

**SOCIAL CAPITAL AND RURAL SMALL & MICRO ENTERPRISES.**

**(THE CASE OF LIVESTOCK SMALL ENTERPRISES AT SHARKYA GOVERNORATE IN EGYPT)**

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**ABSTRACT**

The issue of Micro and Small Enterprise (MSE) growth and development ranks high among the Government of Egypt's priorities. This research examines the contribution of social capital to the performance of livestock small enterprises in rural Egypt. The research was conducted in three villages at Sharkya governorate on a sample of 146 livestock small entrepreneurs who obtained small credit from the Social Fund for Development (SFD). Social capital was represented in trust relationships embodied in social networks between the entrepreneurs and other actors for business purposes. This study addresses two main questions: 1) how important is social capital to livestock small enterprise? 2) how important is social capital to livestock small farm performance? The main argument is that social capital had highly significant effect on the performance and growth of livestock small enterprises, which is defined here, in terms of increasing the demand of their livestock sales. The results of the study showed that small entrepreneurs use social capital to overcome transaction costs through a reduction in information of search costs and risk management. Small entrepreneurs who had developed the appropriate social capital, embodied in networks of trust, were more able to expand their business than those who did not. The results also showed that expansion in livestock small enterprises was significantly related to objective situational conditions and to social capita.

**INTRODUCTION**

Over the last three decades, the issue of Micro and Small Enterprises (MSEs) growth and development ranks high among the Government of Egypt's (GOE) priorities. The government's commitment to the growth and development of MSEs is in the alignment with its broader economic policy that focuses on job creation through the mobilization of the private sector in the country's economic activities (EHDR, 2008). MSEs have attracted increased attention, particularly in rural areas, owing to the increasing need to seek ways of diversifying farming systems in an effort to increase farm income (EHDR, 2008). Rural farm enterprise development is viewed as an important pathway for poverty alleviation in rural areas and constitutes a challenge lying at the heart of the Millennium Development Goals.

A growing body of literature conducted on rural small enterprise level indicated that, financial capital is not the only resource to an economic

activity. Social capital is also an essential input for the survival of the small enterprises. Close, trust-based relationships among small entrepreneurs can reduce transaction costs and increase internal flexibility (Fafchamp, and Minton 1999; Fukuyama, 1995). Where markets fail and transaction costs are high, social capital can make a significant contribution to firm performance by providing access to information and reducing transaction and search costs (Fafchamp, and Minton 2003).

Livestock are among the few commodities that smallholder farmers widely produce that are growing rapidly in demand, and thus represent a method for income-generating activity leading to poverty reduction. In addition, livestock are closely linked to the social and cultural lives of millions of resource-poor farmers for whom animal ownership ensures varying degrees of sustainable farming and economic stability.

Most of the studies in livestock enterprises focused on the economic aspects, marketing, resources and constraints, while little attention has been given to the behavior of livestock small entrepreneurs and their relationships, networks, social interactions (social capital) and the effects of these variables on the performance of livestock small enterprises.

Therefore, the objective of this study is to explore the functions and process of social capital among livestock small-holders, and to examine their effects on the performance and growth of small livestock enterprises in terms of increasing the demand of livestock sales.

This research addresses two main questions: 1) How important is social capital to livestock small enterprises? And 2) How important is social capital to small farm performance?

The main hypotheses is that, among the small livestock entrepreneurs of the sample, those who have established and maintained both trust-based relationships and networks of contacts with different actors such as input suppliers, the clients and local community members will have an advantage over their competitors who cannot.

The remainder of this study is organized as follows: In the following second section the conceptual framework is presented including the concept of social capital, small enterprises in Egypt focusing on livestock small enterprises. The third section is concerned with the methodology, the data used, measurement of the research variables and data analysis. Results are presented in the fourth section. The study concludes with a discussion of the implications of these findings for academics, policymakers and entrepreneurs.

## **2- Conceptual framework:**

### **2-1 Social capital:**

Over the last decade, the idea of social capital has enjoyed a remarkable rise to prominence in both the theoretical and applied social science literature. Putnam, (1995) identified social capital as “features of social life –networks, norms, and trust – that enable participants to act together more effectively to pursue shared objectives”. Coleman, (1993) formulated the concept of social capital as way to bridge the gap between the sociologists’ explanation of human behavior as determined by social factors, norms and social obligations, and the economists’ assumption of rational self

interest. According to Coleman, "the function identified by the concept of social capital is the value of these aspects of the social structure to actors as resources that they can use to achieve their interests" Coleman conceived of social capital as something used by individuals to further their own personal objectives (Coleman, 1995).

The concept of social capital can be viewed along three scopes or levels. The first is at the micro level such as network of individuals or households. The second is at the meso level, incorporating the vertical as well as horizontal associations and behavior within and among other entities such as firms. The third and most encompassing view of social capital, at the macro level, is incorporating the contribution of institutions and the broader political environment that shapes social structure and enables norms to develop (World Bank, 2002).

Social capital (micro, meso, or macro) exerts its influence, as a result of the interactions between two distinct types of social capital: structural and cognitive. Structural social capital is a relatively objective and externally observable construct. It facilitates information sharing, collective action and decision making through established roles, social networks and other social structures supplemented by rules, procedures, and precedents. Cognitive social capital is a more subjective and intangible component characterized by shared norms, values, trust and individual's sense of trustworthiness and reciprocity with community members (Grootaert, and Bastelaer, 2002; Uphoff 2000).

Any form of social capital; structural or cognitive, represents an asset or a set of assets that produces a stream of benefits, or the channels through which it affects development, such as information sharing, collective action, decision making and reduction of opportunistic behavior (World Bank, 2002).

Social capital shares several attributes with other forms of capital (human capital, physical capital, natural capital), in that it requires an investment in terms of time and effort that can be significant. As Putnam (1993) explained, embodied social capital can take generations to build and to become fully effective. There is also a distinct maintenance expense to social capital, usually in the form of time. The other key attribute of social capital is that it is an accumulated asset. Several case studies, and the empirical literature, documented that, social capital can directly enhance and lead to higher productivity of other resources, such as human and physical capital (Grootaert, and Bastelaer, 2002).

#### **2-2 Rural micro and small enterprises:**

Since 1991 The Government of Egypt (GOE ) has established the Social Fund for Development (SFD) with the aim of acting as a safety net to protect vulnerable groups against the adverse effects of the economic reform program. A "Small Enterprise Development Organization" (SEDO) was created within SFD as an entity responsible for small enterprise development. The SFD has further expanded to become a permanent institution. It provides borrowing MSEs with various services such as feasibility studies and information about marketing, risks, equipment and machinery suppliers. (EHDR, 2008)

Most MSEs were established in the 1990s, mainly in rural areas. The Delta is home to the majority of MSEs in Egypt. Since then the number of such establishments have been on the rise and female-owned enterprises also have been increasing throughout the same lifespan, with the highest concentration in rural settings (ERF, 2006).

Generally, entrepreneurial activities of farm enterprise are of two forms; on-farm and off-farm enterprises. Khan, 2006 explained that, rural enterprises have particular characteristics that distinguished them from urban-based entrepreneurs: (1) Farmers tend to be much more locked and deeply rooted into the community. (2) The commercial farmers are often leaders within their community and are called upon to add value to rural life in a broader sense than solely through the business. Thus, farm business development has a direct impact on other members of the community.

Farm-enterprise development takes different forms. IFAD, 2003 has characterized small and micro enterprises as income-generating activities and micro-enterprise development. Farm income generation is on-farm activity, occurs through part-time seasonal work, thus utilizing traditional technologies and accessing local markets. These income generating farm enterprises are largely informal sector activities. Micro-enterprises are also on-farm activities that refer to commercial farming operations as well as small-scale, value adding activities employing family labor as the main source of technical skills. A commonality is that both groups of enterprises rely on the farm family as the unit of production and consumption. Micro-enterprises use a mix of traditional and modern technologies and are linked to local markets for raw materials and customers (Kahan, 2006).

Bennett and Goldberg (1993) identified four distinct categories of rural micro and small-scale enterprises: (1) Subsistence enterprises, characterized by seasonal part time, diversified economic activities typically operated by low-income people and especially women (2) New micro-enterprises are based on single economic activity which is multi seasonal and receives routine reinvestment. (3) Growth- oriented enterprises which adjust production techniques to permit expansion into new product lines and new markets, and (4) Mature micro-enterprises, are predominantly operated by men and tend to benefit from traditional systems and require legal title (Bennett and Goldberg, 1993).

In Egypt, MSE are typically engaged in activities characterized by low capitalization, low productivity levels and poor quality products, servicing small and local markets. Particularly micro enterprises are organically linked to the family system at the grassroots level, providing family members with opportunities to earn their living.

### **2-3 Social capital and livestock small entrepreneurs:**

Animal production represents about 30% of total agricultural production in Egypt (Al-kerraby, 2008). Livestock small enterprises represents about 14% of the total small rural enterprises ( SDF, 2004). Small holders in Egypt, as in many developing countries, have multiple goals for their livestock enterprises. The roles that livestock play in these systems are manifold. Apart from meat and milk production, livestock are closely linked to the social and cultural lives of millions of resource-poor farmers for whom

animal ownership ensures varying degrees of sustainable farming and economic stability (Ouma et al, 2004). Livestock act as security assets influencing access to informal credits and loans. They are also considered a common means of demonstrating wealth cementing relationships and as social links important in crises. Livestock assets are perceived as living "savings" for future planned expected needs and perform financing roles in a context where banking is not well developed and households are not fully integrated into credit markets. They also perform insurance roles as the capital invested in the herd forms a guarantee for meeting future unexpected requirements (Ouma et al, 2004).

Livestock production is characterized by high variability and is subject to all kinds of risk. The major problems facing livestock production are: the existence of a fixed cost of each lending and borrowing transactions, which is invariant with respect to the loan size. Shortage of local feed resources, particularly in summer, poor quality of local breeds of livestock, animal sickness, high price and lack of vaccinations are also major problems facing small entrepreneurs. This makes it rather costly for small borrowers due to the larger transaction costs of small loans or in some cases an increased interest rate (Al-kerraby, 2008; Fawzi, 2003).

Transaction costs are the hidden extra costs of search, bargaining, monitoring, and enforcement of exchange for smallholder to participate in marketing (Delgado et al, 2006). Transaction costs are the costs of exchange that arise from asymmetries across market actors in access to information (Williamson 1989). Transaction costs arise if buyers and sellers cannot know the same important pieces of information about what is being sold at the time of sale and what the alternatives are. On the output market side, if both buyers and sellers can easily ascertain the quality of an item being sold at the time of sale and prices in alternative markets, competitive forces would eventually equal market prices across different categories of farmers. But if buyers cannot be sure of the true quality of the good they are purchasing, they will be less willing to pay (Delgado et al, 2006).

Transaction costs arising from asymmetries in information are especially prevalent in the livestock product business and represent net social losses in the sense that neither buyers nor sellers gain from their presence (Williamson 1989).

Social capital can play wide range of economic functions in livestock entrepreneurial activities, such as speeding the flow of information and knowledge, reducing the transaction costs for buying and selling, or helping small entrepreneurs manage risk where no formal insurance is available. For small enterprises, greater profitability can occur through better access to information about, inputs, credit, and agricultural technology.

In this regard, World Bank studies (2002) indicated that, the influence of social networks on entrepreneurial activity and success, accentuate on three characteristics that were assumed to have a significant influence on the development of resources for entrepreneurial endeavor. First, participation by individuals in social networks increases the availability of information and reduces the transaction costs. Second, participation in local networks and attitudes of mutual trust make it easier for any group to reach collective

decisions and implement collective action. Finally, networks and attitudes may reduce opportunistic behavior by community members ( Woolcock , 1998).

In this research, social capital was investigated at the micro level, at livestock small enterprise in community market. Social capital was manifested and presented in the network relations (structural) maintained by the entrepreneur, and trust based- relationships (cognitive) that are embodied in the networks, that are used by the livestock small entrepreneurs for business purposes. The channels through which social capital exerts its effect (benefit) are access to information, information sharing on suppliers and on products.

### **3- Data and Methods:**

The study was conducted in 2004, at Sharkia Governorate on a sample of 146 small enterprises working in livestock production. The sample was selected from, El-Zankalon, El- Asslogy, and El- Nakhas villages of Zagazik district. Sharkia was chosen as location-specific, because it represents one of the highest Governorates among others in rural Egypt in obtaining micro and small credit finance (SFD, 2004). Sharkia is ranked the second highest number of enterprises during the period of 1990 to 2004 followed Cairo, with (17.21%) new small manufacturing firms over the same period of time.

The enterprises were randomly selected from the official records and the databases of the SFD. The enterprises were chosen based on the following criterion: A rural enterprise working in an agricultural economic activity for not less than two years, and obtained small credit from the SFD (less than L.E 50.000).

For each enterprise a personal interview was conducted with the person in charge of the enterprise (The owner or the manager) using a questionnaire. The questionnaire included a set of questions about the enterprise characteristics, business practices, performance, decision making, relationships with the producers, clients and the members of the community. It also included questions about the enterprise's challenges, obstacles and opportunities.

Ordinary least square Regression analysis was used to determine the quantitative impact of the different social capital variables (trust-based relationships and network relations), and the channels through which the social capital has an effect on performance of livestock small enterprises.

A two-stage estimation procedure was performed. First, social capital variables were regressed on farm structure and social demographic variables, then social capital variables were added at the final model to examine its effects along with other determinants on the performance of livestock small enterprises in terms of increase the demand of their products.

#### **3-1 Measures:**

Three sets of explanatory variables were used, based on the previous literature, to explain the contribution of social capital on the performance of livestock small enterprises: (1) Livestock small enterprise structure (farm structure), (2) Social capital, and (3) social demographic characteristics of the entrepreneurs.

Livestock small farm structure was represented by seven variables: type of ownership, herd size, number of labor, operating all the year-round, management type, credit size, and livestock farm inputs. Type of ownership, operating all year-round and type of management were introduced as dummy variables. Type of ownership took the value of one if the farm was sole ownership, and zero otherwise. All year round took the value of one if the entrepreneur operated all the year round, and zero if others. Type of management took the value of one if the respondent is the operator of the farm, and zero if others. Size of the herd was measured by the total of animal units owned. Labor was measured by number of hired laborers in the farm. Size of credit was measured by the amount of loan incurred from the SDF.

Access to livestock farm inputs includes access to green and concentrated feed, young stocks and veterinary services. Access to farm inputs was measured by a scale of three questions measuring respondent's perception of the sources of inputs, the availability, and the price. The first, asked the entrepreneurs to identify in general, sources of the farm inputs whether they are from the local village, from nearby villages, and/or from the capital. Responses to the question were coded 3, 2, and 1 respectively. The second is about the availability of the inputs, whether they are generally available all the time was coded 3, relatively available coded 2, and rarely available coded 1. The third inquired about inputs' price, are they generally reasonable, medium or high prices. Responses were coded 3, 2, and 1 respectively. Responses to these questions were summed to get the mean score of small farm access to input supplies. The resulting summed index had a potential response ranged from 3 to 9, with mean score of 7.9 and S.D of 0.988. The internal consistency of the index was 0.798 for cronbach's alpha coefficient.

#### **Measuring Social capital:**

Social capital was assessed using two proxies outlined by the World Bank studies 2002. The proxy measurements offer data on both the structural and cognitive forms of social capital. Structural forms of social capital were assessed by network relations of the respondents. The cognitive form was assessed through measure of trust –based relationships.

Network relations were measured as the type and number of relationships used by the entrepreneurs for business purposes. The respondents were asked to indicate the number of close relationships and contacts they maintained among the suppliers, clients, and community members for business purposes: (1) in their local village, (2) in nearby villages, (3) in nearby district, and (4) in the capital. The networking variable is computed as the arithmetic mean of the scores assigned by each respondent to the number of contacts they purport to maintain. The scale ranged from 4 to 23, the mean score is 12.5.

Trust- based relationships, was measured as an index developed from factor analysis based on six items which a single factor emerged. The factor reflected the respondents' experience related to trustworthiness and trusting behavior.

The respondents were asked to report their opinion on a scale ranging from: agree, neutral, or disagree, with the following items: (1) I trust

all the people in my village that I have business with. (2) On a day-to-day contact, a threat of using the police or court to settle a problem of late payment is rare. (3) In most cases, I purchase farm input supplies from regular merchants whom I trust the most. (4) I will never grant/receive credit or order forward when dealing with clients for the first time. (5) Usually I engage in forward ordering from my regular clients because they trust my products. (6) I always deal with the same suppliers, because it is hard to find new suppliers of the same quality of service.

Responses were coded 3, 2, and 1 respectively for each respondent. The resulting responses were summed to get the mean score. The score ranged from 14 to 45, the mean score was 32.34 with S.D of 4.428. Alpha coefficient is 0 .784. For the purpose of descriptive statistics, the entrepreneurs' responses were divided into three categories low level of trust-based relationships, medium level of trust, and high level of trust.

The social Demographic characteristics of the entrepreneurs' were presented in five variables. Gender was measured as a dummy variable, where men coded 1, women coded 0. Age was measured in years. Education was measured as the number of years of formal education. Family size was measured by number of the household members.

The dependent variable was measured by asking the respondents about the increase in the demand -if any- for their livestock products within (1) their local market (2) nearby community markets and (3) In the capital. Each item has three possible responses, which ranged from none/no increase to a great deal/high increase. Responses to these items were summed and divided by the number of items. The resulting average score ranged from 3 to 9 with a mean of 6.8 indicating that reported increase demand ranged from slight to moderate degrees. Cronbach's alpha coefficient for the measure was 0.810.

For descriptive statistics, the entrepreneurs' responses to the previous items were divided into three categories, low level, medium level, and high level of demands.

We expect factors of production such as all year- round job, herd size, number of labor, credit size, and farm inputs, to have positive and significant effect on output. We also expect that measure of socio demographic variables such as education, age, number of family members would have a beneficial effect on productivity, together with social capital.

## **RESULTS AND DISCUSSION**

The results included three types of analysis. First, descriptive statistics of the social demographic characteristics of the entrepreneurs, the farm structure, and social capital variables. Second, the different measures of social capital used in the analysis were discussed and their determinants were analyzed. Third, benefits to social capital were estimated.

Table (1) summarized the results of descriptive statistics. The table shows that about 66% of the small entrepreneurs in the sample were men and 34 % were women. the respondents are of average age 40 years for men and 35 for women. The average family size was five persons. About 88% of

them have received high school diploma, 7% have two years above high school, and 14% are university graduates.

The structure of the firms as presented in table (1) indicated that 70% of the small entrepreneurs work all the year round while 30% work seasonally. Generally, small entrepreneurs employ very few people other than themselves and family labor. the average number of labor was 4 persons, and the average herd size was 8 units. The majority of the respondents 91% are the sole proprietor of the farm, while only 9% are shareholders with family members. Most of the respondents obtained a financial credit from the SDF ranged from a minimum of L.E 1000 to the highest of L.E 25000 and average of L.E 8914.24.

#### **4-1 Social capital characteristics:**

Livestock small entrepreneurs used their networks for three main purposes: 1) to identify and contact clients; 2) to access market information, mainly through the input supply chain, and 3) to access inputs, especially agricultural products. Trust was observed to help the farm in: 1) maintain relationships with clients 2) reduce the search cost of assuring producer compliance; 3) manage crises; and 4) obtain credit in times of need.

The most basic relationships are those, with other enterprises in the community, agricultural producers, non-agriculture input suppliers and clients. Small entrepreneurs depend on personal contacts with input suppliers and clients to obtain information on market situation. 65% obtained information about price changes from fellow entrepreneurs, and 25% of respondents got their information from suppliers and clients directly, while only 10.3% got the information from the news paper and public services. Small entrepreneurs use their relationships to find input suppliers and to choose between them. Table (1) shows that approximately 62% of the respondents maintained relationships with suppliers in the local village, 13% in nearby villages, 15.1% in the center and 10.3% had business relationships in the capital.

The development of network might also help to avoid losses due to animal death, sickness, lack of vaccinations or bad quality products. Approximately 96% of the small entrepreneurs confirmed that shortage and/or absence of risk management is a major problem due to the larger transaction costs of small loans. The majority of livestock small entrepreneurs are involved in some kind of informal insurance mechanism, where 75% reported that they have helped other entrepreneurs in time of needs, while only 21% said they never helped by others. About 50% of the respondents said that, in many cases the suppliers are willing to extend and delay the required payment when they face problems.

It is also necessary to give consideration to the economic and financial networks of entrepreneurs. The main purpose of the networks is to provide financial support in time of needs. About 62.2% reported having financial support from their relatives and/or close friends.

Although, network of contacts opened doors for small farms however, unless farms were able to consolidate the new relationships and build trust, the benefits of the new relationship were generally small and short lived? Therefore, an increase in trust-based relations may reduce the average cost of transaction costs. Table (1) shows that 42.5% of the respondents had high

level of trust with regular input suppliers, clients, and village members. Only 10.3% have low trust.

**Table (1) Distribution of selected variables (n= 146)**

<b>Variables</b>	<b>No</b>	<b>%</b>	<b>Mean</b>	<b>S.D</b>
<b>1- Socio demographic characteristics</b>				
<b>Age (Year)</b>			<b>40.29</b>	<b>7.86</b>
25-43	32	21.9		
35-46	85	58.2		
47—	29	19.9		
<b>Gender</b>				
Men	64	65.8		
Women	50	34.2		
<b>Education (Year)</b>				
High school	115	78.8		
Above high school	10	6.8		
University degree	21	14.4		
<b>Livestock small farm Structure</b>				
<b>Ownership (%)</b>				
Sole ownership	133	91.1		
Share ownership	13	8.9		
<b>Management (%)</b>				
Owner	192	85.3		
manager	33	14.7		
<b>Duration (%)</b>				
Operating all the year- round	103	70.5		
Seasonally	43	29.5	8914.24	
<b>Credit (LE)</b>				
Less than 1000	5	3.4		
Morethan1000--2500	134	91.8		
More than 2500	7	4.8	7.94	
<b>2- Small farm Input Requirements</b>				
<b>Inputs (Sources) (%)</b>				
From the community	130	89.0		
From nearby communities	15	10.3		
From the capital	1	00.7		
<b>Inputs (Availability)</b>				
Available all the time	47	32.2		
Occasionally	90	61.6		
Not available	9	6.2		
<b>Input (price)</b>				
Cheep	4	2.7		
Reasonable	54	37.0	2.4	
High	88	50.7		
<b>3- Social Capital Variables</b>				
<b>Trust relationships</b>				
Low level (15-24)	15	10.3	2.47	
Med level (25-34)	69	47.3		
High level (35-45)	62	42.5		
<b>Networks</b>				
No of relationships In the community	90	61		
No of relationships Nearby communities	19	13.0		
No of relationships In nearby districts	22	15.1	6.856	
No of relationships In the capital	15	10.3		
<b>The dependent variable</b>				
<b>Increase demand for livestock</b>				
No or low increase	19	13.0		
Med	70	47.9		
High	57	39.0		

There is an incentive for the entrepreneurs to assure regularity in supply. The entrepreneurs that have the highest number of regular suppliers are also the ones that have least problems to assure a regular supply. More than half of the respondents 53% reported that they deal with regular suppliers whom they know for a long time. About 47% reported that they purchase farm inputs from good reputation suppliers in their local villages or the capital. While only 2% buy from people they do not know.

The major problem facing livestock production reported by about 77% of the respondents is the shortage of local feed resources, particularly in summer. The majority of livestock small entrepreneurs in the sample (90%) rely mainly on green feed brought from regular suppliers of their local village. During winter and spring "berseem clover" provides ample forage. During the summer, the green feed is scarce therefore, they always depend on the concentrated feed and common feed stuffs as the corn plant, wheat and barely straw. About 87% of the respondents reported that they purchased concentrated feed from regular suppliers outside their local village.

The same trends are noticed in the relationships between small entrepreneurs and their clients. About 62% of the entrepreneurs often have regular clients who used to purchase from them, while only 11% reported that they hardly find clients. In such case they might sell their animals in lower price or bear the risk of keeping and feeding them longer time. Regular relationships also allow small entrepreneurs to engage in forward ordering.

Regression analysis was used to determine the quantitative effect of the different social capital variables, and of the channels through which the social capital had an impact on the enterprise performance. Because some of the same predictors also influence social capital, a two-stage estimation procedure is required. In the first stage, the endogenous social capital variables (indicator of trust and number of relationships or number of strong relationships) were regressed on the independent variables. In the second stage, the predicted values of social capital were added to estimate the contribution of the social capital on farm growth in terms of increase represented in increased demand. Table (2) presents the results of the regression models estimating the determinants of the social capital variables.

#### **4-2 Determinant of trust –based relationships:**

On regressing trust relationship variable on socio demographic characteristics and livestock small enterprise structure, the results showed that, farm structural variables including, all year round farm, type of ownership, herd size, and livestock farm inputs, had significant positive effects on trust relationships maintained by the small entrepreneurs with the producers, clients, and village members.

As expected, small entrepreneurs who operated all the year –round, had significant positive effect on the level of trust relationships with the producers, clients and the village members. Small entrepreneurs who operated all year-round have gained a significantly higher level of trust relationships ( $B=0.256$ ) with the producers, clients and the village members than those who had only worked seasonally.

This may be attributed to the accumulation characteristic of social capital. As those who work all-year round exerted more time and efforts than those who work in short time.

Those who are the sole holders of the small livestock farm, had significant positive effect on the level of trust relationships ( $B=0.192$ ) than those who share ownership.

Respondents who have larger herd size ( $B=0.365$ ), and were able to secure farm inputs ( $B=0.202$ ), had higher trust based relationships than those who have smaller herd size and have difficulty to secure input supplies.

Regarding the social demographic variables, the age, gender, level of education, family size, showed positive signs in all regression but the coefficient were not significant. This result is consistent with the results of other studies.

Women might be less successful in the development of social capital as they have to spend more of their extra time that could be used for build-up of social capital on household chores.

#### **4-3 Determinant of network relations:**

Network and number of relationships tend to be associated with many of the same variables, as those for the previous regression model, showing the congruity of trust relationships with their behavioral manifestations. This result indicated that small entrepreneurs maintained solid and strong network of relationships with the people who they trusted more.

As expected, farm structure variables represented in, operating all year- round, and size of herd, was significantly related to the number of relationships maintained by the small entrepreneurs. Those who operated all year-round, and had greater size of herd, and had more access to input requirements, tend to have larger network relationships with producers, clients and community members.

As for the socio demographic characteristics, only the age was significantly related to the number of relationships maintained ( $B=0.290$ ), This may be attributed that, older small entrepreneurs had managed to develop and maintain more strong social networks based on trust, with producers and clients inside and outside their villages, than the younger and less experience entrepreneurs.

Hence, as social capital might improve this access as shown above, it might also have an additional indirect influence through this channel on performance.

#### **4-4 Social capital and increase the demand:**

In final analysis, social capital variables were added to the independent variables (socio demographic characteristics and farm structure) in order to examine its effect on farm performance in terms of increased the demand of annual livestock products.

Small entrepreneurs in the sample most likely who reported increased the demand of their products in last year were those, operating all year-round ( $B=0.199$ ), being the sole holder ( $B=0.190$ ), had more access to livestock farm inputs ( $B=0.142$ ), and had bigger herd size ( $B= 0.203$ ).

The table also showed significant positive effect of number of labor (B=0.188), and the size of credit (B=0.170). On business demand none of the socio demographic characteristics (human capital) were significantly related to small enterprises' growth.

Table (2) showed that, all measures of social capital contributed to increase the demand of the small enterprises' products, even after controlling for small farm structure and socio demographic characteristics. The coefficients for trust- related relationships (B=0.348) and network relationships (B=0.250) were the highest in the model.

The table showed that, the coefficient of determination of the model R<sup>2</sup> is (0.365) which means that, about 36% of the variance in the increased of the demand was explained by the independent variables which is approximately the same amount explained in other studies.

The previous results showed that, number of relationships based on trust and strength of a farm's relationships contribute significantly to productivity and farm growth in terms of increased demand of livestock. Increasing the number of relationships has a bigger impact than a proportional increase in either labor or, working capital.

**Table (2) Determinants of increase the demand of livestock**

Independent variables	Trust relationships (N= 146)		Networks& relations (N=146)		Dependent variable Increased of the demand (N=146)	
	Coef	t stat	Coef	t Stats	Coef	t State
<b>Livestock small farm structure</b>						
Ownership	0.192*	3.097	0.053	1.936	0.196*	.466
Herd size	0.369***	1.852	0.196*	3.042	0.203*	3.460
All year-round operation	0.156*	2.096	0.200**	2.850	0.200*	3.317
No of labor	0.118	.348	0.007	1.147	0.188*	.736
Access to input requirements	0.202**	4.227	0.127*	2.017	0.142*	2.600
Credit size	0.009	1.780	0.105	1.614	0.170*	2.496
Management	0.036	.375	0.112	1.535	0.085	.607
<b>Social-demographic characteristics</b>						
Age	0.031	.259	0.290**	1.367	0.061	1.244
Gender	0.006	.335	0.106	1.707	0.080	.865
Education	0.087	1.951	0.088	1.993	0.057	1.268
No of family members	0.079	1.097	0.121	.321	0.013	.466
<b>Social Capital</b>						
Proxy of Trust relationships					0.348***	3.545
Network relationships					0.205**	2.922
<b>R<sup>2</sup></b>		0.197		0.155		0.365
<b>F test</b>		4.171		3.565		9.328

**5- Summary and Conclusions:**

This research examined the contribution of social capital to the performance of livestock small enterprises, in three villages of Zakazik district

at Sharquiya Governorate. The research was conducted on a sample of 146 small entrepreneurs who obtained a small credit from SDF.

This research addressed two main questions: 1) How important is social capital to livestock small enterprises? and 2) How important is social capital to small farm performance?

Social capital was presented in two variables, network relations and trust-based relationships between the entrepreneurs and input suppliers, clients, and community members for business purposes.

The main hypothesis is that, among the small livestock entrepreneurs of the sample, those who establish and maintain networks of contacts embodied in trust-based relationships with different actors such as input suppliers, the clients and local community members will have an advantage over their competitors who cannot, and will be able to grow in terms of increased the demand of their products.

The research showed that, better- connected small livestock entrepreneurs who had established and maintained larger network relations based on trust, had significant positive relationships with those who operated all year-round, had larger herd size, had larger financial credit, had more access to input suppliers, and were the sole holders.

Social demographic characteristics, age, gender, education and number of family members had no significant relationships with social capital variables

Social capital had affected and improved this access, and also had an additional indirect influence through this channel on performance.

Social capital variables showed highly significant relationships with the performance of small livestock enterprises in terms of increased the demand for their products. Entrepreneurs' age was the only variable among the social demographic characteristics, that had a significant positive effect on increased the demand for their products.

The research may contribute to the literature on social capital through illustration of the effect of social capital on the functioning and the performance of livestock small enterprises.

The research has an important policy implication especially for the small enterprises and the funding agency like social fund for development. Raising social capital among small enterprises and better connections between them can reduce the transaction costs and speed the flow of better information. Thus, raising the awareness about the importance of social capital is an important issue that should be considered when providing the loan. Small entrepreneurs need to expand their network relations, and SDF can help in that, by conducting several meetings including both the supplies and the producers.

It would be useful to extend the research of the contribution of social capital in other types of rural small and micro enterprises.

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## **المشروعات الصغيرة و متناهية الصغر " دراسة حالة على مشروعات الانتاج الحيواني بمحافظة الشرقية "** **عزه التهامي البنداري** **قسم الاجتماع الريفي و الارشاد الزراعي - كلية الزراعة - جامعة القاهرة**

تعد زيادة تنمية وازدهار المشروعات الصغيرة و متناهية الصغر من الأمور الأساسية التي تلقى اهتماما كبيرا من قبل الحكومة المصرية. لذا يهدف هذا البحث الى دراسة مدى مساهمة رأس المال الاجتماعي في نمو أحد المشروعات الريفية الصغيرة وهي مشروعات الانتاج الحيواني الصغيرة المنتشرة في ريف مصر.

أجري هذا البحث في ثلاث قرى بمحافظة الشرقية على عينة تضم ١٤٦ صاحب مشروع انتاج حيواني والذين حصلوا على قروض صغيرة من البنك الاجتماعي للتنمية. وتم قياس رأس المال الاجتماعي من خلال شبكة العلاقات الاجتماعية المبنية على الثقة بين صاحب المشروع الصغير وكلاً من العملاء والموردين الذين يتعامل معهم من خلال مشروعه الصغير.

يحاول هذا البحث الإجابة على الاسئلة التالية: ما دور رأس المال الاجتماعي في مشروعات الانتاج الحيواني؟ وكيف تؤثر تلك الأهمية في أداء ونمو تلك المشروعات؟ وتستند الفرضية الأساسية لهذا البحث الى أن رأس المال الاجتماعي يؤثر بدرجة واضحة على أداء ونمو المشروعات الصغير فيما يتعلق بزيادة الطلب على منتجات المشروع الصغير.

وأوضحت نتائج الدراسة أن أصحاب مشروعات الانتاج الحيواني الصغيرة يستخدمون رأس المال الاجتماعي من خلال شبكة العلاقات الاجتماعية المبنية على الثقة بينهم وبين المتعاملين معهم للتغلب على ارتفاع التكاليف الادارية وذلك من خلال تقليل تكلفة الحصول على المعلومات الخاصة من الموردين والعملاء وكذلك ادارة الأزمات.

وأظهرت الدراسة ان صاحب المشروع الصغير الذي تمكن من بناء شبكة علاقات جيدة مبنية على الثقة بينه وبين المتعاملين معه استطاع أن يزيد الطلب على مبيعاته خلال السنة الماضية وبالتالي تنمية مشروعه الصغير، وكذلك أظهرت وجود علاقة معنوية موجبة بين رأس المال الاجتماعي وكلاً من العوامل التالية: العمل طوال العام في مقابل من يعملون بصفة مؤقتة، وكذلك حجم القطيع والقدرة على توفير مستلزمات الانتاج الحيواني وحجم القروض والملكية الفردية في مقابل الملكية الجماعية، كما أوضحت الدراسة ان رأس المال الاجتماعي يساهم في تنمية تلك العوامل وبالتالي زيادة الطلب على مبيعات صاحب المشروع الصغير.