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Theoretical Framework of Analyzing SMEs and Inter-Firm Linkages in Sub-Saharan Africa[1)]

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Owing to their small scale and relative isolation, SMEs face a number of obstacles: the lack of specialized skills and equipment, insufficient capability in technology, management, and marketing, the inaccessibility of formal financial institutions, and the difficulty of obtaining relevant information. These factors undoubtedly prevent SMEs from gaining access to large markets. In recent years, the promotion of the "collective efficiency" of inter-firm linkages has drawn increasing attention as a valuable tool in the remedying of these handicaps. This paper constructs a theoretical framework designed to provide an analytical basis for discussing the inter-firm linkages of SMEs. The framework will help explain: 1), how and why inter-firm linkages are indispensable in the process of the development of SMEs, particularly in Sub-Saharan Africa; 2), how inter-firm linkages function in the reality of Sub-Saharan conditions; and, 3), how inter-firm linkages can be analyzed.

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1. Introduction: Importance of SMEs in Sub-Saharan Africa

In the context of the economic and financial crises of the 1980s and 1990s, governments in most Sub-Saharan countries began to incorporate structural adjustments into their overall policy framework. As a result, the poor have suffered most through falling real wages, fewer employment opportunities, and increased prices of basic commodities. Under such circumstances, the informal economy has bloomed and international monetary bodies have begun to pay greater attention to their policy agendas for African development; they have, for example, noted that the most significant contributions made by the informal economy lie in the areas of employment creation and poverty alleviation, and the Poverty Reduction Strategy (PRSP) of the World Bank has mostly taken up the promotion of the private sector, in particular with strategies supporting the activities of micro, small and medium-sized enterprises. SMEs, as these enterprises are known, played only a

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modest role in past development, but are now widely recognized as an engine of growth, and are being encouraged to spearhead the development process. For example, according to UNIDO (1999), SMEs constitute over 90% of enterprises in the world and account for 50-60% of people in employment. Furthermore, between 40 and 80% of all manufacturing employment is generated by SMEs. The UNIDO report also emphasized that the contribution of SMEs is even more significant in the Least Developed Countries (LDCs), where there is some hope for increases in employment and added value. Subsequent reports (UNIDO 2005; Hayashi 2005; Hussain 2000; Oyelaran-Oyeyiuka 2004) have emphasized the significant economic potential of the SMEs, lying, as it does, in their labor-intensive and flexible nature, their income-generating possibilities, their effective use of local resources, their reduced dependence on imported materials, their potentiality for innovation, and their strong links with other sectors of the economy. Thus, international development policies have started to stress the importance of SMEs in Africa within the broader macro-economic context of development process and growth strategies.

While much emphasis has been placed on the promotion of SMEs to accelerate economic growth, they face various obstacles due to their frequent isolation and relatively small-scale operations. Such handicaps usually entail a lack of specialized skills or equipment as well as inadequate access to formal financial institutions, markets, raw materials, and relevant information (UNIDO 1999; Ceglie and Dini 2000). Furthermore, SMEs face the problems of insufficient managerial and organizational capabilities. In order to find a means to overcome these impediments, various bodies have, in recent years, discussed development policies for SMEs, along with current considerations in the area of Development Economics.

2. The Current of Development Economics and the New Development Debate

The development debate that started in the late 1990s has generally focused on the mutual action of poverty alleviation and policies for economic growth (King and McGrath 1999). Under this new debate, the promotion of the private sector has been incorporated into both poverty reduction and growth strategy as an agenda for African development. This section reviews the way in which development debates have advanced over the past half-century.

In the 1960s, the era during which many African countries became independent and conditions of high economic growth flourished throughout most of the world, the Structural Approach was subject to several critical assessments and the paradigm of Development Economics underwent a dramatic transition. By the end of the 1960s, however, while the trickle-down theory[2] was still the mainstream principle of development policy, people began to realize that overall economic growth had not been taking place in this simplistic way. Thus, from the end of the 1960s, the eradication of poverty sponsored by the Basic Needs Approach became the focus of the next stage of development policy (King and McGrath 1999).

The end of the 1970s saw the death of the Structural Approach, and both economists and politicians engaged in a new development debate. A powerful critique of Welfarism emerged, which brought the North-South problem to the fore. As a result, the developing countries initiated the New International Economic Order (NIEO). This aimed at promoting their interests by improving their terms of trade, increasing development assistance, developed-country tariff reductions and so on (FASID 2002). This was a revision of the international economic system in favor of Third World countries, and replaced the Bretton Woods agreement.[3]

During the 1980s, development economics took a further turn. Triggered by the Mexican debt crisis, the problem of the accumulating debt of developing countries became the first priority that international society needed to address. To deal with this concern, monetary authorities introduced the Neoclassical approach of relying upon the adjustment capability of the market by price mechanism, in the belief that this approach would function in developing countries as it had in the industrialized world. In step with this trend, the IMF and the World Bank inaugurated the Structural Adjustment Programme (SAP), which was to be adopted in most African countries.

By the late 1990s, however, poverty in Sub-Saharan Africa had worsened and accumulated economic debts had grown to an unsustainable level. The World Bank realized that the promises of the neo-liberal vision did not seem to be achievable in Sub-Saharan Africa. The presence of the SAP thus became the next target of criticism. Although there is no adequate evidence to prove this absolutely, it cannot be denied that the focus on macroeconomic fundamentals under SAP increased poverty levels for large numbers of Africans and undermined African development. Driven by such a strong perception, a new concept called "Pro-poor policy"[4] emerged at the end of the 1990s as the new theme of the development debate (ADB 1999). This new debate has emphasized the reciprocal effort of poverty alleviation and strategies of economic growth. Yet the issue of how far policies for the development of SMEs can be absorbed into this strategy in an effective way remains unanswered.

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[2] It contains concepts indicating that economic development would automatically trigger a reduction of poverty.

[3] The Bretton Woods system of international monetary management established the rules for commercial and financial relations among the world's major industrial states.

[4] 'Growth is pro-poor when it is labor absorbing, and accompanied by policies and programs that mitigate inequalities and facilitate income and employment generation for the poor, particularly women and other traditionally excluded groups (ADB 1999:6).'

3. Trends of SME Development in Sub-Saharan Africa

How far have programs for the development of SMEs been taken into account in the current of these new development debates? Since the emergence of the informal sector, the development of the private sector has begun to engage considerable attention, yet, even after more than three decades,[5)] there is no systematized definition or universally accepted typology of what the informal sector amounts to. Because this also leads to the difficulty of defining micro, small and medium-sized enterprises (SMEs), most international organizations have in recent years adopted a non-definitional policy, although many of them utilize a working definition that suits their own purposes. Possibly, this tendency is a reflection of Mean and Liedholm's (1998) caution regarding the distinction that exists among small enterprises such as micro, craft, cottage, small and informal sectors. They emphasized that different categories of micro and small enterprises have different contributions to make to the dual objectives of poverty alleviation and growth. For example, with reference to the definition of ILO (Webster & Fidler 1996), the informal sector consists of survivalists (very poor people who work part-time in various non-farm, income-generating activities), self-employed persons (people who produce goods for sale, purchase goods for resale, or offer service), and micro enterprises (very small businesses that usually operate from a fixed location with more or less regular hours). Although this definition has not been adopted universally, we need to look carefully at the intended targets and beneficiaries of specific policies (King and McGrath 1999).

Over the past decade, microfinance institutions have spread across all parts of the developing world. They have helped to overcome business barriers and have provided credit and saving services for the poor (Webster and Fidler 1996). In particular, certain attempts that seek to replicate the success of the Grameen Bank have been adopted in Africa, as in other areas of the developing world (Rogerson 2001). Nevertheless, several studies have underlined the limitation of minimalist credit programs. This situation has arisen as a result of biased assessments of the impact of those micro-credit programs which focused less on issues of their developmental impact and more on issues such as repayment levels, scale of operation or institutional sustainability (Rogerson 2001). Mead (1998) also emphasized that small enterprises in Africa face many constraints other than credit and that these constraints will vary not only at different stages of an enterprise's growth but also according to the different sub-sectors. Business development services (BDS) have therefore become the focus of governments, donors, development agencies, and enterprise support institutions, in their key role of stimulating innovation and promoting self-sustaining growth in the private sector. The new agenda of BDS is a combination of financial and non-financial services in which training, information, technology development services, and business linkages arrangement are provided alongside financial services.

[5)] The "informal sector" was discovered by the Kenya mission in 1972 (ILO 2000:9).

In the 1990s, the flexible specialization debate[6] that had been initiated by Piore and Sabel (1984) was seen as offering a clue for assisting marginal small enterprise development. While the extension of the flexible specialization debate to Africa has not resulted in any firm evidence of a world-wide cluster, the literature of inter-firm cooperation, subcontracting, and networking arrangement can illuminate some important issues for discussion of issues related to poverty and growth (Manu 1999; King and McGrath 1999). Although past studies showed very limited effectiveness of inter-firm linkages in Africa, it is still worth considering which mechanisms are likely to foster and support such relationships (King and McGrath 1999).

4. The Role of Inter-Firm Linkages in the Development of SME

In countries such as Burkina Faso, one of the world's least developed countries, governments have consistently given the highest priority to the improvement of basic social services such as education, health and food security. Consequently, local enterprises are still struggling since they lack sufficient support from formal institutions. As a result, entrepreneurs use their own networks as a substitute for formal business-supporting institutions (Barr 1999).

Owing to their small size and relative isolation, SMEs face a number of obstacles: a lack of specialized skills and equipment, limited capability in technology, management, and marketing, the inaccessibility of formal financial institutions, and the difficulty of obtaining relevant information (Ceglie and Dini 2000; UNIDO 1999). These factors are decisive in preventing SMEs from gaining access to large markets.

In the hope of finding a means to overcome these obstacles, the "collective efficiency" of inter-firm linkages or co-operation has, in recent years, become a valued concept and has drawn increasing attention (Van Dijk and Rabellitti 1997; Berry 1997; Barr 1999). Schmitz (1997) have emphasized that "collective efficiency" is derived from local external economies and joint action. The external economies are essential to growth but are inadequate as means to deal with major changes in products or markets unless they are complemented by joint action (Schmitz 1995). The advantage of cooperation among SMEs usually comes from economies of scale, the benefits of dissemination of information or the benefits of division of labor, which can be beneficial when transactions costs are low (Berry 1997). The benefits of specialization and diversification are gained through inter-firm linkages, and this kind of interaction enables smaller-sized enterprises to combine with larger-sized enterprises to access higher value-added opportunities in markets (Grierson, Mead and Kakore 2000). This phenomenon can be seen nota-

[6] Flexible specialization is defined as a strategy based on flexible multi-purpose equipment and employment, skilled workers, and production through an industrial community that restricts the forms of competition to those favoring innovation and reacts to continuous changes (Piore and Sabel 1984).

bly in the development process in the machinery sector in East Asian countries, including, for instance, Japan, Korea, and Taiwan (Berry 1997). Such linkages would also help the underdeveloped industries of Africa to obviate certain of their constraints. As globalization has progressed in step with economic reforms and liberalization, indigenous African SMEs have to cooperate efficiently in order to survive and compete with larger-sized local enterprises or foreign-owned enterprises. In the case of West African countries, especially, as well as in China, India, and the Lebanon, family-owned enterprises have been making dramatic inroads and taking away African niche markets from indigenous SMEs (World Bank 2001). Contrary to the great expectations and hopes for their success, several studies point out that inter-firm linkages have a limited impact in Sub-Saharan Africa, something which is explained in the following sections. Yet, compared with credit provision-emphasized policy, linkage-emphasized policy is still, for the most part and in most places, a new and experimental area with considerable potential (Berry 1997).

Even though there is persuasive evidence that in certain countries inter-firm linkages can raise economic efficiency and competitiveness, it is harder to sort out the appropriate and effective interventions that help to increase such cooperation. In Africa, especially, the dynamism of inter-firm linkages seems to vary strongly according to culture as well as economic and policy factors, and its mechanism and nature is not well understood. Its character also often changes substantially over time in response to changing conditions and challenges. Consequently, the challenge in this area is to understand: 1), the nature and mechanism of existing linkages; 2), potential incentives to increase the effectiveness of inter-firm linkages; 3), potential constraints to decrease the effectiveness of inter-firm linkages; and, 4), the environments and instruments that are most likely to induce effectiveness.

5. Conceptual Aspects of Inter-Firm Linkages

The several types of inter-firm linkage are not exclusive, and one type very often overlaps with other types. While they vary in character, purpose, and output along the lines of the production and marketing chain within their specific industries, they can, in practice, coexist and interrelate across productions, sectors, industries and countries. For example, Hussain M.N. (2000) distinguished three main production-type linkages — alliances, clustering, and networking — based on empirical evidence from Mauritius. An alliance includes subcontracting, licensing, joint ventures, strategic alliances, and consortia, which work together in order to achieve the same objectives under the particular contractual transactions. A clustering linkage is a group of firms concentrated in one geographic location working in the same sector, while a networking linkage is a collection of firms working in cooperation, but not necessarily in the same place. From a slightly different perspective, Diermen, P.V. (1997) examined Jakarta's small-scale garment and wood furniture enterprises by focusing on intra-firm[7] and inter-firm relationships. He classified the inter-firm relationships into two types: the vertical and the horizontal. Vertical linkages consist of open market transactions, vertical forward integration, and subcontracting, whereas horizontal linkages include clustering and networking. Normally, open market transactions take place when sellers and buyers agree on a price for products, while vertical forward integration occurs when one enterprise controls the entire process of production and distribution. In Diermen's typology, vertical linkages tend to cover contractual transactions, which are much the same as Hussain's alliances. In a way similar to Diermen, Hayashi (2005) distinguishes three types of vertical linkage: market transactions, vertically integrated production arrangements, and subcontracting transactions. Although these terms do not have quite the same meaning, the difference in nomenclature does not make any difference to the nature of the linkage.

As we have said, vertical and horizontal linkages exist in many forms in both developed and developing countries, but in developing countries the most frequent forms are subcontracting, clustering and networking (Oyelaran-Oyeyinka 2001).

6. Characteristics of Different Types of Inter-Firm Linkage

This section looks at the most frequent forms of inter-firm linkage in developing countries: 1), subcontracting; 2), clustering; and, 3), networking, as presented in the available literature, particularly for Sub-Saharan Africa.

6.1 Subcontracting

Subcontracting is a specific example of a contractual linkage. It is usually defined as a form of relationship where a firm outsources part of the production or processing of their product to another independent enterprise according to the specifications provided by the enterprise offering the subcontract (Hayashi 2005; Diermen 1997; Holmes 1988). Mead (1984) identified three main benefits for a firm choosing to subcontract: 1), the reduction of costs in particular areas; 2), the specialization of particular activities undertaken by separate firms; and, 3), the more effective management of problems arising from fluctuations in output. These benefits correlate directly with the following three main types of subcontracting, all of which have been referred to in numerous research papers:

1) Specialized subcontracting takes place when contractors who lack specific skills or technology outsource parts of their work to subcontractors who are capable of supplementing the deficiencies;
2) Economic subcontracting occurs when vertically integrated production is not economical and the parent firm consequently externalizes parts of its production to another enterprise; and
3) Capacity subcontracting is undertaken when parent firms attempt

[7] Intra-firm relationship is a family business-oriented linkage.

to meet the fluctuating market demand without expanding their own capacity, and when the firm's goals can be realized only by using the capacity of another enterprise (Hayashi 2005:26; Diermen 1997:27; Holmes 1988:85).

Since these different forms of subcontracting can be interchanged, depending on social, cultural, and economic factors, the present formation of subcontracting in Burkina Faso, for instance, should be examined with caution.

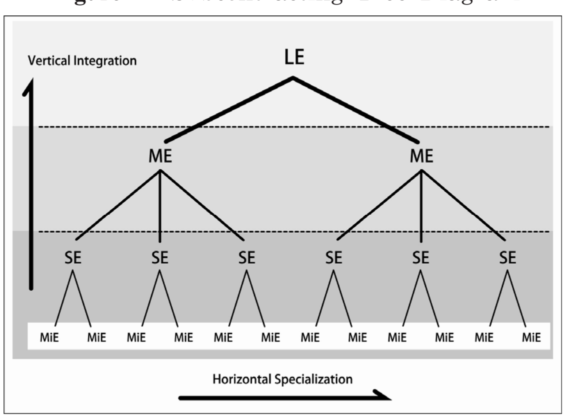
Lall (1980:207) isolated four reasons why, based on evidence from India, subcontracting became a special form of transaction in developing countries:

1) to overcome certain types of technical problems, when smaller enterprises form closer links with larger enterprises in order to create a better environment for the development of technical capabilities to meet demand;
2) to reduce uncertain situations and difficulties in the purchasing and delivery of components at the most appropriate timings in the market;
3) to guarantee the supply of components, when an enterprise has to coordinate investment capacities by getting direct information from parent firms; and
4) to share revenue, when, owing to the absence of a market price, subcontracting determines the price level that provides a reasonable sharing of revenues for both contractors and subcontractors.

The four market hazards signified here have encouraged the formation of subcontracting in developing countries, and, in a similar way, the subcontracting system can potentially help SMEs in other developing economies to overcome impediments to growth and performance.

Few studies, however, are available with regard to Africa. As Figure 1

Figure 1 Subcontracting Tree Diagram



Source: Modified Diermen's (1997:156) figure.

shows, subcontracting normally flourishes where there is some vertical disintegration (Oyelaran-Oyeyinka 2001; Hayashi 2005; and Mead 1984), an imperfect market (Hayashi 2005; Mean 1984) and horizontal specialization (Oyelaran-Oyeyinka 2001). Vertical disintegration improves the chances for smaller enterprises to participate in complex production or distribution systems by undertaking one or more separate tasks (Mead 1984). It helps to moderate the concentration of economic activities in one place while enhancing the effective use of scattered sources of finance and skills (Mead 1984). Vertical integration, on the other hand, is a system in which all production processes are vertically integrated and brought under the control of one management group (Hayashi 2005), and is thus able to minimize transaction costs through the internalization of spot-base exchanges in the open market. The execution of subcontracting transactions therefore depends on the balance between benefit and transaction costs associated with the vertical disintegration relative to other alternatives (Hayashi 2005). These alternatives are strongly influenced by market imperfections, such as technical difficulties, uncertainty about delivery, the coordination of future capacity, and the sharing of revenue, of which we have already spoken. As for horizontal specialization, the growing complexity of a market-oriented economic system expands the opportunities for specialization, thus enabling one enterprise to concentrate on only a single part of a diverse set of activities, which are then linked to other participants in the system through markets (Mead 1985). Horizontal specialization can thrive, however, only where there is sufficient demand for goods. If there is not enough demand or if demand fluctuates unpredictably, certain types of specialized equipment, skilled labor and facilities can be under-utilized. In order to solve this kind of problem, the concept of flexible specialization has received increasing attention, especially in developing countries.

Hayashi (2005), however, has pointed out that types of subcontracting ties usually vary with the social, cultural, and economic systems of each individual country. For example, Oyelaran-Oyeyinka (2001) indicated that the production activities of African enterprises are less specialized and more vertically integrated than enterprises in developed countries, while Berry (1997) drew attention to an underdeveloped subcontracting system in Latin America which reflected a high degree of vertical integration and limited specialization among firms. There is persuasive evidence, however, that such a structure might change should a combination of internal and external factors impinge upon it. For instance, the Taiwanese machine tools industry used to be highly vertically integrated with little horizontal specialization, but within a short period this gave way to greater specialization and significant vertical disintegration (Oyelaran-Oyeyinka 2001), thanks to the opening of export market opportunities in East Asian countries which created greater output demand. Moreover, the cultures of East-Asian countries, notably Taiwan and China, tend to be based on strong family ties that foster cooperation. This social cohesiveness makes for lower transaction costs by providing a high level of trust among family members. The importance of social relations can provide a strong sanction against opportunistic behavior and so ensure smooth operations. Berry (1997) suggested that Latin countries may move in this direction as they liberalize their economies. Yet, because of their physical capacity as well as their cultural tendencies, however, not all SMEs can handle the strict requirements of quality and quantity that are necessary for competitive exporting.

6.2 Clustering

"*A clustering is defined as the geographical and sectoral concentration of enterprises*" (Schmits 1997:3). This idea originally came from Alfred Marshall's observations on the textile and metalworking regions of England, Germany, and France during the latter half of the 19th century (McCormick 1999). Marshall emphasized that the concentration of a large number of small enterprises and related industries created external economies that were of comparative advantage to their regions, owing to economies of specialization, information, and labor supply (Marshall 1890). Nearly a century later, Piore and Sabel (1984) published their "Second Industrial Divide," looking at Italian and other examples. They emphasized that the pains of industrial performance in several Western countries arise from the limits of the mass production system, and they recommended "flexible specialization" as an answer to such a problem, especially for smaller sized enterprises. The measurement of flexibility at the level of clustering or subcontracting remains a methodological problem, however, and it is not easy to identify it in the field (Van Dijk 1994). Subsequently, Schmitz (1989) proposed the concept of collective efficiency in enterprise clusters, and this notion has been developed by other researchers in the recent literature on flexible specialization in developing countries.[8] Schmitz (1997) points out that the external economy is not sufficient to explain the growth and competitiveness of contemporary clusters, and that consciously pursued joint action must also be present for industrial clusters to flourish. When joint action for cooperation is attempted in terms of technology and skills upgrading by members in clusters, the whole system of clusters becomes robust and sustainable. This situation, called collective efficiency, is a competitive advantage derived from local external economies and joint action (Schmitz, 1997).

As for Sub-Saharan Africa, results show that even after the implementation of numerous experimental projects, there is no collective efficiency among African clusters and networks (McCormick 1999; Schmitz 1997; Pedersen 1997). This raises the question, Why not? Referring to six African case studies, McCormick (1999) concluded that small size of markets, the over-supply of labor, and characteristically weak institutions in many African countries make external economies and joint action inefficient and non-functional. McCormick classified three different types of clusters — groundwork enterprise clusters, industrializing enterprise clusters, and complex

[8] See Pedersen et al. (1994).

industrial clusters[9] — and he stressed the absence of "complex industrial clusters," which produce strong collective efficiency with diversified size structure and inter-firm linkages. Similarly, Pedersen (1997) pointed out that the absence of very efficient large-scale enterprises may be one of the crucial causes of failure to forms clusters. This is because small enterprises often obtain access to non-local resources and markets via large enterprises (McCormick 1999; Schmitz 1997; Pedersen 1997). These two suggestions help to explain what is now commonly referred to as the "missing middle" in Africa.

6.3 Networking

Since Hyden (1980) introduced the paradigm of the "Economy of Affection," many scholars and researchers have attempted to rethink the "African concept" in order to understand the full dimensions of the African dilemma. Hyden defined the economy of affection as a "*network of support, communications and interaction among structurally defined groups connected by blood, kin, community or other affinities such as religion and it links together in a systematic fashion a variety of discrete economic and social units*" (Hyden 1983:8). Hyden has employed his new concept to clarify why the African economy has remained stagnant and has not yet pulled itself out of its black hole. His recent work has emphasized that "*actors are quite aware of what they are getting into once they initiate a reciprocal exchange. They are aware of potential cost and benefits and they often think not only short but also long term. Their choice, therefore, is rational, but in a manner that differs from conventional rational choice theory, which assumes that choice is independent and thus conceived without consideration of consequences for relations with others*" (Hyden 2004:21-22). This recent formulation offers some clues that may help to explain why Africa always suffers from what seem like incurable hardships, and one of Hyden's worries is that no studies have yet attempted to measure the quantitative and qualitative impact of the economy of affection on the national economy (Hyden 1983). Yet while the amount of empirical economic evidence still remains small (Kosfeld 2003), many scholars have sought to mitigate Hyden's gloom.

Several case studies have been carried out in order to specify the characteristics of entrepreneurs' networks in Sub-Saharan Africa. For the past three decades, Van Dijk has been working on the informal sector in Burkina Faso. His study concludes that "innovations, clustering and subcontracting are not yet the key characteristics of a dynamic informal sector entrepreneur"

[9] McCormick (1999:1538-43) defined three common types of clusters in Africa as follows: 1) groundwork enterprise clusters: those at the incipient stages whose basic role is to improve producers' access to markets and joint action; 2) industrializing enterprise clusters: which have much clearer signs of emerging collective efficiency; 3) complex industrial clusters: diversified in size structure and in inter-firm linkage; they exhibit strong external economies, have reached into wider national and global markets and demonstrate joint action in institutionalized professional associations, subcontracting and collaborative arrangements.

(Van Dijk 1992). Van Dijk did find out, however, that skilled women entrepreneurs are better adjusted and benefit more from cooperative types of business development than men (Dijkman and Van Dijk 1997). Generally speaking, the present situation of informal entrepreneurs in Burkina Faso favors a good location, personal relations, and a number of other variables, such as initial investments, the choice of activity, and the chosen technology. Such elements are still more important than clusters of enterprises and networks of entrepreneurs for achieving collective efficiency (Van Dijk 1992).

One of his case studies among small enterprises in Accra, Ghana, showed that in many situations, as can be seen elsewhere in Africa, access to employment opportunities and participation in mutual cooperation are chiefly influenced by ethnic affiliation rather than by professional association (Van Dijk 1997). McCormick (1997) examined family and professional networks in the garment markets of Nairobi, based on three characteristics of the firms' owners: ethnicity, their level of education, and their gender. He concluded that poorly educated small-sized garment manufacturers tend to use their personal networks. Besides this, social networks are generally sex-segregated, and women's networks tend to have less power and resources to stimulate a business than do networks run by men. In many cases, networks lead back to rural markets where incomes and profit margins are immediate, but these cannot change business performances significantly. Furthermore, these networks appear to be based not on clustering, but on the entrepreneurs' other social and professional contacts (McCormick 1997). In addition, she explained theoretically how social relations are implanted and influenced in and through the entrepreneurs' economic relations: 1), different processes of development are used according to specific and interrelated historical, social, and cultural factors; 2), socio-cultural attributes create grounds for trust and reciprocity in inter-firm relations; and, 3), the social environment, in which people live or work, strongly influences and is influenced by the processes of innovation and technological change(McCormick 1997).

Using an econometric analysis, Fafchamps (1999; 2002) underlined that in a flea market economy, the emphasis on relationships and the sharing of information in communities and networks minimizes large-transaction expenditures and raises productivity. For instance, when it is difficult to identify reliable trading partners, relationships become their own security or guarantee and start to function as a business referral system (Fafchamps 1999). However, his research on agricultural traders in Madagascar showed that once family members are involved in trade, it reduces a productive component of social capital (Fafchamps and Minten 2002). His latest study (2002), a comparative survey carried out in Benin, Malawi, and Madagascar, also investigated the effects of ethnicity, religion, and gender in agricultural trade. While many earlier sociological studies had stressed the importance of cultural attributes in African trade, Fafchamps found that ethnicity and religion have only limited effects on start-up networks and the accumulation of network and capital overtime. Gender matters more (Fafchamps 2002). Although this situation cannot be generalized to all African countries, his results ran counter to the stereotype of strong ethnic, gender, and religious bias in African trade and business.

Numerous recent studies by Barr (1994; 1998; 1999) have also generated noteworthy results; these studies have demonstrated econometrically the economic role played by entrepreneurial networks in the Ghanaian manufacturing sector (Barr 1995). Her study identified two types of network: 1), innovation networks that are large, diverse, less cohesive and best suited to providing access to information about technology and market, and, 2), solidarity networks that are small, homogeneous, cohesive and best suited to reducing information asymmetries and supporting informal credit and risk-sharing arrangements. Using data from the Ghanaian manufacturing sector, she found that in contrast to innovation networks, solidarity networks may have only a marginal effect on the enterprise productivity which can be seen in smaller sized enterprises. This is because small enterprises are more likely to focus on reducing uncertainty than on enhancing the enterprises' performance.

Besides such theoretical studies, the United Nations Industrial Development Organization (UNIDO) has undertaken many practical projects to promote development programs based on networking (Kennedy and Hobolim 1999). When compared to those in Asian countries, however, most of these projects in Sub-Saharan Africa have not been implemented successfully.

The evidence of numerous studies demonstrates convincingly the efficiency of inter-firm linkages in promoting the development of SMEs, most notably in the process of development in certain sectors in East Asian countries; but it is not likely to be found in Sub-Saharan Africa, and, again, we ask why inter-firm linkages do not seem to be the tool for reducing the existing constraints that impede local SMEs and industries in Africa, when such linkages would possibly help underdeveloped African enterprises or overall industries to overcome local constraints. The answer again, as the first half of this section argues, is that the nature and effectiveness of inter-firm linkages are strongly influenced by social-cultural factors embedded in each country, community, affiliated groups, and family members, all with their own beliefs, norms and patterns of trust, besides economical, political, and regulatory factors.

In view of all this, we should now consider how such socially embedded factors affect inter-firm linkages and how these conditions can be analyzed both theoretically and empirically. Answers to these questions should give us clues as to how we can sort out appropriate and effective means of intervention that might help to increase the collective efficiency of inter-firm linkages in Sub-Saharan Africa.

7. How to Analyze SMEs and Inter-Firm Linkages

This chapter proposes the use of certain effective tools to analyze the nature of inter-firm linkages and to encourage the growth of SMEs in Sub-

Saharan Africa.

7.1 The embeddedness approach

Up till now, the conventional approach of many researchers, policy makers and practitioners to the development of SMEs in Africa has been to treat the issue as an economic one. As the previous sections have argued, however, the nature and effectiveness of inter-firm linkages as well as the growth of SMEs are strongly affected by the particular social-cultural factors that are deeply embedded in all societies. One result of the economically biased conceptualization has been a misguided top-down policy approach oriented towards the creation of formal enterprises that undermine and marginalize local knowledge and preferences. Another result has been a proliferation of economically biased studies which not only replicate erroneous assumptions about the nature of how SMEs might be developed, but also ignore or obscure broader historical, social, economic, political and institutional factors that influence the prospects of any such development.

According to Rabellotti (1995), many societies take trust as the guiding light in business relationships, and an assumption of trust will influence the district's cooperative behavior. This means that the determinant of a contract between firms depends not only on the contents of transactions but on the social relationships amongst the contracting actors. A contract is the attainment point of inter-firm relations. A number of research studies have addressed this kind of relation. Williamson's 1985 Transaction Cost Theory is one of these: it offers a theoretically coherent approach towards explaining the characteristics of contractual relations between firms. Transaction cost theory focuses on how the economic characteristics of a transaction affect contracting. Typical characteristics are specific investments associated with a particular transaction and uncertainty about future developments. The basic idea of transaction cost theory is that firms choose their arrangements for the governance of transactions by economizing on the anticipated costs for reaching and enforcing agreements, so that all potential gains from trade will be realized. However, this transaction cost theory tends to treat the effectiveness of social contexts upon the business relationships in too abstract a manner (Wakabayashi 2006).

Long ago, Durkheim (1893) pointed out that mutually beneficial economic transactions can be realized with an unwritten contract based on norms of trust, reciprocity, and solidarity, factors which cannot be enforced by the rule of law. Thus, a transaction with a written contract is not the only way to determine the economic activities of enterprises and the establishing of business relations. What his analysis signified was that sociology could offer insights into the analysis of economic exchange, which in turn gives rise to the question of why non-contractual relations in business are practicable and how they complement contractual governance.

In response to the theoretical problem of analyzing economic exchange, the "New Economic Sociology" now commands increasing attention since it is the most influential sociological approach. This new paradigm was first postulated by Polany(1994), who, in analyses of the social structure of the market economy, introduced the concept of embeddedness. In the article "*Economic Action and Social Structure: the Problem of Embeddedness,*" Granovetter (1985) relocated Polanyi's theory of embeddedness within a network concept: his "embeddedness approach" refers to the process by which social relations shape economic action in ways that mainstream economic schemes neglect (Granovetter 1985).

At a more restricted level, we can sketch the concept of embeddedness, as it applies to this study, in the following terms:

1) *Embeddedness refers to institutions*: Institutions enable social relations to flourish within the scope of their activities, while institutional regulations such as contract law, warranties and guarantees, or judicial procedures constitute the formal or informal rules by which economic actors are bound;
2) *Embeddedness of economic exchange refers to ties and relations*: Ties and relations incorporate non-economic and personal aspects that have effects on economic exchanges: Granovetter(1985), for example, points out that the reputation of potential partners affects positive and negative business opportunities, and will provide information about past and future transaction relationships;
3) *Embeddedness approach is a relational concept*: The concept enables one to focus on the actions of economic actors based on economic relationships and social structures at both the micro and the macro level. Consequently, the embeddedness approach avoids the narrowness of conventional economic analysis, which ignores the impact of non-economic factors on economic action.

Recent research conducted in the spirit of the new economic sociology has meanwhile produced a sizable amount of empirical evidence to support a belief in the existence of the effects of social embeddedness. Much of this work focuses, indeed, on the effects of embeddedness in the sense of dealings between partners as well as their economic relations with third parties. For example, Wakabayashi (2006) verified through empirical evidence that in Japan inter-firm relationships were traditionally established or reinforced by trust and social networks, but that because of the post-affiliation process the mechanism and nature of relationships have been changing. He believes that the new economico-sociological approach will provide effective analytical means to identify the situation of enterprises and how they work (Wakabayashi 2006).

7.2 Sub-sector approach

The embeddedness approach is a useful tool for framing and theorizing about the social embeddedness of economic activities in a way that links micro-intensitivity and macro-outcomes; further, it can recognize the real situation with regard to the mechanism and formation of inter-firm linkages;

it cannot, however, illustrate the structure of inter-firm linkages in certain types of industry.

Basically, studies of SMEs adopt a method of analysis based on official documents and statistical data as well as on the technical literature, all of which normally draw a general picture of the socio-economic context of SMEs at both the macro- and micro-levels. In the case of developing countries, however, the available information does not allow a detailed study of inter-firm linkages or the development of SMEs. To make up for such limitations of the existing data and information, studies of embeddedness carry out a firm-level survey based on such methods as a questionnaire and an interview survey. The firm-level survey aims to collect a set of microeconomic data on certain types of enterprise that are not covered by the available published information. Micro-level evidence based on such firm-level observations allows this kind of study to examine in detail the development of SMEs through inter-firm linkage in Sub-Saharan Africa. In order to clarify the structure of inter-firm linkages, the "sub-sector approach" can be the appropriate tool. Its methodology is used to examine the nature of micro- and small-sized enterprises (MSEs), large enterprises, consumers, and policy makers within the vertical relationships of a single industry, rather than looking horizontally at the linkages among MSEs across many industries (GEMINI 1991). It also illustrates both vertical and horizontal marketing channels and singles out areas of cooperation and competition between different-sized enterprises. Additionally, where the industry as a whole is growing and how much SMEs are able to profit more fully from this growth can also be identified. This leads to a detailed understanding of opportunities and constraints in a given sub-sector and thereby provides a framework for appropriate policy interventions (Buckley 1998).

8. Conclusion

The foregoing discussion raises the central question of whether the development of SMEs can, or can not, be supported by inter-firm linkages. On the basis of this concern, subsequent research will seek to address and answer the following questions in relation to SMEs and inter-firm linkages:

1) What are the possible internal and external constraints that impede the effectiveness of inter-firm linkages and the growth of SMEs in certain types of industry in Sub-Saharan Africa?
2) What are the characteristics and mechanisms of current inter-firm linkages in certain types of industry in Sub-Saharan Africa?
3) How do the different types of linkage affect one another?
4) Can different types of linkage enhance the growth of SMEs in certain kinds of industry in Sub-Saharan Africa?
5) What possible forms of intervention are likely to have the greatest impact on inter-firm linkages and the development of SMEs in Sub-Saharan Africa?

Rather than emphasizing the positive factors of the development of SMEs, the author of the present study has focused on the negative factors that impede the growth of SMEs in certain types of industry in Sub-Saharan Africa. To identify these existing negative factors and their mechanism, we should adopt the sub-sector approach. Additionally, as we have explained above, we can use the embeddedness approach as an analytical tool to clarify the in-depth nature and mechanism of inter-firm linkages. In the end, the aim is to obtain conclusive evidence of what impedes the growth of SMEs in certain types of industry in Sub-Saharan Africa and to propose overall policies for improving the inter-firm linkages between existing SMEs.[10)]

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[10)] Based on this theoretical framework, the author carried out several empirical researches in Burkina Faso. Please refer to Tokuori (2004, 2006a and 2006b).

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