

Cash, Control and Commitment: Evidence on Female Empowerment from the National Cash Transfer Program in Pakistan

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Abstract

We use a difference-in-differences approach to estimate the impacts of Pakistan's National Cash Transfer Program (BISP) on empowerment of its recipient women using nationally representative program evaluation panel data on treatment and control households. As empowerment is a latent variable, it is operationalized using agency and its three domains, including access and control over resources, decision-making and mobility. We find that the recipient women in beneficiary households are making more sole and joint decisions and are more economically active in comparison to women who do not receive BISP, though we were unable to find significant impacts of the program on women's mobility. On the whole, only modest changes in women's access and control over resources, participation in decision-making and mobility among beneficiaries were estimated.

Declaration of Originality

I declare that this thesis is my own work and has not been submitted in any form for another degree or diploma at any university or other institute of tertiary education. Information derived from the published and unpublished work of others has been acknowledged in the text and in the list of references.

A handwritten signature in black ink, appearing to read 'Asma Kashif', with a stylized flourish at the end.

Asma Kashif

1 INTRODUCTION

Female empowerment is high on the development agenda. It has become one of the primary policy goals particularly for developing countries. Female empowerment and economic development are becoming more intrinsically interconnected as the development process improves women's access to health, education, and the labour market; encourages women's voice; raises awareness; and enhances political participation thus reducing inequalities among men and women. Amartya Sen who made women and their predicaments a major focus of his research, suggested that depriving women of their rights and denying access hinders the development process (Sen, 1989).

The origins of term *Empowerment* can be traced back to various social movements like Feminism, the Black Power Movement, Protestant Reformation, Quakerism, Jeffersonian Democracy and Capitalism (Batliwala, 2007). However, since its beginning in the 1970s, the concept of empowerment is increasingly used by researchers and advocates for marginalized communities and groups like women, people with disabilities, and people of African origin (Simon, 1994). More specifically, the term *female empowerment* has been used to characterize a multi-faceted concept, to define a number of outcomes in the development framework for welfare, and to uplift the status of women. In the 1980s and '90s, female empowerment constituted a major share of the development policy debate due to the world's focus on reducing extreme poverty and disparities among men and women in almost all fields of life. The term was used in advocacy for a specific set of policies and interventions, and was brought into major focus at the Social Summit (Copenhagen, 1993) and at the International Conference on Population and Development (Cairo 1994). It was at these meetings that Governments of both developing and developed countries committed themselves to the uphill task of advancing female empowerment. This commitment was then culminated into a plan of action at the Fourth World Conference on Women in Beijing in 1995, and promises for women's empowerment were put forth:

“The empowerment and advancement of women, including the right to freedom of thought, conscience, religion and belief, thus contributing to the moral, ethical, spiritual and

intellectual needs of women and men, individually or in community with others and thereby guaranteeing them the possibility of realizing their full potential in society and shaping their lives in accordance with their own aspirations.” (Declaration, 1995, p. 8)

Female empowerment has been emphasized both as a means to achieving development and welfare objectives, and as an end in itself. Empirical evidence suggests that increased female empowerment has been associated with important household welfare and social outcomes, such as a reduction in child mortality and long-term reduction in fertility, increased use of contraception, and household welfare outcomes (Acharya & Bennett, 1983; Eswaran, 2002; Saleem & Bobak, 2005).

The economic, social, and political marginalisation of women exists in almost all cultures, but from varying perspectives, and leads to a wide variety of norms and practices that disempower women. The literature on women’s empowerment is rich; however, much of the focus has been on ways to empower women; there are few major theories on the conceptualization of empowerment.

Starting from Sen (1989, 1999) who focuses on *capabilities* as the ability to live a functioning life the way an individual wants to live. The main crux of his approach is on the freedom that a person actually has to do what he or she may value in their lives. Nussbaum (2000) argues for a philosophical theorizing of the capabilities approach to understand and attend to distinct problems women face because of their gender in almost every nation in the world. She further argues that without understanding women-specific issues, the world’s issues of poverty and development cannot be dealt with. One major contributor to the literature, Naila Kabeer¹ states that empowerment is a process by which power is returned to those who have been disempowered (Kabeer, 1999). On the other hand, Bennett (2002, p. 13) provides a competing explanation of empowerment as “*the enhancement of assets and capabilities of diverse individuals and groups to engage, influence and hold accountable the institutions which affect them.*” Bennett further suggests that this is an operational definition, which describes processes rather than outcomes. She provides a distinction between empowerment and social inclusion, and argues that the empowerment process operates “from below” and involves “agency”, as exercised by individuals and groups, whereas social inclusion requires a change in the system

¹ A social economist and expert on women’s empowerment with a number of publications; see, for example, Kabeer (1999; 2001; 2008; 2012).

that can be implemented “from above.” Batliwala (1994, p. 558) defines empowerment as “*how much influence people have over external actions that matter to their welfare.*”

As vagueness and subjectivity are part and parcel of empowerment, researchers have taken the liberty of analysing various interrelated concepts like autonomy, agency, control, decision-making and wellbeing as interchangeable concepts. For example, (Anderson & Eswaran, 2009; Saleem & Bobak, 2005; Sathar & Kazi, 2000) use the term *autonomy* when measuring women’s empowerment in Bangladesh and Pakistan, and (Adato, De la Briere, Mindek, & Quisumbing, 2000) use *status* when measuring the impact of Progresa (a cash transfer program in Mexico) on women’s empowerment. Similarly, (Ashraf, 2009; Braaten & Martinsson, 2015; Carlsson, He, Martinsson, Qin, & Sutter, 2012; De Brauw, Gilligan, Hoddinott, & Roy, 2014; Peterman, Schwab, Roy, Hidrobo, & Gilligan, 2015) use term *decision-making* when analysing female empowerment, while *gender equality* is used by the World Bank (2001a & 2000b). These terms are often used interchangeably when measuring women’s empowerment, and so a clear demarcation is difficult to make.

Since interchangeable terms are used in the literature to define and explain female empowerment, hitherto it has been considered as a flow variable defining a process. Whereas access to resources, agency, autonomy, gaining control, and having a say in decision-making at various levels are considered to be growth in one’s capabilities that can bring a change in lives at the individual and group levels, and lead to empowerment. So far in the literature, Kabeer (2001, p. 437) explanation of women’s empowerment as “the expansion in people’s ability to make strategic life choices in a context where this ability was previously denied to them” is considered the most comprehensive one. According to Kabeer (1999, 2001), empowerment as a process equips the powerless with the ability to make choices at both the individual and the group level. Kabeer proposes three dimensions of the empowerment process namely, resources or preconditions, agency, and achievements. She suggests that with access to resources and certain level of control over those resources, one can make strategic choices that will also be regarded as achievements. In Kabeer’s approach, access to resources and control are two different dimensions; where resources can be categorized as human, social or physical, but that do not entail control over use of these resources. In reality, prevailing gender inequalities in a society promotes exclusion, thus limiting women’s access to resources and undermining their agency. Thus, access to resources is described as the precondition for empowerment, but access without control is not a contributor to women’s empowerment.

Kabeer defines it as *agency*, meaning that one has the *power within* to define one's own goals and act upon them. Kabeer (2008, p. 20) states "Agency operationalizes the concept of choice". It refers to the capacity to define one's goals and act on them. It goes beyond the observable behaviour to involve the meaning, motivations, skills and purpose that people bring to their action, their sense of agency. Agency enables women to define self-interest, make choices and pursue capabilities (Kabeer, 2001; Nussbaum, 2000; Sen, 1989, 2001).

Sen (2001), in his book *Development as Freedom*, ascertains that development is the process of removing barriers that limit individual choice and agency. Agency involves the ability to make strategic choices, to control resources and make decisions that achieve specific outcomes at the individual and group levels. Agency is often operationalized through decision-making abilities. The measurement of agency also focuses on access to and control over assets including physical, financial, and human and social capital. Samman and Santos (2009) provide a useful review of the literature on approaches and indicators to measuring agency. The key indicators include decision-making, paid employment, education, land ownership and literacy. Using decision-making at the individual level as a measure for agency is particularly useful on two accounts. First, this approach disentangles the puzzle of empowerment and brings us to its core, which is agency, as argued in the preceding paragraphs, and secondly it provides us with a measurement solution for such a complex and seemingly nontrivial concept. Ashraf (2009); Braaten and Martinsson (2015); Carlsson et al. (2012); De Brauw et al. (2014); Peterman et al. (2015) use the term *decision-making* to analyse female empowerment. The present study also makes use of decision-making as one of the aspects of agency in measuring empowerment.

A small but growing body of research is utilizing the concept of agency to study the impacts of the social cash transfer program² on female empowerment. The launch of Progresa, a conditional cash transfer program, in Mexico in 1997, gave rise to a new genre of poverty-alleviation programs. Progresa was designed to alleviate short-term poverty and to increase long-term human capital among the extreme poor in the rural areas of Mexico. One of the most unique features of Progresa is that the transfers are made in cash and most often to the woman of the house, making them a tool of social policy to not only to reduce poverty, but also to empower women as the program increased their access to income sources. Progresa is widely quoted as a success story as it reduced the poverty gap by approximately 20 percent in Mexico

² Conditional cash transfer programs are poverty-alleviation tools that provide direct cash periodically to poor families instead of giving them in-kind support or subsidies if they comply to certain conditions mostly related to human capital development.

(Fiszbein, Schady, & Ferreira, 2009) and led to similar programs that are now operating in approximately 68 countries.

By addressing gender disparities and giving cash directly into the hands of women, cash transfers can increase these women's decision-making and bargaining powers, and improve intra-household allocation of resources for human development. Cash transfers provided to women can also lessen the risk of households resorting to adverse coping mechanisms, like sending children to work instead of school. But there is some limited evidence on the role of cash transfers in empowering women, e.g. De Brauw et al. (2014) find that Brazil's Bolsa Familia (a cash transfer) program has significant impacts on women's decision-making, specifically in the use of contraception. Van den Bold, Quisumbing, and Gillespie (2013) review women's empowerment and nutrition in the context of conditional cash transfers and find mixed results. Adato et al. (2000), in a qualitative analysis of the impact of Progreso on the status of women, found that the program's emphasis on women is well designed. They state that, on balance, women feel that the program has improved their position and helped the family as a whole. Beneficiaries and non-beneficiaries provided strong support for the concept that giving resources to women means more will be spent on the family.

Regardless of the overwhelming recognition of women's empowerment as a means and an end for promoting household welfare, as well the overall economic and social development of a nation, evidence on the impact of cash transfer programs on women's empowerment is limited, mixed and sometimes ambiguous. As such, existing research suggests that there may be some impacts of cash transfers on women's empowerment, but as mentioned, results are mixed, the body of evidence is small and thin, and mostly from conditional cash transfer programs in the Latin Americas. The limited literature gives no insight into how impacts might differ in the social and cultural context of South Asia. One of the largest unconditional cash transfer programs is the Benazir Income Support Program³ launched in 2008 in Pakistan as that country's main social safety net to cushion the negative effects of the food crisis and inflation on the poor in aftermath of global financial crisis. The program provides monthly unconditional cash transfers of Rs. 1500 (approximately 18 AUD) to the woman of the house (who is or was ever married). Since BISP's second-most important objective after poverty reduction is

³ A detailed introduction on the program, its design features and evaluation strategy is explained in Chapters 3 and 4 respectively.

enhancing the empowerment of its female beneficiaries, it's therefore important to study and to estimate its causal impact.

There is almost no evidence available on how unconditional cash transfers influence the empowerment of the targeted recipients and their households. This paucity of evidence is one of the key reasons and is a strong motivation to study BISP and its impact on the empowerment of the recipient women. Secondly, as can also be noted from the above cited evidence, most of the existing literature draws conclusions on cash transfers and their role in female empowerment from Latin American examples, and little or no evidence is available on the South Asian experience. BISP is the second-largest unconditional cash transfer program in the world and the largest in South Asia, and therefore offers a unique opportunity to strengthen and widen the existing body of literature on female empowerment. Lastly, the poverty and gender dynamics, societal norms and socio-cultural environment of South Asia, specifically Pakistan, are very different from those of Latin American countries, and therefore there is a need to analyse what impact the program design of such a huge intervention will have on women's status.

This study attempts to quantitatively measure the impact of BISP on female recipient's empowerment proxied by measures of control of and access to resources, decision-making and mobility. This study makes a contribution to filling this knowledge gap by presenting quantitative evidence of the program's impacts on women's empowerment that offers a promising instrument for policymakers to implement gender-focused development programs with multiple social objectives.

The study proceeds as follows. Chapter 2 provides a review of the empirical literature on female empowerment and its various measures, cash transfers and its impacts on the empowerment of recipient households; Chapter 3 provides an introduction to BISP, and a theoretical framework to measure its impact on empowerment; Chapter 4 describes the evaluation design, questionnaire, data collection procedure and the estimation strategy that uses a difference-in-differences estimator; Chapter 5 presents the results with discussion; and Chapter 6 concludes the study by explaining how the findings can be used by policymakers, and includes scope for further research.

2 LITERATURE REVIEW

2.1 Female empowerment, agency and decision-making

The theoretical underpinnings for studying the impact of cash transfers on female empowerment are primarily embodied in the process of empowerment as argued by various philosophers and researchers. In this review of the literature, we attempt to outline the main parameters of theoretical debate interlinking women's empowerment, agency, decision-making, and control over resources with the development impacts of cash transfer programs, and present arguments on the rationality of this hypothesis. This approach will then inform the construction of proxy indicators on female empowerment and the further analysis of the data.

It is often reiterated that the concept of empowerment is multidimensional, intrinsically linked to socio-cultural and religious norms, and cannot be separated from the economic fabric of society. As stated by Kabeer (1999, p. 437), empowerment is "*the expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them*". So the process of empowerment is viewed as an enhancement in one's capacity to make strategic choices resulting in outcomes for their lives. This process of making strategic choices takes place when individuals or groups are given access to resources. And according to Kabeer's three-dimensional approach to empowerment, resources are necessary preconditions but *Agency* enables a person to make that choice while accessing the given resources, and the outcomes from choices are rendered as achievements. Sen (1985, p. 205) describes *Agency* as "*what the person is free to do and achieve in pursuit of whatever goals or values he or she regards as important*". He interlinks *Agency* with his concepts of freedom and capabilities. This theoretical debate in essence puts forth that empowerment is actually the enhancement of one's *agency*, and is meant here as specifically women's *agency*.

In the introductory chapter to this thesis, we cite some of the most devout advocates of female empowerment and theorists, for example, Kabeer (1999, 2001, 2008); Nussbaum (2000); Sen (1989, 1999, 2001), to ascertain that women's *agency* is the soul of female empowerment. Where *Agency* is defined as the ability to make strategic choices, and to control resources and decisions that achieve specific outcomes at both the individual and group levels.

In light of the above discussion, the women-oriented design and implementation of a cash transfer program serves as a resource or provide an opportunity structure that will enable women to make choices or to become effective. The household and intra-familial relations together are considered a fundamental locus of women's position. This means that efforts at empowering women must be cognizant of the implications of policy actions at the household level. Therefore, the theoretically explicit design features of the cash transfer programs that recognize the woman of the house as the recipient of transfers, and bring her into the focus of interventions, serves the purpose of enhancing her *agency* in various domains of her life. The conceptualisation of *agency* and empowerment in light of Kabeer's definition actually informs the measurement of these concepts.

Adding to the previous argument, it is stated that the individual exercise of direct control over resources, and or the ability to make decisions for the household, provides the most appropriate measure of *agency*. It is also important to maintain that these concepts are inherently complex and involve various dimensions, therefore only a few particular domains of interest will be reviewed for the purpose of this study. These domains can be defined as various dimensions or spheres of life in which a person, and for the purpose of this study essentially a *woman*, may exercise *agency*. Dimensions of empowerment include spheres such as making expenditure decisions, accessing basic facilities like education and health, deciding whether to participate in the labour market and in what type of jobs, making decisions for their children, and freedom of mobility. (Sen, 1999) argues that the agency of a woman positively affects the wellbeing of her family.

2.2 Women's agency has many domains

The empirical literature establishes that women's agency as a core of women's empowerment must be measured within various domains. The earliest study found on the subject is by Acharya and Bennett (1983). They use the term *women's status* for empirical linkages of women's role and power within a household unit, and they provide an analysis of gender in a society. Their study empirically investigates how various socio-cultural, economic and demographic factors affect the scope and structure of female economic participation in a subsistence economy of rural Nepal. While analysing the relationship between these variables and the amount of women's input into the household decision-making process, they find that the strength of the female decision-making power in the household is positively affected by

women's participation in the market economy, and negatively affected if they rely only on subsistence agricultural production and household responsibilities.

Malhotra and Schuler (2005) synthesize the list of the most commonly used dimensions of women's empowerment, and argue that women's empowerment needs to occur along multiple dimensions including economic, socio-cultural, domestic, legal, political, and psychological aspects. They further argue that these dimensions are very broad, and in each domain there are further sub-dimensions within which women may be empowered. On the multidimensionality of empowerment, Chakrabarti and Biswas (2008) also state that women's empowerment is a concept consisting of access to decision-making in all matters related to the family and political sphere, and is also closely linked with social factors. Mason and Smith (2003) studied the empowerment of married women in their domestic domain in rural and peri-rural areas of five Asian countries, including India, Malaysia, Pakistan, the Philippines and Thailand. They explore whether community or individual characteristics are better determinants of women's empowerment, and how different dimensions of empowerment are related to community or individual characteristics. Their analysis showed that community is a far stronger predictor of women's empowerment when compared with individual characteristics. Mason and Smith (2003) also find that community can explain more variation in the empowerment of married women than can their individual characteristics across the 56 communities in five developing countries that they studied. They further argue that around two-thirds of the variation in female empowerment is explained by gender norms only, and the concept of female empowerment within a household is multidimensional.

In their analysis of communities in same five countries (India, Pakistan, Malaysia, Philippines, and Thailand), Ghuman, Lee, and Smith (2006) find that wives and husbands each give significantly different assessments of the level of the wife's autonomy in various domains within a household. When men were asked about their wives' freedom of movement and decision-making related to children and other household matters, husbands claimed higher levels of autonomy to their wives than did wives when asked same questions.

Women in South Asia, specifically in Pakistan, are generally considered to be mostly excluded from decision-making, with limited access and control over economic and financial resources, constrained mobility, and are often victims of violence. It is considered that women have less agency due to prevailing socio-cultural norms in this region. Religion plays a role specifically in the case of Pakistani women due to their religious constraints when compared to women in

India. This hypothesis was tested by Jejeebhoy and Sathar (2001), by carrying out a multivariate analysis of the determinants of empowerment in Pakistan and in two Indian states to test that region, not religion, plays a significant role in determining the level of empowerment. Their study uses data on married Muslim women in the province of Punjab (Pakistan), and on married Hindu and Muslim women in Uttar Pradesh and Tamil Nadu (provinces of India). Their definition of autonomy is similar to the definition of agency as stated above. To measure women's autonomy, Jejeebhoy and Sathar (2001) select four dimensions and create an index for: i) economic decision-making; ii) mobility; iii) freedom from threat from husband; and iv) access to and control over economic resources. Their findings suggest that "socio-cultural and regional context makes a difference in shaping factors that determine women's autonomy".

In a similar context, Ghuman (2003) finds limited evidence while evaluating the hypothesis that higher infant and child mortality among Muslim populations is related to the lower autonomy of Muslim women, using data from 15 pairs of Muslim and non-Muslim communities in India, Malaysia, the Philippines, and Thailand. His analysis also shows that among several measures of women's autonomy, more restrictions on women's mobility were found in most of the Muslim areas.

Malhotra and Mather (1997) empirically tested the link between schooling, paid work, and power in domestic decision-making for young, married women in Sri Lanka. They argue that the relationship between education, work, and women's control of household decisions is conditioned on societal norms. Their study presents three key conclusions on the concept and process of women's decision-making power in developing countries, including i) the specific and multidimensional nature of gendered aspects of decision-making needs to be defined; ii) the historical and developmental context of society should be considered; and iii) women's decision-making power should be measured, not just with a proxy measure like education and employment, but that micro factors influencing household and social life must also be considered.

Schuler and Hashemi (1994) also address the question of how women's status affects their fertility in Bangladesh. They evaluate the effects of women's participation in rural credit programs, BRAC and Grameen bank on contraceptive use and women's empowerment. The theoretical explanation of these impacts is that credit provided by these programs, women's solidarity groups, and awareness campaigns are believed to empower women by enabling them

to earn cash income, and thus strengthening women's bargaining position within the household. This means that women participating in these programs are better able to make decisions. The study defines a woman's level of empowerment as a function of her relative physical mobility, economic security, ability to make purchases, freedom from domination within her family, political and legal awareness, and participation in public protests. The study found that participation in credit programs appears to empower women, partly by enhancing their economic contributions and also by contributing significantly positive effects on contraceptive use.

The above cited literature stresses the use of context-specific determinants of empowerment, along with the use of common frameworks, and agree that women's empowerment is a concept with many domains and aggregation levels, and therefore more than one predictor is needed. This brief review also suggests terms like "women's empowerment", "agency", "autonomy", "women's status" and "women's decision-making" are used almost interchangeably. Therefore, it is now critically important to determine how the concept of agency is measured within micro and macro frameworks in the literature.

2.2.1 Measurement of agency using Proxy Indicators

Agency has been measured using a number of proxy indicators, including ownership and control of assets, education, labour income, and social norms. Early studies on the subject considered women's control over material resources and having labour income a robust measure of agency (see for example, Acharya and Bennett (1983); (Agarwal, 1994); Allendorf (2007); Mason and Smith (2003); Quisumbing and de La Brière (2000)). Agarwal (1994), in her famous cross-country comparative study of India, Pakistan, Bangladesh, Nepal, and Sri Lanka, argues that the lack of women's "effective" ownership of property is the most important determinant of gender disparities in South Asia. Other researchers have argued that human development indicators such as education, health and fertility decisions, and socio-demographic characteristics including age, family size, family structure, region, religion and social norms, etc. play a decisive role in determining women's agency (see for example, Anderson and Eswaran (2009); (2015); Ghuman (2003); Malhotra and Mather (1997); Mason and Smith (2003); Narayan-Parker (2005); Saleem and Bobak (2005); Schuler and Hashemi (1994)).

Female education was a also significant predictor of empowerment in Nepal (Allendorf, 2007). Jejeebhoy and Sathar (2001) find that education is one of the key determinants for women's

higher level of autonomy in Tamil Nadu in India when compared to similar indicators for Punjab (Pakistan) and Uttar Pradesh (India). The same study suggests that regional norms are a better predictor of women's status when compared with religion.

Another strand of evidence suggests that access to credit programs has a positive effect on female empowerment. Schuler and Hashemi (1994) argue that women's participation in credit programs improves women's empowerment and affects fertility decisions. They use variables such as woman's economic security, mobility, ability to make small and larger purchases and major decisions, threat of domination and violence, political/legal awareness, and participation in protest campaigns to measure for women's empowerment and find that participation in credit programs like Grameen Bank and BRAC empower women. Ashraf (2009) finds a positive impact from participation in commitment-saving products on female decision-making in the Philippines. He uses a randomized controlled trial to determine the causal impact.

2.2.2 Direct measures of agency

Due to the multidimensional nature of agency, the use of proxy measures provides an incomplete picture. Alkire (2008, p. 10) states the following three problems in using proxy measures for agency:

- i. Assets as a measure of agency may not be translated equally into agency across individuals due to varying individual characteristics and socio-economic circumstances.
- ii. Increase in agency due to external sources is not given any importance.
- iii. Since almost the same proxy indicators like assets, employment, and education, etc. are used to measure both poverty and agency, any investigation into linkages between poverty and agency would not be possible

Therefore, researchers have explored ways of measuring agency with more direct dimensions like decision-making within a household. Doss (2013) for example, reviews the existing literature on household decision-making and classifies it into four different groups:

- i. The early literature on unitary models of households, based on assumptions of the household as a single production or consumption unit, proposes that decision-making within the household does not impact outcomes. The literature in this class challenges these assumptions and disqualifies notions of a unitary model (see for example;

Alderman, Chiappori, Haddad, Hoddinott, and Kanbur (1995); Haddad and Hoddinott (1994)).

- ii. Testing for efficiency in collective, cooperative and non-cooperative models of household decision-making.
- iii. Determinants of household decision-making and resource allocation: in this group numerous research papers have investigated the determinants of household decision-making using gender-denominated variables (see for example, Agarwal (1994); Allendorf (2007); Bradley and Saigol (2012); Jejeebhoy and Sathar (2001); Quisumbing and de La Brière (2000); Sathar and Kazi (2000)).
- iv. Experimental games is a new strand of research attempting to understand how decisions take place within a household. This important class of literature uses economic experiments to investigate the predictors of women's decision-making power (see for example, Adato et al. (2000); Almås, Armand, Attanasio, and Carneiro (2015); Ashraf (2009); Ashraf, Karlan, and Yin (2010); Braaten and Martinsson (2015); Browning, Bourguignon, and Chiappori (2006); Carlsson et al. (2012); De Brauw et al. (2014); Molyneux and Thomson (2011)), Many of these studies also focus on household decision-making under risk and uncertainty (Anderson & Eswaran, 2009).

The decision-making approach uses domain-specific questions as a measure of agency; for example, who makes the decision within a household in domains including; women's own earnings, labour market participation, husband's income, health care, major purchases, household daily consumption, and mobility (see for example, Alkire (2008); Alsop and Heinsohn (2005); De Brauw et al. (2014)).

In this research study we focus on the approach of measuring empowerment for investigating the impacts of BISP on female empowerment. This study does not diverge into other extensions of empowerment on account of i) keeping the scope of this study limited to decision-making; and ii) to avoid the complexities inherent in reviewing other measures of empowerment. These domains also highlight the outcomes that expansion in *agency* may achieve for the individuals and group *per se*. Additionally, "*these indicators of control and decision-making characterized most direct measurement of agency*" (Samman & Santos, 2009, p. 14).

The decision-making indicators are self-reported by the respondents and signify the *capability* of respondents to take decisions alone, or jointly with their spouse, within the above stated domains. A number of studies propose and use household decision-making as a measure of

agency (see for example, Alkire (2008); Anderson and Eswaran (2009); De Brauw et al. (2014); Ghuman et al. (2006); Malhotra and Schuler (2005); Mason and Smith (2003); Schuler and Hashemi (1993); Schuler and Hashemi (1994)).

After listing some literature on the conceptualization of female empowerment and its various measures, we turn our focus to literature that examines what motivates the linkages between cash transfer programs and female empowerment.

2.3 Cash transfers and female empowerment

Cash transfer program can be defined as “*Direct, regular and predictable non-contributory payments that raise and smooth incomes with the objective of reducing poverty and vulnerability*” (Department for International Development, 2011, p. 2).

Over the past two decades, cash transfers have emerged as one of the most successful forms of poverty-alleviation programs around the globe. One salient feature of most of these programs is that they implicitly or explicitly place specific impetus on women as the recipients of these programs. The motivation behind targeting women as the transfer recipients aims to improve household welfare, children’s health and educational outcomes, and empower women. The literature provides ample evidence of the interlinking of gender equality and development outcomes, and thus supports this feature of program design and implementation.

Haddad and Hoddinott (1994) find robust results suggesting that increasing women’s share of income increases spending on food, and reduces the budget shares of alcohol and cigarettes for men. Similarly, Eswaran (2002) argues that expansion in female autonomy within the household is positively linked with their bargaining powers, and is shown to reduce fertility and child mortality rates. In an influential study, Schuler and Hashemi (1994) find that participation in credit programs positively empowers women, mostly through enhancing their economic roles, and is positively correlated with the use of contraceptives. Ashraf et al. (2010), in a randomized controlled trial in the Philippines, evaluate the impact of a commitment to micro-savings accounts on women’s decision-making power and savings behaviour. They find significantly positive impacts on women’s decision-making; savings as well as actual consumption decisions were female oriented. Using Nepal Demographic and Health Survey of 2001 data, Allendorf (2007) argues that women’s land rights not only empower women but also positively impact young children’s health, as children of mothers with land ownership are significantly less likely to be severely underweight. Duflo (2003) puts forth results indicating

that women's pensions increase the nutritional status of girl children significantly, but has no effect on boys. On the other hand, she found that men's pensions had almost no effect on children's nutritional status. Doss (2013) states that making women the focus of the programs is critical for achieving the program's goals. Thus, female empowerment is considered as a prospective and much needed pathway for programs focusing on poverty alleviation or welfare enhancement. Examples include microfinance, commitment saving products and cash transfer programs with the potential to improve social and economic welfare outcomes such as consumption, health, nutrition and education. According to Fiszbein et al. (2009), most of the conditional cash transfer programs select a woman in the household to be the recipient of the cash, as targeting transfers to women not only promotes children's health, but also has the potential to become a key instrument of social policy to advance women's empowerment. The largest conditional (e.g. Progresa (Mexico), Bolsa Familia (Brazil)) and unconditional cash transfer programs (e.g. Benazir Income Support Program (BISP) in Pakistan) recognises women as the key program interface and provides cash transfers only through the woman of the house.

Despite this overwhelming recognition of women's empowerment as a means and an end for the promotion of household welfare, as well as for the overall economic and social development of a nation, the evidence stating the impact of cash transfer programs on female empowerment is limited, and mixed. De Brauw et al. (2014) analyse the impacts of Brazil's Bolsa Familia program on women's decision-making using a quasi-experimental approach and find that the program significantly increases women's decision-making power regarding contraception only, compared to seven other areas of decision-making including purchases of food, clothes for self, clothes for children, spending on children's school attendance, children's health, durable goods, and own labour supply. Whereas, in urban households, the program has also had positive impacts on women's decision-making power in areas related to children's school attendance and health expenses, household durable goods purchase, and contraception use. In contrast, they found the possibility of reduction in women's decision-making in rural households. Pitt and Khandker (1998), using a quasi-experimental design, measured the impact of participation in microcredit programs by gender, on indicators including labour supply, schooling, household expenditure, and assets. They found that participation has a greater effect on the behaviour of poor households if the gender of the recipient is female. Van den Bold et al. (2013) provide a summary of quantitative and qualitative evidence on cash transfers and show that there is some qualitative evidence on cash transfers promoting women's decision-

making, with mixed quantitative results. Handa, Peterman, Davis, and Stampini (2009) found that out of five indicators on decision-making, only women's control over resources has a positive correlation with the program. Attanasio and Lechene (2002) also measure significant changes in household decision-making and state that the wife's relative income share is a significant determinant of the wife's decision-making power. Patel and Hochfeld (2011), in their empirical analysis of the largest program in South Africa, the Child Support Grant (CSG), found that the grant supports women's ability to control and allocate resources, and that this has a positive impact on household food security.

There might be some negative consequences of giving cash to women, including threatening behaviour from husbands to take possession of the money, and increased incidence of violence against women. Some adverse impacts of giving cash to women have also been tested. For example, Hidrobo, Peterman, and Heise (2013) did a study on whether cash, vouchers and food transfers targeted to women in poor urban areas of Northern Ecuador has any impact on "intimate partner violence". They used a randomised control trial to measure these impacts and found that overall transfers reduce controlling behaviours and various forms of violence by 6-7 percentage points.

2.4 Existing gap in the literature and motivation for this study

Despite the intention and often clearly stated objectives of the cash transfer programs for women's empowerment, there is limited empirical evidence on cash transfers making women empowered. There is almost no evidence of women's empowerment stemming from unconditional cash transfers programs. Most of the evidence on cash transfers impacting women's empowerment comes from conditional cash transfers and the findings are mixed. This paucity of evidence is one of the key reasons for and strong motivation to study BISP and its impact on the decision-making of recipient women.

BISP provides a monthly unconditional cash transfer of Rs. 1500 (approximately 18 AUD) to the woman of the house (who is or was ever married)⁴. Since BISP states empowerment of its female beneficiaries as its second most important objective after poverty reduction, it is therefore very important to measure its impact on empowerment. Ascertaining the empowerment impact of cash transfers explicitly to the woman of the house is essential for understanding the usefulness of targeting women as an instrument for empowering and

⁴ Currently married, divorced or widowed.

enhancing the welfare outcomes of the household. This study aims to provide empirical insights into how the recipient of the cash transfers makes major decisions within the domains of their household, control over resources and mobility. Therefore, the explicit question this study asks is;

To what extent has BISP impacted the empowerment of its female beneficiaries?

Women's empowerment is inherently difficult to measure, since we naturally only observe the outcomes of what people actually do, not what they were free to choose to do. Women can exercise agency in a variety of ways: as individuals and in groups, within the family, and through their economic roles, participation in politics, and other formal and informal institutions. It is thus both an absolute concept (are women able to visit the market place alone?, for example) and a relative concept, compared to their male counterparts. Women's own perceived sense of agency can increase, for example, in acquiring access to financial resources like BISP, but this may or may not increase her influence within the household.

This study builds on and adds to the evolving literature on cash transfers and empowerment in three important ways. First, the major strands of work conceptualizing and measuring women's empowerment and agency is reviewed, highlighting the similarities as well as important distinctions, and providing a framework for the empirical investigation.

Second, we undertake analysis of the correlates of empowerment for a much larger unconditional cash transfer program, and utilize the data from baseline and follow-up rounds of the BISP evaluation survey to investigate BISP's impact on different domains of women's lives. We examine various measures of empowerment, and explore differences across recipients and non-recipients of BISP over time, and correlations with key observables at both the individual and household levels, like education, demographics and asset ownership. Among the practical advantages of this approach is the availability of evaluation data for both treatment and control groups on the same set of households before and after the program, although there are also some drawbacks, as the assignment to treatment and control groups is not random.

Third, we use econometric analysis to identify the impacts of BISP on indicators associated with empowerment. BISP has positive impacts on economic participation, decision to have another child, use of contraceptives and decision to vote, but has no impact in some domains and some impacts are negatively associated with others, especially in terms of borrowing and mobility.

This study will contribute to filling this knowledge gap by presenting quantitative evidence of program impacts on women's empowerment that will offer a promising instrument for policymakers to implement gender-focused development programs. Significant to this analysis is further exploration of the household decision-making behaviour by way of direct survey-based measures of decision-making, and investigating shifts in decision-making owing to changes in the income of the household through cash transfers. Previous studies on this and related questions mostly use cross-sectional data and static indicators, whereas a considerable number of studies use experimental designs (Abdussalam, Johari, & Alias, 2013; Allendorf, 2007; Almås et al., 2015; Ashraf, 2009; Ashraf et al., 2010; Braaten & Martinsson, 2015; Carlsson et al., 2012; Handa et al., 2009; Pitt & Khandker, 1998; Schuler & Hashemi, 1994). The present analysis will be guided by theories of intra-household bargaining and resource allocation as categorised by (Doss, 2013), and used by a number of studies to investigate determinants of household decision-making processes.

Table 2.1 provides a review of the empirical literature that has been analysed to study various dimensions and determinants of women's empowerment, *agency*, decision-making and cash transfers, based on both quantitative and qualitative approaches.

Table 2:1 Review of the literature

STUDIES	STUDY QUESTION AND INDICATORS	EMPIRICAL METHOD	FINDINGS	OVERLAPPING THEMES
Schuler and Hashemi (1994)	The study focuses on how women's status affects fertility. Measures for women's empowerment include physical mobility, economic security, ability to make various purchases on her own, freedom from domination and violence within her family, political and legal awareness, and participation in public protests and political campaigning.	Logit Regressions	The study reports that participation in both of the credit programs is positively associated with women's level of empowerment. A positive effect on contraceptive use was found among both participants and nonparticipants in Grameen Bank villages but Participation in BRAC does not appear to affect contraceptive use.	Women's status, fertility, use of contraception and participation in credit programs
Acharya and Bennett (1983)	Women's status proxy by household decision-making	OLS	Findings state that women's participation in the market economy increases their household decision-making.	Women's status, household decision making, economic empowerment
Abdussalam et al. (2013)	Access to basic needs <ul style="list-style-type: none"> • Training skill • Healthcare provision • Microcredit/loans • Political participation 	Multivariate analysis	The study found that variables are meaningful in studying the impacts of poverty-alleviation programs.	Women's empowerment and poverty reduction
Agarwal (1994)	The book presents a cross country study on female land ownership for reducing gender disparities.	Patterns of female land ownership	She argues that women's struggle for their legitimate share in land and property is the single most important determinant for women's empowerment in South Asia.	Land ownership, women's empowerment
Adato et al. (2000)	Impact of Progresa on status of women	Qualitative study	Study found that the program's emphasis on women is well designed. They stated that on balance women feel that the program has improved their position and helped the family as a whole. Beneficiaries and non-beneficiaries provided strong support for the concept that giving resources to women means more will be spent on the family.	Women's empowerment, Cash Transfer Programs
Anderson and Eswaran (2009)	Household survey on education, income, assets, and labour activity of all individuals. Women were asked numerous questions aiming to capture their degree of independence or autonomy within the household including decision making and control over resources.	OLS and 2SLS	The study found that wage income is seen to have a larger effect on women's autonomy as compared to the return from unearned income.	Women's autonomy

Allendorf (2007)	<p>The study measures the impact of land ownership on women's empowerment. The empowerment measures are constituted from four questions on household decision-making.</p> <p>Respondents were asked who in their household makes the decision about</p> <ol style="list-style-type: none"> 1. health care; 2. large household purchases; 3. Household purchases for daily needs; and 4. Meeting with family, friends, and relatives. 	Multivariate analysis, logit model	The results suggest that women's land rights promote empowerment and child health in Nepal. In addition, they found that land ownership is comparable to education and employment the two other sources of empowerment.	Welfare impacts of women's empowerment on child health
Almås et al. (2015)	<p>This study measures women's control over resources in an experimental settings using women's share of total household income, women's behaviour and choices in a lab setting.</p>	Experimental design	<p>The study found that the transfer has an effect on total household income that affect bargaining positions for men and women directly.</p> <p>Secondly, the transfer has an effect on the share of resources attributable to each household member. The experiment provides information about the trade-offs women make between household income and empowerment. The results show that women are, on average, willing to sacrifice some household income to receive the money and gain more power over resources.</p>	Cash transfers and empowerment
Ashraf (2009)	<p>The study, while using a randomized controlled trial, tested whether access to and marketing of an individually held commitment savings product led to an increase in female decision-making power within the household decision-making. The indicators used refer to decisions on</p> <ol style="list-style-type: none"> 1. what to buy at the market? 2. expensive purchases 3. giving assistance to family members 4. family purchases 5. recreational use of the money 6. personal use of the money 7. number of children 8. schooling of children 9. use of family planning. 	Experimental Design	This study found positive impacts, particularly for women who have below median decision-making power in the baseline, and found that this leads to a shift toward female-oriented durables goods purchased in the household.	Consumption and welfare

Braaten and Martinsson (2015)	This study investigates intra-household decision power in Peruvian peasant couples by conducting risk and uncertainty experiments, first for the individual, and then jointly with spouses.	Experimental design	The results indicate that decision power in the experiment is largely determined by relative risk and uncertainty aversion of the spouses and not by gender per se. Additionally, experimental measures of decision power show surprisingly little correlation with self-reported decision power, suggesting that intra-household decision power differs substantially across specific tasks within the household.	Decision-making, risk aversion and uncertainty
Bishop and Bowman (2014)	Measures empowerment in OXFAM using following indicators: <ul style="list-style-type: none"> • household decision-making • control over resources • public engagement • self-perceptions 	Qualitative study	Found improvements in OXFAM	Organizational context of women's empowerment
Bushra and Wajiha (2015)	The study attempts to find the determinants of women's empowerment while using measures including education, economic participation of women, poverty and economic opportunity available for women, and women owning a bank account.	OLS	The study found that these measures have a positive impact on women's empowerment in Pakistan	
Carlsson et al. (2012)	Using experimental approach, the study attempts to measure household decision making in Rural China	Experimental design	The study estimates that in 99% of households husbands have a stronger influence than wives.	Household decision making
Chakrabarti and Biswas (2008)	The study attempts to measure interdependence of various attributes of women's empowerment including: <ul style="list-style-type: none"> • women's right in family and personal decision-making information, occupation, contribution to family income household conditions • education, husband's education and • husband's occupation 	Linear Structural Relationship (LISREL) methodology		Household decision making
De Brauw et al. (2014)	The study investigates the impact of a conditional cash transfer program on women's decision-making in Brazil. The study uses survey data on women's decision-making role within the household.	Propensity Score weighting	The results suggest that Brazil's Bolsa Familia program has significant impacts on women's decision-making. In aggregate, Bolsa Familia significantly increases women's decision-making power regarding the use of contraception.	Conditional cash transfer, Household decision-making

Eswaran (2002)	The study examines avenues through which female autonomy impacts on fertility and child mortality in developing countries.	Theoretical analysis	The findings reveal that increases in female autonomy translate into increases in the relative bargaining power or the threat point utility of mothers. This leads to decreases in fertility and child mortality.	Autonomy, fertility and child mortality
Ghuman (2003)	Ghuman analyses the hypothesis that higher infant and child mortality among Muslim populations is related to the lower autonomy of Muslim women, using data from 15 pairs of Muslim and non-Muslim communities	Item response model	He found limited evidence in favour of the idea that higher Muslim than non-Muslim infant and child mortality is related to lower autonomy among Muslim women.	Religion, autonomy and child mortality
Ghuman et al. (2006)	The study analyses the weaknesses of measuring the relative decision-making power of women using survey items. The study discusses parallel surveys of women and their husbands in five countries in South and Southeast Asia to analyse the measurement issues.	Item response model	The study suggests that these survey questions are of limited utility for understanding differences in gender stratification across a decision-making context	Measurement issues in women decision making
Handa et al. (2009)	This paper evaluates the behavioural impact of conditionality and gender targeting on spending behaviour in the Progresa in rural Mexico.	OLS and Fixed effects regression	Results specify that transfer income is not spent differently from general income within the household. This suggests that transfers have income effects only. Moreover, women who have increased control over their extra cash are not significantly more likely to spend it in a “family-friendly” way.	Gender targeting, cash transfers, control over resources
Molyneux and Thomson (2011)	The study looked at the Juntos Program in Peru, Bono de Desarrollo Humano in Ecuador, and Bono Juana Azurduy in Bolivia. Using qualitative and participatory research methods with women beneficiaries, and interviews with key informants, the study analysed whether, and in what ways, conditional cash transfer programs might promote gender equity and women’s empowerment.	Qualitative and participatory research method	The results indicate that this has strengthened their self-esteem. The funds are generally paid directly to the women, and many women said this had increased their decision-making powers in the home. This has also increased their bargaining position.	Cash transfer, women’s decision-making
Patel and Hochfeld (2011)	Impact of child support grants on gender equality	Qualitative analysis	The findings suggest that the grant supports women’s ability to control and allocate resources, and has a positive impact on household food security.	Women’s decision-making and cash grants
Patel, Knijn, and Van Wel (2015)	The researchers hypothesise that poor female care-givers receiving a cash transfer for their children are better able to contribute to the material and social welfare of their		The study found that cash transfers increase women's individual income, which is in turn positively associated with increased financial independence, decision-making power over financial resources and decisions about children's wellbeing. Beneficiaries	Cash transfers, women’s decision-making and welfare

	children than female care-givers who do not receive a cash transfer.		were more actively engaged in care activities with their children.	
Peterman et al. (2015)	The study present theoretical and operational evidence from recent literature on women's decision-making. The study also analyses survey experiments undertaken in cash and food transfer programs in Ecuador, Yemen, and Uganda from 2010 to 2012.	Experiments	<p>The findings suggest large variations in how women are ranked in terms of decision making depending on how indicators are constructed.</p> <p>In addition, across countries, composite decision making indicators are not consistently associated with other proxy measures of women's empowerment or household welfare, such as women's education levels or household food consumption.</p> <p>The study found mixed evidence across countries related to the impact of transfer programs on women's decision making indicators.</p>	Cash transfer, women's decision-making
Pitt and Khandker (1998)	The study estimates the impact of participation, by gender, in the Grameen Bank and two other group-based micro credit programs in Bangladesh on labour supply, schooling, household expenditure, and assets.	Structural equation modelling	The study found that program credit has a larger effect on the behaviour of poor households in Bangladesh when women are the program participants.	Women's empowerment, microfinance
Saleem and Bobak (2005)	<p>The study analyses the autonomy of women as one of the mechanisms that influences contraceptive use in developing countries. The study tests this hypothesis in a national sample of women in Pakistan. The study estimates women's decision autonomy from 9 questions on who makes decisions at home; movement autonomy was based on 6 questions on whether women need permission to visit places outside home.</p> <p>A number of socio-demographic variables were also used in multivariate analysis to investigate the independent association between autonomy and lifetime and current contraception use and to assess the extent to which autonomy arbitrates the association between education and contraception use.</p>	Logit model	<p>The study found that decision autonomy was significantly associated with both lifetime and current contraception use.</p> <p>The odds ratios for the highest vs. the lowest quintile were 1.8 (1.4-2.4) and 2.0 (1.4-2.8), respectively.</p> <p>Movement autonomy was not consistently associated with contraceptive use. Contraceptive use was strongly associated with women's education but this relation was not mediated by women's autonomy.</p>	Women's autonomy, education and use of contraception

Sathar and Kazi (2000)	The paper explores the elements that constitute women's autonomy in rural Pakistan.	OLS	<p>The study suggests that economic class has a weak and ambiguous influence on women's autonomy in rural Punjab. Class influences both education and employment of women, thus affecting the empowerment dynamics of women.</p> <p>While most women in rural areas contribute economically, the majority works on the household farm or within the household economic unit. These women do not derive any additional autonomy as a result of this contribution. Paid employment, though offset by other restrictions on poor women, offers greater potential for women's autonomy. Education, on the other hand, has a lesser influence on female autonomy in the rural Punjabi context.</p>	Women's autonomy
Tripathi (2011)	<p>The study examines the overlapping features of women's empowerment in the context of India while using data on sources of empowerment and indicators of women's autonomy.</p> <p>The sources of empowerment are jobs for cash, higher education, and access to resources like; owns an account, knowledge of loan program, get loan and regular media exposure. Whereas variables for autonomy are decision-making, freedom of movement attitude to say no to have sexual intercourse with husband and justification for wife beating.</p>	Path Analysis	The findings indicate a contrasting pattern across various states of India. The regions or states with higher access to resources for women are poor in terms of indicators of autonomy, e.g. south India (Andhra Pradesh and Karnataka). Similarly, regions or states high in autonomy are poor in empowerment, e.g., north east India and Bihar.	Dimension of empowerment

3 BENAZIR INCOME SUPPORT PROGRAM: AN INTERVENTION FOR POVERTY ALLEVIATION AND FEMALE EMPOWERMENT

Pakistan is home to a large number of poor people who are prone to many vulnerabilities, risks and shocks. The country regularly faces threats of disease, unemployment, natural and man-made disasters like periodic floods, earthquakes and huge population displacements due to terrorism and security concerns. Pakistan is a low income country that spends less than 3% of its GDP on protecting the poor segments of its population⁵. The country's score on the Social Protection Index (SPI) is 0.047; lower than the South Asian average of 0.061.

During the global economic crisis 2008-2010, when rising prices of food and fuel combined with financial crisis led to economic turmoil, the poverty in Pakistan became more pronounced. During these difficult economic times, countries with effective safety net programs were able to respond to such crises and mitigate the adverse effects on their already vulnerable segments of population effectively. The South Asian experience differs with the adoption and scaling up of safety nets, and experimenting with a broad range of interventions, including in-kind transfer programs, subsidies, agriculture support programs, employment guarantees and large scale public works schemes. However, these expenditures are often not well targeted, with a lot of duplication, weak program design, lax implementation, and limited accountability mechanisms.

In 2008, the Government of Pakistan launched the Benazir Income Support Program (BISP) as its core social safety net initiative to limit the negative effects of the food crisis and inflation on the poor. A main reason behind launching this new program was the recognition by the government that existing social protection programs in Pakistan were not adequate to serve as effective coping mechanisms in the face of rising exposures. The short-term objective of the BISP was to cushion the adverse impact on the poor of food, fuel, and financial crises, but its current broader objective is to meet the redistributive goals of the country by providing a

⁵ Social Protection Index: Assessing Results for Asia and Pacific', ADB:
<http://www.adb.org/publications/social-protection-index-assessing-results-asia-and-pacific>

minimum income support package through women recipients to the chronic poor and to those who are highly vulnerable to future shocks. While establishing BISP, the effort was focused on creating a modern, well-managed, large-scale, efficiently-targeted cash transfer program to reach the poor. This flagship operation has successfully scaled up to its current coverage of almost 5 million families (Figure 3.1), representing about 18 percent of the population.

BISP serves as an important experience in South Asia that has addressed many of the administrative and implementation constraints and shortcomings cited in the regional experience with safety nets, and has best practice examples for other countries with similar economic environments.

3.1 Nuts and bolts of BISP

From its introduction in July 2008 through to June 2013, BISP has grown rapidly; it is now the largest single poverty-alleviation program in Pakistan's history. The beneficiaries were identified through a poverty scorecard survey based on household demographics, assets, and other measurable characteristics that, in principle, cannot be manipulated by beneficiaries and the survey firms. The Nationwide Poverty Scorecard Survey, the first of its kind in South Asia, enables BISP to identify eligible households through the application of a Proxy Means Test (PMT) that determines the welfare status of the household on a scale between 0 and 100. The targeting mechanism, although not problem-free, tries to avoid the conceptual and empirical

Box 3:1 BISP At-a-glance

Target beneficiaries:	Families of ever-married women. Initially designated by members of parliament, subsequently selected based on a poverty proxy means test score equal to or less than 16.17.
Payment amount:	Initially Rs. 1,000 per month, raised to Rs. 1,500 in 2015
Payment frequency:	Payments made quarterly
Delivery mechanism:	A variety of mechanisms are used for the delivery of payments to beneficiaries, but around 80% of beneficiaries receive their transfers through debit cards.
Program coverage:	4.7 million by 2013/14.
Funding sources:	Government budget accounts for 85 percent of funding 2008/2009 – 2013/2014. Donors include USAID, World Bank. DFID, ADB.

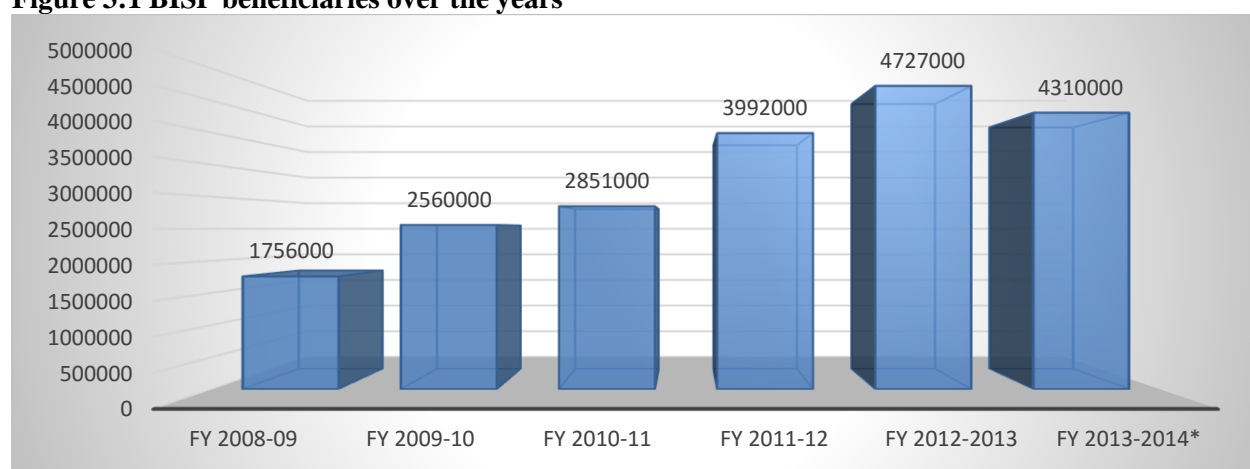
Source: BISP (www.bisp.gov.pk)

difficulties associated with measuring income. The survey was started in October 2010 and has now been completed across Pakistan with following features:

- i. 7.2 million families are identified as living below the cut-off score of 16.17.⁶
- ii. Creation of a large and reliable national registry of socio-economic status of almost 27 million households across Pakistan.
- iii. GPS coordinates of all the households visited are available to map the data of the entire country to inform decision-making (for example, as a response to natural disasters and other emergencies).

BISP witnessed a rapid learning experience in the few years since its initiation. Best practices from around the world were customized to the Pakistani environment to develop a modern and efficient social protection program. The innovations included a) switching from community based targeting to a scientific PMT based targeting; b) developing one of the largest socio-economic databases of poor households; c) introducing automated payment generation; d) providing cash transfers through innovative technology; e) establishing an automated case management system with interface up to the Tehsil level; and f) utilizing third-party evaluations of processes and the program in order to assess its efficiency and to improve the quality of its services.

Figure 3:1 BISP beneficiaries over the years



Source: BISP *(through end of 2013).

3.1.1 BISP targeting system

Cash transfer programs depend on effective targeting systems to give credibility and to justify public expenditures to taxpayers, as well as to ensure that resources are efficiently spent. One of the key challenges to such a large-scale safety net was how to efficiently and correctly identify eligible households and register them with BISP. This was most important given the

⁶ Cut-off score of 16.7 is not representing a poverty line. This cut-off was decided on the basis of available fiscal space.

history of manipulation in delivering public programs and weak targeting performance in Pakistan. The key design issues in the creation of the BISP targeting system included:

- i. ***Limited existing data on households.*** The last Census was carried out in 1998 and there had been significant population changes. Poverty measurements were subject to methodological debates and changes over the years. So there were demographic and poverty data limitations in developing an objective targeting system at the outset of BISP.
- ii. ***Defining the target group.*** Other safety-net programs, in particular Bait-ul-Mal and Zakat, identified categories of vulnerable groups; for example, the disabled, elderly, widows, orphans. BISP as a social safety-net mechanism in the face of economic shocks targeted a broader universe of affected households.
- iii. ***Avoiding leakages to the non-poor.*** The institution of general price subsidies was expensive because it tended to benefit the poor and non-poor alike. It was important to minimize the cost of leakages to justify replacing existing social safety-net programs with one holistic program like BISP.
- iv. ***Fairness and transparency in the selection of beneficiaries.*** Political patronage and lack of transparency had plagued other programs aimed at helping the poor. A more robust and publically credible system for selecting beneficiaries was a key priority.

Keeping the above points in focus, BISP's targeting system evolved over time. During the first phase (2008-2011), a "parliamentary" targeting system was used. BISP application forms were distributed to members of national and provincial parliaments with the mandate to identify needy households using a predetermined quota (8,000 forms were given to each member of the National Assembly and 4,000 forms to each member of the Provincial Assembly). The parliamentary targeting came with guidance on categorical features of eligible households, like the elderly, disabled, widows etc., as well as specific exclusion criteria that could be cross-checked with NADRA's database, for example if a person had a passport, or was receiving a state pension, was a government employee, etc. A total of 4.4 million forms were distributed and screened by NADRA. Half were accepted and half rejected, leaving about 2.2 million eligible households.

The parliamentary targeting system had two main drawbacks. First, it produced credibility problems with the program. The general public and opposition parties perceived BISP as politically motivated because of the role of the parliamentarians in beneficiary selection. Donor

agencies were reticent about supporting the program. And second, the targeting outcomes were less than optimal. An analysis of BISP beneficiaries using the 2010 Pakistan Household Survey found that the categorical criteria were not always followed. For example, 16 percent of BISP households possessed more than three acres of land, despite this being an exclusionary criterion.⁷

Given the limitations with the parliamentary targeting system, it was decided that BISP would move to a proxy means-test system. This took a substantial investment in generating household-level poverty information. A nation-wide Poverty Scorecard Targeting Survey was launched in mid-2011 in all districts of the country and took one year to complete. Twenty-seven million households were surveyed, covering an estimated 98 percent of all households in Pakistan. Excluded households were largely from insecure areas (three agencies of FATA), wealthy households who did not feel the survey applied to them, and missed households who, for example, were displaced by floods. This was a massive effort. Survey field work was contracted to four different organizations depending on capacity and regional presence, with 25,000 surveyors deployed. In addition to a household questionnaire, GPS coordinates were taken of every household.

BISP contracted a spot-check analysis of the scorecard process. Any shortcomings in the collection or processing of data could result in errors with identification of beneficiaries. The spot-check, covering over 67,000 households, confirmed that data collection methods were robust and accurate within permissible limits.⁸ Spot-checks found the accuracy of the poverty scorecard surveys to be 95 percent.

A proxy means-test score was developed using the data in the Poverty Scorecard (see Box 3.2). On a scale of 0–100, the poverty line was 28 on the PMT measure. A cut-off of 16.17 was determined based on the general targeting objectives of the program and available resources.

⁷ Nayab and Farooq (2012).

⁸ Innovative Development Strategies (2013).

This line defined the poorest 20 percent of the country. About 7 million households are

Box 3:3 Developing a targeting Mechanism for BISP

Developing a proxy means-test requires a household survey that measures poverty via household consumption or income, and that includes a rich enough set of non-consumption or income variables from which a model can be developed that identifies which of these variables is correlated with poverty levels. These indicators become a “proxy” for poverty and can be more easily applied as an eligibility screen, particularly in contexts where gathering direct income data is not possible, not reliable, or too expensive.

The data used for this exercise was the Pakistan Living Standard Measurement Survey (PSLM), conducted by the Federal Bureau of Statistics in 2005-06. This nationally representative survey provided extensive information on household characteristics and was the source for estimating the national poverty line.

Poverty was measured using average household consumption. Variables that could predict poverty and were easily verifiable were chosen. Many of these are commonly-used poverty predictors like size of household, education levels and housing conditions. Since each individual variable is imperfect (excludes some poor and includes some non-poor), variables can be aggregated to get a more robust estimation.

After examining 99 different models, a final PMT model was selected. The regression results of the final model include a total of 23 variables that could be gathered in a poverty scorecard questionnaire of only 13 questions. The advantage of having the proxy means-test model developed prior to fielding the poverty score card was that having to collect 13 indicators significantly reduced the cost and complexity of the data gathering exercise. Using this PMT model, NADRA then calculated the score for all households surveyed. The score was then prepared by converting the regression coefficients in the final model to certain points so that predicted values of household expenditure are expressed as numbers between 0 and 100. One of the advantages of using this scale is that eligibility cut-offs can be established and adjusted easily and transparently depending on resource availability or program goals.

currently eligible for BISP support. The use of the proxy means-test targeting was adopted in early 2010 with a pilot in 15 districts. The Poverty Scorecard PMT was rolled out nationwide at the beginning of 2011, and the previous system was completely phased out by the summer of 2011. This helped address an inherent limitation with PMT mechanisms, namely that they are proxies and so contain a certain level of errors of inclusion (non-poor classified as poor) and exclusion (poor classified as non-poor). The poverty scorecard also allowed for automatic enrolment in the program. The names and contact information for all households were available through the scorecard. Beneficiaries were contacted, made aware of their eligibility for benefits and were advised the payment would be sent through Pakistan Post, or alternatively enrollees could use phone transfers or debit cards. This reduced the need for more administratively intensive enrolment mechanisms. In terms of implementation performance, targeting outcomes improved considerably in the shift from the parliamentary system to the proxy means test mechanism. A rapid assessment of targeting outcomes completed in 2009 under the Parliamentary system found that while the allocation of BISP benefits to households selected by parliamentarians was pro-poor, a sizable proportion of current beneficiaries were not poor.

Fifty-five percent of households were found to be in the bottom two quintiles.⁹ In comparison, a spot-check of the PSC suggests that at least 75 percent of beneficiaries fall into the two bottom quintiles (i.e. below the food poverty line) and the majority of the remaining 25 percent fall into the middle quintile. The Rapid Assessment also found that politically connected households which are currently receiving assistance from BISP would be significantly less likely to qualify based on the proxy means test.

3.2 Impact evaluation of BISP

Rigorous evaluations are built into the design of BISP. There is a dedicated unit of Monitoring and Evaluation that provides invaluable insight into the incentive structure and processes of an intervention, and as such, form an essential part of the policy design. To obtain a more rounded and balanced perspective of the program, particularly in the case of impact evaluations, both quantitative and qualitative analyses are performed. The former provides evidence on variables amenable to measurement and systematic statistical analysis; the latter provides evidence of attitudes, perceptions, and impacts derived from interviews, focus groups, and other methods of analysis. BISP, through a third party, undertook a baseline study as a first step of a detailed impact assessment.

The baseline provides data against which the impact of BISP, through follow-up surveys focusing on key impact areas (presented in table 3.1), including poverty and consumption expenditure, women's empowerment and the uptake of education and health services would be measured. The results from the baseline restate that the potential beneficiaries of BISP have larger family size with high dependency ratios and with low educational attainment, and suffer from more illnesses than the rest of the population. Children are more malnourished in potentially eligible households than in potentially non-eligible households. Overall, findings of the baseline are broadly in line with the available national data. Moreover, the baseline provides details on indicators related to household consumption, major shocks, coping mechanisms, and the use of financial services etc. The scope, sampling and data collection approach of the baseline study are part of a comprehensive medium-term impact evaluation plan. The same set of households was resurveyed in during March-June 2013 using similar survey tools. Design of the evaluation methodology, data collection, and panel nature of the data on control and treatment households before and after the program, provides a novel opportunity to study the

⁹ Hou (2009).

impacts of BISP on its designated outcomes. Additionally, a huge amount of money has been invested in this extensive evaluation exercise, therefore it is increasingly important to use these data to make credible inferences about the impacts of the program on its beneficiaries versus non beneficiaries.

Table 3:1 BISP intended impacts

Area of impact	Hypothesis	Quantitative indicators included in baseline survey
Poverty	BISP program will reduce the rate of poverty amongst beneficiary households	Proportion of beneficiary households below the poverty line
Female empowerment	BISP will empower women	Percentage of women working, and working outside home Women's participation in choices relating to household, both relating to short- and long-term decisions, and mobility.
Consumption expenditure	BISP program will reduce poverty in beneficiary households	Per adult equivalent consumption expenditure Per adult equivalent food consumption expenditure
Child nutrition	BISP will improve child nutrition outcomes	Anthropometric measurements of children aged 0–59 months
Uptake of health services and awareness of health issues	BISP program will improve health outcomes	Incidence of illness Health-seeking behaviour of the sick
Uptake of education services	BISP program will improve access to education services and education outcomes	Primary enrolment rate Primary attendance rate
Child labour	BISP will reduce child labour	Percentage of children engaged in child labour

Source: BISP Baseline Report, 2011 (www.bisp.gov.pk)

Table 3:2 Definition of empowerment and agency

Empowerment	Agency	Domains of agency and indicators
<p>Alsop and Heinsohn (2005) defines empowerment as a group or individual's capacity to make choices and transform those choices into actions and outcomes</p>	<p>Sen (1985) defines agency as what a person is free to do and achieve in pursuit of whatever goals or values he or she regards as important (p. 203). In his view, it constitutes a process freedom (Sen 1999).</p>	<p>Agency is inherently multidimensional: it can be exercised in different dimension, spheres and levels. Malhotra et al. (2002) states "women's empowerment needs to occur along the following dimensions: economic, socio-cultural, familial/interpersonal, legal, political, and psychological".</p>
<p>Alkire (2007) states that empowerment is an increase in certain kind of agency that are deemed particularly instrumental to the situation at hand. Thus accepting what Sen had said about empowerment.</p>	<p>Agency is considered to be an important end in itself; indeed, this understanding is pivotal to Sen's capability approach: "agency freedom is freedom to achieve whatever the person, as a responsible agent decides he or she should achieve" (Sen, 1985, p. 206).</p>	<p>Agency mostly been measured indirectly using proxies or observed behaviours</p> <p>A growing body of research argues that it should be measured directly.</p>
<p>Batliwala (1994) defines as "how much influence people have over external actions that matter to their welfare."</p>		<p>Various indicators include:</p> <ul style="list-style-type: none"> • control and access to resources • decision-making • economic security • mobility • knowledge and awareness of various social issues • freedom from violence • education • employment • age
<p>Bennett (2002) states that Empowerment is used to characterize approaches based on social mobilizations and entails helping poor and socially excluded individuals realize the power they gain from collective action.</p>		
<p>According to (Kabeer, 1999) the expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them" is empowerment</p>		

3.2.1 BISP's impact on female empowerment: Conceptual framework

Despite the intention and often clearly stated objectives of the cash transfer programs for women's empowerment, there is limited empirical evidence on these programs' actual impact on making women empowered. There is almost no evidence of women's empowerment from unconditional cash transfers programs.

As mentioned earlier, one of the largest unconditional cash transfer program BISP was launched in 2008 in Pakistan as its main social safety net initiative. The program provides monthly unconditional cash transfer of Rs. 1500 (approximately 18 AUD) to the woman of the house (who is or was ever married)¹⁰ and states the empowerment of women as one of its key objectives.

It is reiterated often that the concept of empowerment is multidimensional, intrinsically linked to socio-cultural and religious norms, and cannot be separated from the economic fabric of society. Empowerment as a notion is hard to measure. The conceptual framework to estimate BISP's impact on female empowerment is developed by following the inherent concept of *agency* as defined by Amartya Sen, and the way Kabeer uses agency to conceptualize the process of empowerment. Kabeer (1999, 2001, 2008, 2012) uses the concept of agency to operationalize the notion of empowerment specifically in relation to gender.

A rich body of academic research (as reviewed in Chapter 2) has used these concepts to define and measure agency as a means to women's empowerment in ways that practically allow comparisons among individuals (various definitions of empowerment, agency and their domains are listed in Table 3.2). We further make use of the premise that agency is exercised in many domains of life, and that ability to exercise agency in one sphere does not necessarily mean having agency in other spheres, so multidimensional measurement of empowerment is required to understand the impacts of various interventions.

¹⁰ Currently married, divorced or widowed.

Figure 3:2 Conceptual Framework

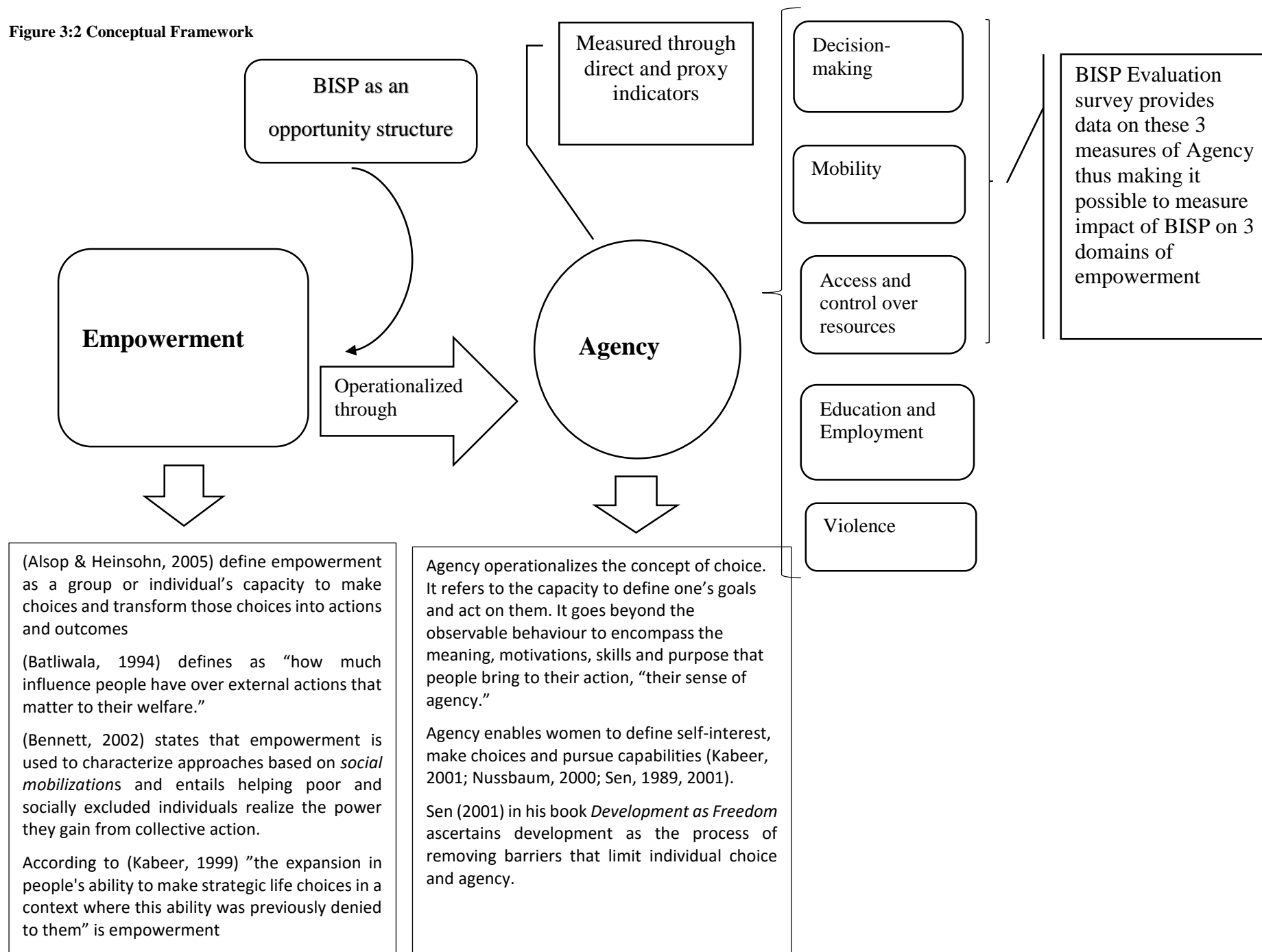


Table 3:3 Domains of Female Empowerment

Domains of Female Empowerment	
Domains	Measures
Access & Control over resources	<p>Apart from your usual household activities, are you engaged in paid employment (in cash or in kind)?</p> <p>Do you do this work at home or away from home?</p> <p>Who makes the decision about use of money that you earn?</p> <p>In the LAST 1 YEAR have you PERSONALLY borrowed any money?</p>
Decision Making	<p>Have another child</p> <p>Children's education</p> <p>Children's marriage plans</p> <p>Use of family planning methods</p> <p>Visit to friends</p> <p>Minor household purchases such as food or other daily items</p> <p>What kind of job you will do (or tasks, if you don't work away from home)</p> <p>Lending or borrowing</p> <p>Small Investment (setting up a small business, buying some livestock)</p> <p>If you/ a child has a serious health problem, what to do about it (e.g. Consult with someone: doctor, nurse, pharmacist, Lady Health Worker, traditional healer, hakeem, etc.)</p> <p>Whether you can participate in a group outside of your home (list examples)</p> <p>Vote in elections</p>
Mobility	<p>a. To the local market to buy things</p> <p>b. To a local health facility or doctor</p> <p>c. To homes of friends in the neighbourhood</p> <p>d. To a nearby shrine or mosque</p>

Source: BISP Baseline Report, 2011 (www.bisp.gov.pk)

Using these interlinking concepts, the conceptual design underpinning this measure of BISP's impact on the empowerment of its beneficiaries is shown in Figure 3.2. The graphic representation interlinks BISP as an opportunity structure with the empowerment, through agency and its various domains, enabling us to quantitatively measure a complex latent variable like empowerment. In theory, BISP is expected to enhance women's agency because

- a) it provides the cash transfer to the women of the house thus giving women access to resources;
- b) it positions the female beneficiary at the centre of the program; enhancing her visibility and mobility, and gives her an identity through enabling her access to a National Identity Card;
- c) BISP allows the female beneficiary access to formal financial intermediaries through providing her a bank account with a debit card, and gives access to information technology by providing her the facility of mobile banking;
- d) it gives her recognition and a sense of empowerment not only for financial needs, but also bestows confidence and the opportunity to express her views at meetings and community mobilization campaigns; and
- e) the program provides each female beneficiary a BISP card with her name on it and the promise of a regular income stream enabling her to contribute in improving her family's welfare.

These theoretical impacts of BISP on the empowerment of women beneficiaries are quantified using agency through its three domains namely, access and control over resources, decision-making and mobility (indicators under each of these domains are listed in Table 3.3).

4 METHODOLOGY

The objective of this study is to assess the impact of Benazir Income Support Program (BISP) – Pakistan’s National Cash Transfer Program on outcomes related to the empowerment of the female recipients, who are the poorest women of Pakistan. Identification of a recipient “family” depends on the selection of a female member of the household, and therefore gender issues are central to the operations of BISP.

Women’s roles and responsibilities, along with their social interactions and mobility-related issues, are rooted deep in socio-religious institutions. Pakistani society is highly patriarchal, and women’s perceived roles and responsibilities could pose constraints on effectively participating in the BISP and receiving money for their opted uses. Many Pakistani women are subject to social restrictions (including purdah which restricts mobility outside of a woman’s home) as well as are heavily involved in household activities and agricultural labour. There are other possible barriers to the effective participation of women beneficiaries, for example, poor women in Pakistan have very little interface or experience with the banking system and have high illiteracy rates.

Since most of the cash transfer programs in the developing world designate women as the main recipients of the transfer, and empirical evidence also suggests that women with control over resources are more likely to spend the money on the food, health and education needs of the family (Agarwal, 1994; Duflo, 2003). Despite these limitations and constraints on women’s participation in the economic sphere, along with restrictions on mobility, BISP selected millions of the poorest women of Pakistan as its beneficiaries. By targeting the BISP cash transfer directly to female recipients, there is the potential for offsetting gender imbalances by increasing the bargaining power of women within the household and improving the intra-household allocation of resources for household welfare. However, a dramatic shift in women’s empowerment in the short-run is unlikely, given that women’s perceived status is heavily dependent on the prevailing religious practices and socio-cultural norms and attitudes. However, with time and consistent provision of cash into the hands of women in, there the real probability of a change in perceptions of women’s status within the household.

To evaluate the impact of program participation on domains of female empowerment, we make use of the data collected through the BISP evaluation survey comprising two rounds of baseline and follow-up. Since female empowerment is a concept with many dimensions and is a latent variable, we therefore use agency and its observable domains as proxies for empowerment. We define the following three dimensions based on the literature reviewed in Chapters 1 and 2, as representative of the expansion of women's empowerment and agency, including

- i. economic participation and control over resources, named as economic empowerment;
- ii. participation in critical decision-making for improvement in their life outcomes at the household level, denoted as decision-making; and
- iii. expansion in mobility.

These three domains of female empowerment represent a comprehensive picture of women's status in their socio-economic and family lives. Therefore, any causal impact of participation in a cash transfer program on the designated indicators of these domains can expand domestic, social and economic empowerment of women.

4.1 BISP impact evaluation

Impact evaluations are considered crucial parts of cash transfer programs, and are needed essentially to measure changes in household wellbeing due to the implementation of the programs (Barrientos, 2012; Khandker, Koolwal, & Samad, 2010). Moreover, it is also critical for BISP to document results, otherwise it would lose political and international support and financial justification for spending billions in public monies.

BISP decided to carry out a detailed impact evaluation based on a baseline survey and three rounds of follow-up surveys of the sampled treatment and control households. The evaluation was designed to capture seven direct impacts of BISP, identified after a careful review of the design and implementation structure of the program. BISP contracted the impact evaluation surveys to a renowned international third-party firm to increase the transparency and credibility of results. This was also the first instance of a third party impact evaluation being contracted out for a major government program in Pakistan.

4.1.1 Evaluation design, sample and sampling methodology

There were some important methodological issues in designing the impact evaluation. For example, a number of contextual elements influenced the sampling strategy when designing

the baseline survey. One of the most important issues was to design and conduct the baseline before national roll out of the program and before any payments had been made to BISP beneficiaries. To clarify the contextual ambiguities, it is important to reiterate here that BISP was initiated in the second half of 2008 as a cushion for the poor households affected by the Global Financial Crisis. Initially the selection of program districts was mostly political and the targeting of program recipients was based on a rudimentary criterion. Before the program was rolled out nationally in 2011, it was decided to select beneficiary households by way of a scientific and well-regarded procedure of proxy means-testing of each household through a poverty census (see Chapter 3 for a more detailed discussion).

This selection process was based on a detailed household listing conducted in the evaluation communities following the sampling plan of Pakistan Social and Living Standard Measurement Survey (PSLM) across Pakistan by the survey firm as a first step of the BISP impact evaluation exercise. In this household listing stage the BISP poverty scorecard was applied to all households in the evaluation communities to select a sample with a poverty score as close as possible to their actual BISP poverty score (as determined by the BISP poverty census and recorded in the BISP MIS), and assign them to treatment and control groups.

This sample selection approach was on the one hand necessary to deliver a pure baseline in order to determine the pre-program characteristics of the treatment and control communities, but on the other hand had the inevitable implication that the household listing exercise would not accurately reproduce a household with the actual BISP poverty score. The sample households have since then been matched to the BISP MIS through their Computerised National Identity Card (CNIC) to identify their actual poverty score and their status as determined by the BISP poverty census.

At the time of the implementation of the baseline survey, the BISP poverty census was also in process. The ideal sample selection of the treatment and control households for the evaluation aspect of the program would have come from the completed poverty census. But the scope and implementation of the poverty census was very large, and without a very coherent time schedule due to the deteriorating security environment in various parts of the country along with the massive floods of 2010 that led to the displacement of large proportions of the population in Punjab and Sindh provinces.

Due to the flood disaster, the urgency to provide cash transfers to eligible recipient households was compounded. Therefore, there was a chance that payments would begin in some districts before the poverty census had been completed in others, and also before the implementation of the baseline survey. This situation translated into finalization of an evaluation design where it was decided that households were to be identified separately as possible treatment and control households.

The BISP Evaluation survey was implemented in 488 PSUs in 90 districts of the four provinces: Punjab, Sindh, Khyber Pakhtunkhwa and Baluchistan. A sample of 8,675 households were randomly selected and interviewed at baseline (prior to the program roll-out), which was completed in July 2011. These households are panelled such that the same households are then interviewed on an annual basis, with the first follow-up round completed in July 2013. The final sample sizes for the baseline survey (conducted March-July, 2011) and for the first follow-up survey (conducted March-July, 2013) are provided in Table 4.1.

Table 4.1: Final sample size

Province	Final sample size for evaluation				Total
	Punjab	Sindh	Khyber Pakhtunkhwa	Baluchistan	
Baseline sample	3162	2334	2054	1125	8675
Control group	1706	1078	1097	636	4517
Treatment group	1456	1256	957	489	4158
Follow-up sample size	3017	2327	1908	969	8221
Control group	2252	1177	1145	753	5337
Treatment group	755	1150	763	216	2884
Total sample matched to BISP MIS	2065	1868	1540	524	5997
BISP MIS matched control group	1373	764	809	348	3204
BISP MIS matched treatment group	692	1104	731	176	2703

Source: BISP Impact Evaluation Surveys 2011-2013

The sampling strategy draws from the full distribution of treatment households (i.e. those under the poverty cut-off score of 16.17), along with potential control households with poverty scores slightly above the program cut-off score, thus allowing one to use the baseline to build an accurate and representative picture of what an eligible household looks like. The final survey household interviews were conducted in 488 Primary Sampling Units (PSUs) with the final

sample of completed interviews including, on average, 19 households per rural cluster and 15 households per urban cluster. The sample provides estimates for all households in four provinces covered by the evaluation, and within the PMT score range of the households collected by the BISP baseline survey. The samples do not represent any larger population.

4.1.2 The Questionnaires

The BISP evaluation questionnaires were almost the same in both the baseline survey in 2011 and the follow-up in 2013, apart from a module on BISP's operational performance that was administered in the follow-up survey only. The BISP evaluations consisted of the following four questionnaires:

- i. Male questionnaire
- ii. Female questionnaire
- iii. Women's decision-making and empowerment
- iv. Community questionnaire

4.1.2.1 Male and female questionnaires

The male and female questionnaires are parts of a complete household questionnaire that were administered respectively to the male head of the house and the female of every household in the sample. These two questionnaires are very detailed and provide information starting from household roster, to detailed data on education, health, employment, training, and consumption-related indicators. These questionnaires provide further baseline and follow-up values for the majority of the key impact indicators, including: child labour, asset ownership and financial transfers, shocks, dietary diversity, child anthropometry, etc.

4.1.2.2 Women decision-making and empowerment questionnaire

An independent questionnaire was administered to the ever married female of the house, in both the baseline and follow-up surveys. This questionnaire provides detailed information on the second impact area of BISP, i.e. women's empowerment. Most of the data used in the analysis for this study is generated through this questionnaire. The questionnaire is presented later as ***Appendix A***.

4.1.3 Data collection procedure

Before the data collection began, detailed module-wise training was imparted to the survey teams, and a full field pilot was conducted before the end of the training. After the data

collection started, stringent measures of field monitoring were administered to ensure the quality of the data collected.

Data entry was conducted concurrently with the fieldwork so that any anomalies could be checked while the survey teams were still in the relevant areas. The questionnaires were checked and rechecked by a team of data editors, directed by a data analyst. To ensure a high quality database, the data were entered twice (double data entry), and every questionnaire was entered by two different data entry clerks. Inconsistencies between the two datasets were checked by referring to the completed paper questionnaire.

4.1.4 Limitations of BISP evaluation surveys

A number of problems were experienced during the fieldwork. Principally the law and order situation in Pakistan made fieldwork challenging, especially in Baluchistan and Khyber Pakhtunkhwa, despite ensuring that fieldworkers were residents of the provinces in which they were working. However, the law and order situation did prevent fieldwork in some clusters. The availability of male respondents at home was also raised as a concern, with enumerators often having to return to the same household multiple times in a day to catch a male respondent who would otherwise be out of the household working.

4.2 Measuring the impact of BISP on Female Empowerment

Measuring impacts of any public programs and interventions is of critical importance broadly for two reasons. First, it helps the policy makers decide what works and what does not, and thus assists them to choose among competing interventions; and secondly, it justifies the spending of public monies and provides an accountability mechanism. Moreover, most impact evaluations are based on a well thought-out theory about change based on that particular intervention, and therefore can be used to rationalize the intended impacts as well as how much the measured changes in the outcome of interest are caused by a program or a policy intervention. Several approaches are used to evaluate program impacts. These approaches can be quantitative or qualitative, ex ante or ex post. Quantitative alternatives of impact evaluation include randomized evaluations, propensity score matching, double-differences methods, instrumental variables, and regression discontinuity methods (Khandker et al., 2010).

BISP provides an unconditional cash transfer regularly to the woman of the household (approximately 5 million households in 2014) with the main objectives of reducing poverty and increasing the women's empowerment – a very complex and multi-faceted outcome of

interest. This study treats empowerment variables measured through a set of observed variables

Box 4:1 Some terms in evaluation

Treatment: In the context of social policy, a program or policy intervention seeks to alter the wellbeing of intended beneficiaries

Control: According to (Holland, 1986) where cause is defined as a manipulation or treatment that brings about a change in the variable of interest, when compared to a baseline, is called the control.

Baseline: The survey or data collected prior to a policy intervention, also called pre-program.

Follow-up: the survey or data collection after the implementation of the policy intervention, also called post-program.

or indicators through BISP evaluation surveys. The idea is that the unobserved latent variable *female empowerment* can be explained through different domains, and under those domains, through a number of measurable indicators. We model this concept using three dimensions namely, economic empowerment, decision-making and mobility, and use a set of observable indicators under each dimension (see Chapter 3 for details).

In the following section, the evaluation approach used to estimate impact of BISP on measures of female empowerment is explained (some basic terms of evaluation are explained in Box 4.1).

4.2.1 Evaluation problem

The key challenge of an impact evaluation is in inferring what would have happened to the beneficiaries if the program had not existed. Further elaboration on this challenge is presented below in the language of evaluation, which is borrowed heavily from medical research.

Let us assume that a treatment d_i can be defined with two possible values 0 and 1, where 0 signifies a state of non-treatment and 1 denotes the treated state, and y_i is the potential outcome of interest with two values; where y_0 is the outcome for the untreated state and y_1 for the treated state. Now the causal inference of the treatment on the recipients of the treatment can be made by the following equation:

$$ATE = E[y_1 - y_0] \quad \text{Equation 4.1}$$

The expected change in y (outcome of interest) due to treatment is the Average Treatment Effect (ATE) of the program, or the causal impact of the program, and this is what we

particularly want to estimate for this research study. But the critical problem with this measurement is that ATE is unobservable since the same unit (individual, household, community etc.) cannot be observed in both states of treatment. One can only observe a unit either with the treatment or without the treatment at one point of time. Therefore, finding an appropriate counterfactual is the main challenge of an impact evaluation. The classical solution to a counterfactual problem as prescribed by the literature is the experimental design, and for BISP this could have been randomly selecting beneficiaries of the program and randomly dividing the sample into two groups: treatment and control, where control households would only receive the benefits of the program after completion of the follow-up impact evaluation survey. In this scenario the average treatment effect of the program on the treatment group can be measured just by taking the difference in the average outcome of the treatment group and control group over time. This can also be explained using following regression model:

$$y_{it} = \alpha_0 + \alpha_1 t_i + \alpha_2 d_i + \beta_1 d_i t_i + \varepsilon_{it} \quad \text{Equation 4.2}$$

Where, y_i is the outcome of interest for individual i , observed in two time periods denoted as t_i with two values 0, 1 for a pre-program (baseline) and post-program (follow-up) periods respectively. d_i is the dummy for treatment indicating 0 for those who do not receive the program (control), and 1 for those who do receive the program (treatment), where β_1 is the coefficient for difference-in-differences and ε_{it} is the disturbance term. In this setting, the key identifying assumption is;

$$E[\varepsilon_{it}|d_{it}] = 0 \quad \text{Equation 4.3}$$

Put simply, this means that the conditional mean of the error term does not depend on the value of the treatment variable (dummy) d_{it} . In other words, the treatment is uncorrelated or independent of all the characteristics of the participants and non-participants, and we can simply take the difference between the average outcome of the treatment group and the control group pre- and post-program. If this conditional mean assumption explained in Equation 4.3 holds, then an unbiased estimator of average treatment effect can be obtained;

$$\widehat{\beta}_{dd} = \overline{y_{11}} - \overline{y_{10}} - (\overline{y_{01}} - \overline{y_{00}}) \quad \text{Equation 4.4}$$

Where subscript $\widehat{\beta}_{dd}$ is the difference-in-differences coefficient and estimates the causal impact of the program on the treated households. $\overline{y_{11}}$ and $\overline{y_{10}}$ are the sample averages of the outcome for the treatment group before and after the program, respectively, and $\overline{y_{01}}$ and $\overline{y_{00}}$

are the corresponding sample averages of the outcome for the control group before and after the program.

To implement this gold standard impact evaluation technique for BISP, it is important to not only randomly assign households at the time of the baseline survey to treatment and control groups, but also to restrict cash benefits to a sample of eligible households being treated as control for a considerably long period of time. Randomization for BISP on this pure experimental approach was not possible due to the ethical issues of withholding cash from a segment of households who were equally poor. Therefore, the ethical cost and political concerns for justifying a pure experimental design for BISP were huge.

To sort out this problem in evaluation design, a quasi-experimental approach was adopted and the counterfactual or control group is defined on the basis of the BISP poverty cut-off score¹¹. The poverty cut-off score implies that households below a certain poverty threshold will be eligible to receive cash transfers from BISP, and that this poverty score for each household in the country is calculated on the basis of a poverty census. Therefore, it was argued that households slightly above the cut-off are not very different from the ones that are slightly below the cut-off.

This evaluation design does not enforce a random assignment of households between the treatment and control groups, but assignment in a treatment group is conditioned on a certain level of poverty score. Hence, assignment is not totally random in the case of the BISP evaluation sample meaning that the conditional mean independence assumption does not hold in this situation, implying a violation of the condition stated in equation 4.3.

Nevertheless, the empirical literature provides methods to estimate ATE even when there is non-random assignment to treatment and control groups. One common approach is to make the case for assuming unconfoundedness, or of conditional endogeneity of program placement, which is a weaker version of an unconfoundedness assumption. This can be achieved by using matching techniques like propensity score matching (PSM) or a difference-in-differences estimator. PSM attempts to mimic randomization to provide an observational equivalent of a randomized experiment. In PSM, one tries to develop a counterfactual or control group that is as similar to the treatment group in terms of observable characteristics as possible. The idea is to find, from a large group of those who are not receiving the program (control group),

¹¹ A detailed description of the BISP poverty cut-off score is provided in Chapter 3.

households with similar observable characteristics to those of the participants (treatment group). Each participant is then matched with a similar non-participant, and the average difference in outcomes across these two groups is compared to get the average treatment effect. The success of PSM in estimating unbiased treatment effects is based on this strong assumption that differences in participation are based solely on differences in observed characteristics and there are no unobserved differences across these groups. This assumption is very difficult to prove in this evaluation problem, as female empowerment is a latent variable that may be influenced by a number of unobserved characteristics including norms, perceptions, social and family networking, and a lot more. Hence, it is almost impossible to observe all these characteristics and mimic randomization using PSM.

The difference-in-differences estimator, on the other hand, provides the average treatment effects of the program by comparing data on the outcomes of interest observed before and after the start of the program in both treatment and control groups. In this way, one can estimate the correct impact of the program as this method not only eliminates biases that could be due to permanent differences between control and treatment groups (unobserved characteristics), but also eliminates time-related biases from comparisons over time (Cameron & Trivedi, 2009).

Since this study is attempting to measure the impact of BISP on female empowerment, which is essentially a latent variable, and many of the variables that might be argued to affect female empowerment (e.g. religious and cultural factors, networks of family and friends, degree of contact with people from other areas of Pakistan and the world, different norms in different provinces etc.) are unobserved but unlikely to change much between the two surveys. In this scenario, the difference-in-differences estimator provides an easy solution for avoiding endogeneity problems that may arise because we are comparing heterogeneous individuals in treatment and control groups. This feature of the difference-in-differences estimator makes it a better estimator when compared to PSM, as in case of PSM, bias in estimation arising from unobservable differences is hard to rule out. Whereas, difference-in-differences estimations offer an alternative to reaching unconfoundedness by controlling for unobserved characteristics and combining them with observed or complementary information. Thus making it the estimator of choice for measuring the impact on the empowerment of BISP female beneficiaries.

In light of the arguments presented above, we use the difference-in-differences estimator to measure the average treatment effect of BISP on households that receive BISP compared to

control households. To apply difference-in-differences for BISP evaluation, panel data on both control and treatment groups is required. The treatment in this case is BISP; it affects the treatment group by providing cash to women beneficiaries, but does not affect the control group (households with poverty score above 16.17), as they do not receive cash transfers. Using the panel data comprising baseline and follow-up observations on the same households, we take a double difference. First we take the difference across time but within group. This eliminates any group-specific unobserved but time-fixed effects, meaning any unobserved and hard to change variables that may affect female empowerment between the two surveys. In the second step, we take the difference of the differences. This will eliminate any time trends in the results based on the assumption that the time trend will be the same in both control and treatment groups.

Using y_i as the outcome of interest for individual i , d is a dummy variable for treatment, with values 0 and 1 denoting control and treatment state respectively, and t with values 0 and 1 denotes time periods, where 0 is for baseline (pre-program) and 1 denotes follow-up or (post program). β_{DD} is the double difference estimator that can be estimated as

$$\beta_{DD} = [E(y_i|d = 1, t = 1) - E(y_i|d = 1, t = 0)] - [E(y_i|d = 0, t = 1) - E(y_i|d = 0, t = 0)] \quad \text{Equation 4.5}$$

Using the notations and set-up explained above, the regression equation for difference-in-differences can be written as

$$y_{it} = \alpha_0 + \alpha_1 t_i + \alpha_2 d_i + \beta_1 d_i t_i + \varepsilon_{it} \quad \text{Equation 4.6}$$

where the outcome y has subscripts i and t , indicating the outcome for each individual i , in time period 0 (baseline) and 1 (follow-up). The key intuition behind this difference-in-differences is that in Equation 4.6, coefficient α_1 summarizes the time influenced differences between the treatment group and the control group, and time-invariant differences in overall means between these groups is captured by α_2 where, β_1 is the coefficient on the interaction variable for being in the treatment group and in follow-up. Whereas, β_1 coefficient is the same as β_{DD} in Equation 4.5. To prove this, we can simply take the expectations of Equation 4.6 and calculate the difference

$$E(y_i|d = 1, t = 1) = \alpha_0 + \alpha_1 + \alpha_2 + \beta_1$$

$$E(y_i|d = 1, t = 0) = \alpha_0 + \alpha_2$$

$$E(y_i|d = 0, t = 1) = \alpha_0 + \alpha_1$$

$$E(y_i|d = 0, t = 0) = \alpha_0$$

Substituting these values in Equation 4.5

$$\beta_{DD} = [(\alpha_0 + \alpha_1 + \alpha_2 + \beta_1) - (\alpha_0 + \alpha_2)] - [(\alpha_0 + \alpha_1) - (\alpha_0)] \quad \text{Equation 4.7}$$

From equation 4.7, it can be easily inferred that the difference-in-differences estimator is equal to the coefficient of the interaction in Equation 4.6, and that the first difference eliminates the time invariant unobserved difference within treatment and control, and by taking the difference of the differences, eliminates the time trend between treated and non-treated (control) households.

Pioneering work on difference-in differences was done by Abadie (2005); Bertrand, Duflo, and Mullainathan (2002); Besley and Case (2000); Heckman, Smith, and Clements (1997); Breed D Meyer (1995), and the stated assumptions for unbiased difference-in-differences estimator besides zero mean that conditions include correct model specification, for example, the additive structure imposed is correct, and parallel-trend assumption, meaning that unobserved characteristics affecting program participation do not vary over time with treatment status. There is a very slim chance that parallel trend assumption violates this study as unobserved variables that effect the notion of female empowerment are developed over generations and are imbedded in socio-cultural norms and religious practices. These unobserved variables are very difficult to change in the two years between the baseline and follow-up surveys. This may only happen if an intensive campaign focusing on various aspects of female empowerment is run only in areas where control household are situated. Given that the treatment and control households for BISP are located in 90 districts across four provinces of Pakistan, chances for such interventions are negligible.

4.2.1.1 Some additional arguments on use of difference-in-differences estimator for BISP impacts

As explained above, the sampling design of BISP evaluation is quasi-experimental and does not fulfil the conditional mean assumption thus providing an impetus for using quantitative approaches that assume unconfoundedness (descriptive statistics of the evaluation sample is presented in Table 4.2). BISP's evaluation design and data can be used to validate that treatment and control groups are not very different and to provide sources of variation that

resemble an experimental design. This notion implies internal and external validity of research design. In order to ensure internal validity in the BISP evaluation sample, one needs to assess whether or not households in the treatment and the control groups are similar at the baseline on a wide range of household characteristics. This analysis is presented in Table 4.4, which shows a strong balance between the treatment and control samples and allows confidence in the internal validity of the evaluation.

Table 4:2 Descriptive statistics

Descriptive statistics evaluation sample			
Variable	Observations	Mean	Std. Dev.
Age Male head of the house	7,281	45.82008	12.78028
Age Female head of the house	7,688	40.86642	11.16165
Marital status	7,281	1.11839	.5002674
Household characteristics			
Household Size	8,221	7.280136	3.241343
Number of dependents in a household < 2	8,194	.1588968	.3656021
Number of dependents in a household < 4	8,194	.349402	.4768102
Number of dependents in a household < 6	8,194	.3179155	.4656949
Households with head's education equal to primary level	8,194	.2072248	.4053427
Households with head's education equal to secondary level	8,194	.1557237	.3626153
Households with female's education equal to primary level	7,232	.0797843	.2709777
Households with female's education equal to secondary level	7,232	.0359513	.1861817
Number of children between 5-16 going to school	8,194	.4030998	.4905504
Ratio of rooms per household member	8,194	.3515987	.4774986
Toilet (flush connected to a sewerage system)	8,194	.4863315	.4998436
Toilet (dry pit)	8,194	.1598731	.3665107
Household assets			
Cooking facility	8,194	.1941665	.3955818
motorcycle	8,194	.0678545	.2515115
Cattle ownership (Large)	8,194	.1674396	.3733907
Cattle ownership (Small)	8,194	.2658042	.4417875
Ownership of agriculture land	8,194	.1185013	.3232206

External validity implies that impacts found in in this empirical settings can be generalized to different individuals, situations, and outcomes of interest. To further analyse issues of external validity, Table 4.3 presents a comparison of all BISP beneficiaries in the evaluation sample

(8,221 households) to the population of BISP beneficiaries as per the BISP Management Information System (approximately 5 million households).

In terms of household composition, it can be inferred that overall the evaluation sample is similar to the population of BISP beneficiaries. The exception is the proportion of household heads with no education, where we find that the proportion of heads of the household in the evaluation sample of beneficiaries that have no education is less than in the population of beneficiaries according to the BISP MIS.

Correspondingly, when it comes to asset ownership by the household, the evaluation sample depicts higher ownership of the two consumer durables analysed. The rates of ownership of motorcycles and TVs seem to be low amongst the population of beneficiaries in the BISP MIS, suggesting some level of underreporting in the BISP MIS.

On the other hand, the evaluation sample portrays similar levels of ownership of cows and goats, but higher ownership of buffalo and lower ownership of sheep. It is difficult to make a solid inference on the basis of the information available, but the analysis suggests that the evaluation sample of the beneficiaries is slightly more educated and may have slightly higher levels of welfare proxied by their asset ownership.

Differences between the evaluation sample and the population of beneficiaries in the BISP MIS should also be expected given that the evaluation sample is drawn from four provinces, Punjab, Sindh, Khyber Pakhtunkhwa and Balochistan, whereas the population of beneficiaries in the BISP MIS also includes all other regions in Pakistan.

Moreover, it is important to create a close to actual, rational and practical control or comparison group for beneficiaries in order to evaluate the program impacts and to reduce selection bias. As (Breed D Meyer, 1995) suggests, the validity of the difference-in-differences estimator rests on comparability of the before and after groups. Gertler, Martinez, Premand, Rawlings, and Vermeersch (2011) argue that there are three conditions that any valid control group must satisfy:

1. treatment and control groups must share on average the same characteristics;
2. treatment and control groups should react to the program in the same way; and
3. treatment and control groups should not be differentially exposed to other interventions during the period of the evaluation.

The design of the BISP evaluation sample and survey ensures that the control group satisfies the above-listed conditions. Table 4.3 presents that the on average treatment and control groups have the same observable characteristics. A slight difference in poverty score also ensures that the control group would react similarly to the program if selected, and that no other intervention would be initiated during the evaluation period since BISP is now the key social safety-net program in Pakistan. Lastly, the evaluation data provides baseline and follow-up observations for the same households. Thus, the difference-in-differences estimator exploits the panelled nature of the data and proves a useful approach to helping to remove a potential source of bias that may exist from unobserved differences between the treatment and control groups.

In addition, use of the difference-in-differences method is very widespread when it comes to program evaluations due to its simplicity and effectiveness. For example, Hoddinott and Skoufias (2004); Maluccio and Flores (2005), Schultz (2004), S. Gitter and Barham (2006); S. R. Gitter and Barham (2008), Attanasio and Mesnard (2006), Chaudhury and Parajuli (2010); Glewwe and Olinto (2004), and Skoufias and Di Maro (2008) have used difference-in-differences in estimating the impact of a number of cash transfer program on a variety of outcomes.

4.2.2 Estimation methodology

As the objective of the present research is to evaluate the impact of BISP (treatment) on an outcome of interest that is essentially different measures of female empowerment denoted as (y) over a population of females with the potential to receive BISP (households with poverty score 0 to 25)¹². The difference-in-differences estimation is performed using both parametric (e.g. regression) and non-parametric specifications (e.g. matching). The issue with parametric estimation is that assumptions can be restrictive and difficult to model, whereas non-parametric methods such as matching methods can significantly reduce the precision of the estimates. We estimate the program impacts using parametric specifications.

Based on the poverty cut-off score, the sample is distributed in two groups indexed by treatment status. We can then estimate the causal impact of treatment, that is, receiving the BISP transfer, on an outcome of interest y_i by taking the difference in the mean outcome for the treatment and control observations before and after the program as the households are observed in two time periods: $t = 0, 1$ where 0 indicates a time period before the treatment group receives treatment,

¹² The methodology underlying calculation of poverty score is detailed in Chapter 3.

i.e. baseline, and 1 indicates a time period after the treatment group receives treatment, i.e. follow-up. Every individual is denoted by letter i where $i = 1, \dots, N$ and have two observations each, one for the baseline year and one for follow-up. The purpose of this evaluation methodology is to find a correct estimate of $\beta_1, \widehat{\beta_1}$ given that the data available is for BISP recipients and non-recipients. The difference-in-differences estimate for impact of BISP on three dimensions of female empowerment in a parametric setting is estimated using the regression equation specified in Equation 4.8,

$$y_{it} = \alpha_0 + \alpha_1 t_i + \alpha_2 d_i + \beta_1 d_i t_i + \varepsilon_{it} \quad \text{Equation 4.8}$$

In addition, a vector of households' characteristics, X_{it} can also be included as an additional vector of explanatory variables. Bruce D Meyer (1989) argues that using equations with controls for household characteristics may also improve the efficiency of the estimate of β_1 by reducing the residual variance. The controls are linearly introduced in Equation 4.8 (e.g; Abadie, 2005; Imbens & Wooldridge, 2007). Moreover, controls for variables that may also be effected by treatment should not be included, otherwise β_1 will be inconsistent. The controls for the education status of the head of the household, female of the house, number of dependents, number of children going to school, room-to-person ratio, cooking facility and ownership of small cattle are included. In total, twenty equations were estimated for outcomes indicating the three dimensions of female empowerment including: women's economic empowerment, decision-making and mobility dynamics with and without adding controls using Ordinary Least Squares (OLS). Corresponding to OLS, all equations were also estimated using Stata's diff command.

To control not only for the unobserved time-invariant heterogeneity but also for differences in observed characteristics between the treatment and control groups over a two-period setting, we also estimate a *random-effects model*. We follow the simple case model suggested by Imbens and Wooldridge (2007) with two time periods and keeping notation as explained in the preceding paragraphs. The outcome variable for individual i can be estimated using a modified version of Equation 4.6. This specification is particularly important as the updated model will control not only for the unobserved time-invariant heterogeneity, but also for heterogeneity in observed characteristics between control and treatment groups. More specifically, the outcome variable for household i can be estimated using Equation 4.9,

$$y_{it} = \alpha_0 + \alpha_1 t_i + \beta_1 d_{it} + c_i + \varepsilon_{it} \quad \text{Equation 4.9}$$

where ci is observed effect that may be correlated with both the treatment and other unobserved characteristics ε_{it} , where ε_{it} are the errors. The coefficient β_1 on the treatment dummy d_{it} is the treatment effect.

$$(y_{i1} - y_{i0}) = \alpha_0 + \beta(d_{i1} - d_{i0}) - (\varepsilon_{i1} - \varepsilon_{i0}) \quad \text{Equation 4.10}$$

$$\Delta y_i = \alpha_0 + \beta_1 \Delta d_i + \Delta \varepsilon_i \quad \text{Equation 4.11}$$

With two time periods, β_1 is equivalent to the difference-in-differences estimate in Equation 4.8. In this case, the observed individual characteristics ci is dropped from differencing, OLS can be applied to Equation 4.11 to estimate the unbiased effect of the program ($\widehat{\beta}_1$). Abadie (2005) suggests that using a sample with repeated pre-treatment and post-treatment observations of the outcome variable is estimable by least squares regression of Equation 4.11. S. Gitter and Barham (2006) also suggest that OLS has the advantage of providing coefficients of interest, $\widehat{\beta}_1$ in Equations 4.8 and 4.11 respectively, those that directly measure program impacts. Both types of models are estimated using OLS. Estimating treatment effects is difficult when using qualitative variable methods because of the interaction terms. The imposition of linearity offers a very reasonable representation of the effects and also improves efficiency compared with matching.

This same estimate for difference-in-differences can be derived by introducing observable covariates X_{it} , where X_{it} is assumed to be uncorrelated with ε_{it} . Because the coefficients on X_{it} change with t , this formulation of the difference-in-differences model allows the use of covariates to represent heterogeneity in outcome dynamics, thus the effect of the treatment can be defined in terms of potential outcomes.

4.2.3 Some caveats and limitations

Despite the simplicity of the difference-in-differences approach, there are also some limitations. One of the most important drawbacks is the implausibility of fulfilling the underlying assumptions of the estimator. Efficiency of the estimator is maximum if evaluation design is randomized. There is a price for using a quasi-experimental approach as the estimator may have some inconsistencies, but with social welfare programs, especially in developing countries like Pakistan, it's hard to achieve a planned randomized design.

One valid argument might be to use an approach such as Regression Discontinuity Design (RDD) instead of the difference-in-difference estimator as it yields an unbiased estimate of

treatment effects at the discontinuity (cut-off score). But some reasons for not using RDD are (a) that it measures local average treatment effects that are not always generalizable on population; (b) the effect is estimated at the cut-off, so mostly, less observations exist than in a randomized experiment with the same sample size; (c) the specification is sensitive to functional form, including nonlinear relationships and interactions difficult to comprehend; and (d) it does not use baseline information.

Table 4:3 Comparison of BISP sample with MIS

	Beneficiaries in BISP MIS	Average of all beneficiaries in evaluation sample	Difference
Household composition			
Average household size	7.43	7.47	0.04
Average number of dependents aged 18 - 65 inclusive	4.45	4.65	0.21
Average number of children aged 5-16 per household	3.57	3.38	-0.19
Proportion of households where household head has no education	73.93	69.71	-4.22***
Assets owned by the household			
Motorcycle	0.62	4.12	3.50***
TV	9.44	25.49	16.05***
Buffalo	8.76	16.64	7.88***
Cow	16.48	17.48	1.01
Sheep	4.28	2.43	-1.85***
Goat	22.80	24.72	1.92
Housing characteristics			
Proportion of households with a dry or dry raised latrine	27.40	15.60	-11.80***

Source:
BISP

impact evaluation surveys (2011-2013), BISP MIS.

Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%, ** = 95%, * = 90%.

Table 4:4 Equality of means

Equality of means at baseline			
Number of observations	4315	2653	
Variables	Control (Mean)	Treatment (Mean)	Pr (T > t)
Household size	7.098	7.104	0.2126
Number of dependents in a household < 4	0.348	0.352	0.6776
Number of dependents in a household < 6	0.324	0.308	0.1313
Households with head's education equal to primary level	0.204	0.213	0.3096
Households with head's education equal secondary level	0.161	0.147	0.0959*
Households with female 's education equal to primary level	0.077	0.085	0.1790
Households with female's education equal to secondary level	0.005	0.006	0.3745
Number of children between ages 5 and 16 going to school	0.406	0.397	0.4052
Ratio of rooms per household member	0.355	0.346	0.4445
Cooking stove/facility	0.197	0.189	0.3642
Ownership of cattle (small)	0.273	0.253	0.0586*
Ownership of agriculture land	0.116	0.123	0.3350

Notes: *** p<0.01; ** p<0.05; * p<0.1

5 RESULTS AND DISCUSSION

BISP explicitly attempts to empower women to take control of their lives and improve empowerment outcomes through placing them at the centre of the program as the recipients of the cash transfer. This chapter presents empirical findings regarding the effects of BISP cash transfers on the measures of female empowerment using a difference-in-differences estimator as explained in Chapter 4.

Following the theoretical framework explained in Chapter 3, *agency* is the crux of empowerment, but due to the complex nature of agency, resources, and achievements, and as Kabeer (1999) description suggests, it is difficult to interpret the indicators of *agency per se*. As there are certain context-specific domains and constraints to agency or, in simpler words, to choice, which include poverty, socio-cultural norms and access to services, that impact one's choice or ability to make a decision. Steered by a review of the literature pertaining to concepts of empowerment, agency and decision making, I begin this chapter by identifying the three domains of agency that BISP evaluation survey variables may inform (Table 5.1).

A number of criteria are followed for selecting suitable indicators. First, we need to maximize BISP evaluation coverage and number of observations. Second, domains are selected that are substantial in shaping women's ability to pursue goals that are of value to them. And lastly, within each domain, indicators are chosen that reflect the use of agency, which may lead to empowerment, not mere requirements. The domains selected are:

1. Access to and control over resources is a depiction of economic empowerment, with indicators including (i) participation in economic activity; (ii) place of employment; whether the woman is doing paid work at home or outside home; (iii) control over financial resources – that indicates the control women have over the use of the money she earns; and (iv) borrowing ability – depicting whether the female of the house can generate some financial resources in a time of need.

2. Decision-making consists of questions on whether women themselves were involved in decisions on various issues within the households, and measures 12 indicators of decision-making – whether a woman can participate in making decision on (i) have another child; (ii) children’s education; (iii) children’s marriage plans; (iv) use of family planning method; (v) visits to friends; (vi) minor household purchases; (vii) kind of job a woman is allowed to do; (viii) lending or borrowing money; (ix) small investment; (x) health care consultations; (xi) participation in a group; and (xii) vote in an election.
3. Mobility takes into account whether a woman of the house can visit following places alone, with someone, or not at all (i) local market; (ii) health facility, doctor; (iii) friends/relative in neighbourhood; and (iv) religious place.

Table 5.2 presents the summary statistics for the total sample at the baseline. The descriptive statistics for outcome variables at the baseline are presented in Table 5.3. The evaluation dataset for BISP provides a balance panel as some households were interviewed during baseline and follow-up rounds of the survey. The final dataset for the evaluation of the BISP unconditional cash transfer is comprises a total of 8,221 households with completed interviews for both male and female heads of the house. Of these 8,221 completed interviews, 374 were with households defined as split households¹³. An attrition rate of 9.5% was estimated, which is within tolerable international standards. After refining, the BISP evaluation survey gives a strongly balanced panel sample of 8,221 households.

We compare treatment and control groups for any significant differences in observable covariates, testing for the equality of means at the baseline and find that across the thirteen variables that are most pertinent for this study, there are no significant differences at baseline between the treatment and control groups, except in two characteristics indicating that the control sample has a slightly higher incidence of households with the head’s education equal to secondary level and ownership of small cattle (goat, sheep). The results are presented in Table 5.4. The fact that these variables look very similar across treatment and control also suggests that the evaluation design is successful in creating similar comparison groups. The household characteristics at the baseline depicts that the mean age of the head of the household is around 45 years in both control and treatment groups, whereas the women of the households

¹³ Split households are households that contain individuals who were members of BISP baseline evaluation households but who have since left that household for a variety of reasons, including marriage and breakdown of family relations.

in both groups are on average 40 years of age. All these women are married with average household size a little over 7 persons.

Table 5:1 Descriptive statistics (covariates)

Descriptive statistics (covariates) evaluation sample			
Variable	Observations	Mean	Std. Dev.
Treatment dummy	8,221	.3599319	.4800093
Age Male head of the House	7,281	45.82008	12.78028
Age Female head of the house	7,688	40.86642	11.16165
Marital status	7,281	1.11839	.5002674
Household characteristics			
Household Size	8,221	7.280136	3.241343
Number of dependents in a household < 2	8,194	.1588968	.3656021
Number of dependents in a household < 4	8,194	.349402	.4768102
Number of dependents in a household < 6	8,194	.3179155	.4656949
Households with head's education equal to primary level	8,194	.2072248	.4053427
Households with head's education equal secondary level	8,194	.1557237	.3626153
Households with female's education equal to primary level	7,232	.0797843	.2709777
Households with female's education equal secondary level	7,232	.0359513	.1861817
Number of children between 5-16 going to school	8,194	.4030998	.4905504
Ratio of rooms per household member	8,194	.3515987	.4774986
Toilet (flush connected to a sewerage system)	8,194	.4863315	.4998436
Toilet (dry pit)	8,194	.1598731	.3665107
Household assets			
Cooking facility	8,194	.1941665	.3955818
Motorcycle	8,194	.0678545	.2515115
Cattle ownership (Large)	8,194	.1674396	.3733907
Cattle ownership (Small)	8,194	.2658042	.4417875
Ownership of agriculture land	8,194	.1185013	.3232206

Table 5:2 Domains of female empowerment

Domains	Measures
Access & Control over Resources	Apart from your usual household activities, are you engaged in paid employment (in cash or in kind)?
	Do you do this work at home or away from home?
	Who makes the decision about use of money that you earn?
	In the LAST 1 YEAR have you PERSONALLY borrowed any money?
Decision-Making	Have another child
	Children's education
	Children's marriage plans
	Use of family planning methods
	Visit to friends
	Minor household purchases such as food or other daily items
	What kind of job you will do (or tasks, if you don't work away from home)
	Lending or borrowing
	Small Investment (setting up a small business, buying some livestock)
	If you/ a child has a serious health problem, what to do about it (e.g. Consult with someone (doctor, nurse, pharmacist, Lady Health Worker, traditional healer, hakeem, etc.)
	Whether you can participate in a group outside of your home (list examples)
	Vote in elections
Mobility	a. To the local market to buy things
	b. To a local health facility or doctor
	c. To homes of friends in the neighbourhood
	d. To a nearby shrine or mosque

We turn now to the impacts of the program estimated using standard difference-in-differences specification as explained in detail in Chapter 4. To compare treatment and control groups, in the first regression specification of difference-in-differences, the effects of participation in BISP on the respondents' level of empowerment measured through three dimensions of *agency* as explained above, are estimated using the following equation

$$y_{it} = \alpha_0 + \alpha_1 t_i + \alpha_2 d_i + \beta_1 d_i t_i + \varepsilon_{it} \quad \text{Equation 5.1}$$

Then the variables to control for a number of household characteristics are added to examine the possibility that the effect on female empowerment can also be attributed to household characteristics. In theory, if the data are from a pure randomized experiment, then the coefficient for difference-in-differences β_1 is stated as the causal impact of participation in the program. However, our data are not from an experiment, in which case the estimate of β_1 can be biased upward or downward. So in the case of our quasi-experimental survey design, the differences between the time-varying observed variables need to be controlled for in the regression. Equation 5.2 can be estimated as a random effects regression, and the deviations in the disturbance terms are assumed to be stochastic, and thus, do not bias β_1 , where baseline and follow-up observation provides the variation over time.

$$\Delta y_i = \alpha_0 + \beta_1 \Delta d_i + \Delta \varepsilon_i \quad \text{Equation 5.2}$$

Four equations based on difference-in-differences (with and without controls) and random effect was estimated for each measure of female empowerment under three domains. The difference-in-differences estimates of average treatment effect does not change when controls for a number of household characteristics are added. The size of coefficients and significance remains almost the same with different model specifications. As argued, in the classical application of difference-in-differences estimation, adding controls do not significantly change the coefficients (see for example, Bruce D Meyer (1989); Breed D Meyer (1995)).

We analyse models for empowerment dimensions, in turn, but do not aggregate the results for the various indicators. Here, we believe that the interest lies in being able to look at the results across dimensions and not as aggregates. The BISP impacts on various measures of empowerment is essentially the average treatment effect of the program on those who receive the program.

Table 5:3 Descriptive statistics (outcome variables)

Variable	Outcome Variables				
	Observatio ns	Mean	Std. Dev.	Min	Max
1. Economic Resourcefulness					
a. Control over resources	1,686	.881376	.3234414	0	1
b. Participation in Economic Activity	8,091	.2164133	.4118247	0	1
c. Place of employment	1,738	.4355581	.4959726	0	1
d. Borrowing	8,093	1.655258	.4966732	0	1
2. Household Decision making					
a. Have another child	5,864	.0724761	.2592967	0	1
b. Children's education	7,369	.1173836	.3218987	0	1
c. Children's marriage plans	5,963	.10649	.3084896	0	1
d. Use of family planning methods	5,817	.1254942	.331307	0	1
e. Visit to friends	7,864	.1662004	.3722841	0	1
f. Minor household purchases such as food or other daily items	7,894	.2444895	.4298113	0	1
g. What kind of job you will do (or tasks, if you don't work away from home)	7,707	.5197872	.4996407	0	1
h. Lending or borrowing	7,857	.1349115	.3416508	0	1
i. Small Investment (setting up a small business, buying some livestock)	7,770	.0952381	.2935624	0	1
j. If you/ a child has a serious health problem, what to do about it (e.g. Consult with someone (doctor, nurse, pharmacist, Lady Health Worker, traditional healer, hakeem, etc.)	7,886	.2477809	.4317513	0	1
k. Whether you can participate in a group outside of your home (list examples)	7,034	.107478	.309742	0	1
l. Vote in elections	7,268	.1033297	.3044099	0	1
3. Mobility					
a. To the local market to buy things	7,496	.3221718	.4673396	0	1
b. To a local health facility or doctor	7,496	.350587	.4771856	0	1
c. To homes of friends in the neighbourhood	7,495	.4547031	.4979772	0	1
d. To a nearby shrine or mosque	7,493	.3017483	.4590473	0	1

Table 5:4 Equality of means

Number of Observations	4315	2653	
Variables	Control (mean)	Treatment (mean)	Pr (T > t)
Age of the head of the household	45.869	45.739	0.6748
Age of the Female of the household	40.823	40.754	0.7941
Household size	7.098	7.104	0.2126
Number of dependents in a household < 4	0.348	0.352	0.6776
Number of dependents in a household < 6	0.324	0.308	0.1313
Households with head's education equal to primary level	0.204	0.213	0.3096
Households with head's education equal secondary level	0.161	0.147	0.0959*
Households with female 's education equal to primary level	0.077	0.085	0.1790
Households with female's education equal to secondary level	0.005	0.006	0.3745
Number of children between 5-16 going to school	0.406	0.397	0.4052
Ratio of rooms per household member	0.355	0.346	0.4445
Cooking stove/facility	0.197	0.189	0.3642
Ownership of cattle (small)	0.273	0.253	0.0586*
Ownership of agriculture land	0.116	0.123	0.3350

Notes: *** p<0.01; ** p<0.05; * p<0.1

5.1 Impact of BISP on access and control over resources

Women's participation in paid work, and their control over their income and other economic resources is critical in terms of resources essentially required for women to exercise agency, and are key empowering agents for women. The impact of BISP on these measures of economic empowerment is estimated using a difference-in-differences estimator with and without controls for household characteristics. The results are presented in Table 5.5.

We find that BISP has a significant positive impact on female economic participation, where the outcome variable is defined as women's participation in income generating activities both cash and in kind. The impact remains robust across all model specifications, including difference-in-differences estimation with and without controls, and panel random effect regression.

There are two types of argument behind this strong positive effect of BISP on women's economic activity. One argument is that cash transfers are viewed as a tool to help women expand and initiate income-generating activities. This is also confirmed by other qualitative studies of BISP's impact on its female beneficiaries that indicate many examples where women have saved money to invest in livestock, initiated a food stall in local girls' school, stitching and similar small scale income-generation activities. BISP's significant positive impact on women's economic participation is in accordance with empirical investigations of similar cash transfer programs like Progresa in Mexico see for example, Gaarder, Glassman, and Todd (2010); Gertler, Martinez, and Rubio-Codina (2012).

A second class of arguments for explaining the impact of cash transfer program on participation in economic activity focuses on intra-household decision of labour allocation after receiving the program. For example, the notion that cash transfer reduces poverty significantly depends on how cash transfers affect adult work incentives. In BISP, once a household is selected as eligible for the program through proxy means-testing, the level of the benefit amount is not affected by the work decisions of the household members or the income level of the household. Thus, the main effect of cash transfer on the labour supply of household members may be a pure income effect, as explained by studies that investigate impacts of cash transfer and similar programs on labour participation decisions (see for example, Sahn and Alderman (1996); Skoufias and Di Maro (2008)). This argument predicts a positive impact of BISP on female

economic participation. Conversely, this income effect of the cash transfer may be weakened by the direct and indirect time costs associated with participation requirements of the program which are non in case of BISP. In addition, the proxy means testing required for registration with BISP may have potential negative effects on the incentives of both eligible and non-eligible households. On the one hand, individuals who are not eligible for the program's benefits may also have the incentive to work less or report a lower income hoping to become eligible for the program in future rounds of means testing based expansion of BISP. On the other hand, the likelihood of future means-test survey may also negatively impact on the labour supply and investment choices of currently eligible households.

The second indicator of female economic empowerment is place of work for the female of the house representing that if she works outside home than it is an indication of her economic empowerment and mobility. We found no significant impact of BISP on this indicator of economic empowerment. The survey response rate was also very low, when asked the female respondents about their place of work.

Similarly, we find no significant impact of BISP on control over resources. Where the outcome indicator asked the female if she makes the decision about use of money she earns. Control over income and savings reflect if women have control on these important economic outcomes.

In addition, in the follow-up evaluation survey, females were asked if they retain control over the BISP transfers that they receive. This indicator cannot be used for the difference-in-differences estimation as the baseline comparison is not available. But analysis of the data suggests that around 65 percent of female beneficiaries reported that they retain control over the transfers received from BISP with 22 percent reporting that the money is controlled by their husbands, in terms of how the transfer is spent. This result is robust regardless of whether the beneficiary actually collects the transfer herself or someone else collects it on her behalf.

The literature on similar aspects of women's empowerment in Pakistan finds that control over resources varies with level of education and wealth. Educated women and those in the higher wealth quintiles are more likely to mainly make decisions on using their cash earnings than women with no education and those in the lower wealth quintiles.

Table 5:5 Effect of BISP on access and control over resources**Effect of BISP on Access and Control over Resources**

	Model 1		Model 2		Model 3		Model 4	
	(OLS)		(DIFF model using Stata)		(Random effect)		(Diff with controls)	
	Coefficient	N	Coefficient	N	Coefficient	N	Coefficient	N
Economic participation	0.0608*** (0.0142)	14,772	0.0576*** (0.0156)	14,772	0.0563*** (0.0143)	14,772	0.0631*** (0.0145)	13,050
Place of employment	0.0321 (0.0369)	3,145	0.0251 (0.0356)	3,145	0.0334 (0.0700)	3,145	0.0299 (0.0387)	2,773
Control over resources	0.00411 (0.0237)	3,052	0.00389 (0.0224)	3,052	0.00350 (0.0491)	3,052	0.00446 (0.0289)	2,690
Money borrowed over last one year	-0.0231 (0.0181)	14,781	-0.0244 (0.0165)	14,781	-0.0269 (0.0193)	14,781	-0.0232 (0.0218)	13,058

Notes. Regressions are OLS models with robust standard errors clustered at the individual level. Following variables are included as controls in the regression analyses: Household Size, Number of dependents in a household < 6, Households with head's education equal secondary level, Households with female's education equal to secondary level, Number of children between 5-16 going to school Cooking stove/facility and Ownership of cattle (small). Parameter estimates statistically different than 0 at 99% (***), 95% (**), and 90% (*) confidence.

There are also regional variations in who makes decisions on how women's BISP transfers are used (Ahmad & Khan, 2016). The proportion of married women who mainly decide on the use of BISP transfer is highest in KPK (44 percent) and lowest in Balochistan (5 percent). More than half of married women in Balochistan who receive BISP transfers say that their husbands are the ones who mainly decide how their earnings are used.

The last indicator for economic empowerment is borrowing in the last one year by the woman of the house and reflects financial power regarding household ability to borrow from informal sources. The result shows a negative insignificant difference for the treatment households. The underlying argument for this result might be that due to a positive income effect of BISP, the household reduces the number of times they borrowed money from their relative, friend or neighbouring households as formal credit and insurance institutions are virtually absent for the poorest segments in Pakistan. According to perceived knowledge of informal credit and insurance markets in Pakistan, the amount borrowed is very small and is borrowed on a day-to-day basis. BISP is supposed to provide regular subsistence income to the poorest of the poor eligible households, and this may reduce the number of times a woman of the household borrows. A competing argument is that borrowing may have increased expectation of the transfer, or households may increase consumption by borrowing against their future transfers, which they know they will receive in the next payment cycle. In the follow-up survey, additional questions were asked to probe the borrowing ability of the woman of the house in emergencies. When asked if they would be able to get Rs. 100 in the case of an emergency, only 34 percent of women in the treatment group predicted that they would be able to generate this amount by borrowing. Clearly there is insufficient information available to study this specific aspect of economic empowerment of BISP communities. Future rounds of the evaluation survey with enhanced survey instruments to capture women's participation in economic activities will be able to provide a more plausible explanation for indicators on economic empowerment.

5.2 Impact of BISP on decision-making

The main outcome measures for BISP's impact on female empowerment is that of women's intra-household decision-making, which defines and measures women's *agency* in ways that allow empirical measurement and comparisons among the evaluation households.

Decision-making is modelled after questions from the BISP Evaluation Survey and has been utilized as a direct measure of women's empowerment. In both baseline and follow-up rounds of the BISP evaluation survey, women were asked about who in the household generally has the final say across 12 different domains (listed in Table 5.1) with possible answers: (i) respondent alone; (ii) husband/wife jointly; or (iii) other member in the household.

The most commonly reported method of constructing measures of decision-making is by denoting whether the respondent has sole control or joint control over a range of decisions or otherwise (see for example, Allendorf (2007); Jejeebhoy and Sathar (2001); Malhotra and Mather (1997); Samman and Santos (2009); Schuler and Hashemi (1994)). Following the procedure prescribed in the literature, we constructed a binary indicator for each decision-making domain that equals 1 if the female respondent alone or jointly makes the decision, and 0 otherwise.

A major advantage to these decision-making questions is that they allow us to discern whether the impacts of BISP are found only in certain areas of decision-making, in conformity with the literature on the impact of such programs on empowerment revisited in Chapter 2 of this thesis. However, several considerations remain in interpreting the responses. First, the responses are self-reported answers to subjective questions, and can be subject to misreporting. Nevertheless, even if there is a mean bias in the reporting, it is reasonable to interpret any mean differences in self-reporting as meaningful. Average treatment effect of BISP on 12 indicators in the decision-making domain is predicted using a difference-in-differences estimator without and with controlling for household characteristics and random-effects model. The results are presented in Table 5.6, and portray a mixed picture of female empowerment in this domain. Out of 12 decisions, BISP shows a strong significant impact on 3 decisions, including decision to have another child, use of family planning services, and vote in election.

Given that all of the women in the households surveyed are or were married, since BISP provides cash only to the ever-married female of the house, BISP has a strong positive impact on female participation in the decision to have another child. Since BISP transfers are per-household and not per household member, there is no direct cash incentive to add household members. In fact, adding to the family results in reduced average per-capita benefits for the household. Although this result does not clearly indicate that BISP will lead to reduced total fertility, they do suggest that such programs may have subtle impacts on household fertility

Table 5:6 Effect of BISP on household Decision-making

	Model 1		Model 2		Model 3		Model 4	
	(OLS)		(DIFF model using Stata)		(Random Effect)		(Diff with controls)	
	Coefficient	N	Coefficient	N	Coefficient	N	Coefficient	N
Decision 1	0.0246**	9,448	0.0249**	9,448	0.0408***	9,448	0.0264*	7,728
<i>Have another child</i>	(0.0119)		(0.0116)		(0.0157)		(0.0135)	
Decision 2	0.00611	11,915	0.0102	11,915	0.0159	11,915	0.0121	9,714
<i>Children's education</i>	(0.0124)		(0.0115)		(0.0143)		(0.0141)	
Decision 3	0.00231	9,613	0.00347	9,613	0.0124	9,613	0.00128	7,873
<i>Children's marriage plans</i>	(0.0136)		(0.0154)		(0.0172)		(0.0156)	
Decision 4	0.0473***	9,319	0.0437**	9,319	0.0235	9,319	0.0566***	7,595
<i>Use of family planning methods</i>	(0.0166)		(0.0184)		(0.0226)		(0.0154)	
Decision 5	0.0206	12,888	0.0152	12,888	0.0212	12,888	0.0150	10,491
<i>Visit to friends</i>	(0.0151)		(0.0159)		(0.0171)		(0.0154)	
Decision 6	0.0296*	12,845	0.0351*	12,845	0.0276	12,845	0.0339*	10,460
<i>Minor household purchases such as food or other daily items</i>	(0.0172)		(0.0186)		(0.0195)		(0.0181)	
Decision 7	0.00206	12,535	0.00217	12,535	0.0377*	12,535	0.0080	10,214
<i>What kind of job you will do</i>	(0.0189)		(0.0197)		(0.0210)		(0.0226)	
Decision 8	-0.00923	12,813	-0.00577	12,813	-0.0119	12,813	-0.00466	10,438
<i>Lending or borrowing</i>	(0.0143)		(0.0147)		(0.0164)		(0.0160)	
Decision 9	0.00460	12,610	0.00653	12,610	0.00339	12,610	0.00840	10,273
<i>Small Investment (setting up a small business, buying some livestock)</i>	(0.0117)		(0.0127)		(0.0138)		(0.0150)	
Decision 10	0.0108	12,891	0.0157	12,891	0.00709	12,891	0.053**	10,491
<i>Consultation for Sickness</i>	(0.0166)		(0.0164)		(0.0189)		(0.022)	
Decision 11	0.0139	11,872	0.0156	11,872	0.00516	11,872	0.0164	9,645
<i>Whether you can participate in a group outside of your home (list examples)</i>	(0.0122)		(0.0123)		(0.0145)		(0.0131)	
Decision 12	0.0439***	12,020	0.0461***	12,020	0.0425***	12,020	0.0529***	9,772
<i>Vote in elections</i>	(0.0131)		(0.0120)		(0.0158)		(0.0172)	

Notes. Regressions are OLS models with robust standard errors clustered at the individual level. Following variables are included as controls in the regression analyses: Household Size, Number of dependents in a household < 6, Households with head's education equal secondary level, Households with female's education equal to secondary level, Number of children between 5-16 going to school Cooking stove/facility and Ownership of cattle (small). Parameter estimates statistically different than 0 at 99% (***), 95% (**), and 90% (*) confidence.

decisions that are consistent with the accepted development goal of reducing fertility and population growth in Pakistan.

In addition, the decision to have another child in the Pakistani cultural context is a complex decision, where the sex of the other children, and specifically the number of male children, and number of living children have a strong influence Aslam, Zaheer, and Shafique (2015). It is also important to note that the norms of a large family continue to prevail – in BISP’s population reflection an average household size is over 7. As the evaluation survey does not probe further and the question is only about women’s participation in the decision regarding the birth of another child, therefore, I limit my argument to interpret this significant impact of BISP in terms of women’s role in deciding when to have a child and birth spacing.

This argument is strengthened given that BISP also has a strong impact on women’s participation in decision-making regarding use of contraceptives. BISP is a program that targets poor families by transferring cash to women, and this can have an indirect and unintended effect of increasing the time between births through its positive impact on contraceptive use. The underlying channel for use of contraception is that strengthening women by providing them cash in hand gives them more independence and more control over important decisions affecting them and their families, as well as contributing to their confidence and their ability to plan for their future.

BISP also has strong significant effect on women’s participation in decision to vote. This is an important indicator contributing to women’s voice and freedom domains of empowerment. One underlying contributor behind this strong effect of BISP on decision to vote is the fact that BISP requires its women beneficiaries to hold a valid Computerized National Identity Card (CNIC). Women beneficiaries can only receive cash transfers once they have a valid CNIC. Along with the poverty scorecard survey of BISP, a massive campaign was launched by the National Database Registration Authority (NADRA) across Pakistan, to facilitate women beneficiaries in acquiring CNICs so they can receive their transfers. This huge campaign assisted the poorest female beneficiaries not only to register for a CNIC at their doorsteps but also no fee was charged. According to BISP’s program data, around 10 million new CNICs were acquired by females across Pakistan, during this period. The timing of this massive campaign was before the baseline round of the BISP evaluation survey was conducted. Possession of a valid CNIC is also a key requirement to vote in the national, provincial and local bodies’ election. One major round of elections was held prior to the launch of the follow-

up round of the BISP evaluation in February, 2013. This strong impact of BISP on the decision to vote is likely, at least partly, to be driven by one of the requirements for becoming a BISP beneficiary – possession of a CNIC card. But, on the other hand, it may also be contributing towards the realization of an important right for women in Pakistan.

Some less significant impacts of BISP are also found for decision to make minor household purchases, kind of job and health consultations. But these results are not robust across different model specifications. Ability to exercise agency over household purchases is a critical aspect towards improvements in welfare of the household. BISP primary objective is to ensure a certain level of household consumption and to ensure this, BISP provides cash to the woman of the house assuming that channelling resources to women has concrete benefits. Even a less significant impact of BISP on women's participation on decision to make minor purchases is important for long term poverty reduction objectives of BISP. Similarly, the impacts on women's participation in decision regarding kind of Job and health consultations is also an important achievement of BISP towards women emancipation.

5.3 Impact of BISP on Mobility

Female mobility is very much restricted in Pakistan. Religion, traditions and family-imposed restrictions may prohibit women from leaving their homes or administer their movements in terms of travelling time, place and with whom they travel. There are also marked differences in social norms and acceptance towards mobility across provinces in Pakistan. But by giving cash to the women beneficiaries through debit cards and mobile phone banking, BISP gives women socially legitimate reasons to move about and to visit places like the local BISP Office, the Banks and the market place to receive transfers and to attend community mobilization meetings.

Being a BISP beneficiary provides women with visibility in the social and public sphere, they can enter places like banks, previously denied to them, expose them to new ideas, and help them to become more confident. In the words of a women beneficiary; *"I feel good and proud that now I am sharing in the household income and assisting my husband. He also respects me more"* (Women's beneficiary focus group. District Tharparkar, Sindh).

But the difference-in-differences estimate of BISP's impact on female mobility as presented in table 5.7 does not provide any significant impact except in one indicator. The women in the evaluation survey were asked whether or not they *could visit places alone*, including the local

market, health facility, friend's home or religious place. While many women are restrained from visiting these places alone, we found a statistically significant impact of BISP on the proportion of women who could visit a friend's home alone. This suggests that at least in some limited circumstances the BISP is promoting female mobility. However, there is no impact of receiving the BISP cash transfer on the ability to visit alone the local market or health facility, and a significant negative program impact for visiting religious places. This is not surprising given that it is unlikely for any single intervention to change dominant norms prevailing for generations, around female mobility, and gender roles significantly.

Visiting market place is particularly important due to its connection with collecting BISP transfers from a bank or local store through mobile transfers. There are implications for female empowerment if females are not collecting their transfers themselves. The treatment group manifests huge variations in these mobility indicators; for example, only 32 percent of women reported that they can go to market alone, whereas 56 percent are not allowed to leave their houses alone, and 11 percent have never visited the local market.

There are huge regional variations too; for example, 57 percent of women in the evaluation sample of Punjab reported that they can visit the market alone compared with only 25 percent in KPK, and 18 percent in Baluchistan. The regional variations in mobility also indicates issues of safety that often prevent women from travelling alone for even short distances. The security situation in KPK and Balochistan has deteriorated in the past decade in the wake of terrorism and civil conflict.

Using rich data on various measures of female empowerment from the BISP evaluation sample of 8,221 married women, the present study is, to the best of our knowledge, the first comprehensive, rigorous, and theoretically grounded analysis of female empowerment from BISP impacts. On the whole, we found only modest changes in female's access and control over resources, participation in decision-making and mobility among beneficiaries, mostly because of engrained gender norms in Pakistani society, where men are the head of the household and prime decision-maker.

Nevertheless, this analysis, in general, lends strong support to the arguments that female empowerment for BISP target communities is a multidimensional phenomenon.

Table 5:7 Effect of BISP on female mobility

	Model 1		Model 2		Model 3		Model 4	
	(OLS)		(DIFF model using Stata)		(Random Effect)		(DIFF with controls)	
	Coefficient	N	Coefficient	N	Coefficient	N	Coefficient	N
Mobility_1	0.0357	14,186	0.0323	14,186	0.0252	14,186	0.0367	11,394
To the local market to buy things	(0.0252)		(0.0274)		(0.0222)		(0.0327)	
Mobility_2	0.0323	14,188	0.0280	14,188	0.0269	14,188	0.0358	11,396
To a local health facility or doctor	(0.0256)		(0.0251)		(0.0236)		(0.0324)	
Mobility_3	0.0211*	14,187	0.0276*	14,187	0.0269*	14,187	0.0166	11,395
To homes of friends in the neighbourhood	(0.0164)		(0.0162)		(0.0160)		(0.0175)	
Mobility_4	-0.0463*	14,185	-0.0425*	14,185	-0.0432**	14,185	-0.0519**	11,393
To a nearby shrine or mosque	(0.0245)		(0.0223)		(0.0220)		(0.0202)	

Notes. Regressions are OLS models with robust standard errors clustered at the individual level. Following variables are included as controls in the regression analyses: Household Size, Number of dependents in a household < 6, Households with head's education equal secondary level, Households with female's education equal to secondary level, Number of children between 5-16 going to school Cooking stove/facility and Ownership of cattle (small). Parameter estimates statistically different than 0 at 99% (***), 95% (**), and 90% (*) confidence.

This three dimensions-based analysis captured five indicators reflecting female empowerment, mainly participation in economic activity; decisions regarding having another child; use of contraceptives; vote in elections; and freedom of movement in visiting a friend's home in the neighbourhood. Each of these indicators responds to a theoretically grounded explanation of the empowerment process, and results are very much in line with emerging recent research on this issue (see for example, Bonilla et al. (2016); De Brauw et al. (2014); Hanmer and Klugman (2016); Molyneux and Thomson (2011)).

On the other hand, these findings potentially raise some questions. Although the results show that BISP has a moderate impact on female empowerment measured through three different domains of *agency*, including; access and control over resources, decision-making and mobility. There might be concerns on indicator selections; for example, for decision-making domains to consider female participation in joint decisions as a meaningful voice is critical as the result changes once sole decision-making is considered by the female beneficiaries of BISP. Similarly, the mixed findings on the impacts of BISP on decision-making indicators reflect the possibility that transfers could have disproportionate effects on various aspects of decision making; however, it is less clear which particular circumstances underlie such differences, e.g. in urban versus rural settings.

Taken together, the results suggest that substantial room exists for further research on how empowerment is understood and how social programs like BISP can effect empowerment measured using evaluation surveys in diverse contexts, including interrogation of its relationship with other direct and indirect measures for empowerment, with an important role for qualitative work.

6 CONCLUSION

We have attempted a quantitative study to estimate the impact of the Government of Pakistan's National Cash Transfer Program "BISP" on empowerment of its female beneficiaries measured through *agency* and its domains, including; access and control over resources, decision-making, and mobility over a three-year period, using a difference-in-differences estimator.

We found that the recipient women in beneficiary households are making more sole and joint decisions (three out of twelve indicators registered positive, robust significant impact) and are more economically active, though we were unable to find significant impacts of the program on women's mobility. On the whole, only modest changes in female's access and control over resources, participation in decision-making and mobility among beneficiaries were estimated, mostly because of deep-seated gender norms in Pakistani society that manifest as men being the head of household and prime decision-maker on almost all decisions, not only for themselves but also for their wives and children. However, the BISP transfer did increase overall wellbeing for women, who indicated they were more empowered and retained control over the BISP funds to use for household consumption.

As the conceptual frame work based on literature suggests that changes in assets or the opportunity structure for women are likely to affect their degrees of empowerment, therefore, it is important not only to understand the effect of BISP as an opportunity structure, but it is also important to research the fundamental reasons and dynamics that shape various level of female empowerment. Therefore, this study and its findings are important for a variety of audiences including government, policy makers, researchers and people who design and implement this new genre of poverty-alleviation programs. This study not only fills the gap by providing quantitative estimates of an unconditional cash transfer program's impacts on direct measures of empowerment rarely studied before, but also indicates that the factors that shape and influence women's perceived role and attitude towards their contribution in economic activities, decision within a household and freedom of movement are perennial, therefore, it is less likely that a single intervention like BISP will drastically change the empowerment of its female beneficiaries, even over the medium term, with small amounts of cash transfers.

It can be concluded that programs like BISP do provide positive impacts on female empowerment but are unable to transform gender norms, at least in the medium term. It is also essential to note that these impacts are estimated for a program with no additional pre-conditions, such as visits to local health centres or other participatory requirements aiming directly to improve empowerment. Despite that, BISP places women at centre of its operations but by design it's a poverty-alleviation program, and intervention directly addressing empowerment other than cash incentives are lacking, thus it is possible that more time and further rounds of surveys of evaluation households are required to identify effects on this complex and potentially slow-paced outcome such as female empowerment.

Nevertheless, there is clear evidence that BISP has the potential to assist women by addressing their needs and enhancing their capacity for economic, social and personal development. But in order to fully capitalize on this opportunity, it is important for BISP and similar interventions to mainstream in their designs features that help women improve their status. For example, regarding BISP, a critical aspect of the program is that in order to obtain the cash transfer, women must hold a computerized national identity card. However, poor households, specifically those in remote areas of the country with no birth registration processes, lack official evidence needed to acquire a national identity document thus restricting them from availing themselves of much needed program benefits. Although, BISP provides assistance to obtain such documentation, which is an important contribution to women's inclusion and citizenship, and supports their access to rights. But this condition also excludes some women and children, especially those living in more distant communities from gaining access to these benefits. The requirement of BISP that women receive their transfers from Banks themselves, usually far from home in nearby towns, implies increased freedom of movement on the one hand, but adds to obligation with significant time and money costs on the other. Therefore, more gender sensitive design features are required to not only reduce poverty, but to also help governments advance their goals of achieving greater gender equality.

Lastly, a number of potential response biases may be important in the measurement and analysis of empowerment indicators, for example, in the decision-making indicators, asking women for their opinion regarding their decision-making should also measure responses in the absence of the male head of the house. If the response changes or the women recognize that in such an instance of a difference of opinion, women's choices are considered lesser than men's, the validity of this measurement approach of decision-making is jeopardized. In addition, in

the context of Pakistani society, not only the male head of the house, but other members of the household, including the mother-in-law, also share in the decision-making process. Thus these diverse household structures may play a critical role in terms of decision-making by the women of the house.

Moving forward, much more research is needed on this important topic, building on the contributions and insights in this study and emerging research. A mixed-method approach focusing on both quantitative and qualitative aspects of this particularly complex issue of empowerment is required. There is also a need to look beyond interventions and research into channels and pathways, that how these interventions in presence of inherent gender norms and social influences, may play a role in shaping women's agency and empowerment.

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APPENDIX A - WOMENS' QUESTIONNAIRE

FOLLOW UP HOUSEHOLD SURVEY 2013

	Province	District	Locality	PSU	Household Number	Dynamics Code	House In
Name			1 = Urban 2 = Rural			0 = Same Household 1 = 1st Split 2 = 2nd Split 6 = New Household	0 = Same Dwelling 1 = Other Dwelling
Code							

NAME OF THE HEAD OF THE HOUSEHOLD _____

ADDRESS _____

1= Beneficiary

2 = Control

☐

MODULE-I (Female) WOMEN DECISION MAKING AND EMPOWERMENT

ALL EVER MARRIED WOMEN

Write the name of woman and her IDCODE from the roster a) Name of respondent: _____ b) IDCODE: [_ _]		Respondent CNIC No: <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td>--</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>--</td><td></td> </tr> </table>						--									--		Code
					--									--					
BISP No: <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td> </tr> </table>																			
IQ01	Apart from your usual household activities, are you engaged in paid employment (in cash or in kind)?	1=Yes in cash 2=Yes in kind 3=In cash and in kind both 4=No → IQ06a	[_ _]																
IQ02	Do you do this work at home or away from home?	1=At home 2=Away	[_ _]																
IQ03	How much did you earn in cash from this employment last month?	Write the value in Rupees DK 9998 NA 8888	[_ _]																
IQ04	Who makes decision over spending the earnings from your emplyment?	1=Primarily respondent 2=Primarily husband 3=Husband and respondent jointly 7=Other person	[_ _]																

IQ05	How much of your earnings did you keep to spend yourself in the last month?	Write the amount in Rupees Don't Know = 9998	[_ _]
IQ06	Do you PERSONALLY own any land? (I.e. you personally control the land and make decisions over its use)	a) 1 = Yes 2 = No → IQ07a	[_ _]
		b) What is the total value of land you PERSONALLY own? (Rs) Don't know = 98	[_ _]
Q07	Do you PERSONALLY own any gold, silver, and precious metals including jewellery, stones etc?	a) 1 = Yes 2 = No → IQ08a	[_ _]
		b) What is the total value of any gold, silver and precious metals including jewellery, stones etc. that you PERSONALLY own? (Rs)Dont know = 98	[_ _]

IQ08	In the LAST 1 YEAR have you PERSONALLY borrowed any money?	a) 1 = Yes ➔ IQ08 c 2 = No	[_ _]
		b) Why have you not PERSONALLY borrowed any money in the LAST 1 YEAR? 01 = No need 02 = I do not make decisions about borrowing money 03 = Believed would be refused 04 = Too expensive 05 = Don't like to be in debt 06 = Not eligible	[_ _]
		c) What was the TOTAL value of all money you PERSONALLY borrowed in the LAST 1 YEAR? (Rs.)	[_ _]

IQ09	<p>If you needed to could you PERSONALLY gain access to the following amounts of</p> <p>money quickly, for example in an emergency?</p> <p>1 = Yes, 2 = No</p>		<p>a)</p> <p>Rs.</p> <p>50</p>	<p>b) Rs.</p> <p>100</p>	<p>c) Rs.</p> <p>200</p>	<p>d) Rs.</p> <p>400</p>	<p>e) Rs. 600</p>	<p>f) Rs.</p> <p>800</p>	<p>g)</p> <p>Rs.</p> <p>1,000</p>
<p>Q10</p> <p>i) Who is the main person that makes decisions about the following (who has the final say)?</p> <p>Interviewer: If a current household member write ROSTER ID CODE</p> <p>Interviewer: If NOT a household member, use relationship codes (e) to the respondent from code book NA = 88</p> <p>Line no.</p>			<p>1=</p> <p>Yes</p> <p>2=</p> <p>No</p> <p>></p> <p>Q.10</p> <p>[_ _]</p>	<p>1=</p> <p>Yes</p> <p>2=</p> <p>No</p> <p>></p> <p>Q.10</p> <p>[_ _]</p>	<p>1=</p> <p>Yes</p> <p>2= No</p> <p>></p> <p>Q.10</p> <p>[_ _]</p>	<p>1= Yes</p> <p>2= No</p> <p>></p> <p>Q.10</p> <p>[_ _]</p>	<p>1= Yes</p> <p>2= No</p> <p>></p> <p>Q.10</p> <p>[_ _]</p>	<p>1= Yes</p> <p>2= No</p> <p>></p> <p>Q.10</p> <p>[_ _]</p>	<p>1= Yes</p> <p>2= No</p> <p>></p> <p>Q.10</p> <p>[_ _]</p>
a.	Have		Relation with respondent						

b.	Children's			
c.	Children's			
d.	Use of			
e.	Visit to			
f.	Minor			
g.	What kind			
h.	Lending or			
i.	Small			
j.	If you/ a			
k.	Whether			
l.	Vote in			
IQ12	Are you usually permitted to go to the following places on your own, only if someone accompanies you or not at all?	Alone	Not alone	Never
a.	To the local market	1	2	3
b.	To a local health	1	2	3
c.	To homes of	1	2	3
d.	To a nearby shrine	1	2	3

IQ14	When there is a local bodies / provincial/ national assembly election do you vote always, sometimes or never?	1=Always votes2=Sometimes votes3=Never votes 4=Too young to vote	[_ _]
IQ15	Do you currently possess a Computerized National Identity Card (CNIC)?	1 = Yes ➔IQ19 2 = No	[_ _]
IQ16	What is the MAIN reason that you do not possess a CNIC?	01 = I am currently applying for CNIC card ➔Q.18 02 = I do not know how to apply for the CNIC 03 = Registration Centre is too far 04 = I don't know where the registration centre is	05 = The queues at the registration centre were too long 06 = Don't need one 77 = Others All other answers but 1 ➔Next Module [_ _]
IQ17	How many weeks has it been since	Number of Weeks	[_ _]

	you gave your application to NADRA?	Record Response > Next module			
IQ18	What was the MAIN reason that you applied for the CNIC?	01 = To register with the BISP 02 = To get a job 03 = To access financial services 04 = To access health services 05 = For self identification 06 = To vote in national/provincial/district elections	07 = To apply for a driving license 08 = To apply for a passport 09 = To access legal recourse 10 = To gain access to an academic institution 11 = Zakat 98 = Other (specify) _____		[_ _]
IQ19	Since possessing the CNIC please list the THREE most significant things that you	1 = To register with the BISP 2 = To get a job 3 = To access financial services 4 = To access health services 5 = For self identification 6 = To vote in national/provincial/district elections	7 = To apply for a driving license 8 = To apply for a passport 9 = To access legal recourse 10 = To gain access to an academic institution 11 = Zakat	a)	[_ _]
				b)	[_ _]
				c)	[_ _]

	<p>have actually used the card for.</p> <p>Enter 99 in any cell if not used for enough purposes</p>		<p>98 = Other (specify)</p> <p>_____</p>	
IQ20	<p>When did you first receive your CNIC? (MONTH AND YEAR)</p>	a) Month (Enter 98 if don't know)		a)
		b) Year (Enter 9998 if Don't Know)		b)