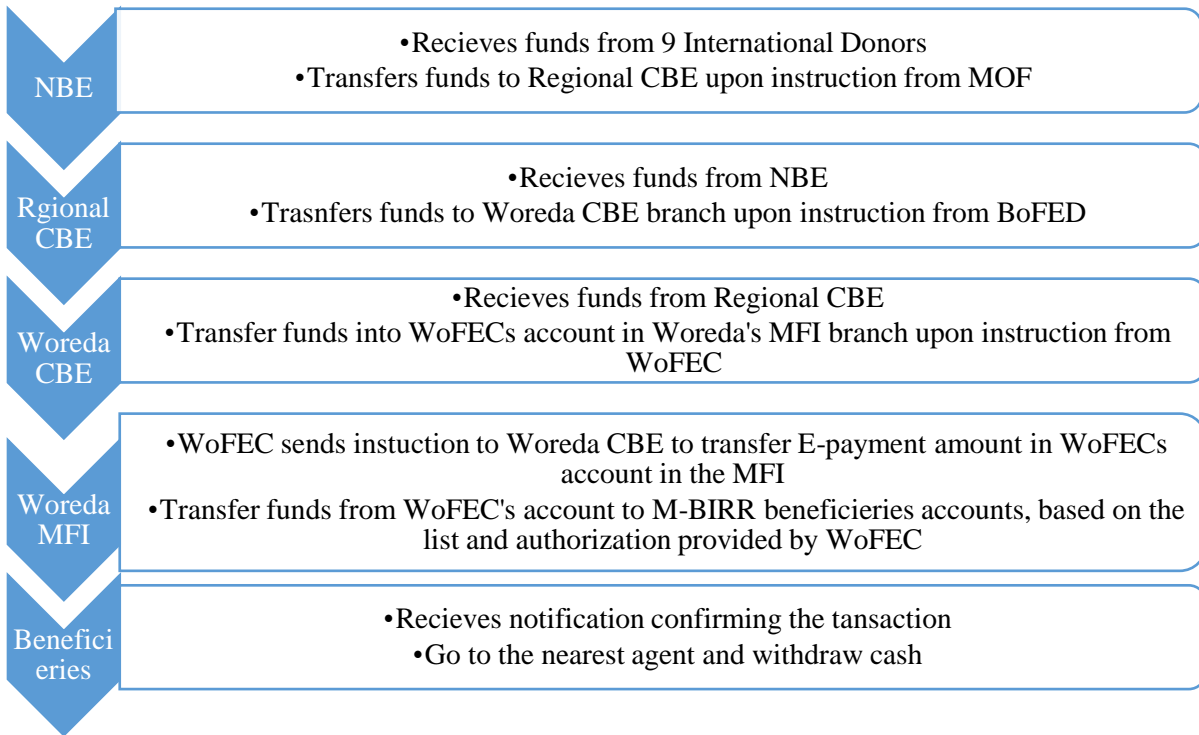


Figure 2-2 New PSNPs M-BIRR Payment Process

Previously, woreda-level Food Security distributed transfers in cash on the days when beneficiaries visited kebeles. Under the e- payment pilot, mobile money is credited to the M-BIRR accounts of PSNP ‘beneficiary’ households and transferred to OCSSCO. The recipients (i.e. members of beneficiary households) then choose when and where (MFI branches or MFIM-BIRR agents) to withdraw their cash that is ‘stored’ on their mobile account (connected to the MFI).

In July 2015, The Resource Management and Transfers Technical Committee (RMTTC) tasked a team from MoF, FSCD and DCT to evaluate the on-going e-payment pilots, and present its finding. Accordingly, the task team conducted a field visit to Angolela-Tera (Kifiya biometric method pilot place), Bosat and AdamiTulu –Jido Kombolcha (ATJK) woredas (OCSSCO M-BIRR Mobile money implementation place) to see the performance of e-payment pilots. The evaluation group explored the ability of e-payment to meet PSNP stakeholder’s requirements.

They confirmed that electronic transfer pilot implementations demonstrated how to electronically transfer donor’s aid to beneficiaries account directly, using modern banking technologies. The evaluation report indicated that, the implementation of e-payment system in the pilot Woredas brought remarkable advantage to beneficiaries in terms of Timeliness of transfer, Convenience, transaction cost reduction, minimization of fiduciary risk, improving program reporting and bringing financial inclusion. The evaluationconcluded that both types of e-payment methods are better than direct cash payment method. E-payment system offers the

PSNP an alternative to cash disbursements to pay out beneficiaries. Depending on availability of infrastructure and service provider, e-payment is best suited for use to PSNP beneficiaries in Ethiopia. The pilots demonstrated the potential benefits of using e-payment method to PSNP: see below the evaluation summary;

Table 2-2 Evaluation Summary of Benefits of E-Payments on program performance

S.N.	Criteria	Direct Cash		Biometric POS		M-Payment	
		Rank	Score	Rank	Score	Rank	Score
1	Timeliness of transfer	3	1	2	2	1	3
2	Convenience	3	1	2	2	1	3
3	Appropriateness	1	3	3	1	2	2
4	Cost efficiency	1	3	3	1	2	2
5	Reducing fiduciary risk	3	1	1	3	2	2
6	Enhancing financial inclusion	3	1	1	3	2	2
7	Program reporting	3	1	2	2	1	3
	Total score out of 100		52.4		66.7		81.0
	Rank		3		2		1

(Source: MoF, FSCD and DCT Evaluation report, 2016)

As observed above from the evaluation, E-payment system offered the PSNP an alternative to minimize some challenges in its cash disbursements. After the assessment of these successful pilot experiences, the evaluation team of MoF, FS and Donors in November 2015 approved the scale up of the project to 16 new additional Woredas in the four regions to test the scalability and regional compatibilities. From 16 new Woredas 13 of them was covered by M-BIRR in Amhara, Tigray, SNNPR and Oromiya. KIFIYA got three Woredas to continue in Amhara region. After the M-BIRR successful implementation of new Woredas in 2016, there was increasing interest within the government and Donors to scale up the advantages of e-payment to further new PSNP Woredas in order to reduce beneficiary's challenges on the collection of monthly transfers. In 2017, The Ministry of Finance and Economic Cooperation approved the scale up of M-BIRR e-payment in to 43 new Woredas in Amhara, Oromiya, Tigray and SNNPR. See the following summary for the M-BIRR PSNP e-payment scale up progresses.

Table 2-3 M-BIRR E-Payments Scale up

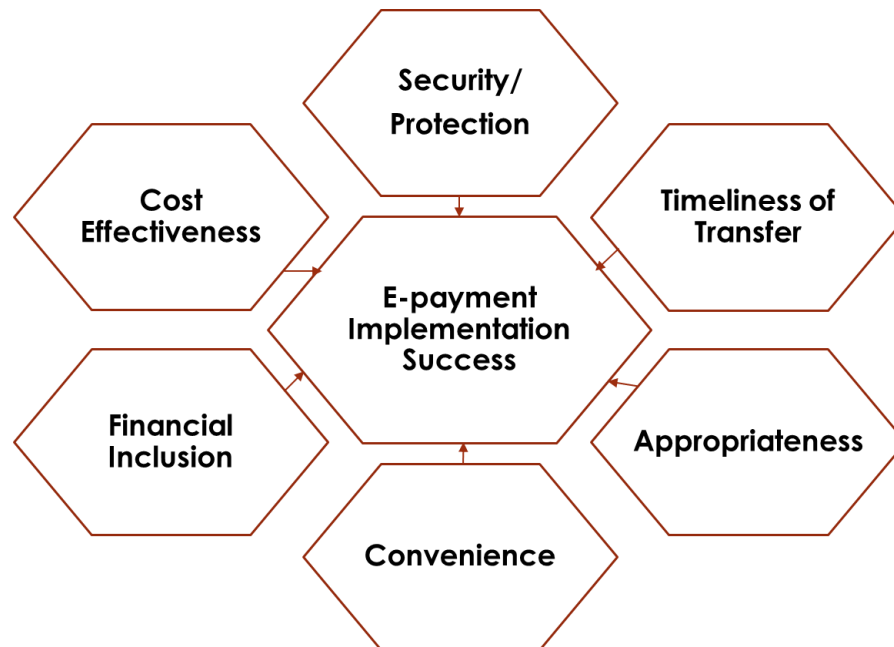
Year	Region	No. of Woredas	No. Of kebeles	No. Of HHs served With E-payment
2015	Oromiya	2	29	13,000
2016	Amhara	2	57	16,456
	Oromiya	4	106	26,594
	Tigray	4	88	44,874
	SNNP	3	128	27,672
2017	Tigray	8	132	68,111
	Oromiya	9	127	28,912
	Amhara	14	315	113,224
	SNNP	12	252	56,057
2018	Tigray	6	132	74,847
	Oromiya	12	223	48,300
	Amhara	11	260	116,650
	SNNP	15	348	73,215

(Source: MOSS ICT Consultancy, 2018).

While government and humanitarian actors are trying to scale up the M-BIRR PSNP e-payment further to the new Woredas, the impacts of these electronic transfers on PSNP cash transfer are not well studied. The impact of M-BIRR electronic cash transfer on PSNP is the focus of this thesis and is the subject of the next sections.

2.4. Conceptual Framework

Figure 2-3 Conceptual framework for the study



Source: Program Implementation Manual (PIM), 2015.

The above conceptual frame work shows that there are six variables which that e-payment would have an impact on the PSNP project success. These Are:

- Timeliness of Transfer- transfers need to be made within 20 days to client's accounts.
- Appropriateness- Transfer of the right amount of entitlement to the right client.
- Convenience- Easier access to withdrawal of entitlements at nearby branches & agents.
- Enhancing Financial Inclusion- Access to financial services & creation of financial literacy need to be enhanced while enrolling e-payment.
- Security/Protection- Process of opening beneficiaries account need to be secured while maintaining a secured client access to one's account free from any Fiduciary risk.
- Reporting- an automatic structured reporting of transactions made need to be generated shared to stakeholders timely following monthly disbursements.
- Predictability- Payment transfers are required to take place every month for cash payments through the automated system.

CHAPTER THREE

3. RESEARCH DESIGN & METHODOLOGY

3.1. Research Design

Research Design is a blueprint specifically created to answer the research question. Answering the research question is the central purpose of all research. Research designs are generally categorized into four groups depending on the purpose of the research. Out of these different types of research designs this study has chosen to use a descriptive study that aims to tell what is, while inferential statistics try to determine cause and effect.

The descriptive approach is intended to understand the trend and growth of M-BIRR PSNP electronic cash transfer during the study period. In addition, telling whether the deployment of e-payment in PSNP cash transfer in line with PSNP resource transfer was effective or ineffective. This study also attempts to show the effect of electronic payment in social cash transfer program in Ethiopia in general and the PSNP in particular.

The study employed mixed approach in gathering data while addressing different reports and workshop outputs. The qualitative data shed some light on the quantitative data to enable the investigation of the research problem in more depth. As such, the available resources and research methods employed will not seek to observe and measure actual changes in behavior, but rather identify changes among recipients as a result of the PSNP electronic payment implementation. In general, in this chapter, data type and means of collection, method of data analysis using descriptive methods are presented.

3.2. Data Collection Techniques

The study was based on both primary and secondary data. The primary data was collected through a structured questionnaire. The questionnaire was developed using both the 5 – point Likert Scale to allow respondents to express both the direction and strength of their opinions about a given topic & open ended questions to give respondents the opportunity to state the fact on the ground in detail. According to Kothari (2004), the use of questionnaire method ensures low cost even when the universe is large, respondents have adequate time to give well thought out answers and ensured privacy of the respondents and therefore recorded a high rate of response. Semi structured interviews will also be conducted for electronic transfer point of sales (Agents and branches) and key informants including BoF, Regional Food security staffs, TSP representatives. The questionnaire & interview questions used to collect data is shown as Annex 1. Reports of the financial transactions recorded in the M-birr system will be reviewed as secondary data to further validate and strengthen the research study findings to know the extent to which e-payment has impact on the PSNP program, sample report is shown as Annex 2. The survey data will be qualitatively analyzed and triangulated with the quantitative result. These

multiple methods will help the researcher to better answer the research questions and enhance the extent to which the findings can be trusted and inferences can be made from.

3.3. Sample Size Determination

Mugenda and Mugenda (1999) define population as an entire group of individuals, events or objects having common observable characteristics being the main focus of a scientific query & it is for the benefit of the population that researches are done. However, due to the large sizes of populations, researchers often cannot test every individual in the population because it is too expensive and time-consuming. While a sample is simply a subset of the population. The concept of sample arises from the inability of the researchers to test all the individuals in a given population.

The sample is representative of the population from which it was drawn and it must have good size to warrant statistical analysis.

The populations of this study are:

- PSNP electronic-cash transfer beneficiaries of the two purposely selected woredas namely (Atsbi Wonberta & Embalaje) who have been using the prevalent cash transfer method and the current M-BIRR electronics cash transfer method in the region
- Commissioned agents serving the clients
- branch staffs serving the clients & supporting the agents under their branch,
- WoFEC staffs,
- Woreda FS staffs &
- Regional heads of the specified Bureaus

The study only considered population limited to the number of PSNP electronic payment beneficiaries in 2017. See table below:

Figure 3-1 Total Population

Year	Region	Number of Woredas	No of Kebeles	No of HHs Served with E-Payment
2015	Oromiya	2	29	13,000
2016	Oromiya	4	106	26,594
	Amhara	2	57	16,456
	SNNPR	3	128	27,672
	Tigray	4	88	44,874
	Total	15	408	115,596
2017	Oromiya	9	127	28,912
	Amhara	14	315	113,224
	SNNPR	12	252	56,057
	Tigray	8	132	68,111
	Total	43	826	266,304
All	Grand Total	58	1234	394,900

(Source: MOSS ICT Consultancy, 2018).

As stated above, the total study population in the four regional states was 394,900 as of December 26, 2017 in 58 different Woredas. Out of this total electronically paid households, total numbers of Households receiving through electronic payment in Tigray are 112,985 out of which 17,170 are the total population of the two sampled woredas. The research has taken equal number of sample size of respondents from selected two kebeles of woredas of the Tigray Regional State which constitutes 28.61% of the total population.

The researcher distributed questionnaires to PSNP beneficiaries ‘of two purposely sampled woredas (Atsbi Wonberta and Embalaje).

To calculate the sample size a formula by Kothari (2004) will be used.

$$n = \frac{Z^2 pqN}{e^2 (N - 1) + z^2 pq}$$

Where;

n=number of sample size, N= size of study population, e= level of confidence to have in the data or the acceptable margin of error (the precision) which is 95% for this study.

z=standard variation at a given confidence level.

p = population reliability (or frequency estimated for a sample of size n)

q = Standard variation at a given confidence level.

See below table for the actual sample calculation using Kothari (2004) formula.

Description and Calculation	Tigray Woredas Beneficiaries		
	Atsbi Wonberta	Embalaje	Total
Population (N)	9,188	7,982	17,170
Percentage of total	54%	46%	100%
Level of significance	95%	95%	95%
Error term (e)	0.05	0.05	0.05
Esqrd	0.0025	0.0025	0.0025
Population reliability (p)	0.5	0.5	0.5
Standard Deviation at given confidence level (q)	0.5	0.5	0.5
Normal reduced variable (z)	1.96	1.96	1.96
Zsqrd	3.84	3.84	3.84
p+q	1	1	1
Pq	0.25	0.25	0.25
Zsqrd*pq	0.96	0.96	0.96
esqrd*(N-1)	23	20	43
Zsqrd*pqN	8,820	7,663	16,483.20
esqrd*(N-1)+Zsqrd*pq	24	21	44
Sample Size:Zsqrd*pqN/esqrd*(N-1)+Zsqrd*pq	369	366	376

Based on the above formula and the population size, the study has chosen a total sample size of 376 households from the two woredas to fill out questionnaires & therefore; the researcher distributed a total of 376 questionnaires to PSNP beneficiaries in the targeted areas. Out of the total 376 questionnaires, 325 Useable questionnaires were obtained (with 86% response rate). In Addition to the questionnaires filled out, interviews were done with key informants who play a large role in the implementation of the system.

3.4. Instrument and Procedures

The original data collected as part of this research came from targeted interviews and questionnaires of transfer recipients under the PSNP M-BIRR electronic payment stakeholders in the Tigray region. In addition, the researcher has analyzed a sample of project participant transaction records from M-BIRR platform, which will provide detailed records of participant’s mobile money account usage.

3.4.1. Targeted Interviews

Targeted interviews will be conducted with individuals belonging to three main groups: Key informants (Technical Agents (1), Accountant (1), and E-payment Coordinator (1)), DECSI branch managers (2), and mobile money agents (4). Interview questions will vary considerably for professionals depending on their work and domain of expertise.

3.4.1.1. Key Informant Interviews

The Key informant interviewees in this study will be the e-payment coordinators in, BoF, Regional TA, MFI’s focal person and M-BIRR technology service provider. This will make it easy to get adequate and accurate information necessary for the research.

3.4.2. Questionnaires of Transfer Recipient Household’s

Primary data will be obtained using self-administered questionnaires. The questionnaires with both open and closed ended questions were used to collect both qualitative and quantitative data to answer related questions. The questionnaire will be comprised of three sections to determine the fundamental issues. The first is the demographic characteristics of the respondents. The second section focuses on identification of the role of money transfer systems in PSNP cash transfer.

3.4.3. Transaction Records

M-BIRR system transaction records for the same household survey participants will also be analyzed. Transaction data includes balances held on the account on certain dates, as well as the number and amount of: Person-to-person (P2P) transfers, Cash-in (deposits), Withdrawals, Payments for goods and services, Airtime top-ups.

3.5. Sampling procedure

The Woredas were purposely selected based on the number of Households who benefited from both the prevalent and the electronic cash transfer methods. Since the population is geographically dispersed the researcher has contacted each respondent face to face and guide them in completing the questionnaire. Hence, multi stage sampling technique was used to select the sample locations as Philips and Adria, 2009 suggest for such dispersed population. First, purposive sampling is to be used to select Woredas from the Regional State for ease of data gathering depending on year of experience of the woreda. Second, simple random sampling will be used to select households in the Kebeles from the group of project participants who had received PSNP cash transfers through manual and M-BIRR e-payment. Respondents are located in Tigray region across two Woredas (Atsbi Wonberta & Embalaje respectively).

3.6. Data Analysis and Presentation

Raw data collected from the field was sorted and summarized in tables and diagrams. The process of data analysis involved several stages. Completed questionnaires were edited for completeness and consistency. The data was then coded and checked for any errors and omissions. While the case studies in this research relied primarily on descriptive statistics, the analysis of the data used two approaches, depending upon the type of question.

The data were analyzed using procedures within the MS- Excel Analysis Tool Pack. The responses from part one to part three were analyzed to answer the research objectives. The responses from the open-ended questions were coded; the mean and standard deviation were used for Likert-scale responses to obtain the descriptive statistics. For closed questions, a comparative analysis, Correlations, and graphical analysis were done to improve the presentation of the analyzed results for ease of interpretation.

Correlation is used to find whether the variables measured seen in different responses have a relation. For example, in comparing how use of the MFI's account differs between respondents who prefer different modalities of transfers.

Key informants interview and Branch /Agents Interviews was interpreted against the subject in question. Financial reports and other secondary documents are used to crosscheck the validity of primary data collected through questionnaires and interviews.

CHAPTER FOUR

4. ANALYSIS AND DISCUSSIONS

4.1. Introduction

As discussed in the methodology part of this study, data collected using different techniques were analyzed in this chapter by using descriptive approach. A total of 376 questionnaires were distributed to PSNP beneficiaries of two purposely sampled woredas of the regional state. Out of the total 376 questionnaires, 325 Useable questionnaires were obtained (86% response rate). In addition to questionnaire, the researcher conducted an interview with Key Informants in BoF, Regional FS, DECSI, MOSS and PSNP agents regarding electronic and manual cash transfer methods on PSNP. The questionnaires were personally handed to the respondents with close follow up and guidance in filling the questionnaires. All respondents completed the questionnaires in a suitable form.

In order to analyze the research results, Statistical Analysis Tool Pack of MS- Excel is used which fits with quantitative approach and survey strategy adopted in this research; The Tool Pack has many features and properties which can provide appropriate results that help to achieve the research purpose. Descriptive measures of each questions response and answer of E-payment stakeholders' interviews are presented in the following sections.

The basic assumptions are that cash transfer quality dimensions namely: Convenience, predictability, Protection, timeliness, Appropriateness, Qualitative & timely Reporting and enhancing financial services largely influence customer's satisfactions. Results of the analyses are discussed in this chapter.

4.2. Demographic Information of the Respondents

The participants on survey questionnaire have different personal information; besides these differences they introduce different responses towards the two cash transfer methods and the factors that influence their satisfaction. The demographic profile of respondents, who participated in this study, is shown below:

Table 4-1 Respondents' Demographic profile

Variable	Classification of Variables	Frequency	Percentage
Gender	Male	183	56%
	Female	142	44%
Age	20-30	37	11%
	31-40	27	8%
	41-50	121	37%
	51-60	78	24%
	>60	62	19%
Educational Background	Illiterate (number literate)	267	82%
	Elementary	57	17%
	Secondary	1	1%
	Above	0	0%
Marital Status	Married	173	53%
	Unmarried	44	14%
	Spouse Deceased	108	33%
No. of Dependent Children	None	70	22%
	1-2	27	8%
	3-4	102	31%
	5-6	41	13%
	>6	62	19%

Source: Survey result, 2019

4.3. Descriptive Findings

4.3.1. Mean

Descriptive statistics of the respondents score were computed. Analysis has been done by comparing these mean scores among respondents. The rationale for analyzing the descriptive statistics is to compare the different factors that affect the level of household's (HH) satisfaction and thus performance of cash transfer methods using the means, etc. values. Accordingly, on table 4.2 below the respondent's perception on the satisfaction of cash transfer methods was done on each variable.

Below table shows the mean value depicting the overall household satisfaction and performance of electronic cash transfer methods as compared to the customary manual transfer methods. As far as this descriptive statistics output is concerned, customers satisfaction on electronic cash transfer methods is above satisfactory level with a mean value of 4.276 on a 5 point Likert scale.

Table 4-2 Mean, Mode and Standard Deviation

Descriptive Items	N	Mean	Mode
Convenience	325	4.501538462	5
Appropriateness	325	4.433846154	5
Protection	325	3.375384615	3
Financial Inclusion	325	4.415384615	4
Timeliness	325	4.566153846	5
Cost-effectiveness	325	4.366153846	5
Overall Result	325	4.276410256	5

(Source: Survey result, 2019).

On the other hand, the mode score of the survey is 5 which indicate that respondent's tendency towards electronic cash transfer method. The table also depicts that all e-payment quality dimensions rated as above satisfactory. As far as the mean values are concerned, out of the cash transfer quality variables, households prefer the electronic cash transfer to prevail instead of the manual cash transfer methods (mean value of 4.276).

Overall, it is found that all variables play a fundamental role in measuring the effect of electronic cash transfer and its performance.

4.3.2. Correlation Analysis between variables

Below is the Correlation Analysis result for six of the variables including Convenience, Appropriateness, Protection, Timeliness, Cost-effectiveness and Financial Inclusion.

Table 4-3 Correlation matrix between Variables

	<i>Convenience</i>	<i>Appropriateness</i>	<i>Protection</i>	<i>Financial Inclusion</i>	<i>Timeliness</i>	<i>Cost-effectiveness</i>
<i>Convenience</i>	<i>1</i>					
<i>Appropriateness</i>	<i>0.468600041</i>	<i>1</i>				
<i>Protection</i>	<i>-0.069668614</i>	<i>0.180673377</i>	<i>1</i>			
<i>Financial Inclusion</i>	<i>0.28943319</i>	<i>0.237943556</i>	<i>0.712598384</i>	<i>1</i>		
<i>Timeliness</i>	<i>0.706136026</i>	<i>0.386562799</i>	<i>0.219856407</i>	<i>0.24744</i>	<i>1</i>	
<i>Cost-effectiveness</i>	<i>0.556277355</i>	<i>0.476783462</i>	<i>0.079783824</i>	<i>0.00411</i>	<i>0.464631615</i>	<i>1</i>

(Source: Survey result, 2019).

The PIM clearly states the performance criteria standard for variables listed above:

- **Convenience-** A Beneficiary of the program must not need to travel longer than 3 hours of a round trip to receive transfers & shall have access to its transfers anytime to protect them against destitution and increased levels of suffering.
- **Appropriateness-** Transfers need to be disbursed to the entitled beneficiary only & Beneficiaries should receive the right amount of transfer amount.
- **Protection-** Clients have the right to a fully secured transaction in withdrawing transfers & no frauds in relation to deduction of money or account replacement shall take place from their accounts.
- **Financial Inclusion-** Other than receiving monthly entitlements, clients need to have access & awareness to finance as they are expected to save & graduate from the program.
- **Timeliness/primacy of transfer-** transfers need to be timely (until the 20th of every month for cash transfers& until the 30th for food transfers.)
- **Cost-effectiveness-** In relation to convenience, clients have the right to withdraw their transfers cost effectively (meaning, no additional costs shall incur to clients in withdrawing funds).

Taking the performance criteria listed above into consideration, Financial Inclusion & Protection have the highest correlation coefficient. This result shows that e-payment's tendency in enhancing financial inclusion has brought increased customer's account protection. Therefore, financial inclusion and Protection tend to be a better proxy to predict Households level of satisfaction with regard to available cash transfer methods and performance of cash transfer method. It can be concluded that the more the technology brings financial inclusion to the program clients the more client's transfer is protected. In view of this, the researcher observed that expanding electronic payment in PSNP will promote financial inclusion with a better beneficiary account protection.

The second highest correlation coefficient with 0.70 is for timeliness of transfer & convenience. Showing, e-payment has increased convenience to clients as branches & agents (POPs) increase the minimal the time spent to receive transfers in time. The PIM boldly states that timeliness is one of the major criteria for the PSNP cash transfer program as the beneficiaries are food insecure. Transfers are meant to take place until the 20th of every month & nothing should be challenge for that; & hence, increasing POPs results fast & timely transfers to those in need of their entitlement.

In both cases, the survey result shows that electronic cash transfer influenced the financial inclusion and Protection of the transfer and electronic transfer method is more convenient and timely as compared to the prevalent manual cash transfer methods.

Convenience and Cost have a positive correlation coefficient of 0.55. This indicates that as the electronic payment methods ensures the financial service accessibility through mobile money& its POPs, household's inclusion in the formal financial sector will also be cost effective as they don't need to travel hours to get access to finance which meets the target of the program as clients are expected to receive transfers with minimal cost & time.

4.3.3. Analysis on role of electronic payment in the performance of PSNP cash transfer

Here below is summary of MS- Excel Analysis Tool Pack output of variables in the two Woredas. In this part of the analysis the study found that e-payment has improved performance of the program when compared to the previously used manual cash transfer with higher number of the respondents strongly agreed that convenience, Appropriateness & Timeliness. However, in relation to client's account protection more need to be done as pin cards are visible for agents.

Table 4-4 E-payment Vs. Manual Payment on Success Factors

	Convenience		Appropriateness		Protection		Financial Inclusion		Timeliness		Cost-effectiveness	
		%		%		%		%		%		%
Strongly Disagree	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Disagree	0	0%	0	0%	0	0%	0	0%	0	0%	17	5%
Neutral	50	15%	58	18%	0	0%	14	4%	14	4%	1	0%
Agree	62	19%	68	21%	122	38%	162	50%	113	35%	153	47%
Strongly Agree	213	66%	199	61%	203	62%	149	46%	198	61%	154	47%
	325	1	325	1	325	1	325	1	325	1	325	1

Source: Computed survey 2019

Accordingly, as depicted here above, the perception of 85% Households about the effect of electronic cash transfer methods on the performance of the program is highly positive, as convenience is increased through MFI's Branches & agents allowing them to withdraw money anytime from their account unlike the previous payment modality limiting withdrawals to be done on a specified day of the month. Because of e-payments increased accessibility near clients it has also decreased cost of transport paid to receive transfers.

HH's perception towards appropriateness 82% is positive saying has also increased as they now receive their full entitlement to their bank account unlike previous payments where a certain amount is deducted from beneficiaries on withdrawal days for different unknown purposes.

96% of the respondents responded that enrolling in the e-payment program allowed them to be financially literate & introduced them to financial services not only through nearby branches & agents providing the M-birr service.

96% of the households rated e-payment's effect on the program's timeliness performance as very positive as it has improved the disbursement to be carried out at multiple POPs at a time

unlike the previous payment modality which restricted a single accountant to payout for the total HHs in the woreda at a fixed place.

62% of the sampled respondents also responded account is also more protected than the manual payment as transfers are made to accounts & not in cash allowing them to have a better power over their transaction.

4.3.3.1.1. Customers’ satisfaction on Electronic vs Manual PSNP Program Cash Transfer

In general, 100% (324 out of the 325) of the respondents agreed that e-payment is the best payment modality & has a positive effect on the program delivery despite its challenges. The pie chart below depicts the percentage of total respondents who prefer the electronic cash transfer method as compared to the manual cash transfer method.

Table 4-5 Customers’ satisfaction on Electronic

Customers' Satisfaction on e-payment		
		%
Neutral	1	0%
Agree	87	27%
Strongly Agree	237	73%
Total	325	100%

(Source: Survey Result, 2019).

4.3.4. Electronic Cash Transfer Opportunities

The collected data from clients, informants, reports of different stakeholders & the M-birr system tried to show the opportunities e-payment brought in meeting the performance criteria of the program. The study has also noted that electronic transfer is advantageous from implementation perspective as it simplify the cash transfer logistic arrangements & promote good governance. These major performance criteria & the effect of e-payment in achieving the expected outcome is shown below:

Convenience

Enrollment in the e-payment of woredas has allowed clients to have a convenient account access as the payment is carried out through MFI branches found in the woredas (with a minimum of 1 branch per woreda) & commissioned agents under each branch (minimum requirement of one agent per kebele). Clients will have access to not only withdrawal of their

entitlements but to other financial services like money transfer & saving near their area without the need to travel to the peri-urban branches.

Appropriateness

Account opening process for clients in the manual payment used to be much unsecured as many account used to be opened on behalf of non-existing clients of the program resulting different fraud cases. However, after enrolling in the e-payment woredas have come to understand these scenarios & plenty ghost accounts were found saving millions of birr to the government of Ethiopia. A sample dormant accounts report showing ghost beneficiary accounts where frauds used to happen on is attached on Annex 5 for detailed clarification.

Timeliness

As stated in the PIM primacy of transfer is one of the major performance measurement criteria stating that a transfer need to happen until the 20th of every month. This timeliness of transfer in e-payment is measured from the time the amount of birr on the payroll is transferred to the woredas MFI CBE account up to the time clients receive the transfer in cash. Taking into account payment of a woreda is carried out by a single cashier in manual transfer, the availability of multiple agents & branch cashiers paying out to clients & disbursements to millions of accounts being done within 30 minutes has improved the timeliness of transfer significantly.

Cost effectiveness

Depending on the accessibility of POPs created in the woredas has minimized the cost of clients to nearly zero as payments are done at every kebele 30 days a month.

Protection

One of the opportunities the e-payment modality has created for clients, protection is one of the major as transfers are made securely to individual accounts & cash outs are only done with the use of clients' pin cards. This is sought as the major improvement of the e-payment as clients used to receive deducted amount every month for reasons they were unaware of.

Financial Inclusion

The respondents of the study responded that financial inclusion is the major benefit of electronic transfer in comparison to manual cash distribution. According to the respondents, mobile based electronic payment brought PSNP beneficiaries to modern financial services & have also highlighted that electronic transfer improved accessibility of PNP transfers to beneficiaries

through providing payment option in to clients' villages and through giving full month collection option.

The study have also found that the M-birr mobile based e-payment modality not only creates awareness about financial services in the rural community but enhances financial inclusion through its different financial service modalities to those clients owning a mobile phone or through commission based agents. Its services including:

- Remittance- Money transfer to an M-birr registered/unregister customer from the convenience of client's/ agent's mobile phone
- Saving- allowing program clients to save money with an interest on a regular/termed saving account from the convenience of client's/ agent's mobile phone

Saving Habit

This study tried to figure out if households have started sparing money after enrolled to the PSNP electronic cash transfer program. The assumption is that even if households may have a formal bank account other than the mobile money account but may not save their spare money. Accordingly, the respondents were asked whether they have formal bank accounts and whether they have started saving after the introduction of the electronic PSNP cash transfer.

Table 4-6 below indicates the percentage of respondents who had formal bank accounts and who have started saving after the electronic PSNP cash transfer program is introduced.

Table 4-6 Impact of E-payment on Saving Habit of Clients

Impact of E-payment on Saving Habit		
		%
Yes	295	91%
No	30	9%
Total	325	100%

Source: Survey Result, 2018

To this end, it is found from the survey results that 91% of the survey participants have indicated they have formal bank accounts & improved money management following the introduction of e-payment. On the other hand, out of the total participants in the survey, 9% of them do not still have a formal bank account other than the mobile money account provided to them for PSNP electronic transfer purpose & believe no intensive financial literacy was provided to motivate them to save. M-BIRR system report of the respondents also confirms that

these households are saving after they opened their PSNP electronic transfer. We can observe from the above that the effect of e-transfers on encouraging saving.

4.3.5. Electronic Cash Transfer Challenges

Taking into account of the opportunities & improvements the e-payment brought clients have also identified the challenges they face while using the platform. These challenges are related to insufficient & inadequate POP, Pin security, timely transfer, network access.

Table 4-7 Challenges of E-payment

		<i>Network</i>		<i>Pin security</i>		<i>POP readiness</i>
	<i>OBS</i>	<i>%</i>	<i>OBS</i>	<i>%</i>	<i>OBS</i>	<i>%</i>
<i>Yes</i>	<i>201</i>	<i>30%</i>	<i>49</i>	<i>15%</i>	<i>177</i>	<i>54%</i>
<i>No</i>	<i>124</i>	<i>38%</i>	<i>276</i>	<i>85%</i>	<i>148</i>	<i>46%</i>

Source: Survey Result, 2018

Timely Transfer (Attendance, payroll preparation – POP readiness)

Despite the improvements e-payment has brought to the PSNP program clients & program owners still come to face the challenge of achieving timeliness of the transfer. Different matters are stated as reasons for this; such as

- Delay in budget allocation from federal to region & to woredas, delay in retargeting (exceeding the scheduled period of June for DS clients), delay attendance preparation because of delayed PW implementation & poor clients performance adding up to delay in payroll preparation resulting untimely payments.
- Lack of sufficient POPs at kebele level resulted by high agent turnover because of unsatisfying commission (2.80)& lower business agent liquidity; hence most of the agents are small business agents with an average capital of 40,000 birr payments are carried out with a multiple agent reimbursement at branch. Slower RuSaCCo engagement has limited the change of overcoming liquidity & agent turnover as RuSaCCOs are found in each kebele, have better cash holding capacity than business agents & have a social responsibility that will bind them to serve the clients truthfully.

Pin Security

The major challenge this study have come to find in relation to e-payment is the PIN security issue. Hence most of the program clients are technology illiterates, agents are fully in control of entering amount of birr to be withdraw& enter clients' pin code to authorize transaction. These pin cards are scratch able & visible to anyone after first transaction.

Network (technology)

When implementing the M-birr mobile payment on the PSNP program one of the challenges respondents faced was the limitation of telecom infrastructure availability in the area. However the service is USSD based technology requiring very minimal network in the area, it is very challenging to carryout payments in offline kebeles. Clients in these kebeles are required to travel to adjacent kebeles to cash out their entitlements, respondents have responded that the TSP has piloted an offline technology to allow payments to be carried out with no network requirement, and it wasn't able to be fully implemented because of implementation issues of the MFI.

The key informants engaged in the study have also mentioned the challenges faced in the implementation of the e-payment. Such as:

- The stoppage of once of cost fund from WB (100,000birr) incurring additional cost to MFIs for agent training programs, & other operational costs.
- Low awareness level among the all PSNP stakeholders limiting the full utilization of the electronic transfer.
- Resistance to change

In General, According to the key informants from BoFEC (1), FS (1), DECSI focal & branch heads (3), & TSP project focal (1) PSNP electronic transfer has had many significant impacts on the organization's daily transaction, which they reported as overwhelmingly favorable. Branches reported that their numbers of clients have increased "incredibly". One manager reported that it means they hold more capital to loan out to customers as the combination of systems (PSNP and M-BIRR) result in more cash flow to the branch while less is withdrawn ultimately. This is despite reporting that the M-BIRR system allows clients to withdraw more easily because of the agent networks Proximity to them and reduced wait times at branches. This would suggest that a significant proportion of transfer recipients in the target area are holding at least some of the transfer balance on their mobile account rather than withdrawing it in cash immediately from branches or agents. The branch managers also reported the improvement of the transfer to beneficiaries due to the introduction of electronic payment. They explained the speed, convenience and security of electronic transfer as an advantage to beneficiaries. They also mentioned that PSNP electronic transfer program is linking their branch financial services to rural PSNP beneficiaries.

Branch managers also reported that the MFI is both better known and viewed more favorably by the communities since the pilot began. The comfort that their branch created for the PSNP beneficiaries in terms of reduced Waiting times for services at branches, increasing financial literacy awareness , spreading the agent Network, and the increase in convenient interactions uphold the acceptance of their branches in front of rural communities.

Despite reporting that the system was simple and convenient for branches, Managers also confirmed agent drop out is the major challenge in the implementation & all stakeholders need to work together in engaging RuSaCCos in addition to business agents hence they have better

liquidity. As the commissioning structure need to be revised in a way that benefits the agents more to minimize high agent turnover. Network availability to get service access, minimal public awareness & possible fraud cases due to pin card visibility to agents are also the challenges & risks related to the e-payment & the areas that need to be worked on. Managers also reported that the mobile payment system and their regular financial services are highly complementary and that they intend to further integrate the two. In the Future, it is hoped to expand financial services to PSNP beneficiaries such as disbursing loans and collecting loan repayments through the service. They also plan to continue mobilizing savings in dedicated savings accounts more easily through the service (rather than travelling up to 40km as is now common).

A total of four M-BIRR agents were interviewed as a part of this research, from visited Woredas. None of the agents had the M-BIRR business as their sole vocation; rather, they offered the service in conjunction with another small business such as a shop.

All of the agents reported that offering M-BIRR service was a way to make extra income and that they felt it was an important service for their communities. The agents explained that their main benefit is when they see the PSNP beneficiaries satisfied by the electronic transfer process. Agents reported that electronic transfer is very important for beneficiaries as it protect their transfer and give them full authority over their transfer. Agents also reported that PSNP beneficiaries are happy with the convenience and speed of electronic transfer they provide to them.

Importantly, store owners reported that offering the service attracted clients who subsequently bought products from their stores. All of the agents reported that they felt the commissions paid to them for services provided were too low though this was stressed more by those running shops offering services than those offering products. All of the agents reported having to help recipients use the M-BIRR system and That it was not uncommon for users to forget their PIN code, have trouble Navigating the interface, or not know whether or not they had received a transfer. Several attributed this to illiteracy and a basic lack of familiarity. Two of the agent Reported seasons of increased activity in line with the six-month transfer period for Most PSNP recipients. Importantly, those whose businesses were suited to it reported explicitly that PSNP recipients would come for the M-BIRR service and then buy consumables or other products from their business. They reported increasingly accepting payment for this through M-BIRR, which suggests less of a Need to cash-out (with possible ancillary benefits for the MFI). However, it was also stated that the commission provided to them is very minimal hence they don't only serve the clients in the neighborhood but rather cover payments of kebeles with no agents as well.

CHAPTER FIVE

5. CONCLUSION & RECOMMENDATION

5.1. CONCLUSION

As the largest cash transfer program in Ethiopia, the institutional framework of PSNP is complex, but the essential is that 'PSNP was designed to respect the roles and responsibilities of each level of government' including Ethiopia's 9 autonomous regions, 710 *woredas* (districts) managed by locally elected governments, and *kebeles* (groups of villages), of which *woredas* are composed. The most prevalent bodies are the Food Security Coordination Directorate (FSCD), which Facilitates day-to-day management of the program, and the Ministry of Finance (MoF), which oversees the financial management of the Program and disburses cash resources to regional implementers with corresponding 'Bureaus' and 'Offices' following the same lateral arrangement at the regional and *woreda* levels, respectively.

In answering the research questions of the study, it was found that e-payment has improved the program's performance in providing timely & protected transfers to clients conveniently while still enhancing financial inclusion to clients & assuring the program owners the right amount of transfer is sent to the right beneficiaries. However, e-payment has still a lot to work on in meeting the targeted performance preset at the program implementation manual.

5.2. RECOMMENDATION

Depending on the study's findings the researches has formulated the following recommendations:

- As timeliness is one of the major performance criteria of the program, activities that hinder the achievement of it need to be worked on; these activities are timely retargeting (for DS clients), timely attendance (for PW Clients), flexibility of PASS to allow payments to be done at kebele level.
- In enhancing convenience to clients, stakeholders need to work on increasing POP & engaging RuSaCCos to overcome the challenge of both the accessibility issue as RuSaCCos are located at each kebele of the woredas& for better cash holding capacity.
- Working on awareness creation to clients of the service on financial inclusion & pin security, while the TSP works on potential security options to minimize potential fraud case.

An overall stakeholder coordination is necessary in overcoming the challenges & achieving the program's performance criteria preset on the program implementation manual.

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LIST OF ANEXES

Annex 1: Questioner Instrument

First, the data collector will explain the purpose, rules of the research and build rapport with respondents. The data collector should explain to the respondents that He /She wants to know what the respondents feel, not what He / she wants to hear. The data collector should write unique code on all questioner sheets.

ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

MASTERS OF PROJECT MANAGEMENT PROGRAM QUESTIONNAIRE

TO BE FILLED BY THE RESPONDENTS

Dear Respondents,

This questionnaire is designed to assess the effect of e-payment on the PSNP program performance for the partial fulfillment of the requirements of Masters of project Management. Knowing that the data obtained will be used for academic purpose you are kindly requested to reflect your genuine opinion. I want to assure you that your responses are kept confidential and the output is generated in aggregate terms, where anonymity of respondents is maintained. For this purpose, there is no need to write your names or put any identifying remarks in the questionnaire.

Part I: Demographic Information

Demographic/control questions: [Exact question language not given, as less subjective]

1. Sex: [1] Male [2] Female
2. Age: [1] 20-30 [2] 31-40 [3] 41-50 [4] 51-60 [5] >60
3. Educational background: [1] Illiterate [2] Elementary [3] Secondary [4] Above _____
4. Marital status: [1] Married [2] Unmarried [3] widowed
5. Total children: _____ How many children do they have in total

Part II: Questions regarding objective #1

- Circle the number on the *Likert*(i.e. 1-5) scale

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Electronic PSNP transfers are more convenient than manual cash transfers. (Convenience Comp)	1	2	3	4	5
2. Manual PSNP cash transfers are more predictable than electronic transfers (Predictability Comp)	1	2	3	4	5
3. My transfer is protected in electronic cash delivery than manual cash distribution method (Account Protection Comp)	1	2	3	4	5
4. I use financial services more since starting e-PSNP (Financial Inclusion Comp)	1	2	3	4	5
5. Electronic cash transfer method should be replaced by manual cash distribution method. (Felling towards e-payment Comp)	1	2	3	4	5
6. E-payment is faster in delivering transfer compared to manual payment (Faster Delivery Comp)	1	2	3	4	5
7. E-payment is costly in delivering transfer compared to manual payment (Costly Delivery Comp)	1	2	3	4	5

8. For how long did you receive manual cash transfers?

[1] 1-2 years [2] 3-4 years [3] 5-6 years

9. When did you start receiving PSNP e-payments? (Year) _____

10. I had a formal bank account before enrolling in e-PSNP.

Yes [] No []

11. I am not easily removed from the program or replaced by somebody else after I get enrolled in electronic payment than during manual transfer.

Yes [] No [] No difference []

12. From which transfer you feel like you get more benefit?

E-Transfer []

Manual transfer []

both []

Part III: Questions regarding objective #2

1. I face the challenge of finding an agent/branch nearby to receive my transfer
Yes [] No []
2. My account isn't fully secured as my PIN card is visible to agents
Yes [] No []
3. The beneficiary awareness about the technology given isn't sufficient enough
Yes [] No []
4. I receive a deducted amount by agents & cashiers since enrolling e-payment
Yes [] No []

Part IV: Questions regarding objective #3

1. Enrolling in the e-payment has given me the opportunity to be financially literate
Yes [] No []
2. E-payment has given me the opportunity of having an improved money management.
Yes [] No [] No difference []
3. The e-payment is allowing me to have financial access from the convenience of my area.
Yes [] No []
4. The e-payment provides me the opportunity me to access my transfer anytime
Yes [] No []

**Annex 2: M-BIRR PSNP electronic payment implementing Branches
Interview**

Zone-----

Woreda-----

Financial Institution name-----

Branch Name-----

Interviewee Full Name-----

Interviewee Position-----

Interviewee Sex-----

Requirements for ALL Interviewee Participants

- Under 35 years old; over 18 years old
- Speaks Tigrigna
- Worked on PSNP e-payment under his/her current position at least for one year

Interviewee Questions

1. In your opinion what are the advantages and disadvantages of mobile banking?
2. How do you rank electronic payments implementation? (Easy, fair or difficult?) WHY?
3. How PSNP electronic transfer impacted your regular financial activities?
4. What future opportunities do you see in implementing PSNP electronic cash transfer?
5. Are there any pressing challenges that came along PSNP electronic payment implementation?
6. What else you may need to fully utilize electronic payment services if you think the service is advantageous?
7. Do you have any other ideas to say about PSNP electronic payment?
8. How secured is the authentication process to open account in e-payment compared to manual?

Annex 3: M-BIRR PSNP electronic payment implementing Agents Interview

Zone-----

Woreda-----

Financial Institution name-----

Agent business Name -----

Agent Full Name-----

Agent Sex-----

Requirements for ALL Interviewee Participants

- Under 35 years old; over 18 years old
- Speak Tigrigna
- Worked on PSNP e-payment as an M-BIRR agent at least for two years

M-BIRR PSNP electronic payment implementing Agents Interview:

1. What is your opinion about agent banking business?
2. How does PSNP beneficiary's electronic payment affect your regular business activity?
3. How can you relate this PSNP electronic payment service with your future business plan?
4. What specific support and question that you're PSNP customers ask you?
5. Are there any new opportunities and benefits associated with PSNP electronic payment?
6. In your opinions are there any factors that affect the sustainability of this electronic payment service?
7. Do you have any other ideas to say about PSNP electronic payment

Annex 4: M-BIRR PSNP electronic payment KEY informants Interview

Role in the e-PSNP Program

1. Can you please tell me about the role of the organization (Ministry/..) you represent in the delivery of the electronic payment to e-PSNP recipients?
2. Please also tell me about your personal role within this process.
3. *In your opinion,*
4. Is your role as an organization well understood by the other organizations involved in the electronic pay process?
5. What components are going well related to your role in the program?
6. And which are going not so well?

Implementation of the Program

Overall opinion

1. How satisfied are you with the overall electronic PSNP payment system, and why?

Advantages

1. What are successes or advantages with the electronic payment mechanism(s) compared to the cash payment system?
2. What's the greatest advantage?
3. What are the other advantages?

Analysis: Timelines of transfers, convenience, sustainability, cost efficiency, potential to reduce fiduciary risk and fraud/corruption, potential to be stepping stone to use of broader financial services, and improved reporting on payments, as well as M&E aspects of the program

Challenges Overall

1. What are major challenges or issues faced related to the implementation of the electronic PSNP Payment system compared to the cash payment?
2. Has it required more money to be spent? More staff time to be allotted to the program? Replacing/retraining staff? Moving their focus away from other tasks?
3. Has it improved over time? If so, how?

Challenges Specific Components

1. Were there any challenges encountered related to the role of Agents? What were they?
2. Were there any challenges encountered related to the Money Collection Process (PIN, ease, convenience, connectivity)?
3. Were there any challenges encountered related to the Coordination of Stakeholders and inter-stakeholder collaboration?
4. Were there any challenges encountered related to the grievance handling mechanisms?
5. Was there anything else in the implementation process of the electronic payment system that was particularly challenging that we haven't asked about?

Challenges encountered related to information sharing or awareness creation among beneficiaries

In terms of the communication provided to the beneficiaries about the electronic payment:

1. Was communication or awareness creation frequent?
2. Was the communication process efficient? E.g.: Was there an active and continuous communication with recipients to ensure they understand when payments will be delivered, the value of their payments, and any changes to the process?
3. What were the main topics of the communication to the beneficiaries?
4. What are key pieces of information missing in order for the beneficiaries to effectively use the electronic payment service? Has it clearly been communicated to the beneficiaries when and how to collect the payments?

In terms of Financial Education Efforts conducted among beneficiaries:

1. Are you aware of the FE activities provided to beneficiaries? In your own opinion, is the content appropriate? Is it reaching the intended beneficiaries? Has it affected their behaviour in any way?
2. Who is conducting these efforts?
3. Identify challenges, if any, with the dissemination of the financial education content

TARGET GROUP OUTCOMES and ENGAGEMENT

Describe specific challenges or successes related to engaging different target segments in the E-PSNP process.

In your opinion,

1. How successful has the e-payment been in reaching/engaging women and men?
2. Do women equally withdraw funds?
3. Is the electronic payment system influencing positive financial behavior for men and for women? (e.g. saving)
4. Has the program created any 'negative' or 'concerning' behavior: e.g. reliance on informal lenders, store credit etc.?
5. Are awareness efforts equally informing men and women?
6. Has the e-payment been successful in reaching/engaging direct support and public work beneficiaries equally? Why? Why not?

FIDUCIARY RISK

1. Is there any difference between the list of beneficiary received during manual disbursement and list of beneficiary enrolled on electronic payment?
2. Are there any major changes of payment reporting in electronic payment in compared to manual?

Annex 5: sample dormant account Report of woreda Atsbi-Wonberta

ATSBI WONBERTA WOREDA DORMANT ACCOUNT REPORT						
CREATED_AT	ACCOUNT_N UMBER	Balance	NAME	DOCUMENT_ID	LAST_TRANSFER_ AT	ADDRESS
12/5/2016 14:59	22093433	557.8	Halefom Gerase	1-11-11-11-21/63	7/10/2017 18:08	Atsibi Wenberta
12/5/2016 14:59	22093511	1228.15	Gidey Weldu	1-11-11-11-11/17	7/10/2017 17:28	Atsibi Wenberta
12/5/2016 14:59	22093513	1545.25	Kidan W/Gerima	1-11-11-11-21/79	7/10/2017 18:08	Atsibi Wenberta
12/5/2016 14:59	22093565	557.8	Hagosa Hailu	1-11-11-11-24/41	7/10/2017 18:08	Atsibi Wenberta
12/5/2016 14:59	22093620	107.45	Kahsa Berhe	1-11-11-11-24/52	6/29/2017 15:36	Atsibi Wenberta
12/5/2016 14:59	22093783	1228.15	Beriha Meresa	1-11-11-11-12/24	7/10/2017 17:28	Atsibi Wenberta
12/5/2016 14:59	22093789	107.45	Atsede G/Medhin	1-11-11-11-23/23	6/29/2017 15:43	Atsibi Wenberta
12/5/2016 14:59	22093847	1228.15	Eyesus Zemariam	1-11-11-11-12/40	7/10/2017 17:28	Atsibi Wenberta
12/5/2016 14:59	22093849	334.35	Bsrat Gebre	1-11-11-11-23/38	7/10/2017 18:20	Atsibi Wenberta
12/5/2016 14:59	22094117	1228.15	Brhan G/Yesus	1-11-11-11-13/12	7/10/2017 17:28	Atsibi Wenberta
12/5/2016 15:00	22094295	609.8	Tsega Gebre	1-11-11-11-23/174	7/10/2017 18:20	Atsibi Wenberta
12/5/2016 15:00	22094420	1228.15	Gidey Hadera	1-11-11-9-11/29	7/10/2017 17:28	Atsibi Wenberta
12/5/2016 15:09	22103994	1228.15	Mtslal Tesfay	1-11-11-13-11/126	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:09	22104014	1228.15	Redae Berhe	1-11-11-13-11/131	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:09	22104084	1545.25	Abrhato Hailu	1-11-11-13-21/5	7/10/2017 18:27	Atsibi Wenberta
12/5/2016 15:09	22104113	1228.15	Bsrat Teadila	1-11-11-13-14/28	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:09	22104127	1228.15	Tsegawu Hailu Kidanu	1-11-11-13-11/156	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:09	22104128	1228.15	Desta Atsbha	1-11-11-13-14/31	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:09	22104132	1228.15	Tsre Gerase	1-11-11-13-11/157	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:09	22104159	2309.25	Azmera Belay	1-11-11-13-21/20	7/10/2017 18:27	Atsibi Wenberta
12/5/2016 15:09	22104198	1228.15	Abrrha Nirie	1-11-11-13-12/9	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:09	22104244	3636.15	Medhin Gidey	1-11-11-17-13/34	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:09	22104252	1228.15	Tsarkan Hagos	1-11-11-17-13/38	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:09	22104319	658.35	Ataklti Teare	1-11-11-17-23/17	7/10/2017 18:28	Atsibi Wenberta
12/5/2016 15:10	22104422	1228.15	Abrha Kassa	1-11-11-17-11/13	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:10	22104470	1228.15	Tadesse Tesfay	1-11-11-17-11/29	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:10	22104503	1228.15	Blhatu Teferi	1-11-11-17-11/45	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:10	22104519	1228.15	Desta Weldye	1-11-11-17-12/8	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:10	22104525	1228.15	Tadelesh Ashebr	1-11-11-17-12/11	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:10	22104624	334.35	Burtukan Arega	1-11-11-17-22/19	7/10/2017 18:28	Atsibi Wenberta
12/5/2016 15:10	22104709	1228.15	Maekelsh Berhe Tsaed	1-11-11-8-12/76	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:10	22104737	1228.15	Medhin Buru	1-11-11-8-12/83	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:10	22104741	3636.15	Mehari Hailu Kidanu	1-11-11-8-12/84	7/10/2017 17:37	Atsibi Wenberta
12/5/2016 15:10	22104747	886.9	Amaresh Berhe	1-11-11-8-23/13	4/21/2017 10:24	Atsibi Wenberta
12/5/2016 15:13	22107936	1228.15	Kiros Fanta	1-11-11-5-11/40	7/10/2017 17:40	Atsibi Wenberta
12/5/2016 15:13	22108020	1228.15	Tsegay Kahsay	1-11-11-5-11/61	7/10/2017 17:40	Atsibi Wenberta
12/5/2016 15:13	22108076	1228.15	Amete Hans	1-11-11-5-12/8	7/11/2017 9:54	Atsibi Wenberta
12/5/2016 15:13	22108170	1228.15	Hareg Suyum	1-11-11-5-12/36	7/10/2017 17:41	Atsibi Wenberta
12/5/2016 15:13	22108171	557.8	Hidat Hailay	1-11-11-5-21/74	7/10/2017 18:17	Atsibi Wenberta
12/5/2016 15:14	22108353	1228.15	Taskan Kidanu	1-11-11-5-13/29	7/11/2017 9:54	Atsibi Wenberta
12/5/2016 15:14	22108450	557.8	G/Her Hagos	1-11-11-5-22/35	7/10/2017 18:31	Atsibi Wenberta
12/5/2016 15:14	22108495	557.8	H/Kiros Gebre Mear	1-11-11-5-22/50	7/10/2017 18:31	Atsibi Wenberta
12/5/2016 15:14	22108525	1101.8	Haftsh T/Brhan	1-11-11-5-22/60	7/10/2017 18:31	Atsibi Wenberta
12/5/2016 15:14	22108642	502.35	Haftay Kahsay Endela	1-11-11-3-22/78	7/10/2017 18:18	Atsibi Wenberta
12/5/2016 15:14	22108704	1228.15	L/Slasie G/Het	1-11-11-3-11/49	7/10/2017 17:41	Atsibi Wenberta
12/5/2016 15:14	22108773	1978.35	Aregawi G/Maryam	1-11-11-3-21/35	7/10/2017 18:31	Atsibi Wenberta
12/5/2016 15:14	22108775	1217.8	Mebrihit Hagos	1-11-11-3-24/101	7/10/2017 18:18	Atsibi Wenberta
12/5/2016 15:14	22108982	502.35	Tsega Desta	1-11-11-3-22/163	7/10/2017 18:18	Atsibi Wenberta
12/5/2016 15:14	22109290	994.35	Mahari G/Medhin	1-11-11-3-23/55	7/10/2017 18:31	Atsibi Wenberta
12/5/2016 15:15	22109311	502.35	Tsegu Gidena	1-11-11-3-25/85	7/10/2017 18:18	Atsibi Wenberta
12/5/2016 15:15	22109439	994.35	Amlesu Tesfay	1-11-11-3-24/19	7/10/2017 18:19	Atsibi Wenberta
Sub-Total Amount		58225.3				

Annex 6: sample WoFED account Report of woreda Atsbi-Wonberta

07/06/2018	14.31a	998	Transfer from Hagos Gidey@22098170	513.45	-30,408.30
07/06/2018	14.31a	999	Send money fee	4.60	-30,412.90
07/06/2018	14.31a	001	Transfer from Hagos Kahsay@22098174	853.45	-31,266.35
07/06/2018	14.31a	002	Send money fee	4.60	-31,270.95
07/06/2018	14.31a	003	Transfer from Hagosa Berihu@22098158	853.45	-32,124.40
07/06/2018	14.31a	004	Send money fee	4.60	-32,129.00
07/06/2018	14.31a	005	Transfer from Hagosa W/Gerima@22098166	513.45	-32,642.45
07/06/2018	14.31a	006	Send money fee	4.60	-32,647.05
07/06/2018	14.31a	007	Transfer from Hailay Kiro s @22098178	683.45	-33,330.50
07/06/2018	14.31a	008	Send money fee	4.60	-33,335.10
07/06/2018	14.31a	009	Transfer from Hailay Mehari@22098182	513.45	-33,848.55
07/06/2018	14.31a	010	Send money fee	4.60	-33,853.15
07/06/2018	14.31a	011	Transfer from Halaiy Gerase@22098186	683.45	-34,536.60
07/06/2018	14.31a	012	Send money fee	4.60	-34,541.20
07/06/2018	14.31a	013	Transfer from Hansa G/M dhin@22098190	853.45	-35,394.65
07/06/2018	14.31a	014	Send money fee	4.60	-35,399.25
07/06/2018	14.31a	015	Transfer from Harifeyo Atsbha@22098194	853.45	-36,252.70
07/06/2018	14.31a	016	Send money fee	4.60	-36,257.30
07/06/2018	14.31a	017	Transfer from Hrit Alem @22098198	343.45	-36,600.75
07/06/2018	14.31a	018	Send money fee	4.60	-36,605.35
07/06/2018	14.31a	019	Transfer from K/Alemayo Aregawi@22098202	853.45	-37,458.80
07/06/2018	14.31a	020	Send money fee	4.60	-37,463.40
07/06/2018	14.31a	021	Transfer from K/G/Slase Hailu@22098206	853.45	-38,316.85
07/06/2018	14.31a	022	Send money fee	4.60	-38,321.45
07/06/2018	14.31a	023	Transfer from K/Teumay Berhe@22098210	683.45	-39,004.90
07/06/2018	14.31a	024	Send money fee	4.60	-39,009.50
07/06/2018	14.31a	025	Transfer from K/Tsegay Nguse@22098214	853.45	-39,862.95
07/06/2018	14.31a	026	Send money fee	4.60	-39,867.55
07/06/2018	14.31a	027	Transfer from Kahsa Araya@22098218	683.45	-40,551.00
07/06/2018	14.31a	028	Send money fee	4.60	-40,555.60
07/06/2018	14.31a	029	Transfer from Kahsa G/Kiro s @22098222	683.45	-41,239.05
07/06/2018	14.31a	030	Send money fee	4.60	-41,243.65
07/06/2018	14.31a	031	Transfer from Kahsu Lemlem @22098230	173.45	-41,417.10
07/06/2018	14.31a	032	Send money fee	4.60	-41,421.70
07/06/2018	14.31a	033	Transfer from Kdsan Haftu@22098234	683.45	-42,105.15
07/06/2018	14.31a	034	Send money fee	4.60	-42,109.75
07/06/2018	14.31a	035	Transfer from Kidan H/M aryam @22098238	683.45	-42,793.20
07/06/2018	14.31a	036	Send money fee	4.60	-42,797.80
07/06/2018	14.31a	037	Transfer from Kidan Hagos @22098242	853.45	-43,651.25
07/06/2018	14.31a	038	Send money fee	4.60	-43,655.85
07/06/2018	14.31a	039	Transfer from Kidan Alem @22098246	513.45	-44,169.30
07/06/2018	14.31a	040	Send money fee	4.60	-44,173.90
07/06/2018	14.31a	041	Transfer from Kidan Mehari@22098250	343.45	-44,517.35
07/06/2018	14.31a	042	Send money fee	4.60	-44,521.95
07/06/2018	14.31a	043	Transfer from Kidanu Mehari@22098254	853.45	-45,375.40