The Contribution of Social Capital to Initiate Pastoral Development among the People of Afar

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Abstract

The study of social capital in Ethiopia is at an infant stage and its yield is not impressively documented. Accordingly, the current study sought to explore the working of social capital in the development of Afar pastoral community. To this end, the study employed a quantitative cross-sectional survey design. Relevant data was collected from 390 respondents drawn from a sample of 422 participants. Regression and Mill's Method of analyses were employed to refine important concepts and evaluate the relationship between social capital and development. The findings of the study confirmed that the relationship between social capital and development is significant and positive. This entails that social capital is one of the key assets of Afar pastorals that potentially contribute to the current and future pastoral community development interventions.

Key words: Social capital, pastoral, development, community, poverty reduction

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Background of the Study

Traditionally, development efforts utilized four types of capital: financial, human, physical, and natural resources, while neglecting social capital as a valuable asset (Tirmizi, 2005). Over time, scholars understood that countries with similar amounts of natural, physical and human capital achieved various levels of development due to differences in social capital stock (Feldman and Assaf, 1999). That is why, since the last decade, development practitioners have accorded social capital a prominent place and recognized it as a powerful asset in developmental efforts (Pretty, 2003). In the absence of social capital, society will collapse and the world may face serious consequences.

The contribution of social capital to development efforts has been noticed since the last century. Accordingly, various organizations such as the World Bank showed their keen interest in social capital (Franke, 2005). Since 1993, social capital has become one of the key terms of the development lexicon, adopted enthusiastically by international organizations, national governments and NGOs (Harriss and de Renzio, 1997). The replacement of the Washington Consensus with Post-Washington Consensus that raised the prominence of social capital was the main stepping-stone of the World Bank towards development (Fine, 1999). Considering all these facts, it is straightforward to say studying social capital and development is apt, particularly in developing countries. Research in social capital is promising to hold an optimistic view on the development of developing countries (Krishna, 2002).

Regardless of their promising role in developing countries, most past social capital studies were biased towards western countries (Krishna, 2002), mainly to the United States of America (Dill, 2015). Therefore, regrettably, the previous researches might have ended up in serving the neo-liberal projects both in 'First' and 'Third World' countries alike (Ranklin, 2002). The implementation of social capital in such manner is apparently problematic because western-based studies cannot be applied equally well in the context of the developing world. For instance, the contexts of Africa and the western countries are not the same. What is social capital in Africa may not be considered as social capital in the western countries, and vice versa. Today, we find ourselves with the concept of social capital coined by the Western world. Therefore, as Krishna (2002) rightly argued, current social capital studies in developing countries should take into account the unique context of the developing world.

In Ethiopia, the study of social capital is at an infant stage and its yield is not as such impressively documented. The country needs to utilize its social capital resources efficiently and promote development. To this end, scientific research pertaining to social capital is pertinent. Previous social capital researches in Ethiopia had chiefly concentrated in rural settings, and farmer communities. Most of the studies emphasized the adoption of new technologies, the transfer of agricultural knowledge and the provision of support in times of need. For instance, Todo *et al.* (2011) explored the effect of social networks on adoption and diffusion of agricultural technology. They found that knowing a more complicated technology depends on having relationship with a trustworthy agent and networks. Liverpool and Winter-Nelson (2010) examined the impact of social networks on the adoption of technologies in rural Ethiopia. They reported that social networks positively

affect the adoption of agricultural technologies. For their part, Seboka and Deressa (1999) documented the contribution of farmers' indigenous social networks to local seed supply. According to their findings, farmer's social networks play a tremendous role for the survival of local seeds because the decision to adopt a genetically modified or the old local seed is determined by the locally developed seed exchange methods (indigenous social networks).

In general, the importance of social capital in empowering the marginalized population is noticeable in the modern era (Mayer and Ranklin, 2002). This becomes highly pronounced in relation to the marginalized "pastoralists who are the poorest of the world's poor" (Nyariki and Nguigi, 2002). With this background, the current study sought to explore the working of social capital in the development of Afar pastoral community.

Conceptual Framework of the Study

The utilization of the concept of development and social capital should start with identifying a suitable definition because they connote and denote different things for different people (Krishna, 2002). Regarding this, far, abundant empirical studies employed proxy welfare indicators to explain whether social capital has a role in development. For instance, Ali and Mansor (2006) used household income, health status and rice yield as a proxy welfare indicators, while Krishna (2002) emphasized livelihood specialization, poverty reduction, service quality and quality of life as proxy indicators of development. In agreement with the procedure of Krishna (2002) and Uphoff & Krishna (2000), this study intends to apply poverty reduction, community investment fund, livelihood stabilization, quality of life and service quality as a measure of development.

Like the concept of development, social capital is multi-dimensional and lacks a single indicator to measure (Gallois and Schmitt, 2005). For the sake of confronting this challenge, the revised social capital framework developed by Naryan and Cassidy (2001) was adapted (Figure1). The conceptual framework depicted that dimensions of social capital such as group characteristics, general trust, everyday sociability and cooperation determined by various factors such as socio-demographic and economic characteristics influence the development.

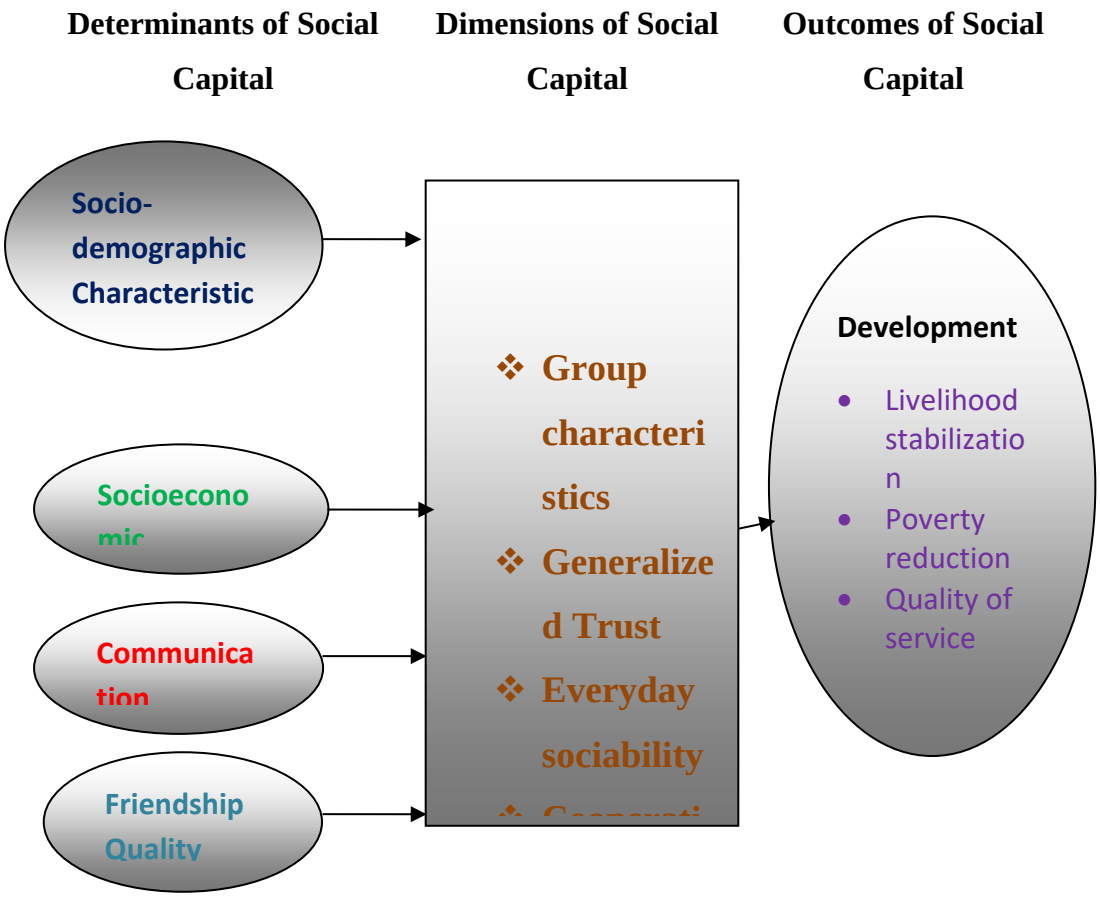

Figure 1: Conceptual Framework of the Study: Adapted from Naryan and Cassidy (2001)

Research Method

The study employed a cross-sectional survey design to collect relevant data through quantitative methods. Data was collected from 390 respondents drawn from a sample of 422 participants. A multistage cluster sampling technique (Four-stage sample design) was followed to select sample respondents. The sample size was determined based on a statistical formula, where the level of significance is assumed to be 95% and margin error of 5%. In addition, the estimation for the value of *p* was made based on the assumption that 50% of the community studied utilize their social capital to facilitate the process of community development in their respective districts. The estimation is in line with the recommendation of Corbeta (2003). The value of *p* could be obtained from the results of previous studies, pilot studies or the opinions of experts. Here, since such things are not available, the value of *p* was determined based on the aforementioned assumption. Once the sample size was determined, sample elements were drawn proportionally from each respective Woreda project by employing the proportional allocation method.

Using Cochran's formula, the sample size (n) of this study was determined as follows:

$$n = Z^2pq/e^2$$

$$n = \frac{(1.96)^2 \times 0.5\ (1- 0.5)}{(0.05)^2}$$

$$n = 384$$

For contingency purpose, 10% of the calculated sample was added and the total sample size became 422.

Regression and Mill's Method of analyses were employed to refine important concepts and evaluate the relationship between social capital and development. To this end, both social capital and development were measured using proxy indicators. More specifically, district level of development was measured using the performance of Pastoral Community Development Project (PCDP) as a proxy indicator.

Result and Discussions

Social Capital Index (SCI) Construction and Estimation of Social Capital

Analyzing the proxy indicators of social capital in either a separate score or an index of different dimensions is a matter of dispute. The choice on aggregates of social capital either in the form of multiplicative index or additive index is also problematic. Yet, available empirical literature on social capital assured that both approaches are equally important. For example, while Narayan and Pritchet (1997) employed a multiplicative index, Grooetart and Narayan (2000) used additive index for social capital. Therefore, researchers could use one of the two approaches, as either of the aggregate indexes would not destruct the validity of the measurement (Grootaert and Bastelaer, 2002).

Table 1 depicts an additive index of social capital counted out of 100 points at the district level. The SCI ranged between 46.40 and 74.68 points. The mean score for districts on the SCI is 62.4 point with a standard deviation of 8.76 points. Accordingly, three districts have scored less than 60 points, comprising of *Elidar* (58.00 points), *Adaar* (53.64 points), and *Gelaelo* (46.40 points), henceforth, designated as a group of districts with lower social capital stock. Meanwhile, two districts have scores between 62.4 and

71.16 points on the SCI. The districts are *Mile* (66.97 points) and *Amibara* (63.85 points). This group represented the medium category. The remaining districts, *Aysaita* and *Awash Fentale* have the highest level of social capital by scoring 74.68 and 71.68 points, respectively. This group would be referred to as districts with a high level of social capital.

Table 1. District Level Social Capital Index (SCI)

S. No.	District	Social Capital Index (SCI)	Level of social capital
1	*Aysaita*	74.68	High
2	*Awash Fentale*	71.68	High
3	*Mile*	66.97	Medium
4	*Amibara*	63.85	Medium
5	*Elidar*	58.00	Low
6	*Addar*	53.64	Low
7	*Gelaelu*	46.40	Low

Source: Survey data

Understanding District Level Development and Index Construction

The performance of PCDP served as a proxy indicator of development. A successful implementation of a development project enables pastoral communalities to develop sustainable livelihood system and reduce poverty (Birhanu *et al*., 2011). The success of a project depends partly on the participation of the target community in the process of development. Therefore, each development project must evaluate its performance to improve the relevance, effectiveness and efficiency of the project based on the view of the beneficiaries (Bido, 2014). In light of this, five development proxy indicators were employed to construct a Performance of Development

Index (PDI). The index combined Livelihood Stabilization (LS), Poverty Reduction (PR), Community Investment Fund (CIF), Service Quality (SQ) and Quality of Life (QoL). The following paragraphs present a brief description of these indicators in the context of the community studied.

Livelihood Stabilization

The concern on livelihood stabilization is based on the belief that it assists Afar pastorals to strengthen their existing possible livelihood activities. It helps pastoralists develop innovative income diversifying activities that will improve their household livelihoods. Nowadays, *Afar* pastorals have begun engaging in different alternative business activities and generate additional income. They have started taking loan from governmental and non-governmental institutions for the purpose of business start-up. Participants disclosed that they borrowed money from Pastoral Saving and Credit Cooperatives (PASSACCOs) initiated by PCDP and supported their livelihood system through different income generating activities. Some of these activities include agricultural activities such as growing fruits, brick production, animal (sheep & goat) fattening, and petty trade.

As depicted in Table 2, male and female beneficiaries have engaged in Income Generating Activities (IGAs) by the loan obtained from PASACCOs. Totally, 628 beneficiaries (259 men and 369 women) are involved in various IGAs. The figure highlights that women's participation in IGAs is greater than men's involvement. Even men's involvement in animal fattening activities, which is traditionally regarded as males' domain, is found to be low as compared to the women's. There are also some exceptional cases where the entire beneficiaries of IGAs are women. For example, while 250 women beneficiaries participated in a petty trade, no

male beneficiary was found in this particular activity. From the perspective of PCDP officials, the main reason for higher participation of women in IGAs is related to their commitment to PASACCOs.

Table 2. Major Income Generating Activities Initiated and Supported by PCDP

1. Beneficiaries Income Generating Activities (IGAs)						
Major IGAs		**Beneficiaries**			**Average**	
		Total	**Men**	**Women**	**Loan**	**Income**
1	Petty trade	250	-	250	3500	450
2	Vegetable production	125	95	30	4000	1000
3	Animal fattening (sheep, goat)	210	136	74	4500	600
4	Service provision (e.g., cafeteria)	43	28	15	6000	800
Grand Total		628	259	369		

Source: PCDP Performance Booklet

PCDP is working hard in relation to IGAs. Secondary sources revealed that the office of the PCDP has engaged in the provision of advisory service to community members who have started or are interested in income generating activities. In the first quarter of 2018, the office planned to consult 1,750 households on viable livelihood opportunities upon their consent. In the first quarter, a total number of 425 households got advisory services and developed their respective livelihood plan to be implemented (PCDP First Quarter Report, 2018).

Furthermore, for the measurement of livelihood stabilization, participants were asked to state what they think of their community members' level of

participation in income generating activities initiated by PCDP. The level of participation was labeled as low, medium and high. Table 3 shows that while nearly half of the respondents (47.2%) rated community members' participation in IGAs as low, one – fourth (21.3%) of them stated that it was high. The remaining one – third (31.5%) of them reported that there was a medium level of participation in IGAs. Therefore, the perceived magnitude of community members' participation in livelihood stabilization provides an insight into the relevance of IGAs for Afar pastoral transformation.

Table 3 . Level of Participation in Income Generating Activities

Level of Participation		Frequency	Percentage
1	Low	123	31.5
2	Medium	184	47.2
3	High	83	21.3

Source: Survey data,

Poverty Reduction

The second component of Performance Development Index (PDI) involves poverty reduction because progress in poverty reduction is believed to be a sign of development. Since obtaining objective measure of the number of villagers who have escaped from poverty per year is hardly possible, the number of beneficiaries in PASACCOs was used as a proxy indicator of poverty reduction. Discussions with participants indicated that PCDP beneficiaries have exercised various types of micro-saving practices. These days, people tend to patronize micro-saving practices for their crucial role of poverty reduction, especially in developing countries (Kalu and Nenbee, 2013). Unfortunately, the poor have been often excluded from accessing financial services.

Hulme *et al*. (2009) argued that pastoral areas are defined by poor financial services though access to financial services is a human right issue for all. The process of globalization has threatened the historic resilience of pastoral societies, and forced them to diversify their source of income without adequate amount of financial capital (McKune and Julie, 2013). This is overwhelmingly worrisome to Ethiopian pastoralists whose financial institutions are very limited. Realizing such circumstances, various non-governmental organizations have initiated different development interventions. PCDP is one of such project interventions working in pastoral areas.

PCDP established a number of PASACCOs to improve the pastoral livelihood system. Besides facilitating the practice of saving, PASACCOs avoid a requirement of livestock or other borrower's collaterals and ease the bureaucratic process of accessing credit services. Community members now can access credit with the principle of 'group-based model'. The model requests the loan seeker to be a close friend of three or more voluntary members of the same PASACCO unit who can act as guarantors. The borrower's social capital determines whether a member is eligible to get credit or not. The credit service helps individuals solve problems related to poverty reduction. In agreement with this point, Woolock and Narayan (2001) cited the experience of poor women who have started small business activities using a loan obtained from their peer groups.

Upon enquiring whether they are members of nearby PASACCO, 25.9% of the respondents said 'YES' ;meanwhile, 74.1 % of them responded 'negatively', and confirmed that they are not registered members of PASACCOs. The finding highlights that community members' participation in saving practice is low. Interviews held with PCDP officials and

beneficiaries showed that lack of interest, inaccessibility, bureaucratic challenges and absence of basic information about PASACCOs are the main reasons of low level of membership status in PASACCOs.

Community Investment Fund (CIF)

The third component of PDI is the Community Investment Fund (CIF). It is a way of providing development fund to beneficiary communities through the principle of Community Driven Development (CDD) and sustainable livelihood concepts. Under CIF, developing water facilities, constructing and expanding schools, building human health-care and veterinary posts, launching small-scale irrigation scheme, and expanding community roads are the major activities of different districts. PCDP has provided up to $50,000 per project. Community members contribute 15% of the total cost in cash and in-kind to the implementation of CIF sub-projects. Community's contribution to CIF highlights the existence of a strong sense of ownership of the PCDP project. Community members also actively participate in prioritizing, designing & planning the proposed sub-projects.

Table 4. Summary of In-kind and Cash Contribution

Name of the District	No. of project	In-Kind Contribution		Cash Contribution	
		Estimated Birr	%	Estimated Birr	%
Aysaita	9	376,281.76	58	1,212,796	100
Elidaar	10	546,682.00	77	1,213,097	100
Mille	9	567,722.18	89	1, 344,524	100
Adaar	9	262,500.00	41	1,143,670	100
Amibara	10	409,135.29	57	1,344,555	100
Gelealu	10	626,693.71	96	1,007,744	83
Awash Fentale	9	649,261.95	100	1,213,252	100

Source: PCDP First Quarter Report (2018)

As indicated in Table 4, out of the seven districts, six (85.71%) contributed the share of fund expected from them completely. With the exception of *Gelealo,* all the project districts achieved 100 percent cash contribution. The table also demonstrates that the highest cash contribution is 1,344,555 collected from *Amibara*. In terms of in-kind contribution, *Awash Fentale* ranked first with an estimated of 649,261.95 birr. On the other hand, *Gelealo* (83%) and *Adaar* (41%) exhibited the lowest level of cash and in-kind contribution, respectively. The finding shows a high level of community participation in different CIF sub-projects. The most frequently cited CIF sub-projects in the study area are five. These include the sub-project of water supply facilities, educational infrastructures, small-scale irrigation (SSI), health facilities (HLT), veterinary clinic (VET), and community road.

Table 5. Summary of Community Investment Fund Sub Projects

	District	Water	Education	SSI	HLT	VET	Road	Total	Value
1	Aysaita	-	1	2	1	1	1	5	2
2	Elidar	4	3	-	3	-		11	3
3	Mile	1	5	-	4	-		10	3
4	Adaar	-	2	-	1	1	1	5	2
5	Amibara	2	3	3	2	-		10	3
6	Gelaelu	1	3		2	-		6	2
7	Awash Fen.	2	4	1	-			7	2
Total		10	21	6	13	2	2	54	

Source: PCDP First Quarter Report

Table 5 summarizes the number of CIF sub-projects constructed within the vicinity of the community studied. Aggregate of these CIF sub-projects is one indicator of the performance of development. Three districts: *Elidar*,

Mile and *Amibara* have equal number of 10 CIF sub-projects and represent the top three performing districts. On the other hand, *Aysaita* and *Adaar* districts have the same number of five CIF sub projects each. The remaining district, (*Gelealo*) has six CIF sub-projects. For the sake of analysis, based on the number of sub-projects, these districts were divided into three groups as high (3), medium (2) and low (1), with given values ranging from 1 to 3. A district with 1-4 CIF sub-projects got a value of 1, the other group with 5-8 got 2; and districts with CIF sub projects 9 and above got a score of 3.

Upon enquiring on their perception towards the adequacy of CIF sub-projects, respondents rated them as unsatisfactory (18.72%), moderate (49.7%), and satisfactory (31.54%). The finding indicates that the majority of respondents believed that adequate number of CIF projects are available in their district.

Service Quality and Quality of Life

Service quality measures community members' satisfaction level with basic available services. To this end, participants were asked to report their perceived satisfaction about the quality of available services as compared to the nearby districts. The levels of satisfaction were rated from 1 (worse) to 3 (satisfactory). Of the total respondents, 29.4% of them reported that the quality of services is satisfactory and 35.13% of them rated it as moderate. The remaining 35.13% viewed the quality of services as worse. In other words, about 70.26% of the respondents perceived the satisfaction as moderate or below the moderate level, suggesting that the level of satisfaction with the services provided by PCDP is relatively poor. One participant disclosed, that "Service quality is very poor beyond imagination." In addition, most participants of the in-depth interviews

complained about the deterioration of service quality despite access to services such as health care, education, potable water etc. is increasing in recent times. In order to get a better service quality, sometimes, community members organize themselves and take collective measures to protest against the poor service providers. This entails that community members who rely on their social networks tend to be more socially competent and are more likely to enjoy higher levels of quality of life, thanks to their social capital.

Table 6. Service Quality and Quality of Life

	Satisfaction levels	**Frequency**	**Percentage**
Service Quality	Worse	137	35.13
	Moderate	137	35.13
	Satisfactory	116	29.40
Quality of life	Worse	119	30.51
	Moderate	130	33.33
	Satisfactory	141	36.15

Source: Survey study

As an objective measure of the quality of life is not available, community members' subjective perception was considered as a proxy indicator of the quality of life. Respondents were asked to report the quality of their current life as compared to 15 years back. Table 6 illustrates how the participants perceive the quality of their life. About 36.15% of the respondent viewed that their current quality of life is better than their previous condition. Meanwhile, one-third (33.33%) and 30.51% of the respondents stated that they experience a moderate and worse quality of life, respectively (Table 6).

From this, it is possible to conclude that the quality of life has shown some improvements in the last 15 years.

Now, it is time to construct PDI. As depicted in the following Table 7, the aggregates of livelihood stabilization, poverty reduction (i.e., measured in terms of the proportion of savers to the target population), community investment fund, service quality and quality of life together yields PDI out of 14 points.

Table 7. Elements of Performance of Development Index

District	Target Popn.	Livelihood Diversification	Service Quality	Quality of Life	CIF	PASACCO Members	Poverty Reduction	Sum	PDI
Aysaita	41,200	2.11	2.32	2.3	2	637	0.0155	8.7455	0.62
Elidar	67,104	1.63	2.43	2.5	4	591	0.0088	10.568	0.75
Mile	69,422	2.22	2.3	1.97	2	657	0.0095	8.4995	0.61
Adaar	39,599	1.52	1.48	1.6	2	456	0.0115	6.6115	0.47
Amibara	54,831	2.08	2.03	2.24	3	661	0.0121	9.3621	0.67
Gelaelu	26,562	1.35	1.39	1.48	3	473	0.0178	7.2378	0.52
Awash F.	26,031	2.53	2.43	2.5	3	254	0.0098	10.469	0.75
Average	46393	1.92	2.05	2.08	2.7	533	0.0121	8.785	0.62

Source: Survey data and the records of the Office of PCDP (2018)

A closer examination of the performance of development in Table 7 shows that PDI ranged from 0.47 points in *Adaar* to 0.75 points in Awash Fentale district. The average district level PDI is 0.63 with a standard deviation of 0.11 point. Taking this average as a cut-off point, three districts, namely, *Mile, Adaar, and Gelaelo* perform below the average. On the other hand, four districts: *Aysaita, Elidar, Amibara,* and *Awash Fentale* perform above the average with respect to PCDP related programs.

Relatively, a stable livelihood system, a reduction of poverty, an increasing quality of life and better service quality characterize highly performing districts as compared to their counter parts. For instance, while *Gelealo*, which is one of the low performing districts, score 1.48 point in QoL., *Awash Fentale* climbs to 2.5 point, and suggesting a remarkable different level of quality of life between these two districts. Indeed, what are the factors behind such a difference in the levels of development performance among districts need to be answered.

The Relationship between Development and Social Capital

Results of Mill's Method of Analysis

A famous American philosopher, John Stuart Mills, developed Mill's method of analysis in the 19th century. The method has contemporary relevance in research work mainly to explain causal attribution. Mill's method includes various important methods such as the Method of Agreement, Method of Difference, and Joint Method of Agreement and Difference. As it is neither necessary nor compulsory to apply all these methods together at a time, this study relied on the Method of Agreement and Difference to analyze the relationship in question. Indeed, employing

one of Mill's methods seems to be sufficient because the bivariate analysis and regression tests substantiate the selected method.

Mill's Method of Agreement and Difference often starts by classifying the observed cases (visited districts) into two main categories of cases: positive and negative cases. The classification is based on a criterion - phenomenon of interest (Krishna, 2002). The phenomenon of interest for this study is the issue of development, particularly the performance of development achieved by each observed district in PCDP. In the positive cases, the presence of a phenomenon of interest is visible and strong (high). In the negative cases, it is considered as absent or weakly implied (low) (Krishna, 2002). Using the phenomenon of interest, the seven visited districts could be divided into "positive cases" where performance of development is relatively high, and "negative cases" where there is lower level of development performance. Taking the average PDI 0.67 as a cut-off point, four districts perform above the average and make up the positive cases. These are *Aysaita, Elidar, Amibara,* and *Awash Fentale*. In contrast, three districts namely, *Mile, Gelealo* and *Adaar* have low level of development performance (i.e., below the average) and constitute the "negative cases."

Following the identification of positive and negative cases, now it is possible to proceed to the next step of Mill'sMethod of Analysis. Mill's Method acknowledged that to be a "true" cause of the phenomenon of interest - a hypothesized cause must be present when the phenomenon is present and absent when the phenomenon is absent (Krishan, 2002). In other words, in the context of the current study, to be a valid cause of high development performance, the hypothesized cause (i.e., social capital) needs to be present among all positive cases and absent or be minimal in amount among all the negative ones. This is to mean that the stock of social capital

is high when development performance is high, and low when development performance is low.

The results reported in Table 7 indicate that among the observed positive cases, except for the case of *Elida*r, both social capital and development performance exhibit high level of presence. On the other hand, as to the negative cases, both the stock of social capital and development performance are low with the exception of *Mile* district. In other words, the performance of development is found to be high when social capital is high, and it becomes low when social capital is low. Thus, Mill's Method of Agreement and Difference has succeeded. It provides an insight into the contribution of social capital to bring a change in the performance of development. The finding implies that social capital is a valid cause of development in Afar pastoral community. The result, nonetheless, contradicts the findings of Krishna (2002).

Table 8. Mill's Method Applied to Social Capital and Development Performance

Observed Cases		Social Capital	Development Performance
Positive Cases	*Aysaita*	High	High
	Elidar	Low	High
	Amibara	High	High
	Awash Fentale	High	High
Negative Cases	*Mile*	Medium	Low
	Adaar	Low	Low
	Gelaelo	Low	Low

The Results of Regression Analyses

Bivariate analysis conducted on proxy indicators of development and social capital helps to check the relationship between social capital and livelihood stabilization, social capital and poverty reduction, social capital and

community investment, social capital and service quality, and social capital and quality of life. Based on the analysis, it is evident that the relationship between social capital and most of development indicators is positive and statistically significant. More specifically, social capital has a statistically significant relationship with livelihood stabilization (r = .398, p> 0.001), community investment fund (r = 0.402, p > 0.001), service quality (r = .390, p>0.001) and quality of life (r =0.281, p > 0.001). Meanwhile, the relationship between social capital and poverty reduction is not statistically significant (r = 0.063) even though social capital has a positive role in development. Here, it is important to keep in mind that development is seen as a combination of Poverty Reduction (PR), Community Investment Fund (CIF), Service Quality (SQ) and Quality of Life (QoL). The absence of statistical relation between social capital and poverty reduction cannot prevent social capital to play a positive role in the remaining development components.

Table 9. Correlation among Dependent and Independent Variables

Variables	SCI	PDI	LS	CIF	PR	SQ	QoL
Social Capital Index (SCI)	1	.419**	.398**	.402**	.063	.390**	.281**
Performance of Development Index (PDI)	.419**	1	.772**	.802**	.395**	.781**	.787**
Livelihood Stabilization (LS)	.398**	.772**	1	.654**	.198**	.509**	.468**
Community Investment Fund (CIF)	.402**	.802**	.654**	1	.235**	.505**	.508**
Poverty Reduction (PR)	.063	.395**	.198**	.235**	1	.134**	.200**
Service Quality (SQ)	.390**	.781**	.509**	.505**	.134**	1	.548**
Quality of Life (QoL)	.281**	.787**	.468**	.508**	.200**	.548**	1

** Correlation significant at 0.01 alpha level

Source: Survey data, 2017/2018

Furthermore, a regression test was conducted to corroborate and supplement the results of Mill's method and bivariate analysis. The application of the model revealed that social capital tends to affect the performance of community development positively. R^2 is 0.176, which means that the independent variable, social capital, explains 17.6% of the variation of the dependent variable, performance of development, in the study area. The regression model is statistically significant, F (1,388) = 82.717, p = 0.0001. This entails that over all, the regression model statistically significantly predicts the dependent variable, performance of development.

Table 10. Ordinary Regression: Performance of Community Development a Dependent Variable

R	R^2	Adjusted R^2	Change Statistics				
			R^2 Change	F Change	df1	df2	Sig. F Change
.419[a]	.176	.174	.176	82.717	1	388	.000

The findings of the quantitative method analysis revealed consistent results on the positive relationship between social capital and development. In support of this assertion, data collected from the qualitative methods also highlighted a positive linkage between social capital and development. Most participants believed that PCDP is a friendly project and performs its entire activities with a special focus on community-based grassroots participation. Participants underscored their participation starting from the identification of the needed sub-project to its implementation.

Conclusion

Rigorous research on pastoralism is relevant to design pastoral friendly development policies and programs that enable pastoralists to use their local

resources effectively and meet their aspiration for a better life. *Afar* people have been subjected to multifaceted marginalization. Their marginalized position makes social capital to be a crucial instrument of dismantling the chain of deep-rooted poverty. The traditional approach of development that solely depends on financial, physical and natural capital could not adequately meet their development needs. Thus, considering social capital in pastoral based policies and developmental programs is urgently important.

Investigation on social capital and development is a challenging endeavor as the concepts lack clear and universal definitions. For clarity's sake, therefore, the concepts were measured in terms of proxy indicators. Regarding social capital, the data refinement process yielded cooperation and generalized trust dimensions as proxy indicators. The combination of the items in each dimension resulted in the construction of SCI at district level. Meanwhile, the additive index of livelihood stabilization, poverty reduction, community investment fund, service quality and quality of life helped to construct PDI. The construction of these indices eases the examination of the relationship between social capital and development.

The close examination of the indices confirmed that social capital has a positive effect on *Afar* pastoral community development. This can be illustrated by the contribution of membership status in PASACCOs. The establishment of PASACCOs in pastoral areas facilitates the emergence of group level saving practice and enables pastoralists to access credit services along the principle of "group-based model", where members' social capital serves as collateral.

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