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Effect of Social Capital on Labour Market Attainments in Bangladesh

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EFFECT OF SOCIAL CAPITAL ON LABOUR MARKET ATTAINMENTS IN BANGLADESH

by

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**A thesis submitted to the department of sociology in partial fulfillment
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Declaration

I declare that this thesis is my own account of research. The main content works of this thesis has previously not been submitted in any tertiary educational institution.

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CERTIFICATE

This is to confirm that Mr. Mohammed Faruque Uddin conducted this thesis under my supervision. He has uncovered the area, which is sociologically unexplored in Bangladesh.

Professor A H M Mustafizur Rahman

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Dated:

Preface

By the 1960s and 1970s sociological research had hit on *stratification* as a central topic. Within this, by the far most popular area to study was *social mobility* or, in the more ideological terminology of some researchers, *status attainments*. By focusing on recent sociological research avenues, present researcher laid generous emphasis on social capital as a much more important determinant of an individual's occupational success than his or her social class background. This research attempts to demonstrate that social capital does not primarily provide technical skills, but rather a currency of social membership in the status groups that generate multiple utilities and opportunities for individuals. However, it sheds light on the very nature of human agency, which is valorized by the individuals through their experiences in order to accomplish their wellbeing in the labour market of Bangladesh.

State is the highest institution to settle individuals' entry into the labour market. Correspondingly this entry helps to determine consumable outcomes for individuals by varied accumulation of their social capital. Bangladesh, designating as a *nascent-modern society,* is composed of some traditional ties where social relationships are cemented by close kin and informal or formal social networks. Individuals need to have superfluous captivation beyond their physical capital to access service class in Bangladesh. In this connection, present PhD research tries to portray the effectual relationship between social capital and labour market attainments in Bangladesh. It is worth to mention that lack of accountability and transparency in governance processes both in private and public

enterprises (NGOs, GOs, Universities etc.) are prevalent in Bangladesh. So, factors related to family, gender, neighborhood attachments, associations, and social institutions were found as significant determinants for labour market attainments in Bangladesh.

Thus, social capital is seen as the social instruments for individuals, which generates utilities for them. Both vertical and horizontal social capital operates within the individual level to the whole community spectrum. I tried to examine the way social capital plays roles toward securing individuals' wellbeing not only in getting involved into the work but also how it can enhance other accomplishments within the place of operations. Eventually, I found that vertical social capital enhances attainments in the broad continuum of further welfare.

The dissertation builds on available sociological approaches to understanding of social capital in the networked labour market of Bangladesh to show that the emergent outcome of the research might reshape our experiences of labour market. Along with traditional research methods, this study contributes the inclusion of new methodological application of *Fuzzy Logic* and its usages in sociological research approaching data and methodological triangulations. Nevertheless, application of *fuzzy logic* in sociological research can importunate a remarkable payoff toward studying short-term effect/outcome assessments using a limited number of *Q-squared* data. In addition, *fuzzy* analysis appears with a clear message about the outcome and it also provides double validation process during the data collection phases.

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Acronyms

AHRC	Asian Human Right Commission
BIDS	Bangladesh Institute of Development Studies
CBO	Community Based Organization
CISC	Composite Index of Social Capital
FFA	Food For Asset creation
FSVGD	Food Security and Vulnerable Group Development
FWV	Family Welfare Visitor
GoB	Government of Bangladesh
HIES	Household Income and Expenditure Survey
IGVGD	Income Generation for Vulnerable Group Development
MDG	Millennium Development Goals
M&E	Monitoring and Evaluations
NGO	Non Governmental Organization
PESP	Primary Education Stipend Program
RMP	Rural Maintenance Program
SFP	Supplementary Feeding Program
SSNPs	Social Safety Net Programs
SUST	Shahjalal University of Science and Technology
VGF	Vulnerable Group Feeding
UNO	Upazila Nirbahi Officer
UOWA	Upazila Officer of Women Affairs
WB	The World Bank
WDR	World Development Report
WFP	World Food Program

CHAPTER ONE: INTRODUCTION

1.1 Backgrounds and The Research Problem

"It's not what you know, it's who you know" - this common aphorism sums up much of the conventional wisdom regarding social capital. It is wisdom born of our experience that gaining membership to exclusive clubs requires inside contacts, that close competitions for jobs and contracts are usually won by those with "friends in high places." When we fall upon hard times we know it is our friends and family who constitutes the final "safety net." Conscientious parents devote hours of time to the school board and to helping their kids with homework, only to aware that a child's intelligence and motivation are not enough to ensure a bright future. Less instrumentally, some of our happiest and most rewarding hours are spent talking with neighbors, sharing meals with friends, participating in religious gatherings, and volunteering on community projects.

Unlike other forms of capital, social capital inheres in the structure of relations between actors and among actors. It is not lodged either in the actors themselves or in physical implements of production. Because purposive organizations can be actors just as persons can, relations among corporate actors can constitute social capital for them as well. For instance, being the sharing of information that allows price fixing in an industry. However, in the present research, the area of application to which researcher directs the study concern social capital as a resource for persons.

There are many definitions attached to the concept, which leads to justifiable confusion about what constitutes "social capital." This has been exacerbated by the different words used to refer to the term. These range from social energy, community spirit, social bonds, civic virtue, community networks, social ozone, extended friendships, community life, social resources, informal and formal networks, good neighborliness and social glue. Within these there are different conceptualizations depending on the theoretical background, which contribute to conceptual confusion. However, these confusions have not hampered production of academic papers. Before 1981, the number of journal articles listing social capital as a key word totaled 20, between 1991 and 1995 this has risen to

109, and between 1996 and March 1999 the total was 1003 (Baum, 2000). In contemporary period of time, innumerable sociological and interdisciplinary researches are being conducted all over the world concentrating on social capital.

Researchers of social capital might come to a consensus concerning social capital that it would help in its measurement for an application in an organizational context. Social capital is a striking avenue and its presumed positive outcomes are often considered perceptive. However, because it is hard to encapsulate in a single sentence, and because its measurement continues to defy simple quantification, debates regarding its conceptualization continue. In addition, the lack of conceptual clarity has contributed to over versatility.

During recent years, the concept of social capital has become one of the most popular exports from sociological theory into everyday language. Disseminated by a number of policy-oriented journals and general circulation magazines, social capital has evolved into something of a cure-all for the maladies affecting society at home and abroad. Like other sociological concepts that have traveled a similar path, the original meaning of the term and its heuristic value are being put to severe tests by these increasingly diverse applications. As in the case of those earlier concepts, the point is approaching at which social capital comes to be applied to so many events and in so many different contexts as to lose any distinct meaning.

Despite its current popularity, the term does not embody any idea really new to sociologists. That involvement and participation in groups can have positive consequences for the individual and the community is a staple notion, dating back to Durkheim's emphasis on group life as an antidote to anomie and self destruction and to Marx's distinction between an atomized class-in-itself and a mobilized and effective class-for-itself. In this sense, the term social capital simply recaptures an insight present since the very beginnings of the discipline. Tracing the intellectual background of the concept into classical times would be tantamount to revisiting sociology's major nineteenth century sources. That exercise would not reveal, however, why this idea has

caught on in recent years or why an unusual baggage of policy implications has been heaped on it.

The novelty and heuristic power of social capital come from two sources. First, the concept focuses attention on the positive consequences of sociability while putting aside its less attractive features. Second, it places those positive consequences in the framework of a broader discussion of capital and calls attention to how such nonmonetary forms can be important sources of power and influence, like the size of one's stock holdings or bank account. The potential fungibility of diverse sources of capital reduces the distance between the sociological and economic perspectives and simultaneously engages the attention of policy-makers seeking less costly, non-economic solutions to social problems.

So, why do we care about social capital? Let us have a look at the existing scenario of the labour market of Bangladesh. The following figure shows that with a growth rate of 3.88 percent (from 1995-96 to 2010), the number of total civilian labour force in 2010 increased to 57.1 million. In 1995-96, the total number of civilian labour force was 36.1 million out of which 30.7 million was male and only 5.4 million was female.
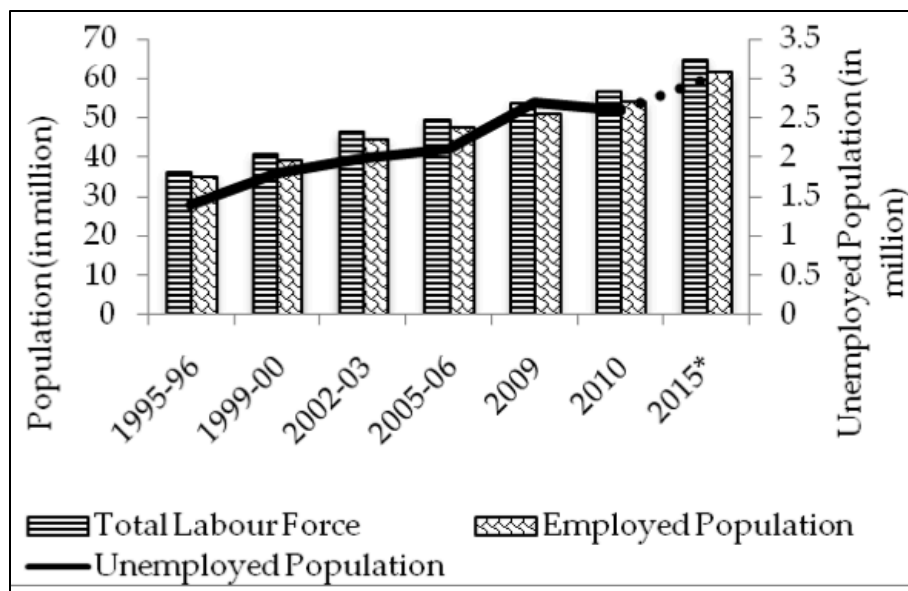
Figure 1: Labour Force Diagnostics (Adapted from Unnayan Annesha, 2014)

The growth rate of female (14.20 percent) was seven times higher than that of male counterpart (2.06 percent). A total of 34.8 million were employed and 1.4 million were unemployed in 1995-1996, which increased to 54.5 million and 2.6 million of employed and unemployed population respectively in 2010 (BBS, 2011). This state of labour market generates the idea that the human agency of individuals could have been facilitated by social capita either in individual or in the community level.

This context of the labour force participation in Bangladesh necessarily draws attentions of social researchers for further scrutiny of the causes and effects lie behind the successes. To me, experiential connections suggest that the role of social capital toward the increase in labour force participation could easily be examined. In this connection, in course of this review, I limit discussion to the contemporary reemergence of the idea to avoid a lengthy excursus into its classical predecessors. To an audience of sociologists, these sources and the parallels between present social capital discussions and passages in the classical literature will be obvious. I examine, first, the principal authors associated with the contemporary usage of the term and their different approaches to it. Then I review the various mechanisms leading to the emergence of social capital and its principal applications in the research literature. This discussion aims at providing some balance to the frequently celebratory tone with which the concept is surrounded. That tone is especially noticeable in those studies that have stretched the concept from a property of individuals and families to a feature of communities, cities, and even nations. The attention garnered by applications of social capital at this broader level also requires some discussion, particularly in light of the potential pitfalls of that conceptual stretch.

However, research undoubtedly correlates high social capital, in the form of social trust and associational networks, with a multiplicity of desirable policy outcomes. Putnam (2000:23) argues that social capital has "forceful, even quantifiable effects on many different aspects of our lives" and it is more than "warm, cuddly feelings or frissons of community pride". These quantifiable effects include lower crime rates (Halpern 1999, Putnum 2000), better health (Wilkinson, 1996), improved longevity (Putnum 2000),

better educational achievement (Coleman, 1988), greater levels of income equality (Wilkinson 1996, Kawachi *et al.* 1997), improved child welfare and lower rates of child abuse (Cote and Healy, 2001), less corrupt and more effective government (Putnam 1995) and enhanced economic achievement through increased trust and lower transaction costs (Fukuyama, 1995). Present research indicates that the well connectedness is more likely to be '*gained and sustained*'.

Several recent innovative studies have attempted to quantify social capital and its contribution to economic development. As indicated above, social capital scholarship is so rich in part because it draws on a variety of methodological approaches, all of which have an important role to play in interpreting, challenging, and refining each other's findings (Tarrow, 1995). In order to arrive at more concrete policy recommendations, however, there is a need for more comparative research using precise measures of social capital to examine within-country and across-country variations in poverty reduction, government performance, ethnic conflict and economic growth.

It should be stressed from the outset that there are a number of reasons why obtaining a single "true" measure of social capital is probably not possible. First, as we have seen, the most comprehensive definitions of social capital are multidimensional, incorporating different levels and units of analysis. Second, the nature and forms of social capital change over time, as the balance shifts between informal organizations and formal institutions. And, third, no long-standing cross-country surveys were initially designed to measure "social capital", leaving contemporary researchers to compile indexes from a range of approximate items (e.g. measures of trust, confidence in government, voting trends, social mobility, modern outlook, hours spent volunteering, etc.). New surveys currently being tested will hopefully produce more direct and accurate indicators across and within countries.

Measuring social capital may be difficult, but several studies—using different types and combinations of qualitative and quantitative research methodologies—have nonetheless identified useful measures of and proxies for social capital. We review briefly some of

the studies, which have attempted to quantify social capital for the purposes of deriving measures that can be aggregated beyond the community level. One clear and commonly used measure of social capital is membership in informal and formal associations and networks. In developing countries generally, and rural areas in particular, measures to capture the informal give-and-take through community wide festivals, sports events, and other traditional methods of fostering connectedness are very important. The national participatory poverty assessment in Tanzania included a household poverty and social capital survey based on 1400 households in 87 villages across Tanzania (Narayan, 1997). Based on data from this survey, Narayan and Pritchett (1999) developed an index of social capital at the household and community level, which included both density and characteristics of informal and formal groups and networks to which people belonged. The dimensions of this index included group functioning, contributions to groups, participation in decision-making and heterogeneity of membership. A series of measures was also constructed on interpersonal trust and changes over time. These measures demonstrated that for Tanzanian villagers, social capital was indeed both "social" and "capital", generating returns that exceeded those to human capital.

Another manifestation of social capital includes norms and values which facilitate exchanges, lower transaction costs, reduce the cost of information, permit trade in the absence of contracts, encourage responsible citizenship, and the collective management of resources (Fukuyama 1995). Ronald Inglehart's (1997) work on the World Values Survey (WVS) is the most comprehensive work in this area. With economists being drawn into the social capital issue, the most used questions from the World Values Survey have become the questions on generalized trust (e.g., "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"). Knack and Keefer (1997), for example, use WVS trust data from 29 countries to show the positive relationship between trust and levels of investment in a country.

Although the social capital approach has gained increasing prominence among scholars and policy-makers, there is still wide debate about its form, function and importance. Proponents of social capital present it as a critical element missing in modern society,

leading to minimal civic participation and even ineffective governance (for example, Coleman, 1990; Putnam, 1993, 2000; Woolcock, 1998). Simply put, social capital is a resource available to individuals that emanates from group interaction because of trust, reciprocity and co-operation. The expansion of positive social capital, especially for communities with few economic and political resources, consequently results in enhanced economic and political performance and improved quality of life. Like other forms of capital (i.e. human, financial, physical), social capital is productive, providing material benefits to individuals who are connected to other individuals and groups (i.e. networks and relationships) (Bourdieu, 1985; Coleman, 1990; Putnam, 1993). These social networks and relationships as concretely expressed as the reciprocal (and at times asymmetrical) exchange of material goods, services, information and money, as well as less tangible support such as mutual assistance and emotional support (Kim et al.,1997).

Researchers in varying disciplines have started with this premise and explored how relationships among individuals, groups and organisations relate to economic and political outcomes. Economists and political scientists have used the social capital approach to investigate communal action as an outcome of network interaction or relationships rather than as aggregations of individual utility maximisers (for example, Ostrom et al., 1994). Geographers, in addition to the emphasis on communal action and social structure, have focused on the spatial dimensions of social capital. Using this spatial lens, social capital is seen to be very dependent on the interconnectedness of residents in specific geographical locales, where space both facilitates and constrains the initiation and sustainability of such connections (Gertler, 1997). Public policy and urban planning researchers have used social capital arguments to assess the potential for community-building and capacity-enhancing strategies in arenas such as economic development and housing production (for example, Woolcock, 1998). For those studying the developing world, the social capital approach has been seen as particularly important for individuals with constrained material resources, as a necessary precursor to communal action and potential community- and region-wide social, economic, political and economic improvements (for example, Narayan and Prichett, 1999).

Social capital, both in its form and its impact, is likely to differ among places, populations and communities. There is speculation—for example, that social capital levels in particular urban Asian environments, such as New Delhi or Jakarta, might be very low (Woolcock, 1998; Isham 2001). Many researchers argue that one reason for the lack of economic growth or progress in some developing countries is a lack of general and positive social capital (Woolcock, 1998; Narayan and Pritchett, 1999; Grootaert and van Bastelaer, 2001). In general, scholars argue that countries, regions or communities with greater social capital will be or are better positioned to take advantage of economic and social opportunities.

Critics of the social capital approach highlight two major flaws in this approach. First, scholars point to Putnam's and Coleman's conceptualisation as overreliant on consensus-building (i.e. non-confrontation strategies) and as assuming that low-income households and neighbourhoods lack trust and co-operative relationships (for example, De Filippis, 2001; Mayer, 2003). Such critics point out that trust relationships exist in many low-income communities, but that these social networks are unable to access financial capital and political influence, and that a focus on non-confrontation as the preeminent tactic to accomplish diverse community goals dismisses the importance of advocacy and grassroots mobilisation. Secondly, critics of social capital argue that, as currently conceived, social capital is both a cause and an outcome—that is, researchers look for evidence of social capital in communities that have beneficial outcomes.

This theoretical conflation of cause and effect leads to methodological challenges. While scholars have increasingly refined the concept to clarify its form and function, there remains confusion about its characteristics and its impact. For example, scholars from diverse disciplines tend to use different data and analytical methods to measure the existence of social capital and its effect on specific outcomes (Durlauf, 2002).

1.2 Research Question

Studying effect rather than impact is quite distinct from one another. The former means 'result' or 'to accomplish something' whereas the latter explains a prolonged influence of a certain intervention. This study tends to examine the effect of social capital, which embraces a specific research question for the whole journey of the thesis. As we know that a research question is a clear, focused, concise, appropriately complex and arguable question around which researcher center his or her research. We should ask a question about an issue that we are genuinely curious about. Indeed, a research question is essential to the research process as it helps researchers to focus their research by providing a path through the research and writing process. The specificity of a well-developed research question helps them to avoid the "all-about" paper and work toward supporting a specific and arguable thesis. Being a sociology graduate, researchers should focus on a topic in which they have at least somewhat personally invested. Researchers choose a broad topic about which they genuinely would like to know more.

Avoiding all critiques, social capital can be seen as an appliance for individuals by which they accomplish their certain desires. Any kind of social, economic or political attainment depends on the investments of an individual's own human agency resulting with positive outcome. Valorizing of human agency depends on the existing resources available within the social structure. So, the preliminary argument of this thesis reveals significant differences in labour force participation with corresponding outcomes among different occupational levels. However, Generational status, family constraints or access to different labour markets may be related to the observed differences in social network. Therefore, there is a considerable overlap in the influence of these various independent variables, which could not be sorted out in a simplified and linear relational analysis. Hence, the present research outhouses elegances of the need for further investigation of the nexus between social capital and labour market outcomes. In this connection, the principal research question of the thesis is - 'how does and in what extent social capital affect labour market attainments in Bangladesh?'

1.3 Objectives of the research

The principal premise of this PhD thesis is to obtain the effect of social capital on labour market attainments in Bangladesh. Social capital is viewed as ***any social relationships that generate utilities for individuals.*** Taking this definition into cognizance, researcher has developed following objectives of the research for the desired ends. Labour market attainments have been viewed with gained utilities of individuals such as income, status orientation, membership in new organizations etc. To test the 'effect' we need *cause-effect* model for developing relationship among associated concepts and variables. In order to fulfill the requirements of this study researcher limits the analysis within following specific objectives as well:-

1. To discern the magnitude of the effect of social capital on labour market attainments in Bangladesh.
2. To identify whether social network make individuals possible to access service class.
3. To delineate the complementarities of social capital with human capital. It is anticipated that a social capital shapes human agency of individuals.
4. To depict the process of manifestation of social capital into labour market that generates utilities for individuals.
5. And finally, to obtain an Index of Social Capital in Bangladesh.

The first objective encompasses the measurement of the research issue in operation of the determining premise of the thesis. Second objective is the building blocks for measuring the first one. Third objective outlines the generalized media of social exchange in the social process. Fourth objective pursues a logical clarification of accessed utilities by respondents. And the final objectives might spur future ideas for new research on social capital in Bangladesh.

1.4 Methodology

While the purpose of the study is to explore a new universe, one that has not been studied earlier, the research design is called explanatory. The research purpose in this case is to gain familiarity in unknown areas. Often explanatory research design is used to formulate

a problem for precise investigation. Thus, often when the universe of study is an unknown community, explanatory design forms the first step of research, after which other types of research designs like exploratory or analytical can be used. As the present research does not conform to explanatory research requisites, and ethnographic methods are not suitable for statistical inferences, so analytical approach of research design has been applied for the whole research procedure taking data and methodological triangulation in the account embracing mixed methods. National Survey Data (HIES) has been used for quantitative data analysis. Data have been processed through SPSS for using uni-variate and logistic regression analysis. Fuzzy analysis has been used to blend judgment calls of respondents for a quantitative analysis. Moreover, using the collected data a CISC (Composite Index of Social Capital) has been developed.

For the qualitative part, data of the present study were also collected through in-depth informal interviews. An interview guideline was used for specific questions and issues. Therefore, a different style of inquiry was pursued for each type of respondent. The researcher himself conducted interviews. After talking with one client from respective area, a referred person was taken to assist the researcher from the previous client for identifying the next one. Moreover, as I know local dynamics of interactional patterns of individuals, this improved my ability to understand clients' real life actions, attitudes, beliefs and motives. Where necessary, assistance was sought and taken from respective authorities. During fieldwork period, interviews were being processed for transcribing the data. After accomplishing the fieldwork and transcription of data, each issue was categorized separately. Field notes were also employed for this purpose.

Using pseudonyms, identification of clients and respondents are maintained in the study. After ending up transcribing and categorizing interviews, analysis of the data was initiated under the Analytical Framework Approach[1] through which data were organized to describe important processes of participation into the program and also clients' everyday life. For the analysis, this study divided each issue interviewed into two parts-

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[1] An option for organizing qualitative data that emphasizes on analytical framework (Patton, 2002: 438-439).

descriptions and interpretations. The research describes those issues and processes that are so central to the proposed research questions and conceptual framework. For each of the issues, the analysis starts with the cross case analysis through which answers from different people to common issues are described and interpreted. Additionally, own observations were applied to signify and analyze further information for this research.

1.5 Chapter Summaries

I have designed my work firstly to embark with the 'introduction.' Thus, the chapter one covers the whole array of the study in a synoptic essence. The chapter begins with the very inception of contexts and also induces the research ideas through the statement of the problem. This chapter also includes and explains the *research question,* a brief *methodology, research objectives, chapter summaries, significance of the study, ethical reviews, and limitations of the research.*

Then it's my privilege to identify knowledge gaps with other researches what will be sought through the analysis of the review of literatures in the second chapter. In this chapter it has been uncovered the missing link of social capital with legendary sociologists. Albeit the concept of social capital is relatively new and very popular among contemporary sociologists, but I argue that the ontological kernel of social capital is also woven within the works of classical sociologists. Thereafter, the chapter entrenches the evolution and dimensions of social capital. Most importantly, the review necessarily emphasizes on the sociology of labour market and tries to find out the links and gaps relating to the objectives of this research.

Rather than a degree, to me PhD demonstrates new and specialized expertize for researchers and also open avenues to claim for new knowledge. Taking it for granted, I have developed my own theoretical framework with conceptualization of possible analytical scheme in chapter three and four. The analytical flowchart shows the equivocal and uni-dimensional pathways in a form of theoretical arbitration. However, hypotheses and propositions are formulated along with operational definitions for examining these stated relationships.

The chapter *theoretical framework* is followed by the methodology. It details out the pros and cons of the sampling procedure, the population, research methods, statistical tools, process of developing indices and the adoption of *fuzzy logic,* which explained earlier in the subsection of this chapter. Most importantly research design is stated and analyzed with amenable scientific rigors of the research. Most operative and significant statistical software SPSS were used to process data. Description and interpretation takes place to analyze the qualitative part of the thesis.

Chapter five exhibits findings and analyzes the research results. This chapter has been designed to analyze findings by the following arrangements. Firstly, it explains the existing condition of human capital among the study group. Secondly, the pattern of labour market attainments is delineated. Thirdly it reveals the scenario of the existence of social capital among respondents. Human capital factors are being accumulated among individuals by dint of their own potentials and by the input of parental social capital. Education, experience, and degrees are the main constituent parts of human capital. Sex and age are physical capitals of individual but it always embedded with human capital in course of the operation of human capital. For this study we have analyzed physical capital accompanying with human capital. As the application of *fuzzy logic* was applied to a single occupational group, *public university teachers,* the finding shows that-

> 'respondents are convinced that with strong human capital public university teachers need to have a moderate level of *political network*, moderate degree of *family and kinship network*, above moderate level of friendship network, a bit of *religious network* and a great deal of professional network as well'.

This finding conforms to the regression output, dominant factor values of indices and also reveals a strong nexus with information gathered through in-depth interviews.

Finally, the concluding chapter wraps up the whole expedition of the research. It firstly cascades the reflection of research methodology. The chapter sums up the major findings and offer few recommendations for further research in this area.

1.6 Significance of the Study:

The research study could provide information on the effectual relationship between social capital and labour market attainments in Bangladesh in a sociological manner with mixed method research approach. Further, this study would also be a review on the contemporary trend on social capital research.

This study would be beneficial to the policy planner for social development as the principal theme of the research project might generate ideas for studying other occupational groups of people who are in differed ambivalence of social capital and are in disadvantageous position.

It would be beneficial to the students of sociology who are concerned with theory and research. This would expectedly heighten the awareness of the use of modern technique to analyze social data.

Furthermore, to the future researchers, this study can provide a kind of baseline information on the recent status of social capital among the identified categories of different occupational groups in Bangladesh.

Finally, it might be a referential academic sociological study on the association of social capital and labour market outcomes in Bangladesh. Nevertheless, use of fuzzy logic in sociological research in Bangladesh might be the most pioneering initiative as well, which add a sharpened value toward exploring other social issues nationally and internationally.

1.7 Ethical Review

Present researcher fully comprises with the code of research conduct of Rajshahi University while conducting the research. Researcher does understand and believe that 'the integrity of any research depends not only on its scientific rigor, but also on its

ethical adequacy. Ethical issues are many and varied, and may be quite complex. Research involving human participants is undertaken by many different disciplines and conducted in a broad range of settings and institutions. While some issues are specific to professional groups, all research should be guided by a set of fundamental ethical principles to ensure the protection of human participants.'

1.8 Limitations of the study

i. Studying the effect of social capital on labour market attainments in Bangladesh is absolutely a comprehensive task. Therefore, an individual research project based on a short span of field visit might not be fully effective in order to explore the problems regarding socio-political dynamics in a national context. Though, the use of HIES data represents the national survey, but still it can not avoid biasness errors.

ii. The present study employed convenience sampling as a technique for a fast and cost-effective procedure which is less desirable and sometimes less credible in the research practice.

iii. The researcher tried to maintain maximum objectivity while collecting and analyzing data. Therefore, it could happen any unintended distortion in data analysis, as it comprised double level of abstractions; transcription and translation.

CHAPTER TWO: REVIEW OF LITERATURE

2.1 Sociology And Social Capital: Missing link with legendary sociologists

Social capital is a term that is commonly used; however the concept is often poorly defined and conceptualized. Social capital is an old concept but the term has only been coined fairly recently (Bankston and Zhou 2002; Labonte 1999; Lazega and Pattison 2001; Portes and Sensenbrenner 1993; Putnam 1995). Social capital is linked to concepts such as civil society and social connectedness (Adam and Roncevic 2003). It is also linked to historical authors such as Durkheim, Simmel, Marx and Weber among others and to theories such as social exchange theory and psychological contract theory (Watson and Papamarcos 2002). The modern development of the concept came from three key authors, Bourdieu, Coleman and Putnam with many other authors contributing to the current multidisciplinary theory. Very broadly, social capital refers to the social relationships between people that enable productive outcomes (Szreter 2000). The term social capital refers to those stocks of social trust, norms, and networks that people can draw upon to solve common problems. Social capital represents a very important conceptual innovation for inter and trans disciplinary theoretical integration, especially between sociology and economics (Adam and Roncevic 2003). The creation of social capital has been embraced as a solution for social problems as diverse as urban poverty and crime, economic underdevelopment and inefficient government (Boix and Posner 1998).

Both Bourdieu and Coleman emphasize the intangible character of social capital relative to other forms. Whereas economic capital is in people's bank accounts and human capital is inside their heads, social capital inheres in the structure of their relationships. To possess social capital, a person must be related to others, and it is those others, not himself, who are the actual source of his or her advantage.

As mentioned before, the motivation of others to make resources available on concessionary terms is not uniform. At the broadest level, one may distinguish between consummatory versus instrumental motivations to do so. As examples of the first, people may pay their debts in time, give alms to charity, and obey traffic rules because they feel an obligation to behave in this manner. The internalized norms that make such behaviors possible are then appropriable by others as a resource. In this instance, the holders of social capital are other members of the community who can extend loans without fear of nonpayment, benefit from private charity, or send their kids to play in the street without concern. Coleman (1988a: S104) refers to this source in his analysis of norms and sanctions: "Effective norms that inhibit crime make it possible to walk freely outside at night in a city and enable old persons to leave their houses without fear for their safety." As is well known, an excessive emphasis on this process of norm internalization led to the oversocialized conception of human action in sociology so trenchantly criticized by Wrong (1961).

An approach closer to the undersocialized view of human nature in modern economics sees social capital as primarily the accumulation of obligations from others according to the norm of reciprocity. In this version, donors provide privileged access to resources in the expectation that they will be fully repaid in the future. This accumulation of social chits differs from purely economic exchange in two aspects. First, the currency with which obligations are repaid may be different from that with which they were incurred in the first place and may be as intangible as the granting of approval or allegiance. Second, the timing of the repayment is unspecified. Indeed, if a schedule of repayments exists, the transaction is more appropriately defined as market exchange than as one mediated by social capital. This instrumental treatment of the term is quite familiar in sociology, dating back to the classical analysis of social exchange by Simmel ([1902a] 1964), the more recent ones by Homans (1961) and Blau (1964), and extensive work on the sources and dynamics of reciprocity by authors of the rational action school (Schiff 1992, Coleman 1994).

Two other sources of social capital exist that fit the consummatory versus instrumental dichotomy, but in a different way. The first finds its theoretical underpinnings in Marx's analysis of emergent class consciousness in the industrial proletariat. By being thrown together in a common situation, workers learn to identify with each other and support each other's initiatives. This solidarity is not the result of norm introjection during childhood, but is an emergent product of a common fate (Marx [1894] 1967, Marx & Engels [1848] 1947). For this reason, the altruistic dispositions of actors in these situations are not universal but are bounded by the limits of their community. Other members of the same community can then appropriate such dispositions and the actions that follow as their source of social capital. Bounded solidarity is the term used in the recent literature to refer to this mechanism. It is the source of social capital that leads wealthy members of a church to anonymously endow church schools and hospitals; members of a suppressed nationality to voluntarily join life-threatening military activities in its defense; and industrial proletarians to take part in protest marches or sympathy strikes in support of their fellows. Identification with one's own group, sect, or community can be a powerful motivational force. Coleman refers to extreme forms of this mechanism as "zeal" and defines them as an effective antidote to free-riding by others in collective movements (Coleman 1990, pp. 273–82; Portes & Sensenbrenner 1993).

The final source of social capital finds its classical roots in Durkheim's ([1893] 1984) theory of social integration and the sanctioning capacity of group rituals. As in the case of reciprocity exchanges, the motivation of donors of socially mediated gifts is instrumental, but in this case, the expectation of repayment is not based on knowledge of the recipient, but on the insertion of both actors in a common social structure. The embedding of a transaction into such structure has two consequences. First, the donor's returns may come not directly from the recipient but from the collectivity as a whole in the form of status, honor, or approval. Second, the collectivity itself acts as guarantor that whatever debts are incurred will be repaid.

As an example of the first consequence, a member of an ethnic group may endow a scholarship for young co-ethnic students, thereby expecting not repayment from recipients but rather approval and status in the collectivity. The students' social capital is not contingent on direct knowledge of their benefactor, but on membership in the same group. As an example of the second effect, a banker may extend a loan without collateral to a member of the same religious community in full expectation of repayment because of the threat of community sanctions and ostracism. In other words, trust exists in this situation precisely because obligations are enforceable, not through recourse to law or violence but through the power of the community.

In practice, these two effects of enforceable trust are commonly mixed, as when someone extends a favor to a fellow member in expectation of both guaranteed repayment and group approval. As a source of social capital, enforceable trust is hence appropriable by both donors and recipients: For recipients, it obviously facilitates access to resources; for donors, it yields approval and expedites transactions because it ensures against malfeasance. No lawyer need apply for business transactions underwritten by this source of social capital.

2.2 The Hegemony of Social Capital In Academia

There has been exponential growth in references to social capital in academic literature in the last 15 years (Aldridge et al. 2002; Halpern 2001) (refer to figure 3). This growth in research and application to diverse areas represents an unprecedented acceptance, study and application of this single concept (Adam and Roncevic 2003). Fine and Green (2000) suggested that social theory is being rewritten through the lens of social capital. The concept of social capital lends itself to diverse application as it is very broad and one may approach practically any social entity or situation through the conceptual framework of social capital (Grootaert and Van Bastelaer 2002b).
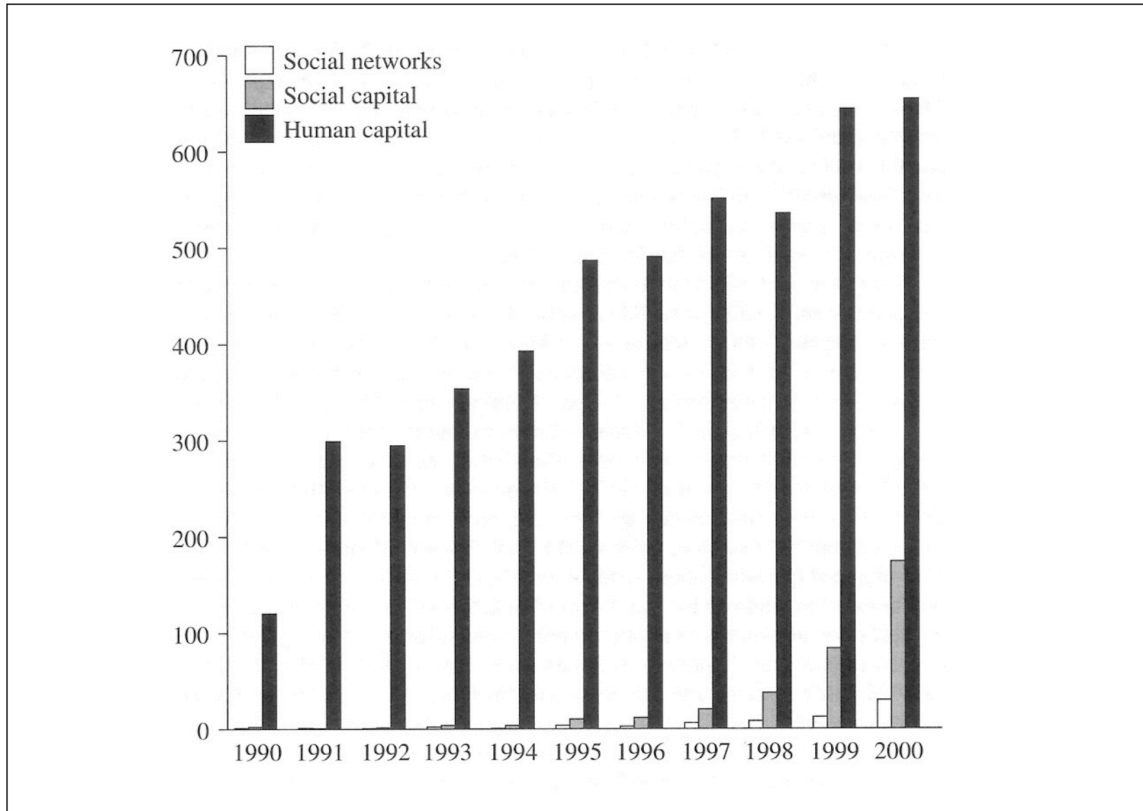
Fig 2.1: Citations with social capital, human capital and social networks in Economics Literature. *Source:* **Isham, Kelly *et al* (2002)**

The concept of social capital is not new. Its intellectual history has deep and diverse roots which can be traced to the eighteenth and nineteenth centuries (Adam and Roncevic 2003). The idea is connected with thinkers such as Tocqueville, J.S. Mill, Toennies, Durkheim, Weber, Locke, Rousseau and Simmel (Bankston and Zhou 2002; Brewer 2003; Lazega and Pattison 2001; Portes and Sensenbrenner 1993; Putnam 1995). Bankston and Zhou (2002) made a particular reference to the connections between Durkheimian normative sociology and Coleman's thinking on the topic. This is supported by Portes and Landolt (1996) who believed that the origins of the concept lie in the nineteenth century classics of sociology. Portes pointed out Durkheims' emphasis on group life as an antidote to anomie and self-destruction, and to Marx's distinction between an atomized class-in-itself and a mobilized and effective class-for-itself (Portes 1998). Heffron (2000) made a tenuous link to the earliest human societies which attempted to accumulate productive assets, thereby creating social capital. Brewer (2003)

identified the link between the discussions of Aristotle and other early Greek philosophers on civic society and social capital theory.

Although authors seem to agree on the historical origins of the concept, there is debate in the literature over the first use of the term social capital. Most authors agree that the first use was by Hanifan in 1916 however others have identified Jacobs (1961) (Felkins 2002), Loury (1977) (Lappe et al. 1997; Leeder and Dominello 1999), and the Royal Commission on Canada's Economic Prospects (Schuller et al. 2000). L.J. Hanifan, a social reformer, in 1916 chose the term social capital to refer to 'goodwill, fellowship, mutual sympathy, and social intercourse among a group of individuals and families' (MacGillivray and Walker 2000; Smith and Kulynych 2002; Winter 2000a; Woolcock and Narayan 2000). Routledge and Amsberg (2003) identified that Hanifan used the term 'capital' specifically to highlight the importance of the social structure to people with a business and economics perspective. Woolcock and Nerayan (2000) provided a more detailed description of Hanifan's work identifying that the term was used in explaining the importance of community participation in enhancing school performance, describing it as: 'those tangible substances [that] count for most in the daily lives of people: namely good will, fellowship, sympathy and social intercourse among the individuals and families who make up a social unit .. If [an individual comes] into contact with his neighbor, and they with other neighbors, there will be an accumulation of social capital, which may immediately satisfy his social needs and which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community' (cited in Woolcock and Narayan 2000, p. 227).

Smith and Kulynych (2002) identified that the next use of the term was by Jane Jacobs (1961) in a discussion of urban vitality. Woolcock and Narayan (2000) however, have identified a team of Canadian urban sociologists, Seely, Sim, and Loosely (1956) and an exchange theorist, Homans (1961) that predate Jacobs. Jacobs stated that 'networks are cities' irreplaceable social capital' (cited in Woolcock 1998, p. 192). It seems that the next use of the term was by Loury (1977) (Portes 1998; Woolcock and Narayan 2000) which is commonly cited in the literature. It is interesting to note that in each of these early uses of the term social capital the author did not cite earlier work on the subject (Woolcock

and Narayan 2000). Hofsteed (1980) is another author who studied the concept although did not use the term social capital but did demonstrate the relevance of such modern values as individualism, equality of opportunity, and 'uncertainty avoidance' for the generation of what we call social capital (Heffron 2000).

As identified above the term social capital has only been used since the early twentieth century but its traditions are much older, rooted in economics, sociology, anthropology and political science literature (Grootaert and Van Bastelaer 2002a; Healy and Hampshire 2002). The concept is similar or equivalent to civic tradition, civicness and civic involvement (Adam and Roncevic 2003). Some authors point out the similarity between social capital theory and moral philosophy due to the normative, goal-directed character of the process of production (Favell 1993; Sampson et al. 1999). Boix and Posner (1998) posited theories of social capital as an equilibrium concept; repeated cooperation increases the available stock of social capital, high stocks of social capital, in turn, make it possible to sustain social cooperation.

Economists point to the origin of social capital theory being in the formative period of economic sociology with Max Weber (Trigilia 2001), and others draw links to Adam Smith (Portes and Landolt 1996; Winter 2000a; Winter 2000b). Winter (2000) found commonality between social capital theory and the questions posed by Adam Smith in *The Theory of Moral Sentiments* (1976 [1759]). Knack (2002) identified Adam Smiths discussion of the potential negative spillovers of group activities as an aspect of social capital debate. Adam Smith states that when 'people of the same trade' meet 'even for merriment and diversion' the result is often 'a conspiracy against the public' or 'some contrivance to raise prices' (cited in Knack 2002, p. 773).

From this discussion it can be seen that the concept of social capital is not new, although the term is. The origins of the concept can be traced to thinkers of the eighteenth and nineteenth centuries and is rooted in economics, sociology, anthropology and political science literature. Since its original use, the term has received unprecedented acceptance and application to diverse areas. A discussion of the contemporary authors on social capital will follow in the next section.

The contemporary strain of literature dates back to the 1980's and flows primarily from the work of Pieere Bourdieu, James Coleman and Robert Putnam (Carroll and Stanfield 2003; Lang and Hornburg 1998). Bourdieu is responsible for bringing the concept and term social capital into present-day discussions. Adam and Roncevic (2003) cite the release of his well-known book *Distinction* published in French in 1979 as the origination of the modern notion of social capital. Bourdieu is categorized as a pure sociologist by Adam and Roncevic (2003). Bourdieu's definition of social capital could be described as egocentric as it is considered in the broader framework of symbolic capital and of critical theories of class societies (Wall et al. 1998). Bourdieu defines social capital as: 'the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition or in other words, to membership in a group which provides each of its members with the backing of the collectivity-owned capital, a credential which entitles them to credit, in the various senses of the word' (Bourdieu 1986, web page).

Bourdieu's original work on social capital was analysed within the context of his critical theory of society. This differed from the following normative approach of Putnam (1993) and Coleman (1988), and the network based utilitarian approach of Burt (1998) and Lin (2001). Of the three originating authors on social capital, Bourdieu's work contains the least empirical analysis with only fragments of reference to it (Adam and Roncevic 2003).

James Coleman, a sociologist with strong connections to economics through rational-choice theory (Jackman and Miller 1998; Li et al. 2003; Schuller et al. 2000), draws together insights from both sociology and economics in his definition of social capital: Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors whether persons or corporate actors within the structure (Coleman 1988, p. S98).

Coleman's work represents an important shift from Bourdieu's individual outcomes (as well as in network-based approaches) to outcomes for groups, organizations, institutions or societies which represents a tentative shift from egocentric to sociocentric (refer to table 1) (Adam and Roncevic 2003; Cusack 1999; McClenaghan 2000). Coleman also added that like other forms of capital, social capital is productive, making possible the achievement of certain ends that would not be attainable in its absence (Coleman 1988). Most authors agree that social capital is dealing with certain aspects of social structure that enable social action (Adam and Roncevic 2003). Unlike Bourdieu, Coleman was extensively involved in empirical research and formulation of indicators. Schuller, Baron et al. (2000) described the explanation of his findings as *post hoc* and that his key contribution to the social capital debate lay in the relatively straightforward way he outlines the concept. Coleman explores how the productive nature of social capital might offset deficiencies in other capital such as human and cultural capital (Teachman et al. 1997). Coleman extended the scope of the concept from Bourdieu's analysis of the elite to encompass the social relationships of non-elite groups (Schuller et al. 2000).

Robert Putnam, a political scientist was responsible for popularizing the concept of social capital through the study of civic engagement in Italy (Boggs 2001; Schuller et al. 2000). Such was Coleman's influence over the scholarly debate, Putnam cited Coleman's *Foundations of Social Theory* as a central source (Routledge and Amsberg 2003). Putnam gave the following definition:

> Social capital here refers to features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions (Putnam et al. 1993:121.)

In *Making Democracy Work* (Putnam et al. 1993) the authors explore the differences between regional governance in the north and south of Italy, the explanatory variable being civic community. The next of Putnam's work focused on the decline in civic engagement in the United States (Schuller et al. 2000). In *Bowling Alone* (Putnam 1995) Putnam identified a general secular decline in levels of social capital as indicated by membership in voluntary organizations (Schuller et al. 2000). This paper used the

example of bowling as an activity which used to be highly associational, representing not only recreational channels but also a source of social interaction, a component of social capital (Putnam 1999; Putnam 2000). Like Coleman, Putnam was extensively involved in empirical research and formulation of indicators and was responsible for the development of the widely applied measure so-called 'Putnam instrument' (Adam and Roncevic 2003; Paldam and Svendsen 2000). This instrument is the best known and most widely applied measure that is an overly simplified version of his elaborate index of civicness that includes four indicators: trust in people and institutions, norms of reciprocity, networks, and membership in voluntary associations (Adam and Roncevic 2003). Putnam's arguments have been criticized as circular and tautological simultaneously a cause and effect (Pope 2003; Portes 1998).

The authors discussed above; Bourdieu, Coleman and Putnam; are most commonly cited for the basis of contemporary discussions on social capital. They represent early attempts to identify and conceptualize this complex theory. Grootaert and Van Bastelaer (2002a) suggested that the social capital model may currently be at the same early stage that human capital theory was thirty or forty years ago. Many authors have since progressed our understanding, and particularly the suitable operationalization, of social capital (refer to figure 4).

Building on work by Bourdieu, Loury and Coleman among others, Alejandro Portes (1996, 1998, 2000) defines social capital as '... the ability of actors to secure benefits through membership in networks and other social structures (Portes 1998, p. 6). Portes and Landolt (1996) identified the downsides of social capital and illustrate that earlier authors had focused on the positive, beneficial effects of social interaction without taking into account the less attractive features. Portes in later work also made contributions to the understanding of the role of social capital in development (Portes and Landolt 2000).

Ronald Burt's research approach is based on Bourdieu's and Coleman's work and focuses on variables indicating the position of the individual inside social networks (Adam and Roncevic 2003). Burt focused on accessibility to embedded resources by measuring social capital in terms of network constraint (Lin et al. 2001b). More constraint means

fewer structural holes and because structural holes are the source of social capital, fewer structural holes result in poorer social capital (Burt 1997; Burt 1998). This research approach is commonly known as the network approach as it looks at network variables. Nan Lin, often working with Burt, has contributed to the development of network measurements of social capital, namely position generator and name generator (Lin et al. 2001a). Lin described three different research programs: focus on the documentation of the distribution of resource in a social structure, with the purpose of describing the relative distribution of resources as a collective asset in the structure (Lin 1976; Lin 2001a; Lin 2001b).

Michael Foley and Bob Edwards (1997, 1999) produced some revealing findings from studying the work of authors who undertook empirical research on social capital. Their findings included context-dependent conceptualization of social capital, as access plus resources, and that work on generalized social trust are irrelevant. Francis Fukuyama used an approach derived from Putnam that focuses mainly on behavioral variables and attitudes (for example, trust, norms, values) as measured in various surveys (Adam and Roncevic 2003). Fukuyama practically equated social capital with trust. Other authors have criticized the use of a single indicator as a measure of social capital (Paxton 1999). Stephen Knack and Paul Keefer (1997) adopted two measures of social capital; the mean value of expressed general trust and the second is a composite index of norms of civic cooperation. Pamela Paxton (1999, p. 93) conceptualized social capital differently from preceding authors stating social capital consists of two measurable components: objective associations between individuals and a subjective type of tie, which must be reciprocal, trusting, and involving positive emotions. The first is measured by three variables and the second by trust in individuals and trust in institutions (Paxton 1999).

In an attempt to alleviate the problems of source/form distinctions, Michael Woolcock developed a comprehensive, multilevel model of social capital while taking into account the well-known distinction between bridging and bonding social capital (Woolcock 1998; Woolcock 2001a; Woolcock 2001b; Woolcock 2002b). Famous for his work with the World Bank, Woolcock (1998) asserted that without bridging social capital, communities do not have what is needed to get ahead (Guenther and Falk 1999). Janine Nahapiet and

Sumantra Ghosal (1998) developed a robust definition of social capital with the distinction between three dimensions: structural, relational and cognitive, and discuss the highly interrelated nature of the features they discuss.

By the late 1990's the number of contributing authors grew significantly based on the work of the contemporary authors discussed above. It could be generalized that much of this work lacked rigor and did not take into account the multi-dimensional nature of social capital. Much of the work was piece-meal in nature, simply applying an approach to a discipline or area of interest. The role of Putnam's research in this process was significant. Putnam's work, while popularizing the concept, led to a significant weakening of the conceptualization and operationalization of the concept. Coleman's earlier work provided a more thorough path towards conceptualization and operationalization. Putnam however, applied a single proxy analysis of social capital and applied it to good governance. Seen as the foremost expert on social capital at the time, many authors followed in his footsteps, and Putnam's lack of rigor was replicated in piece-meal works across a variety of disciplines. Putnam is not solely to blame for this situation, which is due mostly to the complexity and attractiveness of the concept of social capital. The result was a plethora of definitions and operationalization of the concept that led to the theory itself being questioned. From this work many recent authors have synthesized a more rigorous framework for the conceptualization and operationalization of the concept, but much work is left to be done if social capital theory is to provide a meaningful contribution in all its facets.

2.3 Does Social Capital Help Individuals?

The importance of social capital theory is apparent from the literature with many empirical studies that purport to show the importance of social capital to a very wide-ranging set of socioeconomic phenomena (Durlauf 2002a; Krishna 2001). Adam and Roncevic (2003, p. 177) stated that: 'despite problems with its definition as well as its operationalization, and despite its (almost) metaphorical character, social capital has facilitated a series of very important empirical investigations and theoretical debates which have stimulated reconsideration of the significance of human relations, of

networks, of organizational forms for the quality of life and of developmental performance'.

The widespread interest in and application of the concept could suggest the theoretical importance of social capital theory. Existing studies have provided ample evidence of its pervasiveness and offered useful impressions of its political, economic and social influence (Fine 2001; Jack and Jordan 1999; Montgomery 2000). Aldridge, Halpern *et al* (2002) cautioned that some of the empirical evidence on the importance of social capital for economic and social outcomes needs to be treated with caution because of the misspecification or ambiguity of equations or models used to estimate its impact. Without a rigorous method for measurement it is unclear how the benefits are ascertained and tested. It is surprising that there is little skepticism in the literature over the validity of the purported benefits of social capital given the uncertainty of measurement techniques identified above. This is due to two factors: the intrinsic appeal of the concept; and the common misguided faith in measurement methodologies. The majority of benefits described in the literature have not been empirically tested at all but arise through theoretical extrapolation based on other concepts.

Requena (2003) suggested that the importance of social capital lies in that it brings together several important sociological concepts such as social support, integration and social cohesion. This view is supported by Rothstein (2003) who stated that the real strength of social capital theory is the combination of macro-sociological historical structures with micro-level causal mechanisms, a rare feature in the social sciences.

The literature recognizes social capital as important to the efficient functioning of modern economies, and stable liberal democracy (Fukuyama 2001; Kenworthy 1997), as an important base for cooperation across sector and power differences, and an important product of such cooperation (Brown and Ashman 1996), and Lyon (2000) described the importance of social capital in shaping regional development patterns. It is clear that social capital is of importance in societal wellbeing. Some aspects of the concept, such as inter-personal trust, are clearly desirable in themselves while other aspects are more instrumental (Bankston and Zhou 2002). Optimism, satisfaction with life, perceptions of

government institutions and political involvement all stem from the fundamental dimensions of social capital (Narayan and Cassidy 2001).

Social capital is charged with a range of potential beneficial effects including: facilitation of higher levels of, and growth in, gross domestic product (GDP); facilitation of more efficient functioning of labor markets; lower levels of crime; and improvements in the effectiveness of institutions of government (Aldridge et al. 2002; Halpern 2001; Kawachi et al. 1999b; Putnam et al. 1993). Social capital is an important variable in educational attainment (Aldridge et al. 2002; Israel et al. 2001), public health (Coulthard et al. 2001; Subramanian et al. 2003), community governance, and economic problems (Bowles and Gintis 2002), and is also an important element in production (Day 2002). Economic and business performance at both the national and sub-national level is also affected by social capital (Aldridge et al. 2002). Others have emphasized the importance of social capital for problem solving and how only certain types of social capital contribute to this (Boyte, 1995; Sirianni & Friedland, 1997).

There is considerable controversy in the literature over the use of the term 'capital'; (Falk and Kilpatrick 1999; Hofferth et al. 1999; Inkeles 2000; Lake and Huckfeldt 1998; Schmid 2000; Smith and Kulynych 2002). Portes (1998) elegantly posited the location of capital in relation to other forms of capital: whereas economic capital is in people's bank accounts and human capital is inside their heads, social capital inheres in the structure of their relationships (Portes 1998, p. 7).

Social capital is similar to other forms of capital in that it can be invested with the expectation of future returns (Adler and Kwon 1999), is appropriable (Coleman 1988), is convertible (Bourdieu 1986), and requires maintenance (Gant et al. 2002). Social capital is different from other forms of capital in that it resides in social relationships whereas other forms of capital can reside in the individual (Robison et al. 2002). Further, social capital cannot be traded by individuals on an open market like other forms of capital, but is instead embedded within a group (Gant et al. 2002; Glaeser et al. 2002). It is clear from the literature that social capital has both similarities and dissimilarities with neocapital theories and is certainly quite dissimilar from classical theory of capital.

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To discuss this in more detail it is necessary to further identify the characteristics of 'capital'. Schmid (2000) identified that capital is not immediately used up in production but rather its services extend over time. The capital stock is subject to investment for future production and depreciation and decay from both use and non-use. Piazza-Georgi (2002) states that capital produces income and encompasses the non-consumable, but depreciating, inputs into the production process. The author supported Schmid (2000a) stating that capital is a productive resource that is the result of investment (Piazza-Georgi 2002). Castle (2002) adds that other characteristics of capital are usefulness and durability.

Many authors have questioned and even attacked the appropriateness of the term capital in social capital. If social capital is adherence to a norm and not affected by individual action as Fukuyama (1995) suggests, then it is not capital in the above sense. The main difference is that more than one person benefits from social capital (Schmid 2002; Schmid 2000). Smith and Kulynych (2002) believed that the word capital has a too broad, pervasive and honorific meaning and that the term blurs many distinctions which adversely affects the scholarly inquiry, whatever its implicit or explicit normative concerns. Inkeles (2000, p. 20) suggested that the term capital is too limiting and would rather use the term social or communal resources. The author argued this on the basis of: capital being an element of production, in particular the production of goods, but also services. We want not only goods and serves but also social support, physical and social security, freedom of expression, opportunities to develop ourselves and a host of these outcomes not captured by the idea of goods and services.

Hofferth, Boisjoly *et al* (1999) suggested that social capital is the result of altruism and therefore not capital as capital is a resource that is built up through investment and can be drawn upon when needed. Lin, Cook *et al* (2001) disagreed by identifying that social capital shares commonalities with other forms of capital, notably human capital. SCIG (2000) supported Lin, concluding that the consequences of social capital are capital in nature because capital suggests something that is durable or long lasting and suggests something that retains its identity even after repeated use, something that can be used up, destroyed, maintained, or improved.

Many authors identify that both forms of social capital, structural and cognitive, qualify as capital because they both require some investment of time and effort if not always of money (Grootaert 2001; Grootaert and Van Bastelaer 2002b; Krishna and Uphoff 2002). It can be concluded that social capital is unlike other forms of capital but also not sufficiently dissimilar to warrant a different term. Certainly it is the use of the term capital that makes the concept attractive to such a wide range of people given the bringing together of sociology and economics (Adam and Roncevic 2003). Perhaps a more appropriate term may be social solidarity as the notion connotes relations of trust, co-operation and reciprocity just as much as social capital and might be used in place of it to overcome the problem identified above with using the term capital.

It is interesting that the term capital should be used with social, considering capital is already a social relation. In the original sense of the word capital, an object is only capital under particular social conditions. In the same way the sources of social capital are only capital under particular social conditions. For example, a favor owed is only capital under certain, not necessarily favorable conditions. This idea brings in the notion of negative or perverse social capital.

2.4 Dimensions of Social Capital Theory

As previously identified, social capital theory suffers from much criticism for being poorly defined and conceptualized. This problem largely stems form the fact that social capital is multi-dimensional with each dimension contributing to the meaning of social capital although each alone is not able to capture fully the concept in its entirety (Hean et al. 2003). The main dimensions are commonly seen as:

- Trust (Coleman 1988; Collier 1998; Cox 1997; Kawachi et al. 1999a; Kilpatrick 2000; Leana and Van Buren III 1999; Lemmel 2001; Putnam 1993; Putnam et al. 1993; Snijders 1999; Welsh and Pringle 2001)
- Rules and norms governing social action (Coleman 1988; Collier 1998; Fukuyama 2001; Portes and Sensenbrenner 1993)
- Types of social interaction (Collier 1998; Snijders 1999)

- Network resources (ABS 2002; Kilpatrick 2000; Snijders 1999)
- Other network characteristics (Burt 1997; Hawe and Shielle 2000; Kilpatrick 2000; Putnam 1995) adapted from (Hean et al. 2003, p. 1062).

Other authors have identified different groups of dimensions, for example Liu and Besser (2003) identified four dimensions of social capital: informal social ties, formal social ties, trust, and norms of collective action. Narayan and Cassidy (2001) identify a range of dimensions illustrated in figure 5.
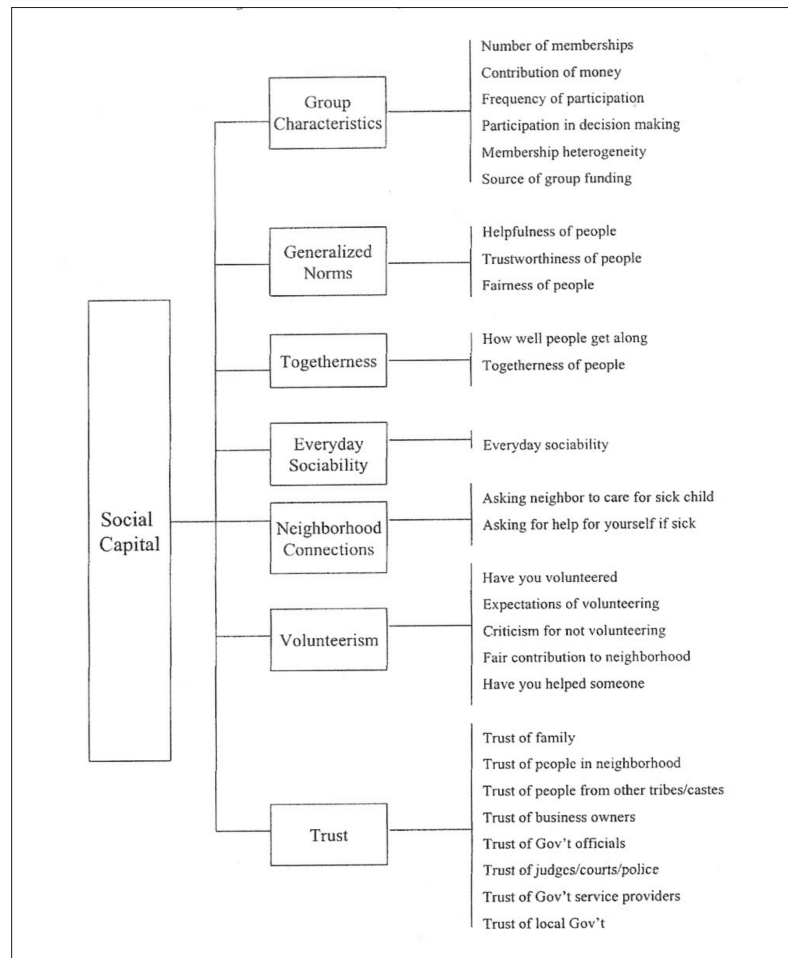
Figure 2.2: The dimensions of social capital defined by Narayan and Cassidy (2001). *Source:* Narayan and Cassidy (2001).

Piazza-Georgi (2002) posited that Woolcock (1998) was the first to attempt a dissection of the concept of social capital within a unified conceptual framework. She goes on to

state that Woolcock does this by defining four dimensions of social capital, in two pairs of opposing concepts: embeddedness and autonomy, and the macro and the micro level.

2.5 Sociology of Labor Market

The concept of "labor markets" has many connotations. It has been used to denote geographical areas or occupational and industrial groups, as well as groups of workers defined by ethnicity, race, sex, and levels of education and skill. We define labor markets abstractly, as the arenas in which workers exchange their labor power in return for wages, status, and other job rewards. The concept, therefore, refers broadly to the institutions and prac- tices that govern the purchase, sale, and pricing of labor services. These structures include the means by which workers are distributed among jobs and the rules that govern employment, mobility, the acquisition of skills and training, and the distribution of wages and other rewards obtained contingent upon participation in the economic system.'

Two hundred years ago Adam Smith formulated the basic ideas about the forces that determine remuneration for work in competitive labor markets i.e. the supply of and demand for labor. He also recognized that not all employments were equally desirable. This led him to his famous proposition of compensating wage differentials: that wages should be inversely related to the desirability of the work. The apparent falsity of this proposition has often been used since then to motivate modifications of the classic analysis. John Stuart Mill (1926) argued for the existence of "noncompeting groups;" these, by regulating the supply of labor to desirable occupations, would determine the generally observed positive relation between wages and other job rewards. As Cain (1976) pointed out, this modification of the classic assumption of a single, competitive market is basically the same idea that much later led to the concept of segmented labor markets. A recent exten- sion of the classic analysis, in the form of human capital theory, has attempted to reconcile the proposition of compensating differentials with re- ality. This theory argues that the assumption of a single competitive market applies within occupations at a given skill level (e.g. Becker 1971a).

Karl Marx believed that the existence of a competitive labor market where labor was bought and sold freely as a commodity was a fundamental charac- teristic of capitalist society. Marxist analysis, with its emphasis on class conflict and change in social structure, has been applied in much recent research on labor markets, including the literature on segmented labor mar- kets. Marx himself, however, treated labor as an abstract homogeneous cat- egory (as in classical economics) and did not provide a systematic analysis of labor market differentiation within the capitalist system of production. In contrast, Weber's (1947) long analysis of the sociological categories of economic action provided numerous concepts relevant for the analysis of labor market structures, particularly in his treatment of the social division of labor. Sociologists have tended to be concerned with aspects of Weber's work other than his analysis of labor markets; until recently, they have generally left labor market analysis to the economist.2 Within labor economics there are two traditions of labor market analysis (see McNulty, 1966, for an his- torical review of the evolution of labor market analysis within economics). One, a continuation of the classical analysis, assumes a perfectly competetive market. In the last 20 years this tradition has developed powerful analy- tic tools: Marginal productivity theory describes the demand side, and human capital theory and the theory of the labor-leisure choice describe the supply side. The second tradition, institutional economics, has emphasized empirical analysis over abstract theorizing and has infused psychological, sociological, historical, and legal notions into research on labor markets. Particularly important have been the contributions of the "neo-institution- alists," who dominated labor economics in the 1940s and 1950s. Like the sociologist, the institutional economist analyzes the structures and processes that differentiate labor markets.

The recent resurgence of interest in labor market analysis may be attrib- uted to (a) the recognition that orthodox economic labor market theory has not explained persistent poverty, discrimination, and income inequality; (b) a revival of interest in both Marxist political economy and the application of Marxist methodology in the analysis of labor market phenomena; (c) the increasing interest among sociologists in incorporating institutional and structural variables in the model for the socioeconomic achievement

process that originated in Blau & Duncan (1967). These developments have created a need to synthesize research and theory. This review attempts to fill the need. We emphasize the most recent contributions to the field.

2.6 Identifying The Sociology of Labor Markets

This review includes contributions to the study of labor market structures originating in both sociology and economics, particularly in institutional and neo-institutional economics. Further, we incorporate literature on labor market institutions from various sub-disciplines of sociology, social stratification and mobility, organizations, and the sociology of occupations and professions.

Parnes (1968) identified five principal actors involved in labor market pro- cesses: the individual worker, the individual employer, workers' organiza- tions, associations of employers, and the government. Rather than use such a list of actors and institutions, we have organized this review around a set of research questions representative of recent developments in the area. Our discussion of the literature follows this topical outline.

1. Conceptions of Labor Markets. Neoclassical economics developed a powerful analytic theory that relies on the assumption of a perfectly competi- tive labor market. This assumption has been challenged repeatedly as too unrealistic for an adequate understanding of empirical processes and for pol- icy formulation. Alternative conceptions of labor markets have been devel- oped; Kerr (1950) provides an early example of such a typology. Attempts to identify what differentiates or segments labor markets have recently gen- erated an extensive literature. The different conceptions determine howspecific research questions are addressed, which variables are examined, and how observed relationships are interpreted.

2. Labor Market Outcomes. Much of the literature on labor market struc- tures and processes has developed around three main topics:

(a) The distribution of job rewards. Conceptual and empirical analyses of labor markets are often justified by their relevance to our understanding of the processes that generate

inequality in society. Most attention here has fo- cused on earnings inequality in different structural settings; there has also been considerable interest in inequalities of prestige, job security, and vari- ous psychological benefits.

(b) Mobility and careers. Study of job mobility bears on changes in the supply and demand for labor. Reynolds (1951) argues that the most impor- tant problem in labor market analysis is to determine the factors that attach workers to a firm and that condition their movement among firms. In socio- logical research, mobility is important in the analysis of achievement pro- cesses and careers. Mobility patterns, accompanied by changes in job rewards, reveal how structural factors associated with labor markets facili- tate or hinder the socioeconomic achievement of individuals.

(c) Labor market segmentation of population groups. A recent theme of the literature on labor market processes has been the distribution of popu- lation groups (defined by race, sex, and ethnicity) among segments of the labor market, and the consequent differences in job rewards and/or career trajectories. A considerable body of literature has focused on the role of dis- crimination and segregation of minorities in explaining these differential outcomes.

3. Social Change in Labor Market Structures. Finally, we discuss changes in labor market structures produced by changes in technology and by the interactions and conflicts among the main actors in the labor market. Included in this section are studies dealing with class conflict in the labor market, the forces that change job structures, and the relation of change in labor markets to change in the social and economic structure of society.

2.7 Labor Markets in Terms of Social Relations

The classical economic theory conceives of labor market processes as outcomes of free exchange in the market. It is often pointed out that the theory ignores the social and political variables that interfere with the free ex- change. Several conceptions of labor market differentiation have been pro- posed in which the social and power relations between labor market actors are crucial for the nature of the market. Some of these conceptions focus on the employment relationship, specifically the bargaining power of

employers vs employees; others focus on the power of occupational groups; finally, class relations have been emphasized.

Phelps (1957) early emphasized the significance of the employment relationship. He delineated different types of labor markets in the United States on the basis of their formal employment rules and employee rights. This led to a classification of labor markets into those where employers have unilat- eral rules, those that are primarily regulated by the government, and those characterized by various union-management agreements.

Thurow (1975) emphasized the relative bargaining power of employers vs employees over the employment contract. This led to a distinction between a "wage-competition" sector where access to jobs is determined by competi- tion among workers over wages, and a job-competition sector where workers in jobs are insulated from competition and where access to vacant jobs and training opportunities are determined by the relative position of job candi-dates in the labor queue. This conception was further elaborated by Sorensen & Kalleberg (1977), who argued for sources of employee bargaining power other than training requirements.

A conception originating in the occupational sociology literature views occupations as having differing levels of control over labor markets. Occu- pations represent groups of individuals who perform similar activities and therefore have similar skills and training, as well as similar amounts of so- cial power deriving from these positions in the social division of labor. Dif- ferences among occupations thus represent differences in the degree to which workers are able to determine the terms of the employment relation-ship. Form & Huber (1976), for example, define a number of sectors on the basis of this criterion: Markets may be self-controlled (owners, managers, directors of large firms), traditional (professional, craft), administered (white-collar workers in government and military bureaucracies), and con- tested (occupations that engage in formal collective bargaining). Differences in power among these groups reflect differences in the ability of

the occupa- tion to defend itself against the incursions of others and to maintain or obtain advantages with respect to a variety of labor market outcomes.

Finally, from a Marxist perspective, Wright (1976) emphasized class po- sition as a source of differentiation of labor markets. He noted "contradic- tory" class positions: managers, who do not own means of production but direct the work of others; semi-autonomous employees, who have autonomy over their own work; petit bourgeois, who own their own means of produc- tion but do not employ labor. From survey data he obtained estimates of the sizes of these various class positions and of the pure working class in order to provide a picture of the class structure of the United States. Further re-search by Wright & Perrone (1977) investigated the income determination process in the various class positions.

2.8 Labor Market Outcomes

The Distribution of Job Rewards Annual earnings and wage rates are the most easily quantified job rewards; they are thus perhaps the most frequently studied in the literature on labor market processes. A comprehensive assessment of the benefits obtained in return for work in the labor market should, however, also consider a range of nonmonetary rewards that provide individuals with status and psycho- logical benefits. The literature on the variables that determine such rewards is enormous; we concentrate here on attempts to examine the differences in job rewards among firms, occupations, industries, and other labor market structures. We focus mainly on the earnings determination process and ex-dude from consideration the large literature on psychic rewards, i.e. job satisfaction. (See Kalleberg 1977 for a discussion.)

In the dominant perspective, the neoclassical theory, wages are seen as jointly determined by supply and demand. Firms will be in competitive equilibrium when they pay workers the marginal products that are deter- mined by their productivity, the prices for the firm's output, and the costs of other factors of production. While the latter will vary from firm to firm, the economic literature on the earnings determination process has tended to treat

demand fluctuations as short-run disturbances and to emphasize stable dif- ferences in worker productivity as sources of differences in earnings. In other words, the supply side described by the human capital theory and the theory of the labor-leisure choice have been emphasized. Further, in human capital theory, differences in the kind rather than the amount of work supplied are usually considered more important in determining rewards. The differences in the kind of work supplied that are relevant to individual pro- ductivity (and hence to earnings differences) are described in terms of the individual's education, ability, experience, and training received on the job. Education and training, it is argued, represent investments made by individ- uals. The earnings differences accounted for by these variables hence repre- sent compensations for the cost of obtaining the skills that form a person's human capital. Earnings forgone comprise a major component of these costs.

A comprehensive statement of human capital theory may be found in Becker (1971 a), a revision of his pioneering statement of 1964. A major empirical study using the theory is presented in Mincer (1974). A review of the literature is given by Blaug (1976); surveys of achievements are presented by Mincer (1970) and by Welch (1975). A critique of the theory from a Marxian perspective is provided by Bowles & Gintis (1975).

Sociological research on the distribution of job rewards has been domi- nated by the causal modeling approach pioneered by Blau & Duncan (1967). The literature has tended to focus on occupational status as the crucial job reward and to stress the role of education in the transmission of parental status to the next generation. A direct extension of the model views income as determined by occupational status and thus by the education and back- grounds of individuals (e.g. Sewell & Hauser 1975). In contrast to eco- nomics, however, sociology has not formulated a deductive theoretical framework to explain the observed association between individual charac- teristics and job rewards.

Human capital theory successfully explains the basic features of the earn- ings determination process. The theory may be extended to include rewards other than earnings. Juster & Duncan (1975) argue that fringe benefits, the quality of working

conditions, stability of employment, and control of over-time should be included for an adequate test of the theory; and Duncan (1976) finds that the explanatory power of the simple human capital earnings model increases as nonmonetary benefits are added to the earnings measure.

Alternatives to the human capital theory's interpretation of the relationship between education and job rewards argue that schooling does not necessarily confer productive skills but may serve as a screening device (Arrow 1973a) or a signal (Spence 1974) that reveals (or is believed to reveal) differences in ability. Education may also be a ranking or credentialing criterion in allocat- ing persons to jobs (Berg 1970; Thurow 1972; Boudon 1974).

In apparent disagreement with the human capital approach, several studies have attempted to show that there are sources of differences in earnings other than individual characteristics. Bibb & Form (1977), for example, ex- amined the linear and additive effects of industrial, occupational, and or- ganizational characteristics on the earnings of a national sample of blue- collar workers. They provided evidence for a "structural" theory of income by demonstrating that their "social structural" variables had greater effects on income than their "human capital" variables. A similar approach was taken by Wachtel & Betsey (1972), who represented the effects of both personal characteristics and a variety of occupational-industrial factors in a linear and additive regression model estimated for a national sample. They found substantial variation in wages among these structural characteristics and regarded them as evidence for a model of the labor market that inte- grates both supply and demand characteristics. Spaeth (1976) examined the linear and additive effects of a variety of job characteristics on income for a national sample of men and found that these had significant effects on in- come. A similar analysis was presented by Thurow & Lucas (1972). Finally, Dalton & Ford (1977), in a recent study that adhered to the traditions estab- lished by economists interested in wage differences arising from industrial characteristics, found a significant relationship between market concentration and wages after adjusting for the human capital of workers.

This last line of research is not necessarily inconsistent with human capital interpretations. Kalachek & Raines (1976), for example, found similar ef- fects on wages produced by occupational and industrial characteristics but interpreted these as the result of "market imperfections" due to persisting disequilibriums in the market. They further argued that since such human capital variables as education affect an individual's placement in various occupational-industrial structures, the total effect (direct effect and indirect effect via the structural variables) should be interpreted as the "returns" to human capital. Consistent with neoclassical economic reasoning, these "structural" factors should be interpreted as ways in which human capital gets translated into rewards. In any event, the fact that there are differences in earnings due to demand differences does not invalidate human capital theory, although applications of the theory may have tended to ignore the demand side. The results of two studies illustrate the utility of a human capital explanation despite the inclusion of nonindividual variables. In a study in Japan, Stoikov (1973) found that wage differences among Japanese manufacturing firms were explained almost entirely by differences in the skflls and knowledge possessed by workers. Similarly, Mueller (1974) found that the processes by which occupational status and income are achieved are relatively homogeneous across large American communities, though the levels of attainment varied among communities.

Most empirical findings about the distribution of job rewards can be ac- commodated by the neoclassical theory, but a considerable and growing body of literature argues that the "imperfections" of the competitive market are too important to ignore. This literature analyzes differences among labor market segments in the processes by which job rewards are distributed to individuals. There have been two general approaches in the research on the attainment process in different labor markets. One attempts to identify labor market segments on the basis of, for example, occupations and industries. The other approach focuses on specific local or internal labor markets be- cause of their intrinsic interest or theoretical relevance.

CHAPTER THREE: THEORETICAL FRAMEWORK

3.1 Three Dominant Approaches to Social Capital

3.1.1 Pierre Bourdieu

In the past two or three decades, scholars have taken an interest in three different perspectives on social capital in particular. These are based on the ideas of Pierre Bourdieu, James Coleman, and Robert Putnam. The first two are part of the background story, so they get a couple of pages each here, and then Putnam – the king of social capital writers, and the key source for most discussions of the topic today – is discussed in more depth.

Pierre Bourdieu, the influential French sociologist Pierre Bourdieu (1930–2002) was interested in the ways in which society is reproduced, and how the dominant classes retain their position. For Bourdieu, this could not be explained by economics alone, and he is especially known for his discussion of cultural capital – the ways in which people would use cultural knowledge to undergird their place in the hierarchy. His most famous book, Distinction (1984), explores the ways in which the trappings of middle-class taste and cultivation are used by people as cultural signifiers, as they seek to identify themselves with those 'above' them on the social ladder, and to demonstrate their difference from those 'below'. This is not an especially creative struggle, and serves to reinforce those middle-class pretensions. Nevertheless, Distinction was groundbreaking as a detailed study of the ways in which cultural artefacts and knowledge were brought into play, alongside basic economics, in the dynamics of social class relations. Reflecting on this work, Bourdieu has said that:

> A general science of the economy of practices that does not artificially
> limit itself to those practices that are socially recognised as economic must
> endeavour to grasp capital, that 'energy of social physics'… in all of its
> different forms… I have shown that capital presents itself under three

fundamental species (each with its own subtypes), namely, economic capital, cultural capital, and social capital. (Bourdieu, in Bourdieu & Wacquant, 1992: 118–9)

He goes on to define social capital as follows:

Social capital is the sum of the resources, actual or virtual, that accrues to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition. (Bourdieu, in Bourdieu & Wacquant, 1992: 119)

This definition, in itself, is similar to other definitions, such as those that we will see below, and Hanifan's approach above. Where other writers see social capital as a fundamentally heartwarming network of social connections, however, Bourdieu uses it to explain the cold realities of social inequality. Here, social capital reflects the very worst side of the saying, 'It's not what you know, it's who you know'. His term points towards a world where the elite jobs go to the posh men (yes, typically men), who went to the exclusive schools. Bourdieu could well be right – in fact, studies of social mobility continue to show that, to varying degrees, this is what happens.

As a use of the idea of social capital, though, it is the most depressing of the models, as its focus is only upon the middle and upper classes making sure that their spheres remain exclusive. Although distinct from economic capital, and operating in a different way, it is inseparable from it. Here, social capital is another tool in the armoury of the elite, deployed to ensure that the 'wrong' kind of people don't enter their circles (Bourdieu, 1986, 1992). Most models of social capital picture it as a force binding groups together in a way which is basically lovely for the people concerned; the sweetness only turns sour – revealing the 'dark side' of social capital – when we judge that the group in question may have unsavoury intentions towards *other people*.

Bourdieu tends to assign so much power to the social context that his universe 'ultimately remains one in which things happen to people, rather than a world in which they can

intervene in their individual and collective destinies' (Jenkins, 2002: 91). His version of social capital lands in this context, offering an explanation of the ways in which those at the top of social hierarchies can hold onto their position through a range of subtle techniques, which cumulatively form an iron grip. This is unappealing to those, like myself, who would like to have some optimism about the possibilities of social change, although that doesn't mean it's wrong. Nevertheless, we might like to consider some alternative models, which at least hold out some *potential*.

3.1.2 James Coleman

At a similar time – the late 1980s and early 1990s – and across the Atlantic, the eminent American sociologist James Coleman (1926–95) was also writing about social capital. Indeed, although their approaches were rather different, he collaborated for a while with Bourdieu, co-chairing a 1989 conference in Chicago, and co-editing a 1991 book, on 'Social Theory in a Changing Society'. Coleman also linked social capital with economics, but in a different way. He sought to combine the insights of sociology and economic theory, seeing social capital as a way of making sense of the overly rational and individualistic models of traditional economics. In particular, he used it to give a human and more collective social face to rational choice theory, which seemed to offer a grand predictive model of how things work, but – less helpfully – saw people more like ants in an ant farm, than as citizens in a civilization. Coleman's approach leads to a broader view of social capital, where it is not seen only as stock held by powerful elites, but notes its value for all kinds of communities, including the powerless and marginalized.

Let's look at Coleman's arguments in more detail. He opens his key paper introducing social capital by outlining 'two broad intellectual streams in the description and explanation of social action' (Coleman, 1988: 95). The first is the sociological approach, which sees the individual in a social and cultural environment, subject to 'norms, rules, and obligations' (ibid). The second is the economic approach, which is about self-interested, independent individuals seeking to fulfil their goals. He says that the problem

with the first one is that if the actor is a product of their environment, then they have no 'internal springs of action,' and no individual drive or purpose. We know that life is not like that. But, despite being drawn to the elegance of economic models, Coleman saves particular scorn for this second approach:

> The economic stream, on the other hand, flies in the face of empirical reality: persons' actions are shaped, redirected, constrained by the social context; norms, interpersonal trust, social networks, and social organization are important in the functioning not only of the society but also of the economy. (Coleman, 1988: 96)

Coleman seeks to develop a version of sociology which borrows from both these streams, taking in particular the economist's idea of a rational individual engaging in purposive action, but using it to 'account not only for the actions of individuals in particular contexts but also for the development of social organization' (1988: 96). He proposes a model in which social capital is one of the potential resources, which an actor can use, alongside other resources such as their own skills and expertise (human capital), tools (physical capital), or money (economic capital). Unusually, though, social capital is not necessarily 'owned' by the individual but instead arises as a resource, which is available to them. So, for example, if you live on a street where you can rely on your neighbours to look out for your children, then you have access to a form of social capital which other people, in less trusting or well-bonded streets, do not.

Furthermore, this is not a resource which I could give or sell to my friend on the other side of town. To get access to it, she would have to move into my street (or one like it) and establish some relationships with her neighbours – all of which would take time and effort – because social capital is a resource based on trust and shared values, and develops from the weaving-together of people in communities (Coleman 1988: 98).

Coleman also highlights the role of social capital as a source of useful everyday information and of norms and sanctions, which can facilitate certain kinds of actions, but

can also be restrictive (Coleman, 1988: 104–5). In particular he singles out 'one effect of social capital that is especially important: its effect on the creation of human capital in the next generation' (ibid: 109). This 'human capital', such as a secure sense of self-identity, confidence in expressing one's own opinions, and emotional intelligence, enables young people to become better learners, and so to be more successful in school and in society. This human capital emerges out of social capital, because this kind of development depends upon relationships, most obviously within the family (or other support network). As Coleman points out:

> If the human capital possessed by parents is not complemented by social capital embodied in family relations, it is irrelevant to the child's educational growth that the parent has a great deal, or a small amount, of human capital. (Coleman, 1988: 110)

In other words, the wealth of knowledge inside the head of a well-educated journalist or lawyer, reading his newspaper at the breakfast table, will be of no use to his son unless he puts down the paper and communicates with him properly – not just to tell him 'facts' but to support him as a human being.

Social capital, then, in any context, relies on people looking beyond themselves and engaging in supportive or helpful actions, not because they expect a reward or immediate reciprocal help, but because they believe it's a good thing to do. Coleman can't quite square this with the kind of rational action that his theory assumes:

> [Social capital] is an important resource for individuals and may affect greatly their ability to act and their perceived quality of life. They have the capability of bringing it into being. Yet, because persons other than the actor largely experience the benefits of actions that bring social capital into being, it is often not in his interest to bring it into being. (Coleman, 1988: 118)

We might think that he could overcome this problem by suggesting that when people are altruistic, they might still be carrying the (perfectly reasonable) hope that if one gives support to others, one contributes to a general culture of community helpfulness and support, which might 'pay off' one day when we ourselves need a hand. But actually Coleman gets around the apparent 'irrationality' of altruistic behaviour by saying that social capital arises as a 'by-product' of other activities. This particular assertion seems to be an unnecessary return to the individualism of economics from which he sought to escape. I would argue that many people engage in supportive activities, helping colleagues or neighbours, because they are 'knowing actors', aware of the values of community and mutual support, and that they want to make that part of their lives. They also may simply be happy to do nice things for people that they like.

> As John Field notes, Coleman has in common with Bourdieu that 'neither pays much heed to affect, to the fact that people like, love or loathe one another – and therefore associate together or avoid each other – for reasons that lie outside the domain of rational calculation' (2008: 31).

We have also seen from the happiness studies, discussed above, that people are not good at predicting what will make them happy – as seen in our tendency to invest too much time in efforts to get a little more money. Indeed, the irrationality of human beings has become a whole field of study in itself.

This research is nicely summarized in Joseph Hallinan's book *Errornomics* (2009), which digests the evidence into chapters which answer the question of why people make mistakes under headings such as 'We all think we're above average', 'We skim', 'We look but don't always see', 'We wear rose-coloured glasses', and 'We'd rather wing it'. Each of these is an empirically-documented fact about everyday psychology, which we cannot really change: after all, how could we hope to persuade the population that their belief that they are the exception to most rules, and have above average abilities, is false? However, these quirks of common psychology need to be accepted by those trying to create scientific models of human behaviour.

Coleman's contribution, then, offers a broader view of social capital. Unlike Bourdieu's pessimistic description of the eternal self-reproduction of elites, Coleman highlights the usefulness of social capital as part of a potential solution for marginalized learners, and its importance in parenting, for people of any social class. Less helpfully, he doesn't seem willing to entirely follow through on his own observations about the limitations of rational, individualistic economic theory – as seen in the rather robotic 'does not compute' refusal to understand why someone might be helpful to someone else without any obvious reward.

3.1.3 Robert D. Putnam

At the beginning of his "Making Democracy work" Putnam says that in drawing his conclusions about Italy's governmental reforms during the last few decades, his purposes are theoretical and his method empirical (1993, 3). In this paper I will concentrate on his theoretical conclusions, especially about civil society. The main question of Putnam's Italian study is: what are the preconditions for the development of strong, responsive representative institutions and a prosperous economy? The governmental reform of 1976-77 in Italy, responsible for establishing new bodies of local government, offers a good opportunity to provide an answer to this question. The main result of Putnam's study is that governmental reform succeeded well in Northern Italy because it was supported by a florescence of "civic community". This was also the main reason for the economic prosperity of Northern Italy in comparison with the Southern part of the country. In areas with a well functioning local government and a prosperous economy, the public activity of citizens has created an atmosphere of mutual co-operation, vital social networks, equal political relations and the tradition of citizen participation. Behind all of these phenomena radiates the ethos of mutual trust between citizens (Putnam 1993, 6-7).

The activity of a civic community, a major factor behind economic and governmental effectiveness, is measured in Putnam's study in terms of voting activity, the reading of

newspapers, and participation in sports clubs and voluntary cultural associations. The result of regional comparison is as follows:

> "In the North the crucial social, political, and even religious allegiances and alignments were horizontal, while those in the South were vertical. Collaboration, mutual assistance, civic obligation, and even trust - not universal, or course, but extending further beyond the limits of kinship than anywhere else in Europe in this era - were the distinguishing features in the North. The chief virtue in the South, by contrast, was the imposition of hierarchy and order on latent anarchy" (Putnam 1993, 130)

These differences between horizontal and vertical patterns of organizing social allegiances and alignments had fatal consequences for the development of political actors. "In the North people were citizens, in the South they were subjects" (op.cit. 121). The quality of the civil society "predestined" to a large extent the future economic and political development of the region. Putnam calls this historical ballast (or treasure) "path dependence": "where you can get to depends on where you are coming from, and some destinations you simply cannot get to from here"

The concept of social capital expresses the sociological essence of communal vitality. A solution to the problem of common action and opportunism presupposes the development of voluntary collective action, and it is connected to the inherited social capital in the community. Forms of social capital are general moral resources of the community, and they can be divided into three main components: first, trust (and more generally 'positive' values with respect to development); second, social norms and obligations; and third, social networks of citizens' activity, especially voluntary associations.

3.2 Economic theory of labor supply

In the neo-classical model, an individual makes labor supply decisions by maximising a utility function subject to a wealth or budget constraint. An individual's decision to

participate in the labor market (and work a desired number of hours) can be explained in terms of a trade-off between time spent at home on market-substitution activities, leisure, and paid work. The decision to work or not work depends on a comparison between the wage that can be obtained in the market and their reservation wage (Blundell and MaCurdy 1999). The simple neo-classical model of labor supply described above is somewhat unsatisfying in that it only allows a limited role for family factors. To address this limitation, a range of models of family labor supply have been developed. See Blundell and MaCurdy (1999) for a detailed discussion of these models.

These theoretical labor supply models have a number of implications for what factors will determine labor supply. The wage that can be obtained in the labor market is a key factor. Another important factor is the amount of unearned income received. Clearly specialisation within the household between the production of home and market based goods is important. For women, the age of their children is likely to be important as the balance between paid work and child bearing and child rearing responsibilities change over the lifecycle (Killingsworth 1983; Hersch and Stratton 1994). Given that a person wishes to mother, employment will be determined by whether they receive job offers with a wage greater than their reservation wage. This will be depend, in part, upon a woman's marketable skills and hence productivity. In addition, the number and quality of job offers will be affected by the extent to which there is discrimination in the labor market.

Brewer (2003) stated that although social capital was originally conceived as a community-wide concept, it should be observable at the individual level. Baum and Ziersch (2003) disagreed with this, identifying that Bourdieu identified it at the individual level and that Putnam since at the community level. Coleman argued that social capital is not an attribute of individuals but a context-dependent aspect of social structure (Hogan and Owen 2000; Robinson 2000). Glaeser, Laibson *et al* (2002) identified that post-Coleman literature has almost universally viewed social capital as a community-level attribute. Social capital and civil society are essentially social and collective property of social systems, not a characteristic of individuals (Newton 2001). The key empirical

difference between human and social capital is that social capital inheres in relations between individuals and groups, not in individuals per se (Edwards and Foley 1998). The general consensus in the literature is that social capital is identifiable from the individual level to the level of the nation however it is clear that social capital is evident at any level where there is identification and belonging. The classification into micro (individual), meso (group) and macro (societal) is useful in analysis of social capital (refer to figure).
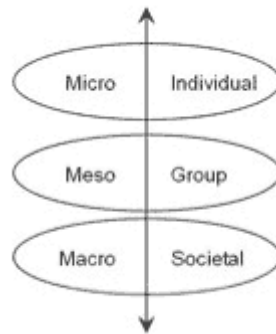
Figure 3.1: Illustration of the interaction of levels at which social capital exists.

The goods produced by social capital can also occur at different levels of the social structure (Paxton 1999). It can be a private good or a public good depending on the level (Aldridge et al. 2002). Onyx and Bullen (2001) supported this identifying that social capital appears to be both a private and a public good. There is no consensus in the literature however, Coleman (1988) argued that social capital is a public good and inversely Fukuyama posited that it is in the fact of a private good (Fukuyama 2001; Fukuyama 2002). Fukuyama (2002) suggested that social capital is not a public good but a private good that produces extensive positive and negative externalities.

Considering the review of literature, researcher emphasized on the following concepts to demonstrate the plan of the research. Concepts used in the analytical scheme of this theoretical framework have not been analyzed in this chapter as it has been discussed later in the methodology chapter as operational definitions.

3.3 Theoretical Arbitration:

The research objectives of this dissertation make a quantitative appeal. In doing so, researcher has developed and designed the research project under ***cause-effect*** model with sample survey. As social capital has been defined as '*any social relation which can generate utilities for individuals*', so theoretically it is not unjustified to demonstrate that social capital might take part to secure the existing attainments of the employee under the labor market. If the employee is not under any structural constraint then he or she can expand his or her accomplishments by the positive effects of surrounded social network.

Family as the primary institution within the society always takes the responsibility of rearing, caring, and nurturing of individuals. Ignoring the insignificant malfunction of family we can repeatedly utter that it is family where individuals gets the primary supports for all needs in any occasion. Hence, for individuals' generation of social capital start. By acquiring education individuals increase their human capital along with age differentials. But in accordance, input of parental social capital contributes sharply for continuous improvement of human and physical capital. Just before and on the eve of entering into the labor market a consistent inflow of parental social and human capital function positively for individuals to access service class. So for individuals this inflow of parental capital continues at every stage of socialization process as an established function of the 'families of orientation' (both father's and mother's family).

After getting touched with marriage relation, individuals generate the family of procreation as well as they expand their new family network with spouse's parental family which is designated as the 'family of alternative' in this research. By this occasion structure of family network has been expanded for the individual and hence the new input of social capital embedded within his or her existing volume of social capital. To some extent, undeniably, this new social capital might create some more new externalities, new opportunities, and new avenues for individuals.

In course of the development of human capital individuals invest their sociability to their surrounded span of everyday network. By this process social ties between interacting

individuals got more paved day by day. For individual, differential associations are being built and new versatile interactions with diverse groups widen. From the very beginning of the generation of human capital (mainly educational attainments) individuals who are built on same trajectories (educational institution), are being diversified into different arena of societies as because of their unequal achievement of human capital. But penetration and interpenetration of different values relating to social, cultural, political, educational, religious, and most importantly economic aspects of self development in tertiary educational institutions create greater opportunities for individual level attainments from labor market.

Taking the above mentioned theoretical abstraction in mind, present researcher arbitrates the conceptual mapping as:-

> "Individual's social capital is the combined construct of four dimensional factors *i.e.* a) *family factors*, b) *associational factors*, c) *institutional factors* and d) *human capital factors*. First three factors are auxiliary as well as complimentary to fourth factor but all of them are mutually inclusive. By the shared effects along with different magnitudes of all of those factors make individuals possible to entry into the labor market. After getting entered into the labor market same functional entities of all these factors continue and new expansion occurs within the volume of existing social capital of individuals. His or her gained entry into the labor market will be sustained with essential attainments in the operational arrangement of the institution. Some other day these individuals find themselves as the source of social capital for others."

In the analysis of dimensional problems, social capital has been located at the level of the individual, the informal social group, the formal organization, the community, the ethnic group and even the nation (Bankston and Zhou 2002; Coleman 1988; Portes 1998; Putnam 1995; Sampson et al. 1999). There are divergent views in the literature; some authors posit social capital at the individual level, some the community level and others have a more dynamic view. Kilby (2002) stated that social capital exists within levels or

scales as one feels belonging to family, community, profession, country, etc, simultaneously. Adler and Kwon (2002) supported this stating that social capital's sources lie in the social structure within which the actor is located. Thus, social capital can be thought of as having an individual and an aggregate component (Buys and Bow 2002; Newton 1997; Slangen et al. 2003). That is, social capital belongs to the group and can be used by the group or individuals within the group (Kilpatrick et al. 1998; Sander 2002). For the hypothetico-deductive reasoning three dominant approach of social capital has been discussed here.

CHAPTER FOUR: CONCEPTS AND DEFINITIONS

4.1 Definitions

The first systematic contemporary analysis of social capital was produced by Pierre Bourdieu, who defined the concept as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition (Bourdieu 1985, p. 248; 1980). This initial treatment of the concept appeared in some brief "Provisional Notes published in the *Actes de la Recherche en Sciences Sociales* in 1980. Because they were in French, the article did not garner widespread attention in the English-speaking world; nor, for that matter, did the first English translation, concealed in the pages of a text on the sociology of education (Bourdieu 1985).

This lack of visibility is lamentable because Bourdieu's analysis is arguably the most theoretically refined among those that introduced the term in contemporary sociological discourse. His treatment of the concept is instrumental, focusing on the benefits accruing to individuals by virtue of participation in groups and on the deliberate construction of sociability for the purpose of creating this resource. In the original version, he went as far as asserting that the profits which accrue from membership in a group are the basis of the solidarity which makes them possible (Bourdieu 1985, p. 249). Social networks are not a natural given and must be constructed through investment strategies oriented to the institutionalization of group relations, usable as a reliable source of other benefits. Bourdieu's definition makes clear that social capital is decomposable into two elements: first, the social relationship itself that allows individuals to claim access to resources possessed by their associates, and second, the amount and quality of those resources.

Throughout, Bourdieu's emphasis is on the fungibility of different forms of capital and on the ultimate reduction of all forms to economic capital, defined as accumulated human labor. Hence, through social capital, actors can gain direct access to economic resources (subsidized loans, investment tips, protected markets); they can increase their cultural capital through contacts with experts or individuals of refinement (i.e. embodied cultural

capital); or, alternatively, they can affiliate with institutions that confer valued credentials (i.e. institutionalized cultural capital).

On the other hand, the acquisition of social capital requires deliberate investment of both economic and cultural resources. Though Bourdieu insists that the outcomes of possession of social or cultural capital are reducible to economic capital, the processes that bring about these alternative forms are not. They each possess their own dynamics, and, relative to economic exchange, they are characterized by less transparency and more uncertainty. For example, transactions involving social capital tend to be characterized by unspecified obligations, uncertain time horizons, and the possible violation of reciprocity expectations. But, by their very lack of clarity, these transactions can help disguise what otherwise would be plain market exchanges (Bourdieu 1979, 1980).

A second contemporary source is the work of economist Glen Loury (1977, 1981). He came upon the term in the context of his critique of neoclassical theories of racial income inequality and their policy implications. Loury argued that orthodox economic theories were too individualistic, focusing exclusively on individual human capital and on the creation of a level field for competition based on such skills. By themselves, legal prohibitions against employers racial tastes and implementation of equal opportunity programs would not reduce racial inequalities. The latter could go on forever, according to Loury, for two reasons—first, the inherited poverty of black parents, which would be transmitted to their children in the form of lower material resources and educational opportunities; second, the poorer connections of young black workers to the labor market and their lack of information about opportunities: The merit notion that, in a free society, each individual will rise to the level justified by his or her competence conflicts with the observation that no one travels that road entirely alone. The social context within which individual maturation occurs strongly conditions what otherwise equally competent individuals can achieve. This implies that absolute equality of opportunity, is an ideal that cannot be achieved. (Loury 1977, p. 176).

Loury cited with approval the sociological literature on intergenerational mobility and inheritance of race as illustrating his anti-individualist argument. However, he did not go on to develop the concept of social capital in any detail. He seems to have run across the idea in the context of his polemic against orthodox labor economics, but he mentions it only once in his original article and then in rather tentative terms (Loury 1977). The concept captured the differential access to opportunities through social connections for minority and nonminority youth, but we do not find here any systematic treatment of its relations to other forms of capital.

Loury's work paved the way, however, for Coleman's more refined analysis of the same process, namely the role of social capital in the creation of human capital. In his initial analysis of the concept, Coleman acknowledges Loury's contribution as well as those of economist Ben-Porath and sociologists Nan Lin and Mark Granovetter. Curiously, Coleman does not mention Bourdieu, although his analysis of the possible uses of social capital for the acquisition of educational credentials closely parallels that pioneered by the French sociologist.1 Coleman defined social capital by its function as "a variety of entities with two elements in common: They all consist of some aspect of social structures, and they facilitate certain action of actors—whether persons or corporate actors—within the structure" (Coleman 1988a: p. S98, 1990, p. 302).

This rather vague definition opened the way for relabeling a number of different and even contradictory processes as social capital. Coleman himself started that proliferation by including under the term some of the mechanisms that generated social capital (such as reciprocity expectations and group enforcement of norms); the consequences of its possession (such as privileged access to information); and the "appropriable" social organization that provided the context for both sources and effects to materialize. Resources obtained through social capital have, from the point of view of the recipient, the character of a gift. Thus, it is important to distinguish the resources themselves from the ability to obtain them by virtue of membership in different social structures, a distinction explicit in Bourdieu but obscured in Coleman. Equating social capital with the resources acquired through it can easily lead to tautological statements.

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Equally important is the distinction between the motivations of recipients and of donors in exchanges mediated by social capital. Recipients' desire to gain access to valuable assets is readily understandable. More complex are the motivations of the donors, who are requested to make these assets available without any immediate return. Such motivations are plural and deserve analysis because they are the core processes that the concept of social capital seeks to capture. Thus, a systematic treatment of the concept must distinguish among: (a) the possessors of social capital (those making claims); (b) the sources of social capital (those agreeing to these demands); (c) the resources themselves. These three elements are often mixed in discussions of the concept following Coleman, thus setting the stage for confusion in the uses and scope of the term.

Despite these limitations, Coleman's essays have the undeniable merit of introducing and giving visibility to the concept in American sociology, highlighting its importance for the acquisition of human capital, and identifying some of the mechanisms through which it is generated. In this last respect, his discussion of closure is particularly enlightening. Closure means the existence of sufficient ties between a certain number of people to guarantee the observance of norms. For example, the possibility of malfeasance within the tightly knit community of Jewish diamond traders in New York City is minimized by the dense ties among its members and the ready threat of ostracism against violators.

The existence of such a strong norm is then appropriable by all members of the community, facilitating transactions without recourse to cumbersome legal contracts (Coleman 1988a:S99). After Bourdieu, Loury, and Coleman, a number of theoretical analyses of social capital have been published. In 1990, W.E. Baker defined the concept as a resource that actors derive from specific social structures and then use to pursue their interests; it is created by changes in the relationship among actors (Baker 1990, p. 619). More broadly, M Schiff defines the term as the set of elements of the social structure that affects relations among people and are inputs or arguments of the production and/or utility function (Schiff 1992, p.161). Burt sees it as "friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and

human capital (Burt 1992, p. 9). Whereas Coleman and Loury had emphasized dense networks as a necessary condition for the emergence of social capital, Burt highlights the opposite situation. In his view, it is the relative absence of ties, labeled structural holes, that facilitates individual mobility. This is so because dense networks tend to convey redundant information, while weaker ties can be sources of new knowledge and resources.

Despite these differences, the consensus is growing in the literature that social capital stands for the ability of actors to secure benefits by virtue of membership in social networks or other social structures. This is the sense in which it has been more commonly applied in the empirical literature although, as we will see, the potential uses to which it is put vary greatly.

4.2 Concepts

4.2.1 Social Capital: For present research, researcher defines social capital as 'any social relation that generates utility for individuals. And this utility might be economic, social, cultural, political etc. in the form of consumption of goods and services, gratification on livelihood operation, status attainments and so on.' In the context of employment, social capital can be seen as a positive asset for those who are seeking to find work or change jobs within the labor market. It can also be considered in terms of creating opportunities for, or barriers to, career progression and/or job retention. As social capital is an influential social fact it can open various avenues for individuals to participate in the labor market.

4.2.2 Human Capital: Human capital is the stock of competencies, knowledge and personality attributes embodied in the ability to perform labor so as to produce economic value. Human capital increases through education, experience, and age. Many early economic theories refer to it simply as workforce, one of three factors of production, and consider it to be a fungible resource-homogeneous and easily interchangeable.

4.2.3 Neighborhood Attachment: This refers to the degree to which people have good (!) neighborly relations. It can be measured both by attitudinal and behavioral questions. The former include questions such as 'I belong to this neighborhood' and later includes questions such as 'I borrow things and exchange favors with my neighbors'. Neighborhood attachment functions effectively for sending and receiving information about labor market or any other social fact.

4.2.4 Civic Participation: It can be explained either by counting the number of memberships in specific civic organizations as an index of the stock of social capital in society at a particular time or by combining certain organizations into associational types on theoretical grounds. This is a key aspect of social capital for individuals as it creates the opportunity for them to use and express their potentials to intellectual arena.

4.2.5 Labor Market Attainments: Consumed goods and services (gained and sustained) are being treated as labor market attainments. It includes income, new memberships in organizations, status gaining, social and economic securities etc. labor market attainments are not merely the income or the economic benefits that individuals might enjoy from the labor market, indeed, it is more beyond economic gains. In the era of this information revolution, it is evident that information functions more than currency. So accessing of information is an attainment what can be secured by an individual just from his/her network structure.

4.2.6 Network Structure: There is an impressive diversity of empirical evidence showing that social capital is more a function of brokerage across structural holes than closure within a network, but there are contingency factors (Burt, 2000). For present research, *network structure* is defined by the volume of the network diversity. It seeks to measure the extent of people's intimate relations with those beyond immediate family and therefore the extent of supportive networks. Such networks need not be based in any particular location and do not require any assumptions about geographical proximity. For geographical broadening and socio-economic deepening social network is very important to individuals as it increases opportunities for them to enter in the wider societies.

4.3 Conceptual Framework

The diagram below is a pivotal representation of concepts and major variables by which theoretical grounding of the research had been in the operation. The effect of social capital on labor market attainments has been measured by the directions indicated in the diagram. Researcher has not mentioned indicator level and those will be uncovered on the eve of data collection. Working definitions of few concepts used in this diagram have been explained in the above *Concept*.
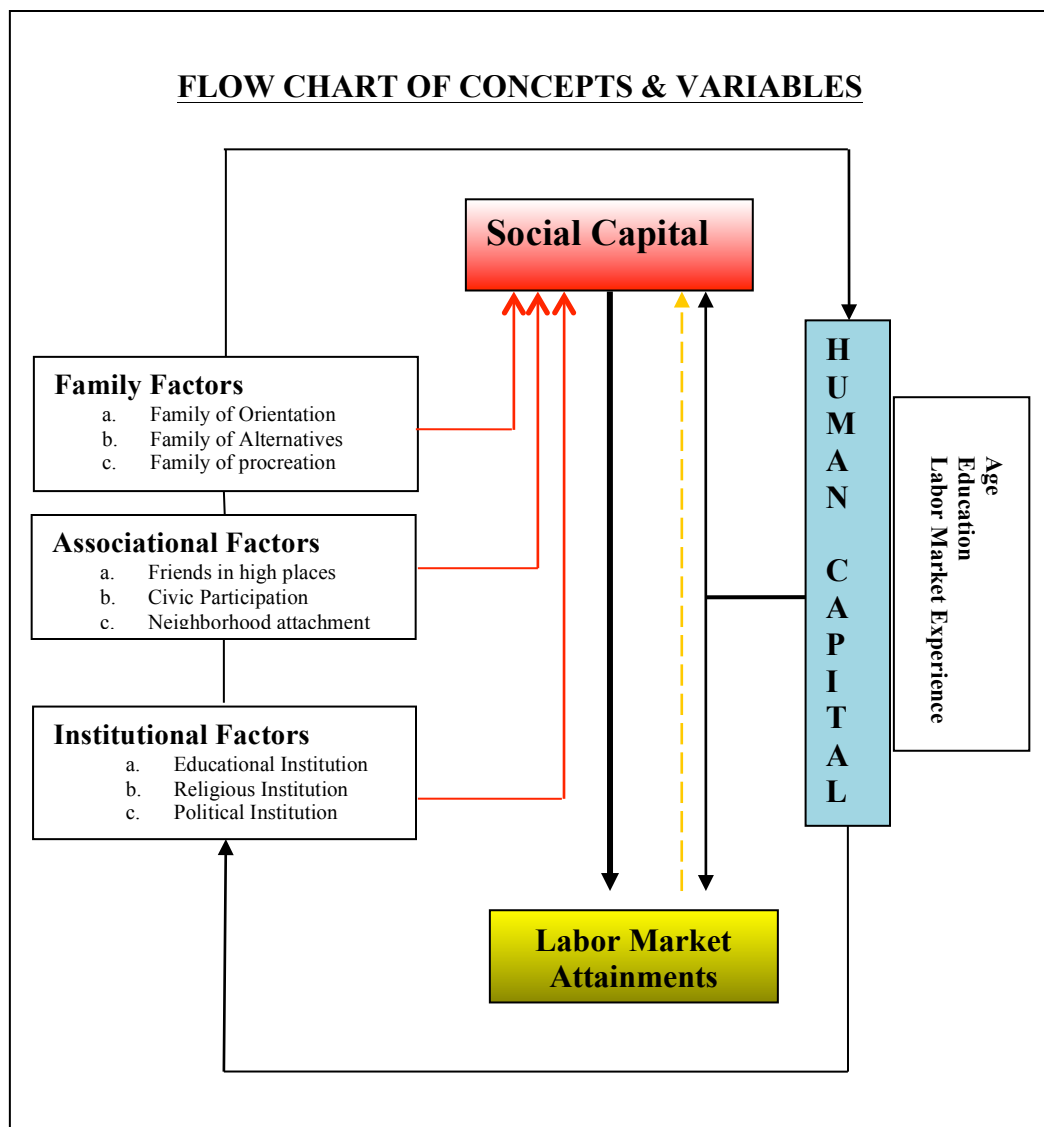
Fig 4.1: The conceptual Framework

This pivotal representation excerpts the idea that social capital is being generated by three major factors i.e. family factors, associational factors, and institutional factors. Human capital is also dependent on those factors and a vice-versa relations persisting but on different magnitudes. Dashed line indicates the weak effect, straight lines indicate direct effects, and bolded line indicates the strong effect.

4.4 Hypotheses and Propositions:

The available data for testing hypothesis is HIES data. In order to take decision on the research question, the major I hypothesis I tested is *'civic engagement contribute to increase income.'* In the logit model we limit the significance level for 0.05. Civic engagement is measured through the membership in either NGO or in the Social Safety Net Programs (SSNPs). To complement this hypothesis, researcher has followed some more propositions, which are verified by qualitative data. The propositions are as follows:

1. Friendship network is an essential tool for gaining extra attainments from the labour market.
2. Kith-kin-clan relationship is an easy way to access services in Bangladesh.
3. Patronage systems shape and control individuals whether they can access social policies.
4. Structural elements like norms, values and social institutions either restrict or enable human agencies, which eventually contribute toward individual wellbeing.
5. Membership in CBO, i.e. new governance techniques creates new opportunities and expand social capital for individuals.

CHAPTER FIVE: METHODOLOGY

5.1 Personal Reflections on the Research Process

Although it is a truism, this project has been a personal journey for the author. Coming from sociology background, I started the expedition with stock knowledge at hand about sociological theory and research on the eve of the commencement of the project. Having the commitment from the philosophy of research, I have applied the cognitive and experiential knowledge from my education and training on it in accordance with the confirmatory sociological endeavors.

The first initiative and idea were woven within the philosophy of positivism. 'Scientific' and 'positivist' methodologies argue that it's possible as well as desirable to study social behavior in ways similar to those used by natural scientists to study behavior in the natural world. It is a claim that a basic principle of social systems consists of structures that exist independently of individuals; they represent behavior at the institutional level of society and peoples experience structures as forces that push us to behave in ways that shape our individual behavioral choices. For example the rules of language structure the way we socially interact. And then, actions are the study of behavior (social structures) rather than their effects (the different choices people make). Structures are real and objective forces; albeit they can't be seen, their effects can be (empirically) observed.

Thus, the forces shaping social behaviour can be discovered using similar methods to those used in sciences such as Physics – systematic observations that create highly reliable knowledge, organized and tested using something like Popper's Hypothetico-Deductive model of research. Quantitative methods are generally favoured because they allow for the collection of factual data. Methods such as questionnaires / structured interviews, experiments, comparative and observational studies are acceptable because they offer higher levels of reliability than qualitative methods. So for sociologists, knowledge consists of identifying facts about how and why people behave as they do

and, eventually, making connections between different facts to produce theories that explain behaviour.

As it is evident in the philosophy of science that positivism does not allow the in-depth analysis of social actions. Thus, constructionism as a parallel and complementary tool in the research process which ascertain the rigor of the social research. However, blending qualitative data, this research project embeds the combination of ordinal level data with interval level attributes for taking precision using *fuzzy logic*. By subjective judgment call (face validity) narratives are taken in the form of ordinal level data and then these data have been processed by *fuzzy logic*. This is achieved by applying theoretical perspectives of sociology and mathematics.

In doing so, the thesis gives a voice to growing segment of sociologists in Bangladesh who are typically overlook the methodological metaphors in advanced sociological researches. The focus on labor market attainment (income and employment) belies the fact that manifestations of social capital among respondents are highly envisioned in Bangladesh. Correspondingly there will be a huge potential payoff to study issues relating to poverty alleviation, development initiatives, social and environmental policies, and corruption etc in accordance with the study of social capital research.

5.2 Research Design:

It is not prevalent any longitudinal sociological study on social capital in Bangladesh. In this context it might be said that this study will be one of the pioneering sociological (academic) research on studying the effect of social capital on labor market in Bangladesh. The research theme requires a quantitative appeal of social survey. So taking constructionist manner of research in mind present researcher will make generalization through sample survey on studying the effect of social capital on labor market. Bourdieu's principal concentration on social capital was with the role of education which magnify the 'habitus' and thus formation of social capital starts. For instance, entry into

the labour market is the highest manifestation of the outcome of social capital, where all sorts of positive and negative consequences of social capital might come into the social milieu.

A research design is the logical and systematic planning and directing of a piece of research. The design results from translating a general scientific model into varied research procedures. The design has been geared to the available time, energy and money; to the availability of data; to the extent to which it is desirable or possible to impose upon persons and social organizations, which might supply the data. E. A. Suchman states that "there is no such thing as a single or 'correct' design…. Research design represents a compromise dictated by the many practical considerations that go into social research…. [Also] different workers will come up with different designs favoring their own methodological and theoretical predispositions…. A research design is not a highly specific plan to be followed without deviations, but rather a series of guideposts to keep one headed in the right directions" (Suchman, 1954:27). In other words, a study design is tentative. As the study progresses, new aspects, new conditions, and new connecting links in the data come to light, and it is necessary to change the plan as circumstances demand. An "exactitude complex" or lack of flexibility and rigid pursuit of a plan where, as Ernest Greenwood states it, "every fact is sanctified because it is a fact," can destroy the usefulness of an entire study. (Young: 1996)

The most meaningful and revealing studies are those that are conceived from a definite form of view, but the views are modified as necessary in the process of study, as well as those that are dominated by a definite set of scientific interests, which can be enlarged or curtailed, as the study in progress. In order to secure the claims of the result found in the study a mixed design approach is followed in this research process.

5.3 Form of research design of the present study

Any researcher who is about to test a hypothesis faces some fundamental problems that must be solved before the project starts. Whom shall we study? What shall we observe?

When will observations be made? How will the data be collected? The research design is the 'blueprint' that enables the investigator to come up with solutions to these problems and guides researcher in the various stages of the research.

For the present purpose, researcher describes the process involved in designing the study of the research as well as to demonstrate how the specific research design that a scientist decides to use helps to structure the collection, analysis, and interpretation of data. As we know, any research project might take three basic forms of research. Firstly, descriptive are designed primarily to describe what is going on or what exists. Political opinion polls that seek only to describe the proportion of people who hold various opinions are primarily descriptive in nature. For instance, if we want to know what percent of the population would vote for '4 party alliance', '14-party alliance' or an 'indifferent' candidate for next national election in Bangladesh. Here we are simply interested to describe something. Hence, for the present study, if we find any individual finds any new membership in a new organization, then he or she has gained new status which embeds a ne opportunities for him or her in the labor market. Similarly in the case of methodological questions, secondly, relational studies look at the relationships between two or more variables. A public opinion poll that compares what proportion of males and females say they would vote for '4 party alliance', '14-party alliance' or an 'indifferent' candidate for next national election in Bangladesh is essentially studying the relationship between gender and voting preferences. Finally, causal studies are designed to determine whether one or more variables (for example, a program or treatment variable) cause or affect one or more outcome variables. If we perform a public opinion poll to try to determine whether a recent political advertising campaign (digital Bangladesh or vision 2021) changed voter preferences, we would essentially be studying whether the campaign (Cause) changed the proportion of voters who would vote for '4 party alliance', '14-party alliance' or an 'indifferent' candidate (effect) for next national election in Bangladesh.

The three study types can be viewed as cumulative. That is, a relational study assumes that we can first describe (by measuring or observing) each of the variables we are trying to relate. A causal study assumes that we can describe both the cause and effect variables

and that we can show that they are related to each other. Causal studies are probably the most demanding of the three types of studies to perform efficient inference in a research (Trochim, 2006).

When the purpose of the study is to explore a new universe, one that has not been studied earlier, the research design, is called explanatory. The research purpose in this case is to gain familiarity in unknown areas. Often explanatory research design is used to formulate a problem for precise investigation. Thus, often when the universe of study is an unknown community, explanatory design forms the first step of research, after which other types of research designs like exploratory or analytical can be used. As the present research does not conform to explanatory research requisites, so analytical form of research design will be in mastering of the whole research procedure, which are being complemented with qualitative inquiries as well.

5.4 Research Methods

Social science researcher can choose from among three methods of gathering data with surveys: mail questionnaires, personal interviews, and telephone interviews. Observational methods of data collection are suitable for investigating phenomena that researchers can observe directly. However, not all phenomena are accessible to investigator's direct observation; very often, therefore, the researcher must collect data by asking people who have experienced certain phenomena to reconstruct their experiences. The research question and objectives of this thesis required national level data, which followed the full requirements of the ***survey method*** that will elicit the most complete responses from a sample of individuals presumed to have experienced the phenomena of interest, the HIES data 2010 (with PSU 612). The responses constitute the data on which the research hypotheses/propositions are examined. The state of randomness is highly secured in this survey while collecting information. On the other hand *low cost*, *Reduction in biasing error*, *greater anonymity*, and *accessibility* were considered in taking precision. For the qualitative part, in-depth interviews were recorded from certain

respondents after taking a small survey of 23 purposively selected respondents for index development and fuzzy analysis.

5.5 Bangladesh: The Field of Study

Although there has been a reduction in global poverty, the decline has not been uniform across countries. Some regions were very successful in alleviating poverty over the last few decades as a result of numerous national and international efforts, while others are still suffering from chronic poverty. For instance, in terms of poverty headcount ratio and number of people living below the poverty line, Sub-Saharan Africa and South Asia are the top two regions in the world respectively (World Bank, 2012c). Table 3.1 below shows the poverty reduction of the aforementioned two regions between 1981 and 2008, which is retrieved from World Bank's PovcalNet (World Bank, 2012c):

Table 5.1: Poverty Reduction in South Asia and Sub-Saharan Africa

	Poverty Headcount Ratio (Based on US$ 1.25 a day poverty line)		Number of Poor People (in Millions)		Poverty Reduction in 28 Years (1981-2008)
	1981	2008	1981	2008	(% points)
South Asia	61.1	36.0	568.4	570.7	26.0
Sub-Saharan Africa	51.5	47.5	204.9	386.0	4.0
Bangladesh	60.5	34.9	54.4	48.9	25.6
World	52.1	22.4	1937.83	1288.72	29.7

Source: World Bank 2012

The above table illustrates that in 2008, South Asia was the region with the highest number of the world's poor people (570 million represents 45% of total poor people). However, in terms of the poverty headcount ratio, South Asia has been successful in reducing poverty by twenty six percentage points between 1991 and 2008 whereas Sub-Saharan Africa was able to achieve only four percentages point reduction during the same period. Therefore, there has been keen interest from the researchers and policy makers to know what factors have contributed to make South Asia perform better than Sub-Saharan

Africa. Among South Asian nations, Bangladesh, India and Pakistan have nearly similar cultural, economic, political and social conditions as these countries were a single country before 1947. However, India is the dominant country in this region in terms of area, population, and resource. It should also be noted here that more than 75% of the poor in South Asia reside in India (World Bank 2012c). However, the nation of India is not only divided into many sub-groups in regards to race, religion, caste and ethnic background; the gap in terms of socio-economic status among them is wide.

Bangladesh, on the other hand, is situated in a geographical location where all three sides are bordered by India, and the fourth side by the Bay of Bengal. Bangladesh has the most ethnically homogenous group of citizens compared to other South-Asian nations. The name of the country is derived from the word Bengali which represents the major ethno-linguistic group and comprises 98% of the population (Wikipedia, 2012). The incidence of poverty, in Bangladesh, was as high as 57% at the beginning of the 1990s, but had declined to 49% in 2000. This trend accelerated subsequently, reducing the poverty headcount rate to 31.5% in 2010 (BBS 2011a). The Gini co-efficient of income decreased to 0.458 in 2010 from 0.467 in 2005. Incomes accruing to households belonging to the first five deciles share were only 20.33% of total income, although they comprise 50% of the population (BBS 2011a). In addition to the impressive record in poverty reduction, Bangladesh has achieved remarkable success in attaining the MDG-2 of Universal Primary Education (UPE) as well as the MDG-3 of gender parity at the secondary level during last two decades. Therefore among the South Asian countries, Bangladesh is a good example of a country to study the relationship access to basic education and poverty.

5.6 Sampling Design

Since decision about sampling strategies depends on the prior decision about appropriate unit of analysis, present research considered individual clients of microcredit organizations and the recipients of SSNPs from Lauta Union, Beanibazar, Sylhet.

Fig 5.1: Map of Lauta union under Beanibazar Upazila, Sylhet, bangladesh (Adapted from _www.banglapedia.org_)

It was selected purposively because of convenience. Therefore, it was potentially interesting for the researcher to scrutinize this area as because livelihood diversity is very high. Present study has employed convenience sampling (Patton, 1990: 180-183) in order to select respondents. Therefore, decision about sampling strategies depends on the prior decision about appropriate unit of analysis, present research also considered individual clients of the CBO

Fig 5.2: Map of Jaykalas under Dakshin Sunamgang Upazila, Sunamgang, Bangladesh (Source: Adapted from Banglapedia, www.banglapedia.org)

as units of analysis. Dakshin Sunamgang Upazila was selected purposively because it is considered that this is one of the areas where there are lots of small, medium and large Beels[2]. However, considering experiential connection, it was potentially interesting for the researchers to explore the proposed issue in such an area where the operative CBO is distinctive and enhance labour market attainments. The study collected information about respondents from the members of 'Tedala Hoglia Chatol Beel Users Organization.'

For this study, 23 in-depth interviews were taken. Before taking these interviews, it was conducted a survey on 40 individuals in these areas who were selected purposively in order to use the data for index and fuzzy logic purpose.

5.7 Household Income and Expenditure Survey (HIES)

The Household Income and Expenditure Survey (HIES) of the Bangladesh Bureau of Statistics (BBS) is the most important source of socio-economic information in Bangladesh at the household level. The survey is carried out every five years with the financial and technical assistance of international development organisation such as World Bank. It provides valuable data on household income, expenditure, consumption, savings, housing condition, education, employment, health and sanitation, water supply and electricity. The next sections will discuss the HIES sample and collection procedure in detail.

5.8 Population, Sample and Sampling

This thesis examines the effect of social capital on labour market attainments in Bangladesh. Generally, it requires a large representation of the whole population of Bangladesh. However, the selection of respondents is largely determined by the nature of the study and the characteristics of the population. Thus, beyond the definition of the sampling population, there is very little a researcher can do in the selection process to increase in the response rate. However, certain characteristics of potential respondents are associated with a high or low response rate. Recognizing this can help a researcher to

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[2] Beel is a water reservoir which mainly produces fish and also is used for cultivation in spring/winter season in Bangladesh

determine if a secondary questionnaire should be used to begin with or whether to use other strategies to increase the response rate. The most significant dimension a researcher needs to consider in selecting respondents is whether they consist of a heterogeneous or a homogeneous group. By the occupational homogeneity of respondents in Bangladesh, they have heterogeneous attributes what is needed for this study. The qualitative part of the research resonates the versatility of occupational variances. The HIES data (2010) has added a new module on micro credit. The data set also repeat the panel data on several social safety net programs of Bangladesh. So, people who are engaged with civil society, they are the population of this study.

Bangladesh Bureau of Statistics (BBS) used a two-stage stratified random sampling technique for the Household Income and Expenditure Survey (HIES). BBS developed an Integrated Multipurpose Sample (IMPS) design framework on the basis of the sampling frame based on the Population and Housing Census 2001 to draw the sample household for the survey. In IMPS design the whole country was divided into sixteen strata, which included six from rural areas, six from urban areas and four from Statistical Metropolitan Areas (SMAs-metropolitan areas such as the cities of Dhaka and Chittagong). The IMPS design consisted of 1000 Primary Sampling Units (PSUs) throughout the country systematically drown from sixteen strata. Of the PSUs, 640 are from the rural areas and 360 from the urban areas in both the waves. The PSU is defined as two of more contiguous enumeration areas (EA) used in Population and Housing Census 2001. Each PSU comprised around 200 households. In the first stage about one half, 612 (2010) and 504 (2005) PSUs out of total 1000 IMPS PSUs' were drawn. PSUs selected for HIES are actually a sub-set of PSUs of the IMPS design. In the second stage, twenty households were selected from each of the PSUs. The number of PSUs, household and population in two waves of HIES are given table below;

Table 5.2: PSU, Household and Population Size in HIES 2005 and 2010

	2005			2010		
	Rural	Urban	Total	Rural	Urban	Total
PSU	320	184	504	392	220	612
Household	6,400	3,180	10,080	7,840	4,400	12,240
Population	31,363	17,606	48,969	35,894	19,686	55,580

Source: (BBS, 2011a, Bangladesh Bureau of Statistics, 2007b)

5.9 The Questionnaire

The HIES questionnaire were nearly the same both in 2005 and 2010, apart from a few new sub- sections which were added in 2010. The HIES questionnaire is divided into nine sections. The first section has two parts. Part-A contains basic information such as name of the household members and their age, sex, relationship with the head, religion, and marital status. Part-B of section one covers information related to employment status of the household members aged 5 years and over. The second section is captioned as housing which was designed to collect information on housing. The information that was sought under this section included the number of rooms, wall materials, roof materials, types of toilet facilities, sources of drinking water and water for other uses, electric connections, ownership of telephone/mobile phone, housing structure, and ownership of housing unit.

The third section of the questionnaire was framed to collect detailed information on education. It is divided into two parts; Part-A covers literacy and level of education and part-B covers information on current enrolment in school. In part-A of the questionnaire covered literacy and level of education of the household members aged 5 years and over. Part-B of the questionnaire was designed to collect information on the current enrolment of students five years of age and included class they were attending now, absence in the proceeding thirty days and causes of absence, stipend received by the female students, and expenditure incurred by students for educational purpose in the preceding twelve months. Other parts of the questionnaire are related with individuals' health status, individual and household income, consumption and assets. Household consumption is an important part for this study as, with the use of household and individual consumption, poor household will be identified based on Cost of Basic Needs (CBN) method. Different parts of section nine covers information on household consumption: Part-A for daily food consumption, Part-B for weekly food consumption, Part-C for monthly non-food consumption, Part-D on annual non-food expenditure, and Part-E for an inventory of durable goods.

5.10 Data Collection Procedure

BBS state in their HIES reports (BBS 2011, BBS 2007) that before commencing the survey operation, detailed training was given to the enumerators and the supervisors. There were twenty eight enumeration teams for the survey. Each enumeration team was comprised of a supervisor, two interviewers and one female facilitator. This team of four members was assigned to one PSU to work for a continuous period of twenty days. During this period, for collection of information on food consumption, the households were divided into two groups for two enumerators, each consisting of ten households. Each enumerator collected information on food consumption of the households for fourteen days by paying seven visits to each household. On each visit, information on food consumption of the previous two days was collected (BBS 2007; BBS 2011).

5.11 Limitations of HIES

HIES reports (BBS 2007b, BBS 2011a) have mentioned some limitations of HIES data. For example, as the HIES 2010 questionnaire contained sixty six pages, some of the respondents were unwilling to give adequate time to the interviewers. In addition, seasonal problems associated with rains and flood during the monsoon also tended to reduce the frequency of visits by the interviewers. Moreover, both the reports explain that the respondents expect immediate benefits from the survey, however, as the supervisors and interviewers were not in a position to provide such benefits often they did not receive the same degree of co-operation from the respondents in their subsequent visits. HIES

consumption spending data have some additional shortcomings. For example, for some food items, respondents are asked to report the expenditures incurred over the past month or year. It is often difficult for them to recall the expenditure figures accurately. The respondents sometimes also overlooked reporting the un- purchased minor items such as fruit from homestead trees, or vegetables procured from the outskirts of the households. Sometimes the interviewer failed to record accurately the quantity of various food items, such as, fish, fruits and minor spices as these items generally consumed without reference to even and standard weights.

5.12 Data Extraction, Collection and Analysis

As mentioned above, HIES data is the main source of information the present study. New computed variables were created by SPSS. However, qualitative data of the present study were collected through in-depth informal interviews. An interview guideline was used for specific questions and issues. Therefore, a different style of inquiry was pursued for each type of respondent. The researcher himself conducted interviews. After talking with elected member from respective villages, a person was taken to assist the researcher for identifying the house and respondent. Moreover, as I know local dialects, it helped me to understand clients' patterns of actions, general attitudes, their beliefs and also their motives. Interviews were recorded through voice tracer. Where necessary, assistance was sought and taken from the union council office. Elected ward members played an important role in introducing other clients in study villages. During fieldwork period, interviews were being processed for transcribing the data. Both transcription and field notes were used for categorizing different issues.

Using pseudonyms, identification of clients and respondents are maintained in the study. After ending up transcribing and categorizing interviews, analysis of the data was initiated under the analytical framework approach (Patton, 2002: 438-439) through which data were organized to describe important processes of participation into the program and also clients' everyday life. For the analysis, this study divided each issue interviewed into two parts- descriptions and interpretations. The research describes those issues and processes that are so central to the proposed research questions and conceptual

framework. For each of the issues, the analysis starts with the cross case analysis through which answers from different people to common issues are described and interpreted. Additionally, own observations were applied to signify and analyze further information for this research.

5.13 Logistic (Logit) Regression

In the logit model, G is the logistic function:

$$G(z) = \frac{exp(z)}{[1 + \exp(z)]} = P(z)$$

Here G is the cumulative distribution function for a standard logistic random variable. The logistic regression model is a type of generalised linear model that extends the linear regression model by linking the range of real numbers to the 0-1 range (Wooldridge, 2006). This model starts by considering the existence of an unobserved continuous variable, Z, which can be thought of as the propensity towards the event of interest. In the case of labour market attainments, Z represents a respondent's propensity to be engaged with microcredit organizations or memberships in the SSNPs, which eventually helps them to gain labour market attainments. Larger values of Z correspond to greater probabilities of attainments. In the logistic regression model, the relationship between Z and the probability of the event of interest is described by this link function.

$$\pi_i = \frac{e^{z_i}}{1+e^{z_i}} = \frac{1}{1+e^{-z_i}} = z_i = \log\left(\frac{\pi_i}{1-\pi_i}\right)$$

Where,

π is the probability the ith case experiences the event of interest z_i is the value of the unobserved continuous variable for the ith case

The model also assumes that Z is linearly related to the predictors.

$$z_i = b_0 + b_1 x_{i1} + b_2 x_{i2} + \cdots + b_p x_{ip}$$

Where,

x_{ij} is the jth predictor for the ith case

b_j is the jth coefficient

p is the number of predictors.

If Z were observable, one would simply fit a linear regression to Z. However, since Z is unobserved, one must relate the predictors to the probability of interest by substituting for Z.

$$\pi_i = \frac{1}{1 + e^{-(b_0 - b_1 x_{i1} + \cdots + b_p x_{ip})}}$$

It should be recalled that the aim of the research is to evaluate the effect of social capital on the labour market. The first question for any regression analysis is to which sample will be used in the estimation process. Tansel (2002) comments using current civil society members in analysis of the determinants of income attainment has two advantages. First, using current members as the unit of observation permits the use of information about the current parental, household and community characteristics, and thus the environment in which the attainment decisions are made. Second, because many developing countries are experiencing rapid expansion and structural change in their socio-economic systems, so different attainment opportunities are most relevant to policy development. Accordingly, for this analysis, all microcredit recipients were used.

After deciding on the model, the next step is to select the variables to be used to estimate the model. The next section highlights the issue.

5.14 Variable Selection

The two set of variables which are considered important in the literature are the microcredit recipients and the clients of SSNPs factor. However, microcredit related information for all GOs and NGOs which are consistent and compatible with the HIES data is hard to collect in a country like Bangladesh. It should also be noted here due to the expansion of supply side interventions, the gap in crediting provision or facilities across regions has narrowed down over the years, though not disappeared. It can be argued that

some differences in terms of lending provision exists in different institutions across areas or regions in every country. Thus, to make the estimation operable, it is assumed here that there are no significant differences among institutions in terms of lending. Consequently, only the individual and household level covariates were used to estimate the model.

To select the individual and household level variables, economic theory and previous studies in the literature were used as the main guiding principles. For instance, age and a squared term were used to observe the age effects and to capture the nonlinear effect of age on accessing microcredit. Similarly, a dummy variable for religion was also included in the estimations (Muslim=1 and all other religion =0 as Bangladesh is a country with more than 80% Muslim citizens) to determine whether religion has any effect on lending. As child labour is considered one of the important factors for the labour market in many studies (see, for example, Maluccio, 2006, Ersado, 2005, Psacharopoulos, 1997, Schady et al., 2009), a proxy of child labour should be included. However, HIES does not have this information. Therefore, an alternative procedure was used to create a similar variable.

Family or household level socio-economic status is also potential determinants of economic attainment (see for instance, Heinrich, 2007, Caldwell & McDonald, 1982). For instance, the mother's and father's education levels were also included to account for the genetic ability of offspring. Parent's education may also serve as a predictor of the parent's earning potential. (Heinrich, 2007, Caldwell & McDonald, 1982). Furthermore, mothers with more education may have increased bargaining power in the household and may choose to allocate more resources toward their children and their human capital than would their husbands (Thomas, 1994). In addition, head age and sex were used to see whether these two variables really matter in the earning decision.

Several variables representing household economic status were used to capture the socio-economic status of households. Moreover, there are some variables that symbolize the household economic condition (per capita consumption per month, the value of household assets, the area of own land). The dependency ratio and number of members in

90

the household were included to understand how these affect the attainment decision of members. Per capita consumption expenditure was used as a proxy for household permanent income. The dummy variable urban (where 1=urban area and 0=otherwise) and region (for six administrative divisions across various location) were included in the model to adjust the regional differences for the likelihood that individuals in rural areas have fewer opportunities for access to microcredit and SSNPs, and may have higher opportunity cost to farm employment opportunities or child labour needs at home.

Though logistic regression can identify the statistically significant variables for earning decision, the problem here is that only the current members were used as input. It might be the case that some other recipients who are currently enrolled with other organizations may be drop out or discontinued after the survey. Therefore, the result found in logistic regression might be biased.

5.15 Fuzzy Logic Analysis

5.15.1 Introduction

The well-known distinction between social and natural science cuts a sharp line of demarcation between hard and soft facts of scientific studies. Physics deals with precise hard facts characteristically whereas social sciences are confronted with imprecise soft social facts. Social facts are dreadfully vague and interpretative in nature. Therefore Fuzzy logic seems to fit perfectly the needs of social scientist that look for mathematical precise models to deal with vague, imprecise data. In this contribution we discuss the usefulness of Fuzzy logic for social sciences in general, and especially sociology. In a first step we summarize some fundamentals of "fuzzy thinking" for social scientist. This will lead to the discussion of the need of fuzzy thinking in empirical social research. In Bangladesh, use of fuzzy logic in sociological research is hardly found. Mia used the application of fuzzy set theory to analyze the entrepreneurship among micro entrepreneurs.

5.15.2 Importance of using Fuzzy Logic in Sociology

The surplus of Fuzzy logic for the social research was early recognized by Charles Ragin. Charles Ragin advanced traditional Qualitative Comparative Analysis in macro-sociological studies using fuzzy-logical operations to include diversity of kind and diversity of membership degree in configurational analysis of social causal factors. Qualitative Comparative Analysis, generally speaking, aims at identifying necessary and/or sufficient (configurations of) causal factors for a social outcome. Those prime implicants, as Ragin calls them, are common (configurations of) causal factors of a certain group of social cases in regard to a certain social outcome. Prime implicants "explain" how social causes combine to generate a specific social effect. Cases are understood as configurations of variables. Those variables are interpreted as factors that lead to an outcome. The comparison of cases as configuration of factors in regard of an specific outcome (diversity of kind) and their fuzzy membership to those configurational sets of factors (diversity of degree) results in parsimonious explanations that deal with as much complexity as required by sociology but at the same time are simple enough to explain the social effect sufficiently. Because social diversity is complex, comparative analysis often results in different causal paths that generate the same social effect. For classical research strategies (especially quantitative social research) this might seem to be a disadvantage as long as science is looking for causal laws of hard facts. But, as we already stated in the beginning, the realm of the social is not governed by hard facts, therefore there is a need for a method that allows considering diversity and complexity without given up the idea that diverse, complex cases could be explained even if they are fuzzy. To conclude: Formal logic and linguistic formulations converge in Fuzzy logic. The specification of variables and degrees of membership is theoretically and empirically instructed. Thus Fuzzy Set Social Sciences provides an interpretative tool that forces social scientist to bring together theory, empirical evidence and formal logic in one research strategy while considering diversity and complexity of the social realm.

5.15.3 Why Fuzzy Thinking in Sociological Researches?

Among the various paradigmic changes in sciences and mathematics in this century, one such change concerns the concept of *uncertainty*. In science, this change has been manifested by a gradual transition from the traditional view, which insists that uncertainty is undesirable in science and should be avoided by all possible means, to an alternative view, which is tolerant of uncertainty and insists that science cannot avoid it. According to the traditional view, science should strive for certainty in all its manifestations (precesion, specificity, sharpness, consistence etc.); hence uncertainty (impression, nonspecificity, vaugeness, inconsistencey, etc.) is regarded as unscientific. According to the alternative (or modern) view, uncertainty is considered essential to science; it is only an unavoidable vaugue, but it has, in fact, a great utility.

While analytic methods based upon the calculus are applicable only to problems involving a very small number of variables that are related to one another rin a predicatble way, the applicability of statistical methods has exactly opposite characteristics: they require a large number of variables and a very high degree of randomness. These two types of methods are thus highly complementary. When one type excels, the other total fails. Despite their complementarity, these types of methods cover, unfortunately, only problems that are clustered around the extremes of complexity and randomness scales. In his well known paper, Warren Weaver refers to them as problems of *organized simplicity* and *disorganized complexity.* He argues that these types of problems represent only a tiny fraction of all systems problems. Most problems are somewhere between these two extremes: they involve nonlinear systems with large number of components and rich interactions among the components, which are usually nondeterministic, but not as a result of randomness that could yield meaningful statistical averages. Weaver calls them problems of *organized complexity*; they are typical in life, cognitive, social and environmental sciences, as well as in applied fields such as modern technology or medicine.

It is generally agreed that an important point in the evolution of the modern concepts of uncertainty was the Publication of a seminal paper by Lotfi A. Zadeh, even though some ideas presented in the paper were envisioned some 30 years earlerby the American philosopher Max Black. In his paper, zadeh introduced a theory whoe objects – *fuzzy sets* – are sets with boundaries that are not precise. The membership in a fuzzy set is not a matter of affirmation and denial, but rather a matter of a degree.

5.15.4 A Fuzzy Model for present research

The process of studying social capital consists of a vast array of different types of simultaneously interrelated social relationships of individuals and societies where many of which conflict with each other. It is therefore difficult to determine the precise scenario and inherent (invisible) facts which really hinders functions of social capital because of both distortions from external noise (political, cultural limitations) and ambivalence on the part of its manifestation. Conventional *receiver-sender* model might be useful to fit the model for analyzing the effect of social capital in a society. In our analysis we would merely use scientist (sociologist) as the receiver and the respondents as sender and vice-versa. We outline here the approach suggested by Yager, which models this process and the vagueness associated with it through the use of fuzzy set theory.

5.15.5 The Theory

Suppose that X constitutes the universal set of all possible signals x that may be communicated by the sender. Because of the distorting factors mentioned above, a clear unique signal may not be available. Instead, the message received is a fuzzy subset M of X, in which $M(x)$ denotes the degree of certainty of the receipt of the specific signal x. In order to determine whether an appropriate response can be chosen based on the message received or whether some error was involved in the communication, as assessment of the quality of the transmission must be made. Let the maximum value of membership that

any $x \in X$ attains in the set M correspond to the *strength* of the transmission. If the set M has no unique maximum, then the message is called *ambiguous*. If the support of M is large, then M is considered to be general. The clarity of the message can be measured by the distance between the maximum membership grade attained in M and the next largest grade of any signal x_i *in M*. When the message received is strong, unambiguous, and clear, then the signal attaining the maximum membership grade in M can easily be selected as the most obvious intended communication. Difficulty occurs, however, when the message is weak, ambiguous, or unclear. In this case, the receiver must determine whether the problem in the communication lies in some environmental distortions (in which case a repetition of the signal may be requested) or in the sender of the message (in which case a response must be made that is, as far as possible, appropriate).

For this study, I surveyed 16 university teachers from SUST in two equal groups. Both groups have same level of academic standings as well as similar experiences. All of them recruited through the same syndicate meeting in 2013. I used the message of second group as the data validation of the first group.

Usually, the receiver of the communication possesses some background information in the form of probabilities or possibilities of the signals that can be expected. If $P_{(x_1)}$, $P_{(x_2)}$, $P_{(x_3)}$…….,$P_{(x_n)}$ represent the probabilities associated with each of the signals $x_1,x_2,……..,x_n \in X$, then the probability of the fuzzy event of the receipt of message M is given by

$$P(M) = \sum_{x \in X}^{n} M(x)P(x) \quad ……………. \quad (1.1)$$

The receiver can use this information to assess the consistency of the received message with his or her expectations. If the probability of the received message is high, then it can be assumed that little distortion was introduced by the environment. On the other hand, if the message is very clear and unambiguous, then an appropriate response can be made even if the probability of the signal was low.

Instead of the expectation or the background information being given in probabilistic form, this information may be given in the form of a possibility distribution r on X. In this case,

$r(x) \in [0, 1]$ indicates the receiver's belief in the possibility of signal x being sent. The total possibility of the fuzzy message is calculated as

$$r(M) = \max_{x \in X} [\min(M(x), r(x))] \quad \ldots\ldots\ldots\ldots \text{ (1.2)}$$

As in the case of probabilistic expectation, if the received message conflicts with the expected possibility of communication, then the receiver may attempt clarification by requesting a repetition of the transmission. Before this new transmission is sent, the receiver will probably have already modified his or her expectations based on the previous message. If r_0 indicates the initial probabilistic expectations of the receiver, and r_1 is the modified expectations subsequent to the receipt of message M, then

$$r_1(x) = \min [r_0^{\alpha}(x), M(x)] \quad \ldots\ldots\ldots\ldots \text{ (1.3)}$$

For each $x \in X$, where α indicates the degree to which past messages are considered relevant in the modification of expectations. Our procedures for signal detection now consist of the following: a test of the consistency of M against the expectations and the test of the message M_n for strength and clarity. If both of these values are high, the signal attaining the maximum value in M can be comfortably assumed to be intended signal. If both tests yield low values, the expectations are modified and a repetition is requested. If only one of these tests yields a satisfactory value, then either a new signal is requested or a response is made despite the presence of doubt.

An additional complications is introduced when we consider that the receiver may also introduce distortion in the message because of inconsistency with the expectations. Let

$$s(M, r) = \max_{x \in X} [\min(M(x), r(x))] \ldots\ldots\ldots\ldots \text{ (1.4)}$$

Correspond to the consistency of the received message with the possibilistic expectations. Then let M' denote the message that receiver actually hears, where

$$M'(x) = M^s(x) \qquad \text{…… … … … … …   …. …..} \qquad (1.5)$$

For each $x \epsilon X$ where $s = s (M, r)$. The less consistent M is with the expectations, the less M' resembles M. Since the receiver will be modifying his or her expectations based on the message thought to have been received, the new possibilistic expectation structure is given by:

$$r_1(x) = \min[r_0^{1-s}(x), M'(x)] \qquad \text{……………..} \qquad (1.6)$$
$$\text{for each } x \epsilon X.$$

Finally, once a determination has been made of the signal $x \epsilon X$ that was sent, an appropriate response must be chosen. Let Y be the universal set of all responses, and let $R \subseteq Y \times X$ be a fuzzy binary relation in which $R(y,x)$ indicates the degree of appropriateness of response y given signal x. A fuzzy response set $A \epsilon Y$ can be generated by composing the appropriateness relation R with the message M,

$$A = R \circ M,$$
$$\text{or}$$
$$A(y) = \max_{x \in X}[\min(R(y,x), M(x))] \text{ ……… } (1.7)$$

for each $y \epsilon Y$. The membership grade of each possible message y in fuzzy set A thus corresponds to the degree to which it is an appropriate response to the message M. A more interesting case occurs when the elements $y \epsilon Y$ are not actual messages, but instead indicate characteristics or attribute that the appropriate message should possess. This allows for creativity in formulating the actual response.

5.16 Measuring the Index of Social Capital

Indices

Following UNDP measurement of human development index, present researchers developed some indices to determine comparative measures of all associated factors of

social capital for the study group. The index scores range between 0-1. Higher scores designate the superiority of factors over one another. Index values for each item has been calculated and followed to measure a composite index for social capital, which consists of four different items. The composite index score is obtained through adding all item scores of a factor and taking the value of its one-fourth proportion of each item. Every item is weighted with equal internal power. For measuring family factor index (I_{if}), the variable quality of family network (QFN) has been used. Consequently, for measuring associational factor index (I_{ia}), the variable voluntary associational membership (VAM); for institutional factor index (I_{ii}), the variable political friendship network (PFN) has been used; and for human capital factor index, the variable years of schooling of the respondents (RES) has been used.

Therefore,

Family Factor Index (I_{if}) is measured by following formula:

$$I_{if} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

   Where, M_{max} = Maximum Possible Value of Family Network

   n = Observed Value of Family Network

   M_{min} = Minimum Possible Value of Family Network

Second, Associational Factor Index (I_{ia}) is measured as:

$$I_{ia} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

   Where, M_{max} = Maximum Possible Value of Associational Network

   n = Observed Value of Associational Network

   M_{min} = Minimum Possible Value of Associational Network

Third, Institutional Factor Index (I_{ii}) is measured as following:

$$I_{ii} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

Where, M_{max} = Maximum Possible Value of Institutional Network

   n = Observed Value of Institutional Network

   M_{min} = Minimum Possible Value of Institutional Network

Fourth, <u>Human Capital Factor Index</u> (I_{ih}) is measured as following:

$$I_{ih} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

Where, M_{max} = Maximum Possible Value of Human Capital Factor

   n = Observed Value of Human Capital Factor

   M_{min} = Minimum Possible Value of Human Capital Factor

And, Finally, the **Composite Index of Social Capital (CISC)** has been measured by

$$I_{sc} = \frac{1}{4} (I_{if} + I_{ia} + I_{ii} + I_{ih})$$

5.17 Response to the Issue of Objectivity

Emphasis on objectivity issues in sociological research is long standing among all leading sociologists. Durkheim, Weber, Radcliff Brown, Merton, Zetterberg and all other sociologists stated to abandon all preconceived notions about the subject matter of sociological research. Max Weber emphasized the need of objectivity when he said that sociology must be value free. According to Radcliff Brown the social scientist must abandon or transcend his ethnocentric and egocentric biases while carrying out researches. Merton believes that the very choice of topic is influenced by personal preferences and ideological biases of the researcher.

Taking all these issues in the account present researcher tried and maintained to be biasfree while data were collected, processed and analyzed. As the major part of data collection made by mailed questionnaire which was served personally to respondents, so the issue of the 'harms of researcher's personal subjectivity' is highly neutral to the provided information on the 'measuring device' as it is an impersonal method of data collection.

5.18 Measurement of concepts: Operational Definitions

Social Capital: Social capital by its definition of *any social relationships that generate utilities for individuals* has been considered to be embedded in following variables –

Neighborhood network: Neighborhood relationships with the span of neighborhood networks have been measured by three indicators in order to establish the relational and effectual complimentarity with social capital. These are as follows:-

    a. What type of neighbors respondents like to live with?

    b. Whether the neighbors are helpful in urgent needs or not.

    c. How may neighboring households the respondent can approach for such helps even monetary?

Family and Kinship network: This variable has been measured by following several indicators:-

    a. Family size

    b. Parental attributes, i.e. (1) Father's education, employment, and income, and (2) Mother's education, employment, and income.

    c. Number of graduates in paternal family

    d. Number of graduates in maternal family

    e. Frequency of monthly visits of family and other kins.

***Religious network*:** Religious identity and religiosity have been measured by following indicators:-

    a. Membership in religious group

    b. Self ranking piousness

    c. Self ranking celebration of religious ceremonies.

***Associational network*:** It has been measured by two indicators:-

    a. Membership in voluntary associations

    b. Membership in other research organizations

***Institutional network*:** This network has been measured by following indicators:-

    a. Educational network – Using referees in the CV

    b. Political Network – Number of friends involved in politics

    c. Economic Network – Number of friends involved in business

    d. Social network – (1) Number of manual labor friends, (2) Number of close friends, (3) Number of friends who are always ready to help people in need.

***Network Structure*:** Cumulative number of friend circle of the respondent has been considered as the network structure of every single individual.

Human Capital: Human capital has been measured by following variables –

    ***Education*:** Education of the respondent been measured through the years of schooling.

    ***Experience*:** By the duration (in years) of present job, experience of the respondents have been measured.

    ***Age*:** Age of the respondent has been measured in years and also in rounded numbers.

    ***Language skills*:** Self ranking language skill both for Bengali and English have been measured through likert type scaling technique.

Labor Market Attainments: Labor market attainment has been measured by following variables –

*Income***:** Income of the respondent has been measured by monthly take home money. Nobody of the respondents disclosed their additional income from other sources.

*Organizational membership***:** Beyond the workstation, organizational memberships of the respondents were measured through the attachment of other research and academic organizations.

*Voluntary organizational membership***:** For measuring the diverse span of social network of the respondents, active membership in voluntary organization was measured through their involvement in any social organization which work for philanthropic payoffs.

*Status orientation***:** Comparing to other job respondent's self ranking status orientation has been measured using a likert type scaling technique.

CHAPTER SIX: ANALYSES AND DISCUSSION

6.1 Introduction

As the principal premise of the thesis is to discern the effect of social capital on labor market attainments in Bangladesh, for doing so it is already gathered and measured the relevant data for analysis and are going to take precision over the study. On the eve of the demonstration of the analytical scheme of this research, researcher denounced three major social capital factors by which individuals are being accessed into the utilities of their immediate labor market. These three factors are family related factors (Family and kinship), associational factors (friendship, political network etc.) and institutional factors (civic engagement). According to the theoretical arbitration of this research, the combination of these three factors constitutes the social capital of the individual. We wanted to examine whether these social capital factors have any effects on labor market attainment. In our research question we see the main motivation behind the study was to examine 'how does and in what extent social capital affect labor market attainments?'

In this study labor market attainments were viewed in the form of gaining and accessing utilities from the labor market, which is being sustained over time. We wanted to examine that these gained and sustained utilities such as income, status orientation and attainments in kind or cash for the study group. The researcher envisages that labour market outcomes of the respondents are the product of the accumulated impact of those social capital factors and of human capital factors.

Human capital factors are being accumulated among individuals by dint of their own potentials and by the input of parental social capital. Education, experience, and degrees are the main constituent parts of human capital. Utilities come from these human capitals depend on individuals' capacity to valorize their own human agency. Sex and age are physical capitals of individual but it always embedded with human capital in course of the operation of human capital. For this study we have analyzed physical capital accompanying with human capital.

The thesis requires national level data. The researcher has used HIES 2010 data as the main source of information. The complementarities are also added through few convenient samples. In this chapter, especially, while the effects of social capital are analyzed, the corresponding qualitative information are also added with description and interpretation.

6.2 Household and Population Characteristics

Average household size obtained from Household Income and Expenditure Survey of different years has been presented in table 6.1 and it is observed from the table that average household size is decreasing gradually. It was 5.18 in 2000 that reduced to 4.85 in 2005 and it further reduced to 4.50 in 2010 at the national level. In the rural area, the average size of household for the year 2000 was 5.19 and reduced to 4.89 in 2005. It further reduced to 4.53 in 2010. On the other hand, the average size of household in the urban area was 5.13 in 2000, which reduced to 4.72 in 2005 and further reduced to 4.41 in 2010. The decrease in the household size may be attributed to the reduction in fertility rate in the recent years and also to the decomposition of large family into nuclear family. Another important feature that is be observed from the table below that, the average size of the female-headed household is consistently less than the male-headed household.

Sex of Head	HIES-2010			HIES-2005			HIES 2000		
	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban
1	2	3	4	5	6	7	8	9	10
Both Sex	4.50	4.53	4.41	4.85	4.89	4.72	5.18	5.19	5.13
Male	4.67	4.73	4.52	4.98	5.07	4.84	5.33	5.35	5.24
Female	3.39	3.35	3.53	3.48	3.41	3.59	3.65	3.54	4.05

Table 6.1: Average Household Size by Residence of Head of Household and by Sex

Distribution of household by household size has been presented in table 6.2. It is revealed from the table that, at the national level, the percentage of household having 3-5 members increased to 65.2% in 2010 from 59.9% in 2005 and 54.9% in 2000. On the other hand, percentage of household having 6 members or more decreased to 23.8% in 2010 from 37.5% in 2000. Furthermore, this indicates that, the societies tendency of having a nuclear family size is fast gaining momentum.

Size of Household	HIES-2010			HIES-2005			HIES-2000		
	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban
1	2	3	4	5	6	7	8	9	10
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	2.4	2.7	1.5	2.1	2.4	1.3	1.6	1.7	1.1
2	8.7	8.4	9.5	7.1	7.2	7.9	5.9	7.0	5.5
3	18.7	18.3	19.8	15.6	15.0	17.5	12.8	12.6	13.4
4	25.9	25.0	28.1	23.8	22.7	27.1	21.4	21.1	22.5
5	20.7	21.0	19.7	20.5	20.6	20.3	20.7	20.5	21.5
3-5	65.2	64.5	67.6	59.9	58.3	64.9	54.9	54.2	57.6
6	11.9	12.0	11.6	14.2	14.7	12.9	15.3	15.2	15.5
7	5.8	6.3	4.4	7.2	7.6	7.0	10.0	10.3	8.8
8	2.8	2.9	2.3	8.4	4.6	3.7	5.3	5.3	5.2
9	1.6	1.6	1.7	2.4	2.6	1.8	3.0	3.1	2.9
10+	1.7	1.8	1.5	2.7	2.8	2.4	3.9	4.0	3.6

Table 6.2: Average Household Size by Residence of Head of Household

The most basic and fundamental attribute of both physical and human capital is age. Despite increasing research interest in network dynamics and cumulative advantage/disadvantage processes, little remains known about how social capital varies across the life course. While some researchers suggest that social capital increases with age and others argue the opposite, this study has examined those assertions by analyzing multiple indicators of social capital from a nationally representative data on Household Income and Expenditure. The findings reveal evidence of social capital accumulation and its usages in course of attaining labor market benefits. This measure is very important for this study as social resources from immediate contacts tend to increase with age, but eventually level off among older respondents (on the eve of retirements). Overall, the results suggest that social capital embedded in occupational networks tends to accumulate across the career, even in the face of a general decline in sociability.

Age Group	Never Married			Currently Married			Widow/Divorced/Separated		
	HIES 2010	HIES 2005	HES 2000	HIES 2010	HIES 2005	HES 2000	HIES 2010	HIES 2005	HES 2000
1	2	3	4	5	6	7	8	9	10
Male-Rural									
Total	39.6	41.6	43.1	59.1	57.1	55.3	1.3	1.3	1.4
10-14	100.0	99.7	100.0	0.0	0.2	0.0	0.0	0.1	0.0
15-19	97.0	97.6	98.2	2.8	3.1	1.8	0.1	0.3	0.0
20-24	70.1	67.7	72.8	29.6	32.0	27.7	0.3	0.3	0.5
25-49	7.7	7.9	8.7	91.8	91.4	90.6	0.5	0.7	0.7
50+	0.4	0.6	0.1	94.6	94.7	94.2	5.1	4.8	5.8
Male-Urban									
Total	41.3	41.6	48.0	57.7	57.6	50.9	1.0	0.8	1.1
10-14	99.9	99.4	100.0	0.1	0.6	0.0	0.0	0.0	0.0
15-19	98.7	97.8	99.5	1.3	2.2	0.4	0.0	0.0	0.1
20-24	80.9	78.0	85.5	19.1	21.8	14.1	0.1	0.3	0.3
25-49	11.3	11.4	15.7	88.4	87.9	83.4	0.4	0.7	0.9
50+	1.0	0.5	0.4	94.5	97.3	95.5	4.5	3.2	4.1
Female-Rural									
Total	24.8	27.4	27.2	62.6	61.7	60.5	12.6	11.9	12.3
10-14	99.7	98.8	99.4	0.4	1.1	0.6	0.0	0.1	0.1
15-19	65.5	67.3	62.5	32.8	31.7	37.7	1.7	1.0	0.8
20-24	12.8	12.5	9.1	84.6	85.1	87.9	2.6	2.4	4.0
25-49	1.0	0.7	0.7	92.2	92.2	91.3	6.9	7.1	8.0
50+	0.4	0.3	0.1	50.2	51.0	48.9	49.6	48.7	51.0
Female-Urban									
Total	26.9	29.5	33.9	62.2	59.6	55.1	10.8	10.9	11.0
10-14	100.0	99.4	99.7	0.0	0.6	0.3	0.0	0.0	0.0
15-19	73.8	72.3	79.1	25.8	27.1	19.8	0.4	1.6	1.2
20-24	26.9	27.2	27.2	70.3	72.1	70.8	2.7	1.7	3.0
25-49	1.6	1.8	2.3	92.7	90.3	88.5	5.7	7.9	9.2
50+	0.5	0.1	0.8	46.8	47.1	47.7	52.7	52.8	51.5

Table 6.3: Population by Age-Sex and Marital Status-2010

The study also uncovers gender differences in these social capital trajectories that are linked to the distinct life experiences of men and women. Table 6.3 presents marital status of the population aged 10 years and above. It is revealed from the table that, 39.6%

of the rural male and 41.3% of urban male of 10 years above were never married in 2010, compared to 24.8% of rural female and 26.9% of urban female never got married. The percentage of never married male in rural area in the age group 50+ was 0.6% in 2005. In 2010 it decreased to 0.2%. However, for rural female of age 50 year and over, it was 0.3% in 2005 which slightly increased in 2010. In the urban area, the percentage of never married was 0.1% in 2005 which increased to 0.5% in 2010.

Putnam's Instrument has come to be a very popular proxy. Originally proposed by Robert Putnam (1993), hence its name, it is composed as the sum of how many different types of voluntary organizations that a given individual is a member of. The types include: political parties, labor unions, religious associations, sports clubs, charity, neighborhood organizations, farmers' and traders' associations, cooperatives, women's groups, youth organizations, parents' associations, school committees, ecology groups, civic associations and an 'other' category. As all these types require membership, this is probably measuring an element of social capital with quasi-club good characteristics, but it may also to some degree entail characteristics of a public good as illustrated above. Furthermore, as some of these types as e.g. labor unions have a hierarchical structure, Putnam's Instrument is neither fully horizontal nor fully vertical, but somewhere in between.

The effect of being a member of voluntary organizations is often envisaged to run through the creation of trust between members of the organizations (e.g. Stolle, 1998), which is also suggested by the significant correlation. Recent research has nonetheless demonstrated that this is a weak explanation for the potentially beneficial effect, as the positive correlation between interpersonal trust and Putnam's Instrument is not an outcome of trust-creation, but instead a consequence of a selection mechanism (Claibourn and Martin, 2000). The potential income-creation through being a member of any voluntary organization therefore probably works through letting the individual have access to a larger amount and more diverse resources through interacting socially with other members.

Civic engagement, another proxy, is composed as the sum of the confirmatory answers to questions regarding participation in a series of civic activities during the preceding three years. These activities are: voting, taking contact to an influential person, contacting media, participating in an information campaign, participating in an election campaign, taking part in a demonstration, taking part in a disruption of government, contacting an elected representative, notifying the police or courts, and making a donation in money or kind. Hence, it is a broad measure of activities that all entail some form of cooperation for mutual benefit that not only is supposed to benefit the single individual or group. It thus seems natural to view civic engagement as a fully horizontal, inclusive measure of social capital with the characteristics of a public good. It probably works in the same way as Putnam's Instrument, but through weaker ties and a larger and much more diversified network, since people engaging in these activities need not share any specific interests as they do in voluntary organizations. Individuals engaging civically thereby potentially gain access to a large pool of diverse resources and information that could be useful in the individual's career or open out-of-work possibilities for extra income. However, in our study we found following distribution of respondents' involvement in voluntary associations.

No. of Association involved with	Percent	Valid Percent	Cumulative Percent
.00	30.0	30.0	30.0
1.00	31.8	31.8	61.8
2.00	28.0	28.0	89.8
3.00	4.1	4.1	93.9
4.00	4.1	4.1	98.0
5.00	2.0	2.0	100.0
Total	100.0	100.0	

Table 6.4 : No. of Voluntary Associations involved

Table 6.4 shows that 30% of the respondents are not involved with any voluntary associations, which work with social and philanthropic payoffs. More than half of the respondents are (59.8%) are engaged with 1-2 associations. 10.2% of the respondents are

involved with 3-5 associations. The mean number of associations involved the respondent is 1.26 and the standard deviation for this measure is 1.16.

Table 6.5 provides distribution of head of households by main occupation and by residence. In 2010, the highest 36.1% of the head of household was engaged in agriculture, animal husbandry, forestry and fisheries, 16.9% were engaged in production & related works and transport works, 11.6% in the sales occupation and 2.9% were in clerical and related workers and government executives. The percentage of head of household engaged in administrative and managerial works was 2.9%. In the rural area, 46.4% of the head of households engaged in agriculture occupation followed by production and related workers and transport works 13.4%. In the urban area, 26.5% households are engaged in production and related works and transport workers followed by 18.9% in sales works.

Sl No.	Major Occupation	National	Rural	Urban
1	2	3	4	5
1.	Professional, technical & related workers	6.1	4.8	9.5
2.	Administrative & managerial works	2.9	1.9	5.8
3.	Clerical & related works and govt. executive	2.9	1.3	7.0
4.	Sales workers	11.6	8.9	18.9
5.	Service workers	5.9	5.4	7.4
7.	Agricultural, animal husbandry, Forestry & Fisheries	36.1	46.4	8.3
8.	Production & related workers and transport workers	16.9	13.4	26.5
9	Head not working	17.6	17.9	16.7
10.	Total	100.0	100.0	100.0

Table 6.5: Distribution of Head of Households by Residence and Main Occupation

6.3 Income, Expenditure and Poverty Profiles in Bangladesh

6.3.1 Income

Income and expenditure estimates are central to the entire findings of the HIES Survey. Moreover, distribution of income and expenditure by decile group, Gini co-efficient by income, expenditure by land ownership, consumption expenditure and expenditure by major food items have also been discussed in this chapter. The economic scenario presented here is the fundamental basis for short and long term economic analysis of the economy.

Survey Year and Residence	Number of Member Per Household	Number of Earner Per Household	Monthly Household Income Per Household	Monthly Income Per Member	Monthly Income Per Earner
01	02	03	04	05	06
National					
2010	4.50	1.31	11479	2553	8795
2005	4.85	1.40	7203	1485	5145
2000	5.18	1.45	5842	1128	4029
1995-96	5.26	1.48	4366	830	2950
Rural					
2010	4.53	1.27	9648	2130	7592
2005	4.89	1.37	6095	1246	4449
2000	5.19	1.43	4816	928	3368
1995-96	5.25	1.46	3658	697	2505
Urban					
2010	4.41	1.40	16475	3740	11778
2005	4.72	1.50	10463	2217	6975
2000	5.13	1.54	9878	1926	6414
1995-96	5.30	1.59	7973	1504	5014
Urban as % of Rural					
2010	97	110	171	176	155
2005	96	109	172	178	157
2000	99	108	205	208	190
1995-96	101	109	218	216	200

Table 6.6: Number of Members, Earners, Household Income, Income Per Member and Earner By Residence

Table 6.6 provides monthly income per household, number of earner per household, monthly income per member (monthly per capita income) and monthly income per earner

etc. Average monthly income per household at current price was estimated at taka 11479 at the national level in 2010. This was Tk. 7203, Tk. 5842 and Tk. 4366 in 2005, 2000 and 1995-96 respectively. In 2010, the monthly household income increased by 59.36% when compared with 2005 and by 162.9% with respect to 1995-96. Per capita monthly income was estimated at taka 2553 in 2010. This was Tk. 1485, Tk. 1128 and Tk. 830 in 2005, 2000 and 1995-96 respectively.

Per capita monthly income increased by Tk. 1068 (71.92%) in 2010 compared to 2005 and increased by Tk. 1723 (207.59%) over the year 1995-96. It is notable that in 2010, rural income increased at a higher rate than that of urban income. In 2010, rural income increased by 58.29% whereas urban income increased by 57.45% in 2010. This increase of income in both urban and rural areas accelerated the process of poverty reduction in both urban and rural areas.

In HIES-2010, the number of earners per household was found to be 1.31 at national level, 1.27 in rural area and 1.40 in urban area. Since, 1995-96, number of earner per household shows a declining trend and has a positive correlation with the declining changing pattern of household size.

In 2010, income per earner was found to be taka 8795 for the country as a whole. In rural area, this was taka 7592 and in the urban Tk. 11778. Income per earner increased to Tk. 8795 in 2010 from Tk. 5145 in 2005, an increase of Tk. 3650 (70.94%) during this period.
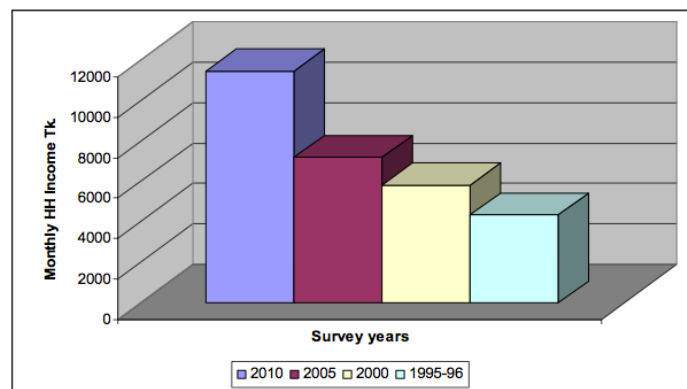
Figure 6.1: Monthly Household Income for HIES 2010, 2005, 2000 and 1995-96

The above chart 6.1 gives the graphical presentation of monthly household income for 2010, 2005, 2000 and 1995-96 by residence.

Decile groups from the table 6.7 shows the pattern of distribution of income from percentage share of income of households. It is evident from the table 4.2 that the gap between the poorest of the poor (bottom 5%) and the richest of the rich (top 5%) is extremely high. In HIES 2010, the income accruing to top 5% of the household was 24.61%, whereas, the same was 0.78% for the bottom 5% household. In 2005, income accruing to top 5 percent of the households was 26.93%, where the same was 0.77% for the bottom 5%. It slightly increased from 0.77% to 0.78% in 2010. On the contray, the share of income of the top 5% decreased from 26.93% to 24.61% over the same period indicating redistribution of income in favour of the mid-level.

It is also evident from the table 6.7 that, income accruing to households belonging to Decile-1 to Decile-5 remains almost same in 2010 and recorded at 2.00%, 3.22%, 4.10%, 5.00% and 6.01% respectively at national level. Percentage shares in 2005 were 2.00%, 3.26%, 4.10%, 5.00% and 5.96% respectively. These five deciles jointly share only 20.33% of total income, although they comprise 50% of the population. In 2010, the income share of the households belonging to Decile-6 to Decile-9 increased but, that of Decile-10 decreased corresponding to those of 2005. In 2010, the decile-6 shared 7.32% of the total income, decile- 7 9.06%, decile-8 11.50%, decile-9 15.94% and decile-10 35.85%, whereas, these were 7.17%, 8.73%, 11.06%, 15.07% and 37.64% respectively in the year 2005.

For both rural as well as urban area, show the similar changing pattern of decile distribution of income as the national level. The Gini Co-efficient of income decreased to 0.458 in 2010 from 0.467 in 2005. This decrease of Gini Co-efficient bears the evidence that, income share of higher declines decreased to some extent in 2010 compared to 2005 (Table 6.8).

Household Income Group	2010			2005		
	Total	Rural	Urban	Total	Rural	Urban
01	02	03	04	05	06	07
National	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
Lower 5%	0.78	0.88	0.76	0.77	0.88	0.67
Decile-1	2.00	2.23	1.98	2.00	2.25	1.80
Decile-2	3.22	3.53	3.09	3.26	3.63	3.02
Decile-3	4.10	4.49	3.95	4.10	4.54	3.87
Decile-4	5.00	5.43	5.01	5.00	5.42	4.61
Decile-5	6.01	6.43	6.31	5.96	6.43	5.66
Decile-6	7.32	7.65	7.64	7.17	7.63	6.78
Decile-7	9.06	9.31	9.30	8.73	9.27	8.53
Decile-8	11.50	11.50	11.87	11.06	11.49	10.18
Decile-9	15.94	15.54	16.08	15.07	15.43	14.48
Decile-10	35.85	33.89	34.77	37.64	33.92	41.08
Top 5%	24.61	22.93	23.39	26.93	23.03	30.37
Income Gini Co-efficient	**0.458**	**0.431**	**0.452**	**0.467**	**0.428**	**0.497**

Table 6.8: Percentage share of income of households by Decile group and Gini Co-efficient

6.3.2 Sources of Income

Table 6.9 exhibits percentage of income of households by major sources of income with rural and urban break-down. The share of agriculture as source of income of the households at the national level increased to 20.44% in 2005 from 20.0% in 2005. On the contrary, the sectoral share of agriculture as source of income estimated in 2009-10 GDP was found to be 20.29 which is very close to that of HIES 2010 estimate. In the rural area, the share of agriculture as source of income was 29.73% whereas; the same was 5.56% in urban area. In 2010, the percentage share of business and commerce was 19.16%; its share was 15.05% in the rural area and 25.75% for urban area. At national level, the percentage share of business and commerce declined to 23.1% in 2005 from 25.9% in the year 2000. The highest percentage share of household income came from professional wages and salary was recorded at 35.55% at national, 29.57% in rural area and 45.14% in urban area in 2010. The housing services recorded at 7.27% share at national level, 5.18% in rural area and 10.63% in urban area. Household income from gift and remittance accounted to 10.62% at national level, 17.28% in rural area and 7.75% in urban area in 2010.

Decile of Household	Total	Agriculture	Business & Commerce	Professional Wages and Salary	Housing Services	Gift & Remittance	Others
1	2	3	4	5	6	7	8
National							
2010	100.0	20.44	19.16	35.55	7.27	13.62	3.93
2005	100.0	20.0	23.1	31.3	6.7	9.8	8.7
2000	100.0	18.0	25.9	29.4	7.8	10.9	8.0
1995-96	100.0	26.3	20.3	30.3	6.8	9.1	7.2
Rural							
2010	100.0	29.73	15.05	29.57	5.18	17.28	3.16
2005	100.0	28.7	17.3	28.1	5.1	12.0	8.7
2000	100.0	25.5	22.4	27.7	5.0	11.0	8.4
1995-96	100.0	35.4	14.7	27.7	6.5	9.6	6.1
Urban							
2010	100.0	5.56	25.75	45.14	10.63	7.75	5.15
2005	100.0	5.8	33.1	36.9	9.5	5.9	8.7
2000	100.0	3.7	32.4	32.6	13.1	10.6	7.5
1995-96	100.0	4.8	33.4	36.6	7.4	7.9	9.9

Table 6.9: Percentage Share of Income of Households by Sources of Income

The graphical presentation of percentage share of income by major sources of income for last four survey years is shown in chart 6.2.
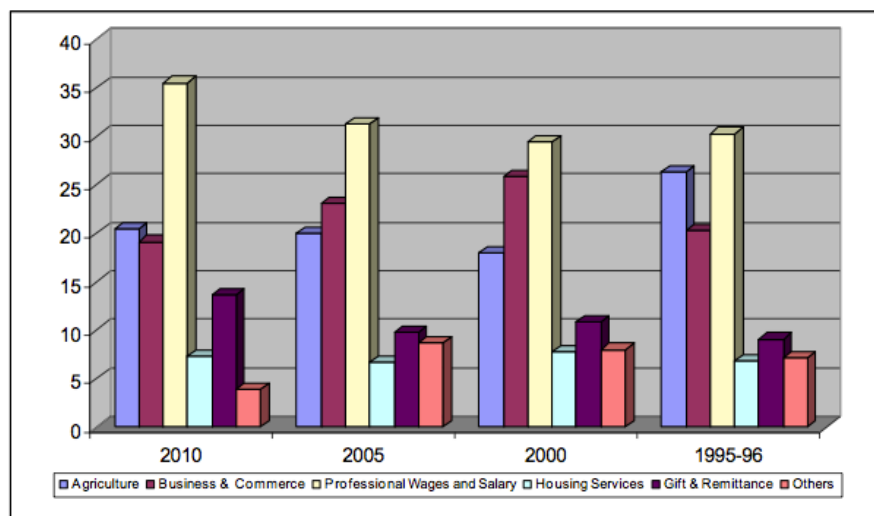
Figure 6.2: Percentage Share of Income of Households by Source of Income at National Level for 2010, 2005, 2000 and 1995-96

6.3.3 Consumption Expenditure

Table 6.10 gives the estimates for monthly expenditure and consumption expenditure per household. At the national level, average monthly expenditure per household was estimated at taka 11200 at current price in 2010. It was taka 9612 in rural area and taka 15531 in urban area. Average monthly expenditure shows an increasing trend. It was taka 6134, taka 4881 and taka 4096 in 2005, 2000 and 1995-96 respectively.

The average monthly consumption expenditure per household was taka 11003 in 2010 at the national level. In rural area, the average consumption expenditure was taka 9436 per month, whereas, in the urban area, it was found to be taka 15276. In 2005, it was Tk. 5964, Tk. 5165 and Tk. 8315 at national level, rural and urban respectively. The monthly average consumption increased by 84.5% over the year 2005 and by 142.5% over 2000. The consumption expenditure was 98.2% of the total expenditure at national level, 98.2% in rural area and 98.4 in urban area in 2010.

Year	Residence	Average Expenditure per month	Average Consumption per month	% Of total Expenditure	
				Consumption	Non-consumption
01	02	03	04	05	06
2010	National	11200	11003	98.2	1.8
	Rural	9612	9436	98.2	1.8
	Urban	15531	15276	98.4	1.6
2005	National	6134	5964	97.2	2.8
	Rural	5319	5165	97.1	2.9
	Urban	8533	8315	97.4	2.6
2000	National	4881	4537	93.0	7.0
	Rural	4257	3879	91.1	8.9
	Urban	7337	7125	97.1	2.9
1995-96	National	4096	4026	98.3	1.7
	Rural	3473	3426	98.7	1.3
	Urban	7274	7084	97.4	2.6

Table 6.10: Average Monthly Expenditure and Consumption Expenditure per Household by Residence

The standard errors of income and consumption expenditure are estimated at Tk. 280.62 and Tk. 223.14 respectively and relative standard errors (Co-efficient of variation) of those are estimated at 2.44% and 2.03% respectively. The following chart 6.3 provides the graphical presentation of household nominal income, expenditure and consumption expenditure at national level, for 2010.
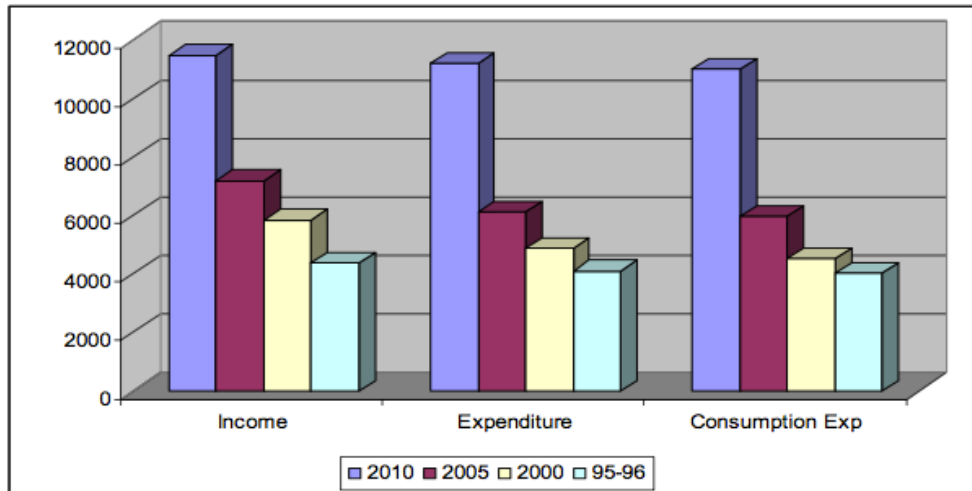
Figure 6.3: Monthly Household Nominal Income, Expenditure & Consumption

6.3.4 Expenditure by Residence

The table below provides monthly household nominal income, expenditure and consumption expenditure by administrative divisions from HIES-2010.

Division	Income	Consumption Expenditure
1	2	4
Total (National)	**11479**	**11003**
Barishal Division	9158	9826
Chittagong Division	14092	14360
Dhaka Division	13226	11643
Khulna Division	9569	9304
Rajshahi Division	9342	9254
Rangpur Division	8359	8298
Sylhet Division	11629	12003

Table 6.11: Monthly Household Nominal Incomes and Consumption Expenditures by Divisions-2010

The highest average monthly household nominal income was recorded at Tk. 14092 for

Chittagong Division followed by Dhaka Division at Tk. 13226 and Sylhet Division at Tk. 11629 and all of these exceeded the national average of Tk. 11479 in 2010. The four Divisions, which recorded monthly household income below the national average, were Barishal Division at Tk. 9158, Khulna Division at Tk. 9569 and Rajshahi Division at Tk. 9342, Rangpur Division 8359.

The highest average monthly consmption expenditure was recorded in Chittagong Division at Tk. 14360 followed by Sylhet Division at Tk. 12003 and Dhaka Division at Tk. 11643 and their income exceeded the national average of monthly household consumption expenditure at Tk. 11003 in 2010. On the other hand, the average monthly household expenditure of Barishal Division, Khulna Division and Rajshahi Division and Rangpur Division fell well below the national average and were estimated at Tk. 9826, Tk. 9304 Tk. 9254 and Tk. 8298 respectively.

The unit of calorie measures the value of food energy intake. Every food item has its own calorie value different from another. Total calorie intake is derived from total consumption of food and presented on a per capita per day basis. The average intake of calorie in different survey years is presented in Table 6.12 along with urban-rural breakdown.

Survey Year	Residence		
	National	Rural	Urban
1	2	3	4
2010	2318.3	2344.6	2244.5
2005	2238.5	2253.2	2193.8
2000	2240.3	2263.2	2150.0
1995-96	2254.0	2263.1	2208.1

Table 6.12: Average Per Capita Per Day Calorie (K. Cal) Intake by Residence

The average calorie intake was estimated at 2318.3 K.cal per capita per day in 2010 which was 2238.5 K. cal in 2005, 2240.3 K. cal. in 2000 and 2254 K. cal in 1995-96. After a gradual decline until 2005, it increased in 2010.

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A similar pattern as noticed at the national level is also observed in the rural areas in the case of calorie intake (Chart 6.4). It was 2344.6 K. cal in 2010, 2253.2 K. cal in 2005, 2263.2 K. cal in 2000 and 2263.1 K. cal in 1995-96. In urban areas, the intake of calorie shows fluctuations over the period. It was 2244.5 K. cal in 2010, 2193.8 K. cal in 2005, 2150.0 K. cal in 2000 and 2208.1 K. cal in 1995-96.
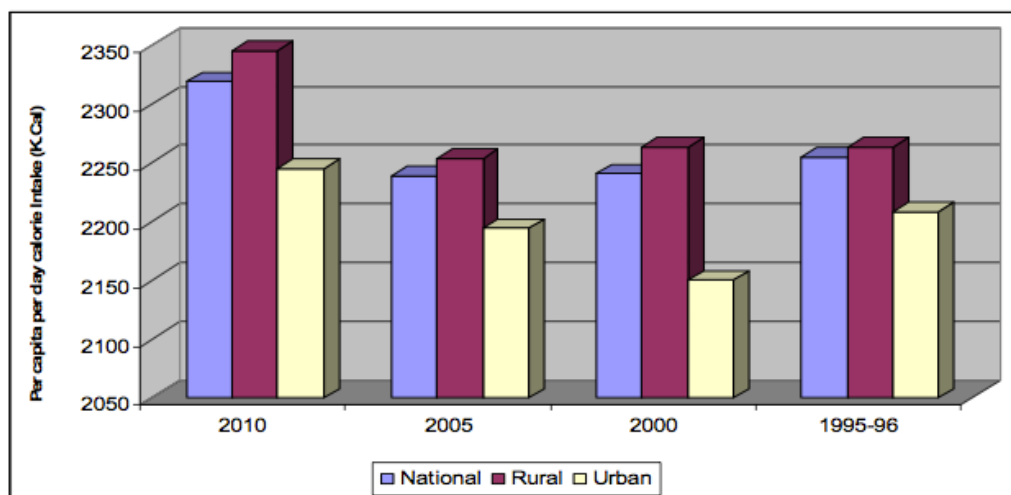
Figure 6.4: Average Per Capita Per Day Calorie (K. cal) Intake by Residence

6.3.5 Poverty Profiles

The Head Count Rate (HCR) of poverty provides the estimate of the percentage of people living below the poverty line as a share of total population. In CBN method, it is a process of counting the poor on the consumption expenditure threshold (Appendix C) and which is expressed in percentage term. The estimates of Head Count Rate of HIES 2010 and HIES 2005 for upper and lower poverty lines are given in Table 6.13.

Years of HIES	Upper Poverty Line			Lower Poverty Line		
	National	Rural	Urban	National	Rural	Urban
2010	31.5	35.2	21.3	17.6	21.1	7.7
2005	40.0	43.8	28.4	25.1	28.6	14.6
2000	48.9	52.3	35.2	34.3	37.9	20.0
1995-96	50.1	54.5	27.8	35.2	39.5	13.7
1991-92	56.7	58.8	42.8	41.1	43.8	24.0

Table 6.13: Head Count Rates of Incidence of Poverty (CBN Method)

Using the upper poverty line in HIES 2010, HCR of incidence of poverty are estimated at 31.5 percent at the national level, 35.2 percent in rural area and 21.3 percent in urban area. In HIES 2005, these rates were 40.0 percent at national level, 43.8 percent in rural area and 28.4 percent in urban area respectively. The HCR recorded a reduction by 8.5 percentage points (1.7 percent per annum) at national level, 8.6 percentage points in rural area and 7.1 percentage points in urban area during the period 2005 to 2010. In 1991-92 the HCR of poverty was 56.7 percent at national level. In about twenty years, it recorded 25.2 perentage points reduction and Bangladesh is close to achieving the Millennium Development Goal (MDG) of halving the poverty incidence by 2015.

Using the lower poverty line, in HIES 2010, the HCR of incidence of poverty is estimated at 17.6 percent at national level, 21.1 percent in rural area and 7.7 percent in urban area. In HIES 2005, these rates were 25.1 percent at national level, 28.6 percent in rural area and 14.6 percent in urban area respectively. Thus HCR recorded a reduction by 7.5 percent at national level, 7.5 percent in rural area and 6.9 percent in urban area during the period 2005 to 2010. Using the lower poverty line, the HCR of incidence of poverty was 41.1 percent in 1991- 92. Now, it is less than half (17.6 percent) and Bangladesh seems to have already achieved the MDG target of reducing the incidence of extreme poverty by half by 2015.

The standard errors of HCR are estimated at 0.88 percent in the case of the upper poverty line and 0.68 percent for the lower poverty line. These are statistically insignificant at 95 percent confidence interval.

6.4 Per Capita Income of the Poor

Table 6.14 shows the per capita income of the poor using upper and lower poverty lines. Using the lower poverty line, per capita income of the poor in nominal terms at the national level is Tk. 1102.84 at national level, Tk. 1083.72 in the rural area and Tk. 1250.18 in the urban area in 2010. In HIES 2005, these were Tk. 646.51 at the national level, Tk. 630.53 in rural area and Tk. 741.52 in urban area. On the other hand, using the

upper poverty line at national level, the per capita nominal income of the poor is Tk. 1270.93 at the national level, Tk. 1211.57 in the rural area and Tk. 1545.96 in the urban area. In 2005, these were Tk. 731.73 at the national level, Tk. 703.98 in rural area and Tk. 862.40 in urban area. On average, the per capita income of the poor recorded nearly 74 percent increase in 2010 over that in 2005.

Division	Per Capita Income of the Poor					
	Using Lower Poverty Line			Using Upper Poverty Line		
2010						
National	1102.84	1083.72	1250.18	1270.93	1211.57	1545.96
Barisal	1097.64	1055.96	1333.31	1190.67	1130.25	1488.23
Chittagong	1051.67	1034.62	1259.46	1307.27	1304.64	1328.03
Dhaka	1159.30	1106.74	1650.28	1406.36	1237.32	1955.93
Khulna	1079.46	1132.25	914.54	1226.21	1267.15	1106.41
Rajshahi	1119.90	1101.63	1215.21	1200.34	1182.47	1273.50
Rangpur	1100.35	1101.41	1088.57	1163.75	1154.61	1258.77
Sylhet	996.95	1000.87	905.13	1045.37	1045.20	1047.29
2005						
National	646.51	630.53	741.52	731.73	703.98	862.40
Barisal	646.60	641.59	686.69	707.62	702.45	747.05
Chittagong	648.71	646.21	666.38	798.03	793.04	817.99
Dhaka	650.01	612.69	820.26	731.21	662.67	952.67
Khulna	669.23	669.30	668.88	746.02	729.20	814.37
Rajshahi	640.77	625.47	746.74	708.46	693.85	802.13
Sylhet	596.40	588.32	703.11	667.50	634.75	1081.61

Table 6.14: Per Capita Income of the Poor

In 2010, using the lower poverty line, per capita income of the poor is highest in Dhaka division at Tk. 1159.30 followed by Rajshahi division at Tk. 1119.90 and Rangpur division at Tk. 1100.35. In 2005, the same was highest in Khulna division at Tk. 669.23 followed by Dhaka division at Tk. 650.01, Chittagong division at Tk. 648.71, Barisal division at Tk. 646.60, Rajshahi division at Tk. 640.77 and Sylhet division at Tk. 596.40. In 2010, using the upper poverty line, per capita income of the poor is highest in Dhaka division at Tk 1406.36 followedby Chittagang division at Tk. 1307.27, Khulna division at Tk. 1226.21 and Rajshahi division at Tk. 1200.34. In 2005, using the upper poverty line Chittagong division had the highest per capita income of the poor which was recorded at Tk. 798.03 followed by Khulna division at Tk. 746.02, Dhaka division at Tk. 731.21,

Rajshahi division at Tk. 708.46, Barisal division at Tk. 707.62 and Sylhet division at Tk. 667.50.

6.5 EXISTENCE OF SOCIAL CAPITAL

6.5.1 Attainments through SSNPs

Social Safety Nets Programmes (SSNP) are generally targeted to the poor. According to the HIES 2010 CBN estimates, 31.5 percent of the population are poor using the upper poverty line and 17.6 percent of the people are extreme poor who live below the lower poverty line. Most of the extreme poor suffer from chronic poverty and multiple deprivations. Most of them are jobless, landless or assetless. Many of these households do not have any adult working earning member or own any productive asset to support their families. Most of them live on charity or below the subsistence level. The government operates SSNPs to provide support to such families in cash or kind to help overcome extreme hunger and create productive assets for earning livelihoods.

The SSNP module was first introduced in HIES 2005 in which 11 programmes were included. In HIES 2010, its scope has been widened to include 30 programmes. In 2010, 24.57 percent of the households at the national level received benefits during the last 12 months from at least one type of programme. In contrast, 13.06 percent of the households received benefit from SSNPs in 2005. In the rural area, 30.12 percent of the households received benefits from SSNPs as against 15.64 percent of the households in 2005. Similar increase in urban area may also be noted. Survey findings indicate that the SSNPs have been widened substantially both in coverage and amount distributed during the period 2005 to 2010 (Table 6.15).

Year	National	Rural	Urban
2010	24.57	30.12	9.42
2005	13.06	15.64	5.45

Table 6.15: Distribution (Percent) of Households Receiving Benefits from SSNPs

The Division wise distribution of households receiving benefits from SSNPs shows that the highest percentage of households receiving benefits from SSNPs are located in Khulna Division (37.30 percent), followed by Barisal Division (34.43 percent) and Rangpur Division (33.65 percent). The proportion of households receiving benefit in Dhaka Division is the lowest at 18.87 percent preceded by Chittagong Division 19.99 pecent. The share in the rural area is much higher than that in the urban area in all Divisions as most of the SSNP programs are operated intensively in the rural area (Table 5.16).

Division	% of Household Receiving Benefit (Survey Year 2010)		
	National	Rural	Urban
National	**24.57**	**30.12**	**9.42**
Barisal	34.43	37.20	20.66
Chittagong	19.99	24.50	7.44
Dhaka	18.87	27.80	5.99
Khulna	37.30	43.27	16.66
Rajshahi	20.66	22.85	10.17
Rangpur	33.65	35.11	23.68
Sylhet	23.51	26.06	10.50

Table 6.16: Distribution of Households Receiving SSNP Benefits by Division

6.5.2 Average Benefit Received from SSNPs

The average benefit received from SSNPs measured in monetary terms in 2010 is estimated at Tk. 483 per household at the national level (Table 9.3). The highest average amount per household is received from Housing Support at Tk.10,650 followed by Cash for Work at Tk. 2,077 and Allowance for Beneficiaries in Chittagong Hill Tracts Area at Tk. 1,644. Agriculture Rehabilitation Programme, Stipend for Primary Students, Gratuitous Relief (Cash), and Old Age Pension included 79.14 percent, 4.15 percent, 3.44 percent, and 1.85 percent respectively. In the third quarter, Gratuitous Relief, Vulnerable Group Development (VGF), Vulnerable Group Feeding, General Relief Activities and Agriculture Rehabilitation Programme included 39.53 percent, 16.23 percent, 15.41 percent, 12.19 percent, and 7.23 percent respectively. In the forth quarter, Gratuitous Relief, General Relief Activities, Stipend for Primary Students, General Relief Activities and Vulnerable Group Feeding included 44.05 percent, 15.50 percent, 10.58 percent and 9.98 percent respectively.

Type of programme	Total	Barisal	Ctg.	Dhaka	Khulna	Rajshahi	Rangpur	Sylhet
Total	483	562	624	467	438	429	492	380
Old age allowance (MOSW)	520	583	414	604	523	577	352	350
Allowances for the widow, deserted & destitute	474	392	550	439	418	431	635	547
Allowances for financially insolvent disabled	450	430	266	368	239	358	1000	0
Maternity allow. program for the poor lactating	553	0	300	0	392	1000	0	0
Honoraria for insolvent freedom fighters	1266	0	2000	1217	717	1254	0	1666
Honoraria for injured freedom fighters	1386	1500	850	1500	570	1010	2000	3000
Gratuitous relief (cash)	499	275	473	1073	1300	254	509	67
General relief activities	344	494	185	645	384	210	280	64
Allowances for distressed cultural personnel	0	0	0	0	0	0	0	0
Allow. For beneficiaries in Ctg. hill tract area	1644	0	1644	0	0	0	0	0
Stipend for disabled student (MOSW)	244	200	0	271	150	255	0	300
Grants for the schools of disabled (MOSW)	0	0	0	0	0	0	0	0
Cash for work (MOFDM)	2077	5250	4200	757	1524	0	2209	0
Housing support	10650	25020	0	0	2000	0	0	522
Agriculture rehabilitation (MOA)	472	105	800	581	444	406	259	376
Subsidy for open Market Sales (OMS)	372	0	0	385	140	420	0	0
Vulnerable Group Development	771	426	0	208	2150	0	0	672
Vulnerable Group Feeding	455	558	340	346	500	397	1900	636
Test Relief (TR) food	530	619	0	0	150	1671	262	378
Gratuitous relief	568	632	1272	298	293	424	599	318
Food for work	158	0	0	56	280	56	0	0
Employment gen. for hard-core poor or 100 days	771	0	0	318	0	2035	243	0
Stipend for primary students (MOPMED)	157	161	259	130	118	115	193	199
School feeding programme (MOPMED)	20	20	0	0	20	0	0	0
Stipend for drop out students	219	0	225	461	25	93	116	100
Stipend for secondary & higher sec. female student	169	89	304	211	103	144	212	125
Maternal health voucher allowance	1417	0	483	0	300	2575	0	0
Rural emp. opportunity for protection of public	1569	0	56	3000	0	0	0	0
Char Livelihood	943	1400	100	340	20	3600	580	0
Rural Employment and Rural Maintenance Pro.	1218	0	300	420	840	0	2050	0

(Taka)

Table 6.17: Average Benefit per Household from SSNPs, 2010

6.5.3 Micro Credit

One of the newly introduced modules of HIES 2010 questionnaire is related to loans and saving habits. The main features included are: opening new bank account, transactions in money matters, amount of loan, duration of repayment, interest rate, repayment status and purposes of taking loans and related financial issues. Table 10. provides some baseline information regarding opening of a new account, depositing money in any micro finance or financial institutions, depositing money in any informal financial institutions for saving and receipt of loans from any quarter.

Subject	National	Rural	Urban
Opening new bank account	7.41	5.05	13.85
Deposited money in any micro finance or financial institutions	14.51	15.94	10.61
Deposited money for saving in any informal financial institutions	5.64	5.80	5.22
Received loans from financial institutions, friends, etc.	32.03	35.08	23.70

Table 6.18: Percentage Distribution of Households Opening Bank Account, Depositing Money and Receiving Loans during the last 12 Months by Residence

The table above shows that 32.03 percent of the households received loans from financial or non-financial institutions, friends, moneylenders, or other sources during the last 12 months preceding the day of enumeration. The proportion was higher in rural area (35.08 percent) than that of the urban area (23.70 percent). A total of 14.51 percent of the households reported depositing money in any micro-finance or financial institution. The proportions in urban area and rural area were 10.61 percent and 15.94 percent respectively. Depositing money for saving in any informal financial institution such as local co-operatives, clubs, and similar institutions was reported by 5.64 percent of the households; the proportions being 5.22 percent in urban area and 5.80 percent in rural area. Opening of a new bank account during the last 12 months was reported by 7.41 percent of the households, which was 5.05 percent in rural area and 13.85 percent in urban area. The Division wise percentage distribution of households taking loans from any kind of institutions including friends and relatives is given in Table 6.19.

Division	Locality		
	Total	**Rural**	**Urban**
Total	**100.00**	**100.00**	**100.00**
Barisal	41.95	42.21	40.67
Chittagong	26.45	30.00	16.57
Dhaka	26.12	32.62	16.74
Khulna	41.72	41.55	42.33
Rajshahi	38.58	38.60	38.47
Rangpur	39.44	38.46	51.67
Sylhet	19.97	20.45	17.50

Table 6.19: Percentage Distribution of Households with Members Receiving Loans from Friends, Financial or Non-financial Institutions during last 12 Months

The table above shows that 41.95 percent of the households in Barisal Division and 41.72 percent in Khulna Division took loans from friends, financial or non-financial institutions. The proportions were relatively similar in urban and rural areas. Sylhet Division reported the lowest proportion with 19.97 percent with 20.45 percent in rural area and 17.50 percent in urban area.

Table 6.20 provides the percentage distribution of loan takers classified by sources and the main reason for taking loan. It appears that 21.11 percent of the borrowers took loan from the Grameen Bank. This was followed by ASA at 18.37 percent and other NGOs at 14.29 percent. The lowest reported sources were grocery shop and Leasing Organizations with only 0.08 percent of the borrowers each. Financing business was the prime reason for borrowing for 23.73 percent followed by agriculture at 21.09 percent and other reasons at 21.55 percent. Table 10.15 provides the average amount of loan taken per borrowing household over the last 12 months by Division and place of residence.

Source	Total	Education	Health	Agriculture	Business	Housing	Food Expenditure	Marriage	Others
1	2	3	4	5	6	7	8	9	10
Total	**100.00**	**1.91**	**4.12**	**21.09**	**23.73**	**12.53**	**11.04**	**3.99**	**21.55**
Private Com. Bank	1.52	2.70	3.97	19.20	29.85	19.32	5.09	4.34	15.48
Public Com. Bank	1.55	2.40	2.94	36.34	18.34	17.89	4.22	1.42	16.40
Krishi/Rajshahi ADB	7.01	1.81	2.36	44.85	18.10	6.67	6.87	2.13	17.17
Cooperative Bank	0.23	0.00	0.00	10.14	39.18	19.04	12.61	0.00	19.00
Cooperative Society	1.79	4.61	4.95	14.93	24.78	11.20	9.46	1.76	28.28
B S C I C	0.10	0.00	0.00	0.00	0.00	0.00	49.37	0.00	50.62
Youth Development	0.22	0.00	13.01	39.12	31.80	0.00	0.00	0.00	16.05
Grameen Bank	21.11	2.53	3.74	20.68	23.39	13.51	12.66	3.85	19.61
B R A C	11.47	1.96	3.11	22.19	24.00	15.07	11.51	4.28	17.85
B R D B	1.60	2.77	2.21	24.77	24.56	12.53	6.69	4.54	21.89
Other Public Org.	0.55	4.25	0.00	18.27	24.93	20.14	11.93	0.00	20.45
A S A	18.37	1.52	3.53	16.97	27.90	12.89	11.13	4.08	21.93
Proshika	0.50	8.16	10.11	11.45	31.62	9.07	0.00	4.41	25.16
Other NGOs	14.29	0.94	4.77	17.81	25.90	13.49	8.65	3.76	24.65
Other Micro Finance Org.	6.64	0.91	2.92	18.52	28.64	11.79	10.70	6.37	20.11
Leasing Organization	0.08	0.00	25.00	25.00	0.00	25.00	0.00	25.00	0.00
Money Lender	4.36	2.62	7.03	23.72	13.12	6.03	26.37	4.69	16.37
Land Owner	0.21	0.00	10.31	13.35	0.00	8.83	10.31	44.36	12.81
Employer	0.13	0.00	0.00	21.49	0.00	12.51	30.28	0.00	35.71
Friends	1.17	7.92	9.71	14.31	15.17	9.49	7.67	0.73	34.95
Relatives	3.80	0.84	11.13	10.46	13.84	11.39	8.39	4.23	39.67
Grocery Shop	0.08	0.00	0.00	8.31	26.59	0.00	53.19	0.00	11.89
Others	3.13	1.34	2.73	21.00	22.31	11.51	10.89	3.75	26.43

Table 6.20: Percentage Distribution of Loan Recipients by Source and Reason for Taking Loan

It appears that 21.11 percent of the borrowers took loan from the Grameen Bank. This was followed by ASA at 18.37 percent and other NGOs at 14.29 percent. The lowest reported sources were grocery shop and Leasing Organizations with only 0.08 percent of the borrowers each. Financing business was the prime reason for borrowing for 23.73 percent followed by agriculture at 21.09 percent and other reasons at 21.55 percent. Table 6.21 provides the average amount of loan taken per borrowing household over the last 12 months by Division and place of residence.

Residence	Total	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Rangpur	Sylhet
1	2	3	4	5	6	7	8	9
National	28062	24569	36902	36085	22071	24894	15242	22558
Rural	21804	22836	33435	24196	17486	18409	11999	24175
Urban	54122	34090	55701	70067	37741	57690	38795	13711

Table 6.21: Average Amount (Taka) of Loan Taken by Division and Residence

According to the table, the average amount of loan taken per reporting household was Tk. 28,062 at the national level; Tk. 21,804 in rural area and Tk. 54,122 in urban area. The average amount of loan taken in Chittagong Division was the highest at Tk. 36,902 followed by Dhaka Division at Tk. 36,085. Rangpur Division had the lowest average at Tk.15,242. In the rural area, Chittagong Division had an average of Tk. 33,435 and Rangpur Division had Tk. 11,999. In the urban area, the average loan taken was Tk. 70,067 in Dhaka Division followed by Chittagong Division at Tk. 55,701. Sylhet Division reported an average of Tk. 13,711. On average, loan in urban area was nearly two and a half times higher than that in the rural area.

6.6 ESTIMATING THE MAGNITUDE OF EFFECT

In the quantitative part, for estimating effect of social capital on labour market attainments in Bangladesh, I have used the statistical tool logit regression. As the method used in this study to discover the factors determining civic engagement decision has already been discussed in chapter three, only the results are discussed here. The reason for selecting the sample of all recipients of either micro credit or SSNPs in this analysis has also been discussed in chapter three. It should also be noted here that the HIES 2010 data is used to estimate the regression as it is the latest round of survey with fewer missing values. As the mixed method approach is adopted for this study, the result found in this logit model is also being followed by the relevant information found from the in-depth interviews.

Before examining the variables significant for attainment like increased income, the summary statistics give an idea of the goodness-of-fit of the final model. The following Table 6.22 shows the results of the fitted model. The dependent variable here is 'increased income' where 1 stands for increased income and 0 for the rest.

Statistics	All Sample
Omnibus Tests of Model Coef.	
Omnibus Chi-square	1420.37
Sig.	0.000
Hosmer and Lemeshow Test	
Chi-square	9.254
Sig.	0.321
Model Summary	
Cox & Snell R Square	0.190
Nagelkerke R Square	0.323
Percentage Correctly predicted	
Increased Income	96.4
Not Increased Income	31.3
Overall	85.9
N	**6762**

Note: The cut-off point to identify anyone as
enrolled is 0.5

Table 6.22: Summary Statistics of Standard Logit Model

First the Omnibus Tests of Model Coefficients gives us an overall indication of how well the model performs. This is referred to as a ‗goodness of fit' test. As the model has the sig. value less than the usual threshold value of 0.05, it can be argued that the model is significant. Therefore, the model (with the set of variables used as predictors) is better than SPSS's original guess in Block 0 without any independent variable. The Hosmer and Lemeshow Test, which is considered the most reliable test of model fit for logistic regression (SPSS, 22 version), also supports that the model is valuable. The output of Hosmer and Lemeshow is interpreted differently from the omnibus test discussed above where poor fit is indicated by a significant value less than 0.05. Put another way, to support these models, a value greater than 0.05 is required. Chi-square value for the Hosmer-Lmeshow test is 9.254 with a significant level of 0.321 which is larger than 0.05. Two pseudo R-square estimates are shown under the heading model summary. The Cox & Snell R Square and the Nagelkerke R Square values provide an indication of the amount of variation in the dependent variable explained by the predictor variables (from the minimum value of 0 to a maximum of approximately 1). These described as pseudo R square statistics, rather than the true R square values that usually provided in the multiple regression output. The two pseudo R square values are 0.19 and 0.32 meaning that 19%

to 32% of the variability of the dependent variable is explained by this set of independent variables.

The next part of the Table 6.22 is the Classification Matrix. This provides us with an indication of how well the model is able to predict the correct category (Increased vs not-increased). Two concepts are found in the literature named sensitivity and specificity which are used to understand the predictive power of the model. The sensitivity of the model is the percentage of the group that has the characteristics of interest (e.g. Increased Income) that have been accurately identified by the model (Pallnant 2007). Therefore, from the table it can be argued that the model identifies around the 95% of the respondents who had an increased income correctly. The specificity of the model is the percentage of the group without the characteristic of interest (not increased income) that is correctly identified (Pallnant, 2007). The model identified around 30% of the respondents who could not increase their income correctly. Overall the model identified 85% Sample correctly.

Next Table 6.23 shows the list of variables found significant for increased income. Theoretically factors that are most important in income generation are age, sex, household income, level of education, and experience. However, these covariates influence is not same impact for every society or every community. As the Forward stepwise option is used, only the statistically significant variables are shown except ordered variable, some level of which may not be significant but is reported here.

Variable	Coef.	Std. Error	Wald	Sig.	Odds Ratio
Human Capital					
Age	5.637	0.372	229.840	0.00	280.556
Age Square	-0.315	0.024	179.868	0.00	0.730
Experience	-0.409	0.076	28.788	0.00	0.664
Education	-3.070	0.399	59.213	0.00	0.046
Household Characteristics					
Fathers' Education	0.107	0.019	31.456	0.00	1.113
Mothers' Education	0.092	0.015	38.359	0.00	1.097
Head Age	-.013	0.004	14.226	0.00	0.987
No. of Rooms	0.142	0.042	11.293	0.00	1.153
Telephone Mobile	0.324	0.088	13.630	0.00	1.383
Internet	-1.326	0.540	6.028	0.01	0.266
Occupancy Status*					
Renter	-0.485	0.139	12.237	0.00	0.616
Squatter	-0.797	0.216	13.597	0.00	0.451
Free by relatives/Employer	-0.130	0.197	0.431	0.51	0.879
Government Residence	-0.514	0.370	1.929	0.16	0.598
Other	-0.411	0.351	1.372	0.24	0.663
Amount of Land	-0.001	0.000	13.271	0.00	0.999
Log Per Capita Cons	1.636	0.248	43.690	0.00	5.134
Social Capital					
NGO membership	1.201	0.180	44.480	0.00	3.323
SSNPs membership	0.406	0.096	17.787	0.00	1.502
Political Network	0.894	0.143	39.065	0.00	2.446
Friendship Network	0.596	0.110	29.207	0.00	1.815
Constant	-27.868	1.652	284.462	0.00	0.000

Note: * Occupancy Status is Ordinal variable where Owner (level 1) is the reference variable and other options like renter and squatter are represent level 2, 3 and so on

Table 6.23: Variables in the Logistic Regression

The coefficient values in the first column are equivalent to the beta coefficient obtained in a multiple regression analysis. These are the values used in an equation to calculate the probability of an increased income in any sort. The positive or negative sign of the coefficient will tell us the direction of relationship (which factor increase the likelihood of a 'yes' answer and which factors decrease it). Since dependent as well as some of the independent categorical variables are coded with 0 = lack of characteristics and 1= the presence of the characteristics, negative coefficient values indicate that non-experienced recipients of microcredit have more probability to increase income then their counterparts. Education also has a negative sign as expected. Similarly, a negative sign for 'Head Age' indicates the negative relationship between head age and the probability

of increasing income. However, it is difficult to explain the sign of the coefficient of 'Internet Connection'. Although the variable is statistically significant, it should be noted here that only 0.6% respondents in the sample had internet connection. The only ordinal variable 'Occupancy Status' is found significant which is explainable where the reference variable is 'Own House'. It can be argued that the probability of increasing income among clients of household with their own house will be higher than for renters and others status holders.

The third column of the table provides information about the contribution or importance of each predictor variable. The test used here is the Wald test and the value of the statistic for each predictor is the column labeled Wald. According to the Wald statistic 'Age' is the most important variable for determining increasing income. The rest are 'Education', Fathers' Education, and Mothers' education. The odds ratio in the last column is another important piece of information. According to Tabachenick and Fidell (2007), 'the odds ratio represents the change in odds of being in one of the categories of outcome when the value of a predicator increases by one unit' (p.461). It should be noted here that in cases of continuous predictor variable, if the estimated odds is more than 1, it suggest the increase in response variable with the factor of odd with each unit increase (such as a year) in the predictor variable, (decrease if less than 1). For categorical variables, just comparing two groups will provide information about whether the two are different. For categorical variables with more than two categories, each category is compared with the reference group. It should also be noted that if the odds ratios are less than 1, it can be inverted (1 divided by the value) to assist interpretation. To better understand the odds ratio the formula is given below.

$$Odds\ (Increased\ Income) = \frac{P(Increased\ Income)}{1 - P(Not\ Increased\ Income)}$$

Thus, the variable Age has the odds value of 280 meaning that for an extra year of age, reporting an individual has increased income can increase his/her income by a factor of

280. Odds ratio for 'Experience' suggest that 'Not Increased' group have 1.5 times higher probability of increasing their income through getting touched with civil society memberships. Similarly, respondents who have no education have 21 times (1 divided by .046) higher odds of increase their income. Fathers' and Mothers' education indicates that for every extra year of parents' education, the odds of their offspring reports an income increased by a factor of 1.10. The household level variables start with the parents' education. Though both father's and mother's education is found significant the Wald score suggests that mother's contributed slightly more. Household head's age is also found to be significant. As the sign is negative, it can be interpreted that the older the household head, the less is the individual will be attached with civil society memberships.

The first covariates related to the household infrastructure facility 'No. of Rooms' in the household is found significant in the All Sample model as well as the urban and non-experienced samples (see Table 6.23). The reason is practical as it is directly related to the household's economic condition. But in rural areas households are not significantly different in terms of number of rooms because most of households in the rural areas have just 1/2 rooms in their house. However, it is hard to explain the phenomena of the 'not increased' sample found in the variable. But none of the other (more than 15) household level variables are found significant except mobile/phone and internet. 'Telephone/mobile' is significant for all the models except for the not increased sub-sample. From the odds ratio, it can be presumed the odds of an individual having increased income is 1.4 times higher for a household having either a home phone or a mobile in the household than for an individual who does not have either of them.

Variables	Rural		Urban		Increased income		Not Increased	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Constant	-28.7	0.00	-25.4	0.00	-29.4	0.00	-26	0.00
Individual Characteristics								
Age	5.91	0.00	4.92	0.00	5.70	0.00	5.50	0.00
Age Square	-0.33	0.00	-0.27	0.00	-.032	0.00	-0.30	0.00
Experience	-0.48	0.00	-0.32	0.03	-	-	-	-
Education	-2.52	0.00	-23.9	0.99	-3.02	0.00	-3.5	0.00
Household Characteristics								
Father's Education	0.06	0.00	0.08	0.00	0.04	0.00	0.10	0.00
Mother's Education	0.07	0.00	0.09	0.00	0.09	0.00	0.07	0.00
Head Age	-0.01	0.00	-0.01	0.22	-0.00	0.14	-0.02	0.00
No of Rooms	0.08	0.14	0.21	0.04	0.18	0.01	0.08	0.28
Electricity	-0.34	0.10	-0.16	0.65	0.03	0.89	-0.58	0.02
Hours Electricity	0.02	0.20	0.00	0.88	0.00	0.78	0.01	0.31
Telephone Mobile	0.26	0.01	0.47	0.01	0.40	0.00	0.23	0.11
Internet	-2.68	0.00	-0.61	0.66	-0.15	0.90	-02.2	0.01
HH Member	-0.03	0.21	-0.00	0.99	-0.04	0.19	-0.02	0.70
Dependency Ratio	-0.01	0.85	0.07	0.56	0.05	0.49	-0.01	0.98
Log Per Capita Con	1.43	0.00	1.92	0.00	1.56	0.00	1.07	0.02
Log total Asset	0.07	0.19	-0.14	0.10	0.02	0.65	0.01	0.95
Own Land	-0.00	0.00	-0.00	0.00	-0.00	0.08	-0.01	0.01
Social Capital								
NGO membership	0.94	0.00	0.93	0.09	0.62	0.03	1.52	0.00
SSNPs membership	0.03	0.85	0.37	0.34	0.08	0.66	.151	0.50
Political Network	0.40	0.01	0.36	0.29	0.22	0.25	0.53	0.02
Friendship Network	0.91	0.00	0.93	0.02	0.86	0.00	0.99	0.00
Constant	0.61	0.00	0.46	0.21	0.60	0.00	0.58	0.02

Table 6.24: Regression Coefficients and their Significance Value

Next the whole dataset was divided into different sub-samples according to either the geographical location (rural-urban) or income group (increased-not increased). Then same model has estimated for these different sub-samples to see the difference, if any. This exercise is important when different cohorts of individuals (like increased and not-increased or rural and urban) facing different types of barriers to attainments like memberships in civil society organizations. Accordingly, the ways government can intervene are also different for different groups of Individuals. NGO and SSNPs' memberships are two different types of program for rural income groups.

6.7 Studying Effect Alternatively: THE FUZZY APPROACH

6.7.1 Measurement

Numerous researchers already manifested their scientific endorsement about the functional entity of social capital on labor market participation where Bourdieu, Portes, Coleman, Putnam, Lin, Fukuyama are the key exponents. While they are analyzing the issue, they have their own background information in hand from their immediate society. A tentative outcome they expects from the study while mastering the data. At least they can assume the expected relation among variables will be either positive or negative or zero sum. Any social researcher can conduct research by using conventional research methods *i.e.* either by qualitative (FGD, Case studies, PRA etc.) or quantitative (survey, Experiment etc) method with possible statistical univariate, bi-variate, or multivariate analysis. Interestingly speaking, application of fuzzy logic might explain the research findings with possible magnitudes as an alternative technique. By using Yager's model of fuzzy logic present researcher has computed the relation between labor market attainments and social capital variables.

Suppose we have the background information that social capital might have a complimentary relation to human capital for individuals, which can help him/her to be in a safe position at work along with existing attainments. In order to analyze this relation using fuzzy logic (Yager's model), we need to develop a universal set of outcome responses (y_1, y_2…..y_n). To determine the magnitude of the elements of response set researcher needs to attach membership to the signal set (x_1, x_2…….x_n) which lies between [0,1]. For establishing membership (degree of certainty) of the elements of the response set researcher needs to generate a matrix between response set and signal set where we know response set is a universal set.

By using Yager's model, now we can calculate the magnitude of the elements of response set by following procedure:-

Step I.
Researcher served following signal record sheet to the respondents.

In all public universities in Bangladesh, teachers are enjoying their name and fame, status, job orientation, income, promotion/upgradation, mental gratification, working environment etc. And these attainments are possible for their excellent academic career. **'For a better and sustainable security of these achievements along with their educational attainments, university teachers need to have political network, friendship network, professional network, religious network, family and kinship network'**.

− How do you go with the above statement?

Please rank all in percent by your own judgment:

Judgments	Percent (%)
Strongly Agree	
Strongly Disagree	
Fairly True	
Fairly False	
No Comment	
No Idea	

<u>Sample answer</u>

Strongly agree   100%
Strongly Disagree   0%

Fairly True   70%
Fairly False 30%

No Comment 80%
No Idea 90%

Step II.

Researcher has developed and collected following signal set which was sent to the respondents:

x_1 = Strongly Agree

x_2 = Strongly Disagree

x_3 = Fairly Agree

x_4 = Fairly Disagree

x_5 = No Comment

x_6 = No Idea

And, also developed the universal outcome response set (where signal set is embedded) as:

y_1 = people need to have only human capital

y_2 = people need not to have only human capital

y_3 = people need to have political network

y_4 = people need to have family or kinship network

y_5 = people need to have friendship network

y_6 = people need to have religious network

y_7 = people need to have professional network (membership in civil society)

Step III.

Using Yager's theory (stated in the methodology chapter),

Assume that researcher's expectation of possible outcome for each element of signal set with following membership by the possibility distribution as -

$$r_0 = (0.5/x_1 + 0.2/x_2 + 0.5/x_3 + 0.5/x_4 + 0.2/x_5 + 0.3/x_6)$$

We can see from this distribution that the researcher expects a moderate positive outcome of *strongly agree* from respondents. If responses for signal set come in same magnitudes with researcher's expectation then it will be the end of the measurement for being consistent. From the first instance, researcher received following messages M_1 from respondents -

$$M_1 = 0.8/x_1 + 0.5/x_2 + 0.7/x_3 + 0.0/x_4 + 0.1/x_5 + 0.0/x_6$$

$$= 0.8/x_1 + 0.5/x_2 + 0.7/x_3 + 0.1/x_5$$

This message, although relatively unambiguous and clear for *strong agreement* but is rather inconsistent with researcher's expectation with his background information at hand. As measured by (1.4), the consistency is -

$$s(M, r_0) = \max[0.5, 0.2, 0.5, 0.1] = 0.5$$

As the message is inconsistent to the researcher's expectations, let us assume that the researcher introduces some distortion, as specified by (1.5) and got the following responses

$$M_1' = 0.9/x_1 + 0.7/x_2 + 0.9/x_3 + 0.0/x_4 + 0.3/x_5 + 0.0/x_6$$
$$= 0.9/x_1 + 0.7/x_2 + 0.9/x_3 + 0.3/x_5$$

Based on this message from respondents researcher modifies his expectations according to (1.6) such that

$$r_1(x) = \min[r_0^{0.5}(x), M_1'(x)]$$
$$\text{for each } x \in X$$

$$r_1 = 0.7/x_1 + 0.5/x_2 + 0.7/x_3 + 0.0/x_4 + 0.3/x_5 + 0.0/x_6$$
$$= 0.7/x_1 + 0.5/x_2 + 0.7/x_3 + 0.3/x_5$$

Now, researcher has greatly diminished his expectation of output *strongly agree* from signal set, somewhat increased his expectation of the *strongly agree* and *no comment* and has given up all hopes of the possibility of *no idea*.

Step IV.

According to Yager's theory, researcher must check and clarify the output from respondents again on signal set for his precision development. Present researcher used the second set of data from respondents and got the following output on signal set as M_2 -

$$M_2 = 0.9/x_1 + 0.8/x_3 + 0.2/x_4 + 0.2/x_5$$

This message is stronger, clearer, and less general than first answers. Its consistency with researcher's new expectation is

$$s(M_2, r_1) = 0.7$$

Thus, the message is highly contrary even to the revised expectations of the researcher, so let us suppose researcher distorts the message such that

$$M_2' = 1/x_1 + 0.8/x_3 + 0.4/x_4 + 0.4/x_5$$

Researcher has thus coming to take precision after the clarity of the received message from respondents and led him to exaggerate the degree to which he believes that

respondents have responded with *no idea*. Let us now take decision the researcher makes will have characteristics from the following set *Y*:

y_1 = people need to have only human capital

y_2 = people need not to have only human capital

y_3 = people need to have political network

y_4 = people need to have family or kinship network

y_5 = people need to have friendship network

y_6 = people need to have religious network

y_7 = people need to have professional network (membership in civil society)

Let the fuzzy relation $R \subseteq Y \times X$ represent the degree to which researcher plans to respond to a given signal *x* with the response having the attribute *y*. This relation is given by the following matrix (rows and columns are ordered by the subscripts of the symbols involved):

$$
\begin{array}{c}
\mathbf{X} \longrightarrow \\
\mathbf{Y} \downarrow \left(
\begin{array}{cccccc}
1.0 & 0.0 & 1.0 & 0.4 & 0.0 & 1.0 \\
0.0 & 1.0 & 0.0 & 0.2 & 0.0 & 0.0 \\
0.3 & 0.6 & 0.5 & 0.5 & 0.0 & 0.0 \\
0.5 & 0.7 & 0.5 & 0.5 & 0.0 & 0.0 \\
0.6 & 0.7 & 0.5 & 0.5 & 0.0 & 0.0 \\
0.1 & 0.4 & 0.3 & 0.2 & 0.0 & 0.0 \\
0.0 & 0.8 & 0.8 & 0.5 & 0.0 & 0.0 \\
\end{array}
\right)
\end{array}
$$

Using (1.7) we can now calculate the magnitude the researcher will make to the message M_2':

$$A = R \circ M_2' = 1.0/y_1 + 0.2/y_2 + 0.5/y_3 + 0.5/y_4 + 0.6/y_5 + 0.3/y_6 + 0.8/y_7$$

Now the researcher can analyze the findings as, 'respondents are convinced that with human capital public university teachers need to have a moderate level of *political network*, moderate degree of *family and kinship network*, above moderate level of friendship network, a bit of *religious network* and a great deal of professional network as well'.

6.8 Measurement and analysis of the index of social capital

As we mentioned earlier, following UNDP's measurement of human development index, present researcher tried to develop an index of social capital for the study group. Researcher considers all data are mutually inclusive, *i.e.* merely relational within associated factors. Three social capital variables (QFN, PFN, and VAM) exhibit equal distances and human capital variable (YOS) varies with age and experiences, which is weighted by its internal range of maximum and minimum values. Index value 0-5 indicates a fairly weak network, 5-7.5 indicates moderately strong network, and 7.5-1 manifests very strong network. Following the table below, researcher primarily computed all individual factor indices and finally the CISC *i.e.* the composite index of social capital. Name of the variables are as follows:-

> YOS implies *Years of Schooling,*
> PFN implies *Political Friendship Network,*
> QFN implies *Quality of Family Network,* and
> VAM implies *Voluntary Association Membership.*
> .

Table 6.25: Distribution of the observed values of QFN, PFN, VAM, and YOS[3]

Statistics		YOS	PFN	QFN	VAM
N	Valid	40	40	40	40
	Missing	0	0	0	0
Minimum		16.00	.00	.00	.00
Maximum		21.00	7.00	7.00	7.00
Sum		**683.8**	**77.5**	**98.1**	**88.1**

1. **Family Factor Index:**

    As mentioned in the methodology chapter this index has been measured by following procedure –

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[3] Abbreviations have been analyzed in CODE PLAN for SPSS usages.

Family Factor Index (I_{if}) is measured using the variable quality of family network. by following formula:

$$I_{if} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

Where, M_{max} = Maximum Possible Value of Family Network

n = Observed Value of Family Network

M_{min} = Minimum Possible Value of Family Network

Here, from the table mentioned above we find the following values for respective measures *i.e.*

M_{max} = 40x7 = 280
n = 98.1
M_{min} = 0.00

So, the index value for this factor has been calculated as

$$I_{if} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

$$= \frac{280 - 98.1}{280 - 0}$$

$$= \frac{181.9}{280}$$

$$= \mathbf{0.64}$$

2. **Associational Factor Index (I_{ia})** is measured as:

$$I_{ia} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

Where, M_{max} = Maximum Possible Value of Associational Network

n = Observed Value of Associational Network

M_{min} = Minimum Possible Value of Associational Network

Here, from the table mentioned above we find the following values for respective

measures *i.e.*

M_{max} = 40x7 = 280

n = 88.1

M_{min} = 0.00

So, the index value for this factor has been calculated as

$$I_{ia} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

$$= \frac{280 - 88.1}{280 - 0}$$

$$= \frac{191.9}{280}$$

$$= \mathbf{0.68}$$

3. **Institutional Factor Index (I$_{ii}$)** is measured as following:

$$I_{ii} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

Where, M_{max} = Maximum Possible Value of Institutional Network

n = Observed Value of Institutional Network

M_{min} = Minimum Possible Value of Institutional Network

Here, from the table mentioned above we find the following values for respective measures *i.e.*

M_{max} = 40x7 = 280

n = 77.5

M_{min} = 0.00

So, the index value for this factor has been calculated as

$$I_{ii} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

$$= \frac{280 - 77.5}{280 - 0}$$

$$= \frac{202.5}{280}$$

$$= \mathbf{0.72}$$

4. **Human Capital Factor Index (I_{ih})** is measured as following:

$$I_{ih} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

Where, M_{max} = Maximum Possible Value of Human Capital Factor

n = Observed Value of Human Capital Factor

M_{min} = Minimum Possible Value of Human Capital Factor

Here, from the table mentioned above we find the following values for respective measures *i.e.*

M_{max} = 40x21 = 840
n = 683.8
M_{min} = 640

So, the index value for this factor has been calculated as

$$I_{ih} = \frac{M_{max} - n}{M_{max} - M_{min}}$$

$$= \frac{840 - 683.8}{840 - 640}$$

$$= \frac{156.2}{200}$$

$$= \mathbf{0.78}$$

Now we have got the index values for each item of the measure; as
I_{if} = 0.64, I_{ia} = 0.68, I_{ii} = 0.72, and I_{ih} = 0.78
which reveals the superiority of human capital over other three factors. The arraying of the superiority as follows:

I_{ih} > I_{ii} > I_{ia} > I_{if} with corresponding index values as 0.72 > 0.71 > 0.68 > 0.64

And, Finally the **CISC = I_{sc} = ¼ (I_{if} + I_{ia} + I_{ii} + I_{ih})**

$$= ¼ (0.78 + 0.72 + 0.68 + 0.64)$$

$$= \mathbf{0.70}$$

So, social capital index for public university teachers in Bangladesh is 0.70 as measured from this study.

Analysis of the index:

The index shows that human capital is more dominating over other factors related to family, politics and social networking. Computed index values both for individual factors and CISC lie between 0.5 to-0.75 which corresponds with moderately strong relationships. It implies, with their existing educational attainments, public university teachers in Bangladesh maintain a moderately strong relation with family, civil society, and political leaders.

6.9 SOCIAL CAPITAL AND LABOUR MARKET ATTAINMENTS: QUALITATIVE INQUIRIES

6.9.1 Introduction

The conceptual-framework of the present study will, as from qualitative perspective, closely shape-up the analysis of the data. Two primary sources of data for this analysis are—question guidelines generated before field-work and analytical insights and interpretations—done during data collection including observation. Patton (2002: 438) observes that the first task in qualitative analysis is description, which answers the basic questions that must be separated from interpretation. Interpretation finds the answers of 'why', which connects the significance of particular results and fits into an analytic framework (Patton, 2002: 438). Therefore, 'thick description'[4] is crucial before interpreting the results. For this present study, however, it is not possible to give a thick description, which derives from an anthropological approach because of the short duration of the field visit. Nonetheless, the study describes different aspects of social capital and it's consequent effects on labour market attainments followed by their specific

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[4]Patton (2002) cites Geertz (1973) and Denzin (2001) in explaining 'thick description'. It is a rich, detailed and concrete description of people and places. It is a way that one can understand the phenomenon studied and draw one's own interpretations about meaning and significance.

interpretations for enhanced understanding of the issue. Based on 'cross-case analyses'[5] this research takes into consideration only those issues and matters which are central to the proposed conceptual framework.

6.9.2 Engaging in civic organization: Does social network work?

Taking the propositions of this thesis, the researcher tried to collect information from a Social Safety Net Program. At present, almost 31 SSNPs are running in Bangladesh. Among all VGD (Vulnerable Group Development) is one of the oldest one where the participants of program are assumed to enriched with social capital because of their accomplishments. The means-testing tool of VGD program is explicitly articulated but nurture few difficulties for identification. The most significant criteria emphasizes to target clients 'who cannot afford to eat two meals per day' and have 'no regular income of the family'. Sen (1995, 2000) claims that attainments are possible to gain when an individual appear into the public without shame. In this study, it was scrutinized the process of inclusion into VGD taking the means-testing for targeting in the mind. In so doing, several questions were asked through in-depth informal interview. From the field observation, it was found that almost a majority of the clients do seek their incorporation into the program through elected membership of their ward. It is a clear effect of immediate political contact of beneficiary recipients and definitely resonates the embeddedness of social capital.

A few beneficiaries of VGD informed about their social network and its consequent roles. The present study explains the significant quotes of interviewees in this context. 'Momena Begum', a widowed and having a fifteen years old son, lives in the village called 'Kalaiura' who is a beneficiary of other SSNP named 'widow allowance' [Bidhoba Bhata]'. As regards the rule of SSNPs, one client cannot be included into two programs

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[5] Cross-case analysis is the grouping of answers from different people to common questions or analyzing different perspectives on any central issues. Patton (2002: 440) says that for open-ended interviews or interview guide approach it is easy to do cross-case or cross-interviews analysis.

simultaneously. Even one client cannot be allowed for more than one period of inclusion into the program. Nevertheless, Momena is enjoying the allowances for more than seven years. Her husband died approximately fifteen years ago when her son was only three months old. She resides in a 'brick-built house' which has been built with the help from her brothers and maternal uncle [*Mama*]. She informed about her inclusion into VGD program:

> "After the passing away of my husband, I stayed in my father's house for six years. Two of my brothers, staying in 'Middle East' and my 'Mama', a rich man, jointly decided to build a house for me in my husband's homestead land. After moving at this new house, almost seven years ago, 'Muyeeb Chacha[6]' called me to his house and told me to give him a 'photograph' which will help me to get 'widow alloance'. I myself roared and cared cattle in the house; also, I made 'Pankha' [hand made fan with bamboo strips] to sell in the market/bazaar. While I saw, two other women of the village receive 'VGD', immediately I went to uncle 'Muyeeb', a good friend of the Union Chairman and requested him to include me in the 'VGD' program. The office took my photograph again and started giving the VGD allowances." [Uddin, 2014]

Well-connected uncle of Momena helped her to be included, even violating rules of SSNPs, for two programs simultaneously. We find that suppressing information occurs not only for client's so called 'cheating', but also the norms of inclusion helps clients for doing so. It was clear from her information that social network plays a pivotal role toward inclusion. The researcher was curious about her double inclusion and asked it to the union Secretary Mr. Karnak Kanti Deb, who informed the case of Momena as "special" since the Chairman requested for her inclusion. I made a query to know the fact/s behind Momena's involvement in two programs for several years simultaneously. It was divulged that Momena changed her last name "Begum" into "Khatun", which she carried

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[6] 'Chahcha means uncle and Mr. Muyeeb is an old man in the village, formerly he was an elected member.

through the mission all through almost like an incognito. This evidence also satisfy that, the practice of 'incentive attainments' simultaneously be present with inclusion into the VGD. The client is enjoying the 'widow allowance' in cash, and also taking 'rice grain' from VGD program. It would be explained that, the clients access the program through several factors like *sympathy, social capital and personal agency* (Matin and Hulme, 2003), and these factors cultivate the opportunities for labour market attainments. Thus, the process of inclusion into VGD is rather distant from existing means-testing criteria. As clients know the possibility for inclusion, they exercise their agencies stifling their asset bases.

'Shefa Begum' lives in 'Thanaghat' village who is a newly included client in VGD program. In Shefa's word, the inclusion in the program was possible because of her husband's friendship with the ward member. For quite a longtime, her husband maintained a very good relation with the member. When the ward member was sentenced to jail[7] before being elected, her husband spent much time and money for processing his (member's) bail. Shefa explained the story of her inclusion into the program:

> "Back in 2012, one night, my husband told me to go to photo studio to take a picture. I asked him, 'what to do with the 'photograph'[8]? My husband then replied that my name will be included for 'Mashura' [VGD]. I kept asking the reasons for taking the 'VGD'. My husband replied that 'Kalu Bhai' [the ward member] wanted me to take the opportunity of the Mashura', as he is grateful to us for previous devotion while he was in jail; he just wanted to compensate". Since then Shefa is a VGD client. [ibid]

This inclusion process signifies the importance of friendship network on labour market attainments. According to the VGD inclusion criteria, Shefa was a wrongly included

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[7] It was identified that this ward member was formerly a local 'tout' and was involved with 'burglary' and 'robbery', the other excluded clients informed so and was verified after talking with few people of the village.

[8] 'Chobi' in local term.

client in the program. She kept informing that her husband earns at least Taka (Bangladeshi currency) one thousand per week from fishing throughout the year where getting VGD rice helps them for further savings. As such, her husband is not a casual laborer but rather a self-employed fisherman. Shefa never knows the criteria for being a member of the VGD program. It seems that there is a provision exists within the process of inclusion, which is inherently demonstrated for nurturing clients' information and incentive distortions. Without demanding to get the access into the program, the client is enjoying the incentive just due to the friendship network of her husband. Shefa's story of inclusion into the VGD program informs us about the role of social network, which replicates a positive relation with economic outcome.

It was assumed that the lack of social network might cause exclusion of real clients from SSNPs. This is an alternate thought regarding the effectiveness of social capital. Here, the researcher hypothesize that if somebody would be able to include her in the SSNP by her social network whereas others cannot, then a the proposition on the functional necessity of social network is proven. In order to scrutinize it, the researcher identified some potential clients who are excluded from VGD program. From the village 'Thanaghat', a 'would-be' client named 'Khaleda Akter'(widowed and have three under-five children) was interviewed. Her husband died keeping a six-month son. Currently, she is surviving selling trees from her house and also thinking to take a loan from the 'Grameen Bank' (A national NGO) in order to establish a small farm at her house. If she does not get the loan, she added, her plan is to sell land and will move to her father's house. Regarding the VGD program, Khaleda anxiously told her story:

> "I went to ward member numerous times for the inclusion who assured me
> with "OK" sign. Later, when I met him again, he arrogantly remarked that
> I became crazy[9] to get it. He asked me to have patience for next year since
> this running year none was enlisted for 'Mashura'. You (addressing

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[9] In local word it is 'Pagol'

researcher) will be surprised to know that, 'wives of all thieves, thugs, and touts get the VGD, but government does not provide me that'[10]. [ibid)

Khaleda also went to the former elected member of the ward to get help in this regard but she failed. When I was talking about the case of Khaleda with other women beside her house, they informed that the ward member choose clients for 'Mashura' only from his kith and kin clan. Therefore, in a very local level, decisions about the clients who will be included, is seemingly a decisional concern of the local representative of union council. If somebody is not well connected with the member, he/she would have less possibility to access the program. Again this data prove that political network is a paramount reality, which has effective influence on determining whether an individual can access any civic engagements, or not.

6.9.3 Categorical differences, imbalanced social capital and accessing SSNPs

Alifa of 'Tikarpara' village informed me that the member of her ward will not include her name as she belongs to a different social category. Alifa's husband is a patient, who suffers from blood cancer. Having five children (three daughters and two boys), Alifa's two daughters are physically disabled and one has learning disability. On the other hand, two sons are too small to take care of any sort of responsibility—one is four years old and the other is one and a half. Apparently, Alifa is a genuine client for the VGD and meets all the requirements to become included. However, she is excluded from the program:

> "The ward member is my neighbor; my house is located in front of his house. He belongs to 'Kiran' category and I belong to 'Maimal' category[11]. We are six families in this village who belong to 'Maimal'

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[10] In her word 'sob chur, batparer boura mashura pai, ar sorkar amare deyna'

[11] According to the local people, 'Kiran' means a category of people who historically serves the Chowdhurys (A tax collector class under British rule) and 'Maimal' is another community who are engaged in fishing.

category. The member cannot tolerate us due to this reason. I went to him several times when it was identified my husband is suffering from cancer. He suggested me moving from here to my father's house. If I decide to move, he will help me for buying the land of 1.25 decimals. This village is tinged with 'Kiran', and they never want our well-being beyond any reasonable doubt. One 'Maimal' family is very rich, they live in America; every month, they give me the support of rice. I do work as a made-servant to their family and they pay little amount of money by which I buy lentils, oil, and spices". [ibid]

Concerning the issue of inclusion and exclusion errors in VGD program, the evidence shows that categorical boundary (Tilly, 2006) has a mixed effect on social policy. it generates both inclusion possibility as well as exclusion curse. It can also be said that, as being the majority in this locality, this categorical boundary also creating a system of 'opportunity hoarding' for the political elite in a local context. According to their information, both these excluded clients know very well about the causes of their exclusion but no evidence was found whether they tried to resist the wrong inclusion or claimed rigorously about their inclusion. The evidences also replicate Portes' notion of social capital. To him, social capital can be viewed as 'the ability of actors to secure benefits by virtue of membership in social networks or other social structures' (1998:6). The case of Shefa and Momena exemplify the inclusion potentials of social network, while the last case of Alifa clearly indicates exclusion curse due to the lack of social network. It does not mean that the whole program is embroidered with such a norm of practice, rather in case of genuine clients, the researcher found the provision of including clients with proper judgments. Moreover, some excluded clients never contact anyone or seek help from their neighborhood even to get them incorporated into the program.

In rural Bangladesh, elected political leaders are considered an elite category along with elites identified in terms of land ownership, heredity, occupation etc. (Van Schendel, 1981). Due to limited cultivated land and for rising population growth, the relation between these elites and the rural poor can be seen as 'patron-client' relationships

(Jansen, 1990), which reflects the reality of imbalanced relationships. 'Elite capture' is a situation where elites use disproportionate power over a social policy that might produce inclusion error in targeting (Hossain, 2007). Especially, donors are highly concerned about the issue in relation to developing countries (Wong, 2010). In the previous section, we discussed about the inclusion procedure of 'Momena' which reveals a kind of elite capture in the studied area. In the study area, it was found that the majority clients of the VGD program were solely selected by the elected members themselves. When I asked the question regarding Alifa to her ward member (Ward Three, Lauta Union), he reluctantly replied:

> "Every day, a lot of clients come to me for being included into various programs. But how can I manage them as only limited members can be incorporated into such programs? I know the 'Obosta' [socio-economic condition] of most of the inhabitants in my ward. Those whom I know about their worst condition, I only put their name in the VGD list." [Uddin 2014]

In response to the case of Alifa, the member argued that, this year he could not manage the number as he could include only five clients from his ward to the VGD program. He will try to include her name in future period of VGD's inclusion program[12]. If the process of inclusion is seen as the prerogative of elected members, a kind of patron-client relationships might take place within the process. The local political elites are the dominant category who capture the client's inclusion. A wrongly included client named 'Tonoya Paul'[13] receives VGD for last three phases. She never comes to the center for food collection, instead her husband (57-year old) 'Shamol Paul' receives the food every month. Tonoya lives in the Village 'Nondirfal' under ward number five. The elected member of that ward is the nephew of the union chairman. The union secretary also

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[12] Researcher did not ask more about Halima's complaints again the member mainly for two reasons, (1) risk of not being included in further periods, (2) the issue of 'Maimal' and 'Kiran' is sensitive.

[13] The case of Tonoya Paul is also a very important to analyze inclusion error in relation to elite capture, role of touts and religious network.

rented a house in this village and maintains a very good relation with the member. With the help of a broker named 'Shaha Paul', the name of Tonoya was included into the program as a joint choice of the elected member and the union secretary. It seems to me that, the whole VGD inclusion process runs under a local patronage system. As an influential union member (for being the nephew of the chairman) it is his own prerogative that who will be included into the list of VGD clients. Among others, 'Nazu Begum' of Nondirfal village is a VGD client who is a made-servant of the member of that ward. Although she is a genuine client for VGD, but some other potential clients are excluded in that village. The decision of choosing 'Nazu' is also the prerogative of the member. In the previous section we also mentioned the case of 'Momena' who was included in the VGD program with the help of a former elected member of her village.

From the study it is prevalent that most of the choice for selecting the clients of VGD is made by the 'Union Parishad Elites'. The local leaders try to feed those people through public service provisions who are better connected to them either by service or by religious and kinship connections. The evidences echo the alerts made by Wong (2010) and Cleaver (2002). While citing them, it can be argued in this study that if the very notion of elite capture is overlooked in a social policy, the policy might compel into a deadly/ineffective practice within the institutional arrangements. Within the rules of the game of VGD program, it is intended to feed those vulnerable segments of the society who are really needy. But, reality exhibits a very poor and non-tuned system of practices apparently quite away from the formal rules of VGD inclusion. From the observation in the field it seems that it is a general practice of norms for the needy that they have to be obedient and must have better nexus with political elites. In this regard, Hossain adds in her study: if the local political classes are unsupportive of the program and unwilling to deliver the incentives fairly the program would only operate with great difficulty' (2007:12). In the present study, the observation of the dependency relation between clients and political leaders supports her claim because their power is unchallenged which also have been seen in the previous section. Correspondingly, it also can be claimed that this patron-client relationships are nurturing incentive options (increased income) for the food secure households.

6.9.4 The State and SSNPs

State is the direct source of all entitlements. State is the highest organization for every citizen which function as social capital. Hossain examined the process of execution of VGD program. In her review, VGD program follows the process as, "a series of bureaucratic directives which is delivered through the chain of command, from the coordinating Ministry of Women and Children's Affairs to the Directorate of Relief and Rehabilitation, down through to the Upazila implementing officers. At this point, the directive is sent for the grain to be delivered to the union distribution point, from where the Union Parishad takes it over[14]. Grain is typically delivered on the same day of each month, usually the 15[th,] and it is always possible to see some hopeful poor people waiting around the 'Union Parshad' offices on these days (on which more below). Officially, women are supposed to receive 30 kg of wheat grain (or rice in price equivalent to 30 KG of wheat) each, for an 18 month period" (Hossain, 2007:4). Having this information in hand, the researcher tried to explore the system of financing, provision of governance, and the political process behind VGD program. Also, the researcher tried to find out links of these processes with inclusion and exclusion errors. With a prior appointment, the researcher met 'Upazila Officer of Women Affairs (UOWA)' Mr. Chamak Chakrabarty who is responsible for all women related SFPs under the ministry of Women and Children Affairs. The UOWA was asked 'how do they decide whether or not to finance VGD?' He explained the system of financing of VGD as cited in below:

> "Since 2011, VGD is financed by the Government of Bangladesh[15].
> Formerly, it was a donor assisted program and was financed by WFP.
> Now WFP provides only technical support. Central Government allocates
> yearly budget for the program. As the total number of VGD clients are

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[14] The store house for food grain is locally known as 'Upazila Khaddya Gudam' (Sub-district Food Store).

[15] This information is ambiguous, the researcher tried to confirm the financer of the program; no where it was found that GoB finances this program rather WFP is still financing it.

fixed, so tentatively the allocated budget can fill-out the yearly cost of the program. But it depends on the market price of the grains. If the prices grow up, the Government adds subsidy. VGD is the oldest SFP which targets vulnerable women in order to move them out from food insecurity. Financing VGD is a political decision and the ministry of Women and Children Affairs is the liaison ministry in this process. Basically, there is a political interest behind the program, because it covers more than two million vulnerable women in Bangladesh, You can just consider them as the vote bank for political party!"

The officer avoided some questions on political dynamics between ruling party and their opposition. However, he informed that, the Upazila office has no power at all toward VGD program. The only job is to deliver and distribute the rice among clients. On the eve of discussion, it seems to the researcher that VGD is merely an ongoing program and officers perform only their routine work. The necessity of tuning of the program or especially the effectiveness is not very important to the administrative system. According to the statement of UOWA, the food for VGD is not bought by the ministry of Women and Children Affairs, rather from DC (District Commissioner) office, the directorate of 'Relief and Rehabilitation' does so for each district.

At Upazila level, there is no provision for monitoring and evaluation of the VGD program. From the information given by the UOWA, it seems that a partial system of governance might encourage inclusion errors at local level. The UOWA tells a story about canceling a client's inclusion and including another genuine client in a union council. According to him both inclusion and exclusion errors occur due to the lack of moral ethics. The officer adds that a ward member must know the genuine client for VGD registration at his ward, so if he is morally weak then these types of problems might occur. But, if the administration is reluctant toward the error and stay far away from monitoring the participation, it might be an open-ample opportunities at operational level to commit errors in inclusion.

The political interest and the political process behind VGD program are rather complex. In general, the ruling party tries to channel the whole process in favor of their own interest. An important aspect of the program is that if any major misdeed happens then the opposition also does not avail the opportunity to create a massive demonstration against the misdeed. This is only because of political interest, especially for capturing votes. According to the view of local political leaders, the political process of VGD is mainly manifested in *commitment* and *humanitarian* responsibilities of every government. Although they also do recognize that, it is the sole responsibility of the government to protect the poor from extreme vulnerability.

Most of the political leaders assume that inclusion and exclusion errors are not a major problem in VGD, because, to some extent, all of the recipients are poor indeed. Radha Chakrabartya is the Beanibazar Upazila Chairman. The researcher interviewed her in order to scrutinize the inclusion and exclusion errors in relation to political process behind VGD program. The gist of the interview is explained below:

> "The total number of clients for VGD is decided centrally considering the number of the population of that region along with socio-economic conditions. Beanibazar is considered a rich region and that is why, there are only five hundred VGD clients in this Upazila. Several times we pressured our MP (Member of Parliament) to increase the number but it remains the same. The motto of VGD program is that no one will die for lack of 'Bhat' (rice). Every government follows the program without interruption since its inception because price level of rice plummeted abruptly and the poor cannot afford it. So it is a great effort to keep vulnerable people from acute food insecurity. The issue (inclusion and exclusion errors) mentioned here is rarely reported to us. I do believe all of our chairmen and members are morally strong and they do not commit such errors intentionally. The main cause of inclusion and exclusion errors

in VGD occurs due to the culture of 'Soman Bhag' [equal share][16]. It is a general consensus among chairmen and members that they share all projects equally, so the VGD is not a distinct SFP; rather, all SFPs suffer from the same problems. But whatever errors occur, you can find all of the clients are basically poor."

In her long interview, the Upazila chairman mentioned a story about inclusion error and after a scrutiny she found that on the eve of registration, the client was genuine but after few days she got a job what made her illegal into the program. The chairman tried to justify errors while it is apparently a serious problem within the rules of inclusion into the VGD. In the case of wrongly included clients, one has double registration and the other has regular family income from husband for which the chairman requested the researcher to report it to UOWA[17]. Repeatedly, the chairman insists the factor 'equal share' is one of the major sources of both inclusion and exclusion error. She argues that there are some wards where the number of poor is huge, so occurring exclusion error in those wards is quite normal. Consequently, those wards where the number of poor is very little, inclusion error occurs sometimes. In the second case, the chairman assumes that local 'Choukidars' [messanger] may influence members to include some names so that they can get some rice to sell.

In the very political process of VGD program at an operational level, existing literatures escape (or ignore) one crucial element which the Upazila Chairman mentioned as the practice of 'equal share'. The researcher found only 50 VGD clients in the area i.e. 'Lauta' Union where he conducted most of the observation and interviews. All nine members along with the union chairman in this union equally take the opportunity to select five VGD members of their own. In contrast, it is not the same scenario of poverty

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[16] 'Soman Bhag' means equal share. In her opinion, this concept of equal share among chairmen and members is principally responsible for inclusion and exclusion errors. She argues that every union or every ward is not equally poor or rich. So such errors might appear while everybody wants the same number in his/her ward or in the union.

[17] This is to mention that, due to the ethics of research, the researcher did not report anything to anyone, even did not mention the name of wrongly included clients to UOWA and the Upazila Chairman.

as well as the number of poor people in every ward. It can be inferred in this regard that this political culture of 'equal share' is one of the key sources of both inclusion and exclusion errors. A system of 'patronage selectivity' (World Bank, 2006) might stem from this culture and eventually it happens. The ward members use their own discretion (in the case of ward number three and the ward number seven) to enlist the clients' name which prompt both inclusion and exclusion errors. Thus, in connection to the previous section, it is also evident that most of the time political elites manufacture the inclusion and exclusion errors in VGD.

It was found that the roles of local brokers prevail within the inclusion process of VGD at 'Lauta Union' council office. 'Tonoya Paul' is a VGD client for consecutive three periods. Her husband 'Shamol Paul' is a private tutor in the vicinity of his village. They live in the village Nondirfal. The union secretary lives in this village too. Tonoya never receives her allowance rather her husband who is fifty-seven years old receives the food on behalf of her. On the second day of food distribution (23rd of September, 2013), Shamol Paul came to the union council office and the researcher took his interview in a separate room. While the researcher was talking with Shamol Paul, the union secretary passed on a sarcastic comment: 'take his interview; this is a corrupted[18] VGD client'! Shamol construed their inclusion story and socio-economic condition which is extracted in below:

> "I usually work as a private tutor, my wife works at BRAC. My eldest
> daughter is married; second one is going to appear 'Degree Examination'
> [final exam for undergraduation degree] from Beanibazar College. My
> only son is studying in second year of intermediate class and the youngest
> daughter is studying in class nine. My earning from private tutoring ranges
> between five to ten thousand taka a month. My wife earns only two and
> half thousand from BRAC. We did not usually take VGD. Five-six years
> ago, Shaha who is close to our family, came to our house and said 'why

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[18] Specifically he said 'eta durnity kore dhukano ekta dui number client' means 'he is not a genuine, client included through corruption'

you do not take 'Mashura' give me a photograph of aunt [Tonoya], I will include her name in the 'Mashura'. How did he do it? The answer is not known to me. But since then we are receiving this rice from union council." [Uddin 2014]

Soon after finishing the interview, he received his food. This time he printed his wife's name on the receiving list as 'Tonoya Paul' while others stripped their finger prints. Mr. Shamol mentioned in his interview that Shaha has a very good relation with the union secretary. Shaha lives in the village where the ward member, the nephew of union chairman lives. That is what brought the cohort hard. An official working at 'UISC' office said that Shaha mainly maintains the relation with secretary, not for VGD or other feeding programs but for RMP.[19] A clear influence of religious network was found here which shape the incentive processes of individuals.

Nevertheless, the case of Tonoya ascertains that inclusion occurs in VGD with a kind of mediation made by brokers. Also this case highlights the incentive distortion issue in social policy. As this family is not food insecure, however, they are still receiving food aid from the program. In rural Bangladesh, this category of brokers or 'local touts' maintains a strong vis-à-vis relation with political leaders apart from maintaining relationship with other intermediate categories. These brokers can also improve their social position in the village. The most remarkable case in this regard is the case of 'Kalu Miah', who is an elected member in 'Ward Seven'. Formerly, he was not only a broker but was involved with stealing. In course of time, brokers may derive their social contacts by which they change their social status ultimately. From the above mentioned case of excluded client 'Khaleda' from Kalu's ward, it could be inferred that transformed status of touts also reproduces errors in social program too.

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[19] With the RMP, ward members get projects for road maintenance program where Shaha negotiates with road construction firms to give them the 'work orders' as he has very good relation with the union secretary.

This finding complements the study of Hossain (2007) where she repeatedly mentioned the role of 'elite capture' toward targeting error in SFPs, especially in VGD. Sen (2000) explains about the 'cheat' clients who understate their information and trigger inclusion error. Findings from the case of 'Tonoya' and other clients like 'Momena', who deliberately included themselves within the program, although their ineligibility is known to the implementing authority at local level. However, a further tuning toward *information distortion* could be added by highlighting a kind of corruption within the underestimation process, which Sen did not emphasize while analyzing this fact. Although Sen (1995, 2000) warned about corruption for potentates in a passive form of bribing, this study bestows that it is a form of 'mutual contact' among mediators, executives, and political leaders which advances 'mutual benefit' in one program with the expense of mismanagements in other program.

6.9.5 The Role of Health Center

One of the important inherent objectives of VGD program is to empower rural destitute women in relation to their health, nutrition, and hygiene practices (Mannan and Ahmed, 2012). At every union in Bangladesh, there is a local health center, which provides medical consultancy along with few medicines for the local inhabitants. Every health center consists of one doctor (recognized medical officer) and other health workers including nurse, paramedic officer, store officer, and family welfare visitor. For VGD clients, each center provides proper guidance to them regarding health, nutrition, and hygiene especially for those VGD clients who has children less than five years, lactating mothers and pregnant women. The researcher visited the local health center and took the interview of 'Provati Deb', who is working as a family welfare visitor in the center. In relation to VGD clients, Provati explicated the existing practices as exhibited here:

> "Basically, we provide only suggestions to those clients who are pregnant, who have under-five child and lactating mothers. We do not provide any food rather we suggest them what kind of meal they should take. For example, among vegetables we refer them to eat green vegetables like 'Pui

Shank' (a kind of Spinach), 'Pepe' (Papaya), 'MistiKumra' (Sweet Pumpkin) and other locally available vegetables. Those who are suffering from the disease 'Rathkana' (Night blindness), we provide vitamin 'A' capsules for them. We regularly visit pregnant women—check them, advise them—also we provide them iron tablets and vitamin 'B' complex."

Mrs. Provati informed with a deep sorrow that they cannot demarcate between VGD-clients and not-VGD-clients because they perform their duties to the whole union. They advise clients about hygiene practices especially for the above-mentioned three categories of women and also reported that most of the clients maintain their routine with health center. One of the major difficulties that she encountered is that, in case of medical emergency, there is no designated medical officer;he has been absent in the center for the last three years. Therefore, the notion of measuring malnutrition in a proper scientific way is apparently absent though guidance on health, nutrition, and hygiene are available. Some VGD clients expressed their satisfaction toward the behavior of the health center and mentioned that they receive something at least either by advice or through medicine from the health center. One VGD client, 'Nazu Begum' resides in Nondirfal Village, informed the researcher that:

"When the throat of my daughter began to swell up ['Gola Phula' in local term], I went to 'Apa' (family welfare visitor) of my ward. She suggested me to feed my daughter 'iodized salt'. I followed the instruction which is why my daughter never suffered from that disease again."

Thus, in order to tackle the nutritional insufficiency, the health center does not provide any incentive rather act as an advisor to the clients for being conscious about health and hygiene. Also the center is not channeled with the food aid service provisions available at the union council. A poor client might have the knowledge what to eat for tackling malnourishment, but sometime the market price of those vegetables or goods boom up. These issues are not addressed with these SFPs. The Government of Bangladesh claims

that they would fulfill the target-one of MDG well before the stipulated time-frame where SSNs are contributing significantly. It was observed from the field that a provision for little deposit scheme is also available for VGD clients. Each client deposits only forty taka per month, and on the eve of termination of the period, they get this Nine Hundred and Sixty taka back. The policy intended that the VGD clients would be able to manage themselves from the vulnerability with this savings and by their ongoing socio-cultural securities. But the question remained about meeting up this type of people's everyday nutritional level. The researcher talked with the UOWA in this regard. He articulated the plans and upgrading of the VGD program like:

> "Now, VGD program is being collaborated with NGOs. Every client has the right to take microcredit from NGOs if they want. From NGO, a program has been designed for developing 'Income Generation Activities (IGA)' within the vicinity of clients. Furthermore, stipends for school-going children are also available. 'Srimangal Foundation', an NGO, which will promote these programs in Sylhet Division. As such, the whole cohort of VGD clients will be within the fence of safety nets."[20]

Theoretically, it seems that the program is well designed, but in practice some flaws were observed. Among the interviewed clients, nobody was found who took microcredit from any NGO or participated in any training program (except one, she is a fulltime employee of BRAC and wrongly included in VGD). Local BRAC office informed the researcher that they chose their IGVGD client from VGD list. Within the IGVGD program manual, there were several sessions where they provided information about securing the nutritional balance and maintaining a healthy and hygienic life. The local health center was not inclined with NGOs rather they perform their job with projects provided by the government and other donors WFP, WHO and so forth. It can be expected that if this local health center is tagged with SFPs, it might help the SFPs toward inclusive and efficient social provisioning.

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[20] The researcher checked the manual; the program design is explicitly mentioned within the VGD manual.

6.9.6 Human Agency, Attainments and Non-attainments

There are several reasons that exist within the social institutional arrangements as well as within the individual characteristics of existing and 'would be' clients which might affect participation in a social program (De Herdt, 2005). Taking Sen's (2000) theoretical claim of *appearing to the public without shame* into consideration, this study focuses on whether any prevalence of social norms persists or not within the social ambiance that might exclude potential individuals from the VGD program. Toward that end, the researcher firstly interviewed a ward member named 'Mojibur Rahman' who states that:

> "The first and foremost condition to get food from VGD or helps from other programs is to come at 'Moidan'[public place]. Most of the women in this area maintain a remarkable 'Lojja' [being ashamed] among themselves which restrict them to access government success. Several times, I approached 'Hasna' (a widowed in his village) to join in program, she did not respond as she feels very shy to work or to appear in a public place."

In the words of member, it was found that *appearing to the public without shame* is not only a determinant but a crucial personal choice of individual which causes errors in participation. This 'Lojja' or 'being ashamed' is a personal characteristic that constraints individuals to valorize their agencies (Bastiensen and De Herdt, 2008). But it seems that this personal characteristic is also a temporary psychological state of body and mind. The above mentioned member narrates that:

> "I have a client (Mohali Begum) in my village, who was too ashamed of joining 'Mashura' immediately after getting herself widowed about four years ago. Her surroundings pressured her to join VGD. After joining, another woman accompanied her to collect food from union council office. Few months later, she was able to interact with everybody without

any 'Lojja'. She requested me to put her name in other program too which

I did ultimately. She is a member of RMP program now."

Hence, it is comprehensible that being ashamed is a temporary psychological matrix from which individual may come out with the help of others. However, there might have some regulative role of social institutions which trigger the shame for individuals. Cleaver (2005) explains that in collective action, agency constraints and agency enablement might be the cumulative product of social processes. Thus, if there are some social factors which constrain the agencies of individual, it might affect participation in collective action. Eventually, it also can cause errors in targeting in a social program. The researcher interviewed the above mentioned potential client of VGD program 'Hasna[21]' of 'Tikarpara' village in order to explore this issue. She is forty five years old, her husband died three years ago who was a 'Rickshaw' [three wheeler vehicle] puller. She has a sixteen years old daughter. She explained her causes of not being included in the VGD:

"Everyone including 'member' tell me to join VGD, but I do not intend to join because I know if I join, it will be difficult for my daughter to get married ('Meyer biye dite parbona', in local dialect). You know, it's a common practice on the eve of negotiation for marriage that, 'what does the parent of daughter do?' If I go to 'union office' for food, everybody will label 'kharap charitra' [extra-marital sexual relation] to me. For the sake of Allah, if my daughter is married, I will try to enlist my name for 'Mashura'."

Thus, the fear of *stigmatization* is a strong social norm in rural Bangladesh, especially for rural women. Therefore, the practice of this norm restricts the agency of the poor to access social benefits. Johnson (2012) warned policy planners about the regulative role of social institutions which constraints agencies of the poor. The case of 'Hasna' alerts us

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[21] She was too shy to talk with researcher, with the help of another client researcher reached to her and narrated why she does not want to participate in the VGD program.

about the gendered aspect of being ashamed or suffering from the 'fear of stigma'. Eventually, this fear or shame affects participation in social programs and causes exclusion errors. De Herdt (2005) mentioned that there have been some true reasons for being ashamed. In this connection, we can claim that previous social position (or social status) might be responsible for being ashamed. In the village 'Kaliura', 'Toslima Khatun' lives alone in her own brick-built house with ten decimals of homestead land. Ten years ago, her only son died in a road accident in the Middle East. After his death, her husband started a small business in the local 'bazaar' (market place). Three years ago, her husband also died. Regarding the causes of exclusion into the VGD, Toslima explained her thoughts:

> "My husband maintained a weighty personality. Everybody around me believes that I have lot of money. Some of my relatives also believe so. Soon after the death of my husband, I did not go anywhere. My husband saved some money for us. I spent a big amount on my 'Appendis' (Appendicitis) operation. I started to sell 'battle leaf, battle-nut, oil, and green chilly'[22] from my house and still I am continuing this. Sometimes, I do feel 'Kosto o Obhav' [Stress and lack of money] and struggling to survive. For two reasons I do not want to take 'Mashura'. Firstly, I have a belief that if I take 'Mashura', the souls of my deceased husband and son will feel sorrow. Secondly, if I take 'Mashura', people will call me in bad name and will label 'the wife of 'omuk' [husband] eats the rice of VGD which is highly disgraceful for me."

Both these cases allow us to complement Sen's (1995, 2000) analysis of *Disutility and Stigma* along with De Herdt's (2005) claims on capability reasoning. In addition to that, the case of Toslima repeatedly reminds us about the issue of *self respect* which Sen believes to lead toexclusion error in social policies. Along with self respect, another important dimension is also observable here, i.e. social position. It seems that, being a

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[22]In her words, 'pan-supery, tel, kanchamorich'.

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fully eligible client for VGD, Toslima does not want her to become a VGD client and she mentioned two clear reasons. Both *self respect* and *previous social position* are responsible for exclusion error in VGD. Albeit *social sympathy* and also *social channels* are available to clients, still they do not want to participate into social program. It confirms that, only social factors are not solely responsible for agency constraints rather individual characteristics are also liable for prompting constraints. On the contrary, social Anwarance also can enable agencies to participate into social programs. In the case of 'Malika Begum', when 'Somaj' (society/people around her vicinity) supports an action of an individual, it triggers more motivation for that individual to participate in more collective actions. Hence, the role of social norms is bi-polar, i.e. both positive and negative to individual agencies. In this study, personal decisional concerns were one of the inherent objectives to explore the agency constraints and enablement. Either to participate or not to participate w as considered as agency enablement and constraint respectively. To conclude, the study shows that social norms simultaneously restrict individuals as well as also enable them to participate into the program. When it restricts individuals, exclusion errors take place in social policies; or else, it can also help make a social program successful.

6.9.7 Human Capital and Labour Market Attainments

Coleman (1988) asserts that social capital provides opportunity for individuals to valorize their human agency which eventually creates human capital for them. Human agency (Cleaver 2006) is the capacity of individual by which they secure their wellbeing from the networked society. Present researcher identifies that civic engagement (social capital) i.e. the membership in a CBO helps individual to enhance their economic attainments. In this study, two types of factors were identified which affects human agency of individuals. Firstly, enabling factors for achieving the human agency and secondly, the factors that constrain it. Theories on human agency vow for both intrinsic and extrinsic notions, which is manifested both in individual and collective level. Individual agency is devised to gain stakeholder's own family wellbeing whereas the collective agency bestows the efforts made to maintain a sustainable livelihood for the community.

Generally, in the case of community based organizations, newly built collective agency operates strongly, which eventually contribute to yield more production in a sustainable form. In the study of human agency, the visibility of emotionality and embodiment is not only imperative but also revealing indicators that foster individual's wellbeing. In this connection, present researcher identifies following factors, which enable human agency in the context of a CBO at the studied area.

6.9.8 Enabling Factors for Human Agency

6.9.8.1 Integration with slogan and physical proximity

While respondents were interviewed, they firstly mentioned about the slogan they learnt from the CBO. It is interesting that they merely do not remember the slogan; rather attach a justified meaning on it. The slogan is as follows:-

> 'Our unity is our organization
>
> Our organization is our strength
>
> Our Beel is our property
>
> Our property is our development
>
> Our development is country's development'

The slogan generates a kind of strong solidarity among the respondents. All of them are the active members the local CBO named 'Tedala Huglia Chatol Beel Users Organization' (Tedala Hoglia Chatol Beel Beboharkary Songoton). One of the respondents Md. Jomshed Ali (Pseudonym) explained the meaning of the slogan as follows by his own way in a local dialect-

> 'We all are united here under the slogan of the organization. Indeed, we share all of our thoughts altogether. We believe that if we do not steal the fishes from the Beel, we all can be beneficiaries, as it will raise our income level vis-à-vis volume of fish production in every season of fish collection. Even, if all Beels are maintained in the way we follow I strongly believe that nobody can finish fishes by eating.'

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Almost every active member of the organization understands the spirit of this slogan. Therefore, the manifestation of this spirit can spur further wellbeing of the individual households of the CBO members. It is noteworthy that Sen (2000) opines for the role of external forces to demonstrate agency freedom in a local social ambiance that brings wellbeing of the family/individual through accessing resources and individuals also can expand their capabilities. Hence, it seems to be a positive signal for adopting large policies in CPRs management in Bangladesh from the viewpoint of local beneficiaries.

When we crosschecked the spirit of the slogan asking the question what would be happened if you were withdrawn from the organization. The respondents answered with a great frustration that they would be compelled into the life they lead before more than a decade ago when there were no CBO. In a sequential question it was also tried to explore more of their understanding lie behind the slogan. For instance, we asked what could exactly be happened if there were no CBO? The answer was as follows:-

> 'Back in 2004 when there were no CBO, we were supposed to work for other who was granted the lease of the Beel. We were used to receive only wages but no fish. That time we believed that the leaseholders were the owner of the Beel and nobody else can access it. Now the situation has been changed. I believe that if we are united for long, we can access the Beel as long as we want. But, if we are divided again the previous elites will control it and we will be fallen into the life we lead earlier. Truly speaking, the CBRMP has changed our lives.' [Mr. Moslem Mia, age 46]

The spirit and the beliefs they uphold as a member of the CBO, it provides them the extra lift to carry out their responsibilities in remarkable way. Their unity gave them the

Image 1: The slogan of the CBO (Captured by author)

The courage to resist any other invasion into the reservoirs. Repeatedly they mentioned that the previous leaseholders are far away from the Beel management and at the starting of journey of the CBO those elites tried to divide them but they couldn't. We found that the teamwork slogans can encourage them to work together in order to complete their goal. The respondents realize that in order to accomplish their goal of generating income and other opportunities they must help each other and work together. Having the spirit of the slogan, they can make the difference between present and the past lives they lead.

The second factor was identified which build and expand collective agency is the monthly meeting of the CBO. The CBO of the studied Beels have an executive committee consists of nine members who are selected from the general fifty-one members. With three executive members, the committee has a president, a vice-president, a treasurer, a secretary, a joint-secretary and an organizational secretary. They sit in a meeting in the first week of every month. Every time they review the proceedings of the previous meeting and start it by singing the slogan. The main purpose of the meeting is to share the monthly activities and also they plan works for the present month. As some of the members perform different duties rotationally like night guards, boatman or casual workers for collecting wood or going to the Bank or HILLIP office, they are being paid from the common fund in the monthly meeting.

These sharing and planning create ample opportunities toward collective agency, which eventually helps to develop the productivity of the Beel. According to their memory they mentioned that about eleven years ago when they started the activities of the CBO, that time it was produced only eleven or twelve varieties of fish but right now they are able to produce nearly forty to forty five types of fish varieties. It was due to the sharing of information. One of the respondent narrated his memory as follows:-

> 'In 2004 and 2005, we received only four to five thousand taka per year
> from the Beel and it was only eleven to twelve types of fish we found. One
> day I talked this scenario with another fisherman from Tanguar Haor
> (TH). Then, the fisherman from TH suggested me not to use fertilizers on

the eve of "eoth kal" (winter season) while we cultivate the land for paddy production. I shared the information with others and we decided to follow the information we heard. We got the success, now we find more than forty varieties of fish in our Beel.' [Monir Hussain, age 43]

Thus, it could be deduced from this statement that collective efforts through the CBO can enhance the productivity of CPRs and fungibility nature of social capital (Portes, 1998) can play the important role in this regard. Sharing of information is a key to collective action, which fosters the collective agency as well. According to FAO (2013) 'strengthening organizations and collective action in small-scale fisheries (SSFs) is crucial to safeguarding fishers' livelihoods and food and nutrition security as well as to fighting poverty and vulnerability (FAO 2013:3).' However, the set rules of the organization function as the panacea for collective agency. This kind of institutional practice makes CPRs more efficient in its usages. In recent years, there has been a considerable experimentation in the institutional arrangements governing natural resource management (NRM), including fishery resources, in different countries. The institutional changes amount to a redefinition of the role of the state and have stimulated further exploration regarding a variety of local government and non-state forms of management and co-management. Institutional restructuring efforts of this kind involve local communities and user groups, joint environmental management schemes, nongovernmental organization-based initiatives, cooperative bodies and other actors at the micro and meso levels (Meynen and Doornbos, 2004). It is believed that prevailing institutional arrangements play a significant role in determining the efficacy of a given set of policy or technological interventions. Thus, the key task in NRM is building the right kind of institutions.

6.9.8.2 Accomplishment of Attainments

The issue of the lack of diversity is explained in the next section of constraining factors. Through their narratives, I experienced the hopes and the desires for the money and fishes of the respondents for every year rounding the winter and the spring seasons. In the

literature of poverty reduction studies, there is an important policy-learning quote 'do not give fish to a poor rather teach him how to fish.' While the respondents were interviewed, it was found similar voices from all of the participants how do they care and roar of their sanctuary and why do they do so? Their entire efforts come into the reality on the eve of the middle of the month Pous (End of December). In this period they start to catch fishes from the Beel. This is the period they wait for long, which is also very pleasing moments for them. In their own words:-

> 'Once upon a time I dreamt for fishes, now we all are fully assured that we can have lot of fishes in the winter and the spring season. Also, the money is disbursed after closing of the fish catching for the year [one executive member]. I invite both of you to come in fifteenth of Magh Mash that you can eat a bit with us [another participant supported the statement taking a laugh at his lips]. Last year we sold 'Tengra Fish'[23] for Taka two and half Lac just by dropping our fish catching net for once in the Chatol Beel. In this period we everybody can buy fishes in a lower rate and also can buy only three kilograms per head.'

Again and again they cannot even resist their pleasures while explaining the occasion of fish catching. According to them, every moment they pray for their sanctuary and the 'mother fishes' (Ma Mach) as they can harvest more and more fishes. It can be claimed that these desires do not merely function as an element for their enthusiasm rather it also helps them to be organized. According to the participant in the FGD, they drew exactly thirty thousand taka cash per head in 2014, which exceeded the amount of previous year. It seems to us that they are eagerly waiting for the middle of December as they can start catching fishes. A very interesting finding we explored in this occasion that most of the fishers pray for devastating flood i.e. the level of flood should at least higher than previous year. While we asked the causes for such prayer we notice that their experience taught them harvesting more fishes in the year when it was higher water level during the

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[23] A local variety of fish, which is harvested in a shallow water level.

flood. So, CBO plays a significant roles toward enhancing human agency and increase the rates of attainments in a local context.

6.9.8.3 How does CBO help individuals to increase attainments?

Almost every member of the CBO we studied has participated in the designated training program. The main purpose of the training is to equip them with new techniques and tools by which they can raise the productivity of the reservoir. Most of the training sessions were organized in the office where they do meet every month and was established by the CBRMP. In relation to the development of the Beels and the main emphasis was given to the conservation of the sanctuary. They try to follow the instructions they learnt from the training session, which they believe to be highly beneficial. One of the respondent explained it as follows:-

'You can compare the relative production level with any Beel from Tanguar Haor right now and obviously you will find our supremacy. Because, we know some of the fishers over there steal fishes from the Ovoyasrom (sanctuary) but we never do so. While we were in the training, the teacher taught us that if we never threat Ma Mach, they would never leave the Ovoyasrom. To be honest, from that year, we started an experiment for caring the sanctuary and got the success. Not only that, we were also taught what type of trees we should plant surrounding the sanctuary; Hijol and Koroch. When we asked the teacher why question for these trees, he replied with laugh that you could even find different varieties of migratory birds. Now you see, how many birds are flying around us!'

I also asked them to know about other items on training sessions. They reluctantly replied highlighting the necessity of cattle grazing, farming etc. within the vicinity of the Beel, but they are not interested to do so as they are highly aspirant on fishing. Basically the training added new value to their existing knowledge on fishing. They knew that the fish

is a renewable natural resource, now they know how to increase the volume of production of this resource applying new skills. Regarding other types of farming apart from fishing, they treat it as an individual enterprise rather to do anything collectively. Even they did not spend time on thinking about the other farming prospects. When I asked about Balihansh, Bok and other eatable birds and talked about duck for farming in the same way migratory birds live, they let us to know about one of their prejudice. The believe that if the migratory birds do come into their Beel, it signs that this year the fish production will be lower.

This is one of reasons why those fishers live in subsistence level. They are not caring about the diversity of livelihood strategies. They get themselves undone when asked what could be followed if they encounter a severe shock or stresses. In this occasion they rely on Him that they can survive by the divine blessings. Fetishism of the protected area is their principal object to maintain, their beliefs, efforts and attachments are surrounded with this sanctuary. It was remarkable to have a look at different types of migratory birds. The participants are really happy to show us the whole region. They share their experience with us as follows –

> 'We have planted Hijol and Koroch. These trees attract birds. Birds eat either from these Beels or other. Disposal of Birds' waste (Bista) is the one of major sources of food for fishes. We do not provide any additional foods for the fish rather we fell tree branches (Gacer Dal) which restore algae and fungi (Gheur in local dialect) and it is the main sources of foods for the fish.'

Image 2: Migratory birds (Photo-shoot: author)

6.9.8.4 Embodiment and Emotionality: Manifestation of Social Capital into the reality

Present researcher uses these concepts from the work of Frances Cleaver (2007). We find a vast use of these concepts in social psychology. Cleaver uses these terms for explaining the multifaceted characteristics of human agency. Especially, in the realm of natural resource

Image 3: Emotionality and Embodiment (Photo-shoot: author)

management, these two factors affect the individual agency. Massive absence of embodiment is appalling toward CBNRM. Consequently, emotionality provides passionate attachment toward actions, which eventually helps sharply to manage the common property resources. From our intensive observation in the field, we found that almost every member of the CBO make their presence sure in the regular monthly meeting. As it is mentioned in the sub-section 'accomplishment and attainments,' participants were also very passionate in the offseason on taking care of the Beels which indicates that they have strong emotion toward the conservation of the property.

6.9.9 Constraining Factors for Human Agency

Agency refers to developing social and economic independence from the fisheries. Equally, utilizing income or resources in different enterprises might expand the possibility to be well off above subsistence level. But our observation, interviews and discussions with fishermen indicate that their movements towards agency are restrained by lack of big returns from the Beels or the dearth of motivation block many fishermen from attaining agency. Notably, the fishermen barely derive limited agency from the

Beels. Fishermen families wholly depend on the water reservoir for their subsistence without any plan to diversify their livelihoods. They take care of the fishery all the year round and harvest fishes during the dry season. Notably, all stakeholder fishermen might generate a modest income through nurturing and fishing from the *Beel* (local name for small water reservoir). But their earnings from the water reservoir constantly vary in terms of total yearly return in money due to variations in water level in the *B eel*. Importantly, climate change–inconsistent precipitation largely influences fisheries in the region with overflow or underflow of water. Put simply, high rainfall or floods can bless fishermen with bounty of fishes that makes them smile in order for ensuring a significant amount of revenue from the Beel. In contrast, a shallow body of water as a result of low rainfall or the absence of floods reversely affects their chances of securing viable livelihoods.

As a whole, their income and occupation mainly centers on the beel. The fishermen are able to live a decent life only when the water reservoir provides them with a generous feedback at the end of the year. CBFM programs are designed to promote social and ecological sustainability that can improve the capacity of fishers to ensure their livelihoods. Though CBFM projects are engendering the means of support for subsistence for some fishers, the agency of fishers are mainly inhibited by their lower level of education, the absence of livelihoods diversity, interference from the locality. Some insights from the field based on interviews and focus groups discussion endeavours to draw out stories behind the failure of CBFM programs in providing warranty for stable source of livelihoods for fishers and managing biological diversity in the context of Tedala-Hoglia-Chatol Beels, Sunamganj, Bangladesh.

6.9.9.1 Lack of education

All stakeholders possess a pre or post primary level of education. Consequently, they are not interested in educating their children. While fishery is not securing livelihoods for fishermen, they need to send their children to school for formal education that can improve their lives through shifting occupation from fisheries to formal sectors. Moreover, most of the fishermen are not currently capable to bear the expenses to

continue tutoring for their children. The general trend in the date related to education show that most of the children finish primary education, but hardly ever carry on schooling after elementary level because of financial inability and patents enthusiasm to engage them in income-generation activities. Therefore, the opportunities for their children's education are simultaneously offset by both poor sustenance and lack of motivation. Further, durable livelihoods could be achieved to the extent of receiving modern education and being employed in contemporary occupations those may yield doable pays for maintaining lives. Moreover, education can be single most important factor to elevate fishers out of poverty and to create chances to support and/or reinforce fishers' ability to obtain socioeconomic independence.

Few fishermen exchange their views on the necessity of education in attaining agency in an informal group discussion:

> "We are less education people. We do not have opportunities to get educated now. We realize education is very important to improve life and secure our future. But it is not possible for all to provide education to their children. For that reason, we cannot change our fate. Only education can give you opportunities to sustain your life. Our income from the Beel is not steady. Al least we should try to educate our children for future safety."

Education can help fishers to manage their fisheries and associated obstacles to produce their livelihoods. But it is not straightforward that fishers or their children acquire education easily. Besides poverty and carelessness, the lack of feeling to understand the importance of education could be an important barrier to education.

6.9.9.2 Lack of livelihoods diversity

Diversity has become a popular connotation for community based resource management programs (CBRMP). What constitutes diversity essentially includes social and ecological aspects of resource management. Community based fisheries management under the

project of Local Government and Engineering Department, Bangladesh has designed the project in a fashion to enable fishers to sustain livelihoods without endangering conserving great variety of fish species for meeting needs for present and future generations. Specifically, the approaches to diversity in fisheries encourage the probable means to pursue necessary earnings to meet up necessary expenses and to maintain the carrying capacity of fisheries in the long run. The stakeholders of the Beels hare their thoughts about the necessity of diversity in a focus group discussion:

> "Although we do not understand diversity fully but one thing is clear to us
> is that if fish production does not increase we will be in trouble. In the
> early years we used to catch all fishes and over time we realized that our
> income from the *Beel* is decreasing gradually. At the beginning LGED and
> now Hillip are training us about how to increase our production. Now we
> do not catch mother fishes in the sanctuary. As a result, our fish
> production has increased over the years."

However, it is imperative to establish and maintain diversity in the Beel to retain fish production and earnings on a sustainable basis.

While there is a sanctuary In Tedala-Hoglia-Chatal Beels to increase the production of fishes, it is hard to promote and foster the variety of fishes throughout a large body of water. Further, the Beel is composed of five different parts that can be considered separate Beels each. Also, there is ample scope to build up more sanctuaries in order to allow fishes for breeding and growing in favorable settings with a solid base of nutrients. Although the LGED has created the sanctuary, the stakeholders are reluctant to build up any more refuge for fishes. Several sanctuaries could be built along with plantation and channelization of all parts of the Beel. One of the interviewees opines that:

> "Our limited income restricts us to develop further sanctuary. We know it
> is better for us. Fish production can increase. Again, our short-term lease
> is a problem for us to dig in new sanctuaries. We dare to invest our

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valuable money. We are now not really planning to establish any sanctuary. We are not even planting any trees in the Beel. We expect Hillip to plant trees and improve more sanctuaries."

Importantly, founding few sanctuaries in addition to tree plantation and connection between all parts of the Beels might serve as a useful mode of raising fish diversity that would, in turn, enable fishers to respond to bring up fisheries through amassing profits sustainably.

Although LGED and Hillip train up fishers how to nurture the Beel especially the sanctuary, the fishers are demotivated to apply their learnings in order to improve biodiversity in and around the Beel. Simply, fishers wish to get a return from the Beel with minimum investment and costs. Therefore, ecological or species diversity of fishes are naturally balanced, less efforts are being used by the fishers community.

Additionally, diversity expands the horizon for fulfilling basic needs in multiple ways. For example, a fisherman can maintain life sustainably when there is a series of available options to alternate livelihoods. Similarly, the failure in an enterprise must not narrow down their ways to generate income to survive. However, the absence of diversity in terms of income and occupation greatly influence the viability of livelihoods of fishers' communities in Bangladesh. In our study area, the fishermen lack of diversity and they mostly subsist on earnings from the fishery. Some respondents give their opinion in response to my questions about lack of diversity this way:

"Most of us are poor and we hardly have land, money and other resources. Actually, we were wanderer and irregularly worked. There were no available jobs. Once we started to manage the Beel, we are investing all of our time here. We are not earning much from the Beel but our life is more or less going on. We do not other better options to make an extra income."

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Nevertheless, diversity in income and occupation can only provide a range of opportunities in order to minimize the risks of livelihoods. Moreover, the only dependence on fishery does not guarantee livelihoods for fishers. It is unlikely that many times the fishers fail to earn expected returns from the Beel. As a result, uncertainty of income hinders their economic solvency that might constitute the condition to improve their standard of livings. In particular, the fishers harvest fishes from December to March, and for this period they work in the Beel that gives them to earn wages. From April to November, they face uncertainty to make income. However, during the dry season fishers can work in agricultural land to complement their income along with fishing in the Beel. Consequently, it is necessary to follow alternative strategies to supplement their income from the Beel. A respondent explains his experiences about income and hardship:

> "I have no other sources of income. On an average I earn from the Beel is 8000-30000tk per year, which is not sufficient to maintain my family. I am trying but getting other means to earn. Some time, maybe four months during fishing period, I can sell my labor in the Beel. But rest of time of the year I remain jobless. We are in a vicious cycle and it is hard to breach this cycle by the limited income from our only source of income. Our income from the Beel is not stable. We should try to earn from alternative sources."

Yet fishery yields some scope for the fishers to lead life, they could invest their profits in other ventures to build self-reliance. Furthermore, the fishers receive differential vocational trainings from LGED and Hillip officials to ease off their privation and enhance capacity to underpin their livelihoods security. These trainings include poultry, fishing in the pond, tailoring and embroidering clothes, gardening vegetables and cultivating agricultural land. Additionally, many of the fishers work as day laborers. Although fishers obtain training on other livelihoods programs, they rarely use their skills to widen range of diversity in income-generation. Moreover, fisher communities have thin resource base to reap benefits from these training programs.

Resource generation and mobilization from one enterprise to another might be a possible solution to income uniformity. Additionally, consolidating income from the fisheries and investing in poultry or farming can assist them in producing additional earnings vis-à-vis an extra income equally might strengthen fishers capacity to foster the development of the Beel. The earnings from the fisheries can be a setback to mobilize resources in other ventures. Importantly, involving in various initiatives to increase income needs to be accompanied by fishers ability to organize them efficiently. Altogether, social and economic independence as well as organizing skills to run a business can enlarge the strength of fishers to survive. Engagement in a number of enterprises helps them to bounce back to any kinds of disaster. One respondent contributes to this research by giving her feelings in this regard:

> "Regularly LGED and Hillip try to teach us how we can learn some skills important to earn money. For four months we are not allowed to catch fish in the Beel. This is hard time for us. It is not easy for us to open a new business. It takes time to learn about it. Most fishers are not easy with novel commercial activities. Few members prove that balancing between two or more activities give more available options for maintaining life. But it is not possible for all. The activities are limited. All people tend to run poultry, rearing duck or hen or selling labor for planting, weeding or harvesting paddy. Most of us solely rely on the Beel"

Diversified job opportunities can assist fishers in ensuring their subsistence; single occupation restricts them from flourishing in life due to a small-localized market. Similarly, transferring skills can be an alternative to mobilize resources in income-generating activities. For example, lessons from Beel management and ecology can be applied in fishing in the pond.

6.9.9.3 Interference from the locality

The government used to lease the fisheries to leaseholders for a period of time Before CBFM launched in Bangladesh in 2001. The occupants would exploit the natural habitat

of fishes in a destructive way. As a result of unsustainable practices and ruffian mentality to maximize profits from the Beels, the government of Bangladesh introduced CBFM in 2001 throughout the country with a view to replacing conventional leasing systems. Since then, a clash between fishers and previous leaseholders remained in almost all water reservoirs in the country. The Beel under the study started to operate from 2004 and initially the fishers faced harsh challenges from locally powerful leaseholders and rich people who administered the Beels earlier. Generally, leaseholders were reluctant to improve ecology and diversity of the Beels.

Now the scenery is gradually changing. While challenges come from powerful persons or groups, the fishers try to resist them together. Despite surveillance from LGED or Hillip, local people including fishermen have a tendency to catch fish illegally in the Beel. Villagers or local leadership–UP members, chairman or other influential persons try to divide the stakeholders' fishermen into factions so that they can realize a share of the profits from the Beel. Likewise, conflict or disagreement among fishermen on decision-making can arouse anomaly that may hamper the organization of the Beels. On the whole, the stakeholders of the Beels show a predilection to defy pressures from the outside, whereas local people keep continuing intrusion to get profits from the Beels.

Some villagers-turned fishermen have been running the Beels with an intention to confirming livelihoods and constituting ecological capacity to yield more returns on a sustainable basis. Overall, the fishermen live on earnings from the Beels. It cannot be said that the Beels are not providing revenues for fishermen, but the level is not consistent with standard of living. As a result, the stakeholders own the agency in so far as they receive a profit from the Beels. Basically, the agency of fishermen is naturally derived in that a lump sum amount of profit can be made from the Beels without any interventions. Furthermore, the fishermen do not usually intend to devote any resources to maintaining the Beels for improving production. Also, they fail to mobilize resources achieved from the Beels in enterprises other than fishing to strengthen their capacity to ensure livelihoods.

CHAPTER SEVEN: SUMMARY AND CONCLUSION

7.1 SUMMARY

In this analysis, it is found that the SSNPs, NGOs and CBOs in Bangladesh are contributing sharply toward labour market albeit all those civil society organizations can not target individuals in more tuned way. Though, these programs target are to combat poverty, statistics estimated from the HIES show that in both 2005 and 2010, 95% of recipients found themselves in the category of 'increased income' group. Moreover, many clients from non-poor households, some even from the top quintile also participated in the Program. Baulch (2010) refers to these two types of errors as errors of inclusion (leakages) and errors of exclusion (under coverage). Similarly, Cornia and Stewart (1996) termed these two targeting errors as E and F, where the E stands for excessive coverage and F, the failure to reach the target population.

As the resources are limited and the poverty rate reduced to 31.5% in 2010, it can be argued to reduce the percentage of beneficiaries around the current poverty rate for all rural areas of Bangladesh. Then, in the second stage, the region specific beneficiary rate can be fixed. As it is found, severe poverty-prone and geographical disadvantaged areas such as *char* (land around river), *haor* (water logging area) and hill tracts demand a higher share than other areas. For, these remote pocket areas and hard-to-reach areas such as *haor* (these areas that go under water for nearly half of the year) or hill tracts, a supplementary feeding program can be installed to enhance food security which will help individuals to enhance their income level.

The current selection criteria can be regarded as subjective and a source for weak targeting. Most of the current selection criteria are administratively difficult in a country like Bangladesh due to a lack of available personal and household information from reliable sources. For instance, out of the five selection criteria of VGD three are related to the household head's profession: having parents who work as day labourers, household deriving its living from fishing, pottery, weaving, blacksmithing, or cobbling; and

belonging to a household that derives its income from sharecropping. However, there is no reliable source for the program administrator to confirm an individual profession in the rural area of Bangladesh. It should also be mentioned here that in rural areas a single individual take different professions for different period of time. Therefore, to make the program effective, the most important task is to revise and redesign the targeting criteria so that a predetermined target can be achieved and targeted groups can participate in the program. It can be argued that memberships on these programs indicate the expansion of vertical social capital, which ease the income generation and expand the human agency.

With these practical limitations, an alternative targeting criterion can be considered to avoid exclusion and over coverage. Since parents' level of social capital is a strong determinant for offspring (Borjas 1990), this criterion may be used as a selection condition. However, this information should be collected in advance and a database be established. Exact criteria can be set based on the average level of social capital of the parents. Household head having a higher level of social capital, or both the parents having expanded network, might be some possible options. In addition, housing related variables such as material used for wall and roof or the sanitary system, could also be included in the selection criteria (Wodon, 1997), though verification of this information will be costly and time consuming. Also, though a significant portion of the poor people live in the urban areas, these areas are excluded from the program. Note that poor people's migration from rural to urban areas due to river erosion or searching for jobs is a common phenomenon in Bangladesh. Therefore, it can be argued that the current geographical targeting is not consistent with the objective of reaching the poor through civic engagement policies.

Another finding of this study is that the microcredit program is not enough to attract or keep the clients more engaged in work rather working in the CBO for conserving common pool resources is more encouraging to them. In particular, a sense of ownership accelerates the motivation of members to work hard for their further wellbeing. If the opportunity costs of NGO are added to the out-of-pocket costs, the total cost outweighs the increased amount of income in the case of NGO by a greater extent. Again, both these

costs increase when the members move into unemployment. These costs mainly include cost for education, food, clothing and festival celebration cost etc. It should be noted here that lending money is a common practice in Bangladesh, which creates a low quality of life in the long run. Comparison among quintiles indicates that, on average, households at the top quintile spend nearly three times more than the bottom quintile household spends. This gap in private or household expenditure between recipient and non-recipient make clients from poor households lag behind in attainment of knowledge and skills.

Thus, it can be recommended that the amount of opportunities to be engaged in civil societies should be updated in line with the rate of national development as well as the opportunity cost of lending money. To accommodate the required extra resources, as a result enhancing the rate of interest for lending, the number of beneficiaries can be reduced from 40% to 35% of current indebted clients. In other words, financial support should only be provided for those who need it most. As beyond destitute clients in SSNPs are more capable of work, and can attain higher income and other opportunities, it can also be suggested that more vulnerable groups should get more incentives to be included into policies. Alternatively, it can include the value of household work plus leisure. In summary then, CBO and SSNP memship amount should be consistent with the period of time, inflation, and the opportunity cost of being engaged with NGO at different level at the local ambiance.

As it is found that some non-poor recipient also participate in the program in the current setting, it can be argued that increasing dominance of 'elite capture' must be reduced for proper development. It is plausible at the rural level that many local political leaders and touts are considered as trouble makers for many public programs. In these situations alternative intervention such as in-kind transfer can be considered. Some in-kind alternatives must be found so that middle or high income people have less motivation to exploit the program benefit. One of the important household-level variables found to be significant for SSNP and CBO membership is having a home or a mobile phone in the household. This result implies that if a client has a phone in their house, there is a better chance of them to be connected with other organizations. Although mobile phones are a

cheap communication device now in Bangladesh, many people in the rural areas are unable to afford one. This finding could motivate the policymakers to find alternative ways to intervene in this regard.

Analysing household data from Bangladesh, Ravallion and Wodon (2000) found that the main reason for poverty is quite different compared to the results of other study. Their findings are consistent with the nutritional status of rural inhabitants in developing countries. For instance, FAO compilations indicate that 28% of rural people in low-income countries are moderately or severely undernourished (Orazem et al., 2007). In this circumstance, policy-based nutrition and health programs will have particular relevance for the poorest households that have a disproportionate share of poor who are being transient poor out before getting ultra poor. More importantly, the benefits CBO offer in terms of improved health may be sufficient to justify the expense, even if they have no impact on factors beyond income. Thus, introducing mandatory free health check-up at specific time intervals (it could be once in every few months) would be an effective policy intervention to stop vulnerability and to raise the higher attainment rate. This is administratively feasible because every sub-district (even some of the union council) has a health centre.

Beyond the income and food related attainments, this study also found that accomplishment and attainments also depends on political, religious and kith-kin clan network (from fuzzy analysis). The attainments among the highly educated sector recognize it. But, still supremacy of human capital (education) operates as a paramount reality among the respondents (CISC of social capital).

7.2 CONCLUSION

In this thesis, researcher attempted to measure the effect of social capital on labor market attainments in Bangladesh conceptualizing social capital by defining it as *any social relationships which can generate utilities for individuals.* It is a common scientific dictum that we can observe the effects of many affecting factors on specific objectification whereas affecting matters cannot be viewed. For instance, a naked eye sight cannot view electrons but its effect can be enjoyed when fan turns around or air cooler control the temperature of the room. This is the problem of physicist the way he or she will diagnose the interplaying relation between electron and its flow on a circuit. So, how can a sociologist diagnose an object of society such as labor market attainments? Definitely it be solved by constituent affecting factors. Probably this theme of causality is one of the prominent research avenues for sociological researches as sociology always seeks for inherent mechanisms of social processes. In his famous book *Sociology in Question*, Bourdieu (1993) started with following questions and answers for sociology readers –

> *"**Q.** Let's start with most obvious questions. Are the social sciences, and in particular sociology, really sciences? Why do you feel the need to claim scientificity?*
>
> **A.** Sociology seems to me to have all properties that define a science. But to what extent? That's the question. And the answer that can be given will vary greatly from one sociologist to another. I would simply say that there are many people who say and believe that they are sociologists but whom I find it hard to recognize as sociologists. In any case, sociology long ago emerged from its prehistory, the age of grand theories of social philosophy, with which lay people often still identify it. All sociologists worthy of the name agree on a common heritage of concepts, methods, and verification procedures. The facts remain that, for obvious sociological reasons, sociology is a very *dispersed* discipline (in the statistical sense) in several respects. That's why it gives the impression of being a divided discipline, closer to philosophy than to the other sciences. But that's not the problem. If people are so pernickety about the scientific nature of sociology, that's because it's a troublemaker. (Page 8)"

In support of the methodological claim of this thesis we can recognize Bourdieu's above aphorisms on science and scientificity. The methodological proclamation of this thesis is an auspicious attempt for the researcher. The forces shaping social behavior can be

discovered using causality designs to those used in sciences such as Physics – systematic observations that create highly reliable knowledge, organized and tested using something like Popper's *Hypothetico-Deductive* model of research. Quantitative methods are generally favored because they allow for the collection of factual data. Methods such as questionnaires / structured interviews, experiments, comparative and observational studies are acceptable because they offer higher potential levels of reliability than qualitative methods. So for sociologists, knowledge consists of identifying facts about how and why people behave as they do and, eventually, making connections between different facts to produce theories that explain behavior.

Within scientific world, there are some differences of opinions prevail about the question *why is sociology particularly a problem*? Because it reveals things that are hidden and sometimes repressed, like the correlation between educational achievement, which is identified with 'intelligence', and social origin, or more precisely, the cultural capital inherited from the family. In order to study such in this way, the attempt on the methodological metaphor of this thesis has been taken into account which might generate future inspiration to study more issues relating to poverty, development, environment etc.

As this dissertation made a mixed methodological appeal, researcher developed and designed the research project under **cause-effect** model with national sample survey. As social capital has been defined as '*any social relation which can generate utilities for individuals*', so, theoretically it is not unjustified to demonstrate that social capital might take part to secure the existing attainments of the employee under the labor market. If the employee is not under any structural constraint then he or she can expand his or her accomplishments by the positive effects of surrounded social network.

Family as the primary institution within the society always takes the responsibility of rearing, caring, and nurturing of individuals. Ignoring the insignificant malfunction of family we can repeatedly utter that it is family where individuals gets the primary supports for all needs in any occasion. Hence, for individuals' generation of social capital start. By acquiring education individuals increase their human capital along with age differentials. But in accordance, input of parental social capital contributes sharply for

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continuous improvement of human and physical capital. Just before and on the eve of entering into the labor market a consistent inflow of parental social and human capital function positively for individuals to access service class. So for individuals this inflow of parental capital continues at every stage of socialization process as an established function of the 'families of orientation' (both father's and mother's family).

After getting touched with marriage relation, individuals generate the family of procreation as well as they expand their new family network with spouse's parental family which is designated as the 'family of alternative' in this research. By this occasion structure of family network has been expanded for the individual and hence the new input of social capital embedded within his or her existing volume of social capital. To some extent, undeniably, this new social capital might create some more new externalities, new opportunities, and new avenues for individuals.

In course of the development of human capital individuals invest their sociability to their surrounded span of everyday network. By this process social ties between interacting individuals got more paved day by day. For individual, differential associations are being built and new versatile interactions with diverse groups widen. From the very beginning of the generation of human capital (mainly educational attainments) individuals who are built on same trajectories (educational institution), are being diversified into different arena of societies as because of their unequal achievement of human capital. But penetration and interpenetration of different values relating to social, cultural, political, educational, religious, and most importantly economic aspects of self development in tertiary educational institutions create greater opportunities for individual level attainments from labor market.

Taking the above mentioned theoretical abstraction in mind, present researcher arbitrates the conceptual mapping as:-

> "Individual's social capital is the combined construct of four dimensional factors *i.e.* a) **family factors**, b) **associational factors**, c) **institutional factors** and d) **human capital factors**. First three factors are auxiliary as well as complimentary to third factor but all of them are mutually inclusive. By the shared effects along with different magnitudes of all of

those factors make individuals possible to entry into the labor market. After getting entered into the labor market same functional entities of all these factors continue and new expansion occurs within the volume of social capital of individuals. His or her gained entry into the labor market will be sustained with essential attainments in the operational arrangement of the institution. Some other day these individuals find themselves as the source of social capital for others."

After the measurement of collected data, we found the results, which can conclude our journey highlighting the objectives and the proposition of the research.

(1) Firstly, from the logit regression we clearly found that those who have higher social capital they have higher attainments in the labour market. For example, beneficiaries CBO and SSNP have higher income than their counterpart. Even, the odds ratio analysis also indicates the higher rate of probability for securing increased income.

(2) This study uncovers that family network, kith-kin network, friendship network and patron-client network increase the volume of probability of getting extra benefit from the available opportunities in the labour market. The qualitative inquiries replicates this scenario in accessing benefits from social policies.

(3) When individuals are capable to valorize their human agency in the labour market, the can have more attainments than other. It also depends on the social structural elements. The most important attributes in this regard is to have the quality of the individuals to appear into the public without shame. This is the key to study the importance of human agency and to know the process of manifestation of social capital as well.

(4) Finally, we obtained an index of social capital, which reflects the supremacy of human capital (education) over other factors.

Along with our hypothesis, we anticipated to examine some propositions through our qualitative inquiries. The study divulges these propositions with instances. For example, the case of Shefa indicates the operational influence of friendship network. The network adds extra benefits to her family. Nazu's inclusion into VGD clearly resonates the sustainable form of patron-client relationship in rural Bangladesh, which function as a social capital for the clients in the patronage system.

However, in relation to the objectives and propositions of this research project researcher finds a mixed outcome on the issue of achieving human agency in the context of studied CBOs and SSNPs. It is evidential that, according to the collected information, the local CBO has remarkably improved the fishers' (clients') access to the resources. In an open place at the local *hut* while I was having tea at a stall, their united voices assured the truth that they were not able to access the Beels before forming the CBO. So the findings related to the fifth proposition, I agree with the proposed statement.

In case of the fourth proposition, it was found an ambivalent scenario. If we consider the livelihood of the fishers before joining to the CBO, we conclude that CBFM improves fishers' ability to mobilize resources. But, if we critically examine the notion of livelihood diversity or agency in other than fishing, we conclude with a negative finding.

In the process of manifestation of social capital, especially for decision-making capacity, the investigation suggests that collective decision-making procedure followed by all members of the studied CBO is remarkable workable. All fishers are convinced to taking extra care of the sanctuary. In order to save it, they share their labor to improve its capacity. Some of them work, as night-guards while others are busy to collect branches of trees to accumulate more food for the fishes.

The principal answer that is also the premise of this research project, explains whether CBO (social capital) enables or restricts human agency. I would say it enables but, in certain ways, especially through obstructing diversities, it also restricts the human agency. A clear and positive outcome of social capital depends on the socio-political dynamics of the local social ambiance.

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Annex 1: HIES QUESTIONNAIRE

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

Bangladesh Bureau of Statistics

Household Income-Expenditure Survey, 2009-12 Project

Parishankhan Bhaban, E-27/A, Agargaon, Sher-E-Bangla Nagar

HOUSEHOLD INCOME AND EXPENDITURE SURVEY-2010

(Write all number in English)

PSU serial number	Team number	Term	Household number

Geographic Codes

AREA	CODE	NAME
Region		
District		
Thana/ Upazilla		
Union/ Ward		
Mouza/ Mohalla		
Rural/ PSA/ SMA		

Female facilitator		
Interviewer		
Supervisor		

SECTION 1: HOUSEHOLD INFORMATION ROSTER   *PART A: HOUSEHOLD INFORMATION (all members listed in the roster)*

Respondent ID Code	ID CODE as in Roster	2 Sex 1 Male 2 Female	3 Relationship of members with the head of the household 01 Head 09 Father/Mother-in-law 02 Husband/wife 10 Brother/Sister-in-law 03 Son/Daughter 11 Other relative, specify 04 Spouse of Son/Daughter 12 Servant 05 Grandchild 13 Employee 06 Father/Mother 14 Other, specify 07 Brother/Sister 08 Niece/Nephew	4 Age WRITE AGE IN FULL YEARS WRITE "00" FOR LESS THAN 1 (one) YEAR	5 Religion 1 Islam 2 Hinduism 3 Buddhism 4 Christianity 5 Other (specify)	6 Marital status 1 Currently Married 2 Never Married 3 Widowed 4 Divorced 5 Separated	7 Earner 1 Yes 2 No	8 SPOUSE PLEASE WRITE THE ID CODE. IF NOT EXIST IN ROSTER, WRITE '99'. ID Code	9 FATHER ID Code	10 MOTHER ID Code	11 Whether (name) was abroad more than 6 months during last 5 years 1 Yes 2 No >> Next person	12 Why did (name) return to the household from abroad? 1 Lose job 2 Due to illness 3 End of employment contract 4 Disagreement with authorities 5 Homesick 6 Due to Economic Recession 7 Other (specify)
	01											
	02											
	03											
	04											
	05											
	06											
	07											
	08											
	09											
	10											
	11											
	12											
	13											
	14											
	15											

SECTION 1: HOUSEHOLD INFORMATION ROSTER   *PART B: EMPLOYMENT INFORMATION (ALL PERSONS 5 YEARS AND OLDER)*

ID CODE as in Roster	1 Did you work for livelihood during the past 7 days? 1 Yes >>Next person 2 No	2 Were you available for work during the past 7 days? 1 Yes 2 No >>Q4	3 Did you looking for work during the past 7 days? 1 Yes >>Next person 2 No	4 Why were you not available/ did you not looking for work? 01 Engaged in domestic work 02 Housewife 03 Student 04 Too old/ retired 05 Too young 06 Temporarily sick 07 Disabled 08 Waiting to start new job 09 No work available 10 On leave/looking for job/business 11 Other (Specify)
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				

Respondent ID	ID CODE as in Roster	1 Has (name) included of any social safety nets programme in the last 12 months? 1 Yes 2 No >>Question 7	2 If Yes, What was the main program in which (name) has Included in the last 12 months? (Programme Code)	3 When did (name) enlist in this programme? MONTH / YEAR	4 How much was (name) entitled to receive in cash/in kinds? 1 Rice 2 Maize 3 Wheat 4 Powder Milk 5 Clothing 6 Other (specify) NAME OF GOODS (CODE) / TAKA / KG	5 How much was (name) actually receive in cash/in kinds? 1 Rice 2 Maize 3 Wheat 4 Powder Milk 5 Clothing 6 Other, specify TAKA / NAME OF GOODS (CODE) / KG	6 How much did [name] spend to be included the programme? Taka	7 What was the cause for not included (Code)
	01							
	02							
	03							
	04							
	05							
	06							
	07							
	08							
	09							
	10							
	11							
	12							
	13							
	14							
	15							

Code for Name of Program

1-Old age Allowance (MOSW)
2-Allowance for the Widowed, Deserted and Destitute
3-Allowance for the Financially Insolvent Disabled
4-Maternity allowance Program for the Poor Lactating
5-Honorarium for Insolvent Freedom Fighters (MOFWA)
6-Honorarium for Injured Freedom Fighters
7-Gratuitous Relief (Cash)
8-General Relief Activities
9-Allowances for distressed cultural personalities/Activists
10-Allowance for beneficiaries in ctg. Hill tract area
11-Stipend for Disabled Students (MOSW)
12-Grants for the schools for the Disabled (MOSW)
13-Cash for Work (MOFDM)
14-Housing Support
15-Agriculture Rehabilitation (MOA)
16-Subsidy for open market sales (OMS)
17-Vulnerable group development (VGD) (MOWCA)
18-Vulnerable group feeding (VGF) (MOFDM)

19-Test Relief (TR) Food (MOFDM)
20-Gratuitous Relief
21-Food for work (FFW)
22-Employment Generation for Hard-core Poor or 100 days
23-Stipened for Primary Students (MOPMED)
24-School Feeding Programme (MOPMED)
25-Stipend for drop out students
26-Stipend for Secondary and Higher Secondary/Female Student
27-Maternal Health Voucher Allowance
28-Rural Employment opportunities for protection of public
29-Char livelihood
30-Rural Employment, Social forestation and Rural Maintenance Program (LGD)

Code for Question-7

1. Didn't Know about the programme
2. Not fit for that programme
3. Fit for the programme but not apply
4. Due to shortness of budget
5. Selection was not proper
6. Not, any programme is this area

Respondent ID code	ID CODE as in Roster	3 Can you read a letter? 1 Yes 2 No >>Next Person	4 Can you write a letter? 1 Yes 2 No >>Next Person	5 What was the highest class that you completed? 00 No class passed 01 Class 1 02 Class 2 03 Class 3 04 Class 4 05 Class 5 06 Class 6 07 Class 7 08 Class 8 09 Class 9 10 SSC/equivalent 11 HSC/equivalent 12 Graduate/equivalent 13 Post graduate/equivalent 14 Medical 15 Engineering 16 Vocational 17 Technical Education 18 Nursing 19 Other (Specify)	6 Where did you do last study / are you currently studying? 1 Formal School 2 Formal College 3 Formal University 4 Madrasha 5 Taught by family >>Next Person 6 Govt. informal literacy programme >>Next Person 7 NGO literacy course >>Next Person 8 Other (specify) >>Next Person	7 What type of school/ institution did you last attended/ are you currently attending? 1 Government 2 Private (Govt. grants) 3 Private (Not govt. grants) 4 NGO run institution 5 Madrasa (Govt. affiliated) 6 Madrasa (Kowmi)
	01					
	02					
	03					
	04					
	05					
	06					
	07					
	08					
	09					
	10					
	11					
	12					
	13					
	14					
	15					

SECTION 4: ECONOMIC ACTIVITIES SELF AND WAGE EMPLOYMENT   PART A: ACTIVITIES (ALL PERSONS 5 YEARS AND OLDER)

ACTIVITY SERIAL	ID code as in Roster	1. What economic activities did (name) do in the past 12 months? (beside this, **What other activities did you do?** Activities: Service/Wage employment/All activities(agric/non-agric) conducted under self or joint ownerships.			2. How many months did you do this activity in the last 12 months?	3. On average, how many days per month?	4. On average how many hours per day?	5. Where did you do this activity? Was it rural or urban area? 1 Rural 2 Urban **WRITE DISTRICT CODE FROM CODE LIST**		6. What was major field of economic activities you engaged in? 1 Agriculture 2 Non Agriculture >>Q6	7. If you were engaged in agricultural sector, what was your employment status? 1 Day labourer >>Part-B 2 Self employed >> Section-7 3 Employer >>Section-7 4 Employee >>Part-B	8. If you were engaged in non agriculture sector, what was your work status? 1 Day labourer >>Part-B 2 Self employed >>Section-5 3 Employer >>Section-5 4 Employee >> Part-B
		DESCRIPTION OF ACTIVITY	OCCUPATION CODE	INDUSTRY CODE	MONTH	DAYS/ MONTH	HOURS/ DAY	R/U	DISTRICT CODE			
A												
B												
C												
D												
E												
F												
G												
H												
I												
J												
K												
L												
M												
N												
O												
P												
Q												
R												
S												

SECTION 4: ECONOMIC ACTIVITIES AND WAGE EMPLOYMENT   PART B: WAGE EMPLOYMENT

ACTIVITY SERIAL	ID CODE as in Roster	1. Were you paid on a daily basis? 1 Yes 2 No >>Q6	DAILY WAGE						SALARIED WAGE			
			2. What was the daily wage in cash in the past 12 months?			3. Did you receive payments in-kind? 1 Yes 2 No >>Next Activity/ Next person	4. What type of in-kind payment did you receive? 1 Paddy 2 Rice 3 Wheat 4 Meal 5 Other	5. How much did you receive per day? WRITE THE QUANTITY IN KG AND THE TOTAL VALUE IN TAKA.	6. What type of org. do/ did you work for? 1 Govt. organization 2 Autonomous body 3 Private office 4 Public mill/ factory 5 Private mill/ factory 6 Local govt 7 NGO 8 Household 9 Other, specify	7. What is your gross remuneration per month?	8. What is your total net take-home monthly remuneration after all deduction at source?	9. What is the total value of in-kind or other benefits you received over the past 12 months (tips, bonuses or transport) for this job? >> Next Activity/ Next Person
			Highest 1	Lowest 2	Average 3			QUANTITY KG / VALUE TAKA		TAKA	TAKA	TAKA
A												
B												
C												
D												
E												
F												
G												
H												
I												
J												
K												
L												
M												
N												
O												
P												
Q												
R												
S												

CTION 8: OTHER ASSETS AND INCOME   **PART A: OTHER PROPERTY AND ASSETS**

Acres   Decimals

Is there any land or property which your household owns but doesn't operate?
(don't include property already reported in sections 5, 6 & 7)
1 Yes
2 No   >> Q3

How much would it cost to buy land or property owned by your household?   TAKA

Did your household purchase any land or property during the last 12 months?
1 Yes
2 No   >> Q5

How much did your household spend on purchasing this land or property?   TAKA

Did your household purchase any house or flat over the past 12 months?
1 Yes
2 No   >> Q7

How much did your household spend on purchasing that house or flat?   TAKA

Does your household own any other assets (e.g. stocks, bonds, other financial assets, jewelry, etc. not reported earlier)
1 Yes
2 No   >> Q9

How much in total are these worth?   TAKA

Did your household purchase any assets other than land over the past 12 months?
1 Yes
2 No   >> Q11

How much did your household spend on purchasing these assets?   TAKA

Did your household sell any assets over the past 12 months?
1 Yes
2 No   >> Part B

How much did your household get from selling these assets?   TAKA

SECTION 8: OTHER ASSETS AND INCOME   **PART B: OTHER INCOME**

1 Income from rent of land received during the past 12 months: TAKA

2 Income from rent of other property received during the past 12 months: TAKA

3 Social and insurrance (life and non-life) income received during the past 12 months:
Life Insurance   TAKA
Health Insurance   TAKA
General Insurance   TAKA

4 Profit and dividend received as partner/ share holder during the past 12 months: TAKA
(DO NOT INCLUDE INCOME ALREADY REPORTED IN SECTION 5)

5 Lottery/ prize bond/ other similar income received in cash or in-kind during the past 12 months: TAKA

6 Charity, gift, royalty, help, zakat, fitra or other such assistance, etc. received during the past 12 months: **IN CASH**   TAKA

7 Charity, gift, royalty, help, zakat, fitra or other such assistance, etc. received during the past 12 months: **IN-KIND**   TAKA

8 Remittances received from relatives during the past 12 months:
(CASH AND IN-KIND FROM WITHIN THE COUNTRY)   TAKA

9 Remittances received from relatives during the past 12 months:
(CASH AND IN-KIND FROM OUTSIDE THE COUNTRY)   TAKA

10 where did you invest/spend the received money?
1. Construction 2. Business 3. Ecucation 4. Marriage
5. Consumption 6. Treatment 7. Others (Specify)

11 Gratuity,separation payment, retirement benefit received during the past 12 months: TAKA

12 Interest received during the past 12 months:
(FROM BANKS AND OTHER SOURCES)   TAKA

13 Other cash or in-kind receipts during the past 12
(DO NOT INCLUDE RECEIPTS REPORTED ELSEWHERE)   TAKA

SECTION 8: OTHER ASSETS AND INCOME **PART D: MICRO CREDIT**
Respondent: Head of household

1 Have you or any member of your household open a bank account during the last 12 months?	2 Have you or any member of your household deposit money in the credit or microfinance institution (BRAC, Grammeen Bank, etc) in the last 12 months?	3 Have you or any member of your household deposit money in any informal depositor organisation in the last 12 months?	4 Have you or anyone in your household borrowed money from a family member, friend, micro finance institution, bank or other source in the last 12 months?
1 Yes 2 No	1 Yes 2 No	1 Yes 2 No	1 Yes 2 No >>Section 9

INTERVIEWER: Use a separate line for every line, put in the ID code of the person who borrowed the money.

L O A N	ID CODE in Roster	5 What was the source of this loan or credit? USE CODES. CODE	5 TAKA	6 How much money was borrowed (in taka)?	7 How long is the repayment period (in months)? NUMBER OF MONTHS	8 Interest rate applied on loan (%) FILL IN ONLY MONTH OR ONLY YEAR MONTHLY RATE (%)	8 YEARLY RATE (%)	9 How often do you make payments and what is the amount of each payment? FREQUENCY CODE	9 AMOUNT TAKA	10 Have you completed repayment of your loan? 1 Yes 2 No>>Q12	11 Amount of unpaid loan (in taka)? TAKA	12 What was the purpose of receiving loan? USE CODES. CODE	13 Would you like to have borrowed more money at the same rate of interest? 1 Yes 2 No >> Next person	14 Are you willing to take more loan at the same rate of interest and how much? TAKA
20														
21														
22														
23														
24														
25														
26														
27														
28														

CODES FOR Q5 - SOURCE OF LOAN OR CREDIT
01 Private Commercial Bank
02 Public Commercial Bank
03 Krishi Bank/Rajshahi Krishi Bank
04 Co-operative Bank
05 Co-operative association
06 BSIC
07 Youth Development
08 Grameen Bank
09 BRAC
10 BRDB
11 Other Govt. Department
12 ASA
13 Proshika
14 Other NGO
15 Other Micro Finance Establishment
16 Input supplier
17 Money Lender
18 Land Lord
19 Employer
20 Friends
21 Relatives
22 Grocery Store
23 Other, specify

CODES FOR Q9 - FREQUENCY OF PAYMENT
1 Once
2 Daily
3 Weekly
4 Fortnightly
5 Monthly
6 Yearly
7 Other, specify

CODES FOR Q12 - PURPOSE OF LOAN
1 Education
2 Health
3 Agriculture
4 Business
5 Housing
6 Food Purchase
7 Marriage
8 Other, specify

SECTION 9: CONSUMPTION **PART A: DAILY CONSUMPTION**

Less than 10 years old   10 years and older
No. of boys ___   No. of men ___
No. girls ___   No. of women ___   Date (Date/ Month/ Year) ___

DAY 1

		Quantity	Value Taka	Value Ps	1. Purchase 2. Wage in-kind 3. Self Prod. 4. Gift Major Source
1	Food grains	010			
	Rice - Fine	011	gm		
	Rice - Medium	012	gm		
	Rice - Coarse	013	gm		
	Beaten rice	014	gm		
	Pop rice	015	gm		
	Puffed rice	016	gm		
	Wheat (Atta)	017	gm		
	Flour	018	gm		
	Vermicelli/ Suji	019	gm		
	Bread/ Bonroti	021	gm		
	Biscuits	022	gm		
	Cake	023	gm		
	Other (specify)	025	gm		
2	Pulses	030			
	Lentil (musur)	031	gm		
	Chickling-Vetch (mug)	032	gm		
	Green gram (boot)	033	gm		
	Pea gram (kheshari)	034	gm		
	Mashkalai	035	gm		
	Other (specify)	036	gm		
3	Fish	040			
	Hilsa	041	gm		
	Rhui/ Katla/ Mrigel/ Kal baush	042	gm		
	Pangash/ Boal/ Air	043	gm		
	Kai/ Magur/ Shinghi/ Khalisha	044	gm		
	koi	045	gm		
	Silver carp/ Grass carp/ Miror carp	046	gm		
	Shoal/ Gajar/ Taki	047	gm		
	Puti/ Big Puti/ Telapia/ Nilotica	048	gm		
	Mala-kachi/ Chala-chapila	049	gm		
	Shrimp	051	gm		

DAY 1

		Quantity	Value Taka	Value Ps	1. Purchase 2. Wage in-kind 3. Self-prod 4. Gift Major Source
	Dried fish	052	gm		
	Tangra/ Eelfish	053	gm		
	sea fish	054	gm		
	Baila/ Tapashi	055	gm		
	Other (specify)	056	gm		
4	Eggs	060			
	Hen egg	061	No		
	Duck egg	062	No		
	Other (specify)	063	No		
5	Meat	070			
	Beef	071	gm		
	Buffalo	072	gm		
	Mutton	073	gm		
	Sheep	074	gm		
	Hen	075	gm		
	Duck	076	gm		
	Other (specify)	077	gm		
6	Vegetables	080			
	Potato	081	gm		
	Brinjal	082	gm		
	White gourd/ Pumpkin	083	gm		
	Water gourd	084	gm		
	Balsam apple	085	gm		
	Perbol (Patal)	086	gm		
	Snake gourd/ Ribbed gourd	087	gm		
	Green banana/ Green papaya	088	gm		
	Arum/ Ol-kachu/ Kachur-mukhi	089	gm		
	Cauliflower/ Cabbage	091	gm		
	Bean/ Lobey	092	gm		
	Tomato	093	gm		
	Radish	094	gm		
	Ladies' finger	095	gm		
	(All types of leafy veg.(Spinach/ Amarantta/ Basil)	096	gm		
	Other (specify)	097	gm		

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Annex 2: Interview Guide

Questions about personal and social characteristics (Asked at the end the interview)

- Age

- Marital status

- Family size

- Income and satisfaction level comparing to previous status

- Level of education.

- Current employment

- Period of incorporation into the program.

- Overall attitude, remarks and recommendations toward the program.

Interview topics and main questions

Main research questions and interview topics: (Only narratives)

Q.1 Political process and network: **Interviewees** involved here - elected political leaders, brokers

- The political importance of the program

- how to finance it

- what are the criteria to select beneficiaries

- how do they take the decision to this service delivery

- does he/she feel any issues/challenges which should be incorporated into the program at national level?

- Political importance of the program and the targeting issue.

Q.2. Financing Criteria: **Interviewees** involved here – Local executives; Archival analysis (Documents, decrees etc.)

- How much money is approved for the program for a specific period?

- How is the food bought for the recipients?

- Who buy the food and how?

- Who does decide to buy the specific food?

- How to select recipients?

- Is there any 'elite capture' issue to select recipients?

- What is the existing monitoring system for these programs?

- Political importance of the program and the targeting issue.

Q.3. Services at local level: **Interviewees** involved here - Office secretary at service center; Archival analysis

- What programs are functioning right now?

- What are the processes to select a recipient?

- Do you have any data-base to upgrade recipients?

- Is there any observed influence from local elites/touts for incorporating recipients?

- If targeting errors occur, is it a problem at all?

- If no/yes-why? Any monitoring system, what and how?

- Political importance of the program and the targeting issue.

Q.4. Health Center: **Interviewees** involved here – medical officer in charge at local level

- Are those foods sufficient to meet the food needs of targeted recipients?

- How do you measure malnourishment?

- How do you perceive the government services in this regard?

Q. 5. Household level: **Interviewees** involved here – recipients and non-beneficiaries of VGD and CBO

- Period of being beneficiary
- process of being beneficiary (social network)
- level of satisfaction, any observed difficulties (amount and type of food, behavior at service center etc.)
- role of touts and bribery
- monitoring
- what will happen without the food
- income diversification
- social and political constraints- (family norms, (in)ability to participate)
- views on favoritism
- relation with other beneficiaries.

Annex 3: Profiling Clients (Clients, would be clients)

Sl	Name & Address	Age	Family size	Civic Engagement			Cause	Tout	interview date and duration	Comment
				VGD	CBO	Other				
1	Shefa Begum W-7, Thanaghat	35	6	yes	-	-	Fixed income	-	19.6.'13; 18.39	Record & notes
2	Momena Begum W-9, Kalaiura	43 widow	2	yes	-	-	Double entry & multiple periods	-	21.6.'13; 21.03	Record & notes
3	Khaleda Begum W-7, Thanaghat	32 widow	4	-	yes	-	No good relation to member	-	21.6.'13; 24.18	Record & notes
4	Anwara Begum W-1, Tikarpara	19 S	1	-	-	yes	-	-	19.6.'13; 10.20	Record
5	Ruby Begum W-1, Tikarpara	34 widow	5	-	-	yes	-	-	19.6.'13; 14.09	Record
6	Shamol Paul (husband of Tonoya Paul) W-3, Nondirfal	57	6	yes	-	-	Fixed income, multiple period, Age	Yes Sanu Paul	23.6.'13; 23.12	Record & Notes
7	Hasna W-1, Tikarpar	45	2	-	yes	-	Stigma	-	26.6.'13;	Record & notes
8	Alifa Begum W-1, Tikarpara	40	7	-	yes	-	Discrim-ination	-	26.6.'13; 18.24	Record and notes
9	Halima Begum W-4, Baroigram	28 widow	2	-	-	yes	-	-	29.6.'13; 9.15	Record
10	Nazu Begum W-3, Nondirfal	35	5	-	-	yes	-	-	23.6.'13; 11.40	Record & notes
11	Toslima Khatun, W-9, Kalaiura	45	1	-	yes	-	Previous social status	-	29.6.'13; 18.25	Record and notes
12	Alomennesa, W-1, Tikarpara	55	1	yes	-	-	Age and favor	-	29.6.'13; 11.13	Record
13	Nazarul Mia	47	6	-	yes	-	Opportunity	-	4.9.15 17.15	Record
14	Mohsin Molla	53	7	-	yes	-	do	-	4.9.15 19.20	Record
15	Kadir Mia	37	4	-	yes	-	do	-	7.9.15 14.10	Record and notes
16	Mofizullah	40	5	-	yes	-	do	-	7.9.15 15.15	Record
17	Sonahor Mia	43	5	-	yes	-	do	-	15.9.15 18.10	Record

Annex 4: Profiling extra clients interviewees

Sl	Name, address and designation	Date, duration and place of interview
13	Jamal Uddin, elected member, Ward-3, Nondirfal.	03.07.2013; 21.03; Union council office
14	Mojibur Rahman, elected member, Ward-1, Tikarpara	03.07.2013;Union council office
15	Provati Deb, Health Welfare Visitor, Lauta Union	23.06.2013; 14.19; Union Health Center
16	Karnak Deb, Union Secretary, Lauta Union	05.06.2013; 25.57; Union council office
17	Chamak Chakraborty, UOWA, Beanibazar	07.07.2013; 19.15; UOWA office, Beanibazar
18	Radha Chakraborty, Upazila Chairman, Beanibazar	09.07.2013, 62.45; Upazila Chairman's Office

Annex 5: Pictures

Clients are gathering for receiving food

Disabled Children and house of a client
with lack of social capital

House of a client

Interviewing a political leader