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Abstract: **This paper addresses a specific problem that may arise as consequence of the globalization of the markets. This is the incompatibility between local and global standards of trust. The literature highlights the advantage of co-localization for the production of mutual trust. However, the type of trust produced may be informal and indeed largely incompatible with base of trust in open electronic commerce. This paper focuses on the glocalization of trust, the concurrent development of local and global standards of trust. It has two major goals. Identifying the major factors influencing the local production of global-codified trust. Addressing three alternative strategies local system implements to create compatibility: de-coupling, coupling and loosely coupling. We address some initial evidences in the case of a de-coupling district.**

INTRODUCTION

In a recent paper Steinfield and Klein [1] address the issues of local versus global electronic commerce. The emergence of a global digital infrastructure is seen as one of the major engine of the globalization of the markets and the 'death of distance'. However, as the two authors suggest, there are many reasons for the continued vitality of regions in the era of global electronic commerce, including among others:

1. Capitalizing on local expertise;
2. Capitalizing on existing trust;
3. Investment in logistic and digital infrastructure.

Their paper address local and global as alternative dimensions. However, as conclusive remark they highlight the increasing relevance of the concept of 'glocalization', the concurrent development of both dimensions, as research issue.

This paper focuses on 'glocalization' from a specific angle, that is the problem of incompatibility between local and global standards of trust. The literature on local production system highlights the benefits deriving from a common localization in leveraging the production and re-production of trust. The type of trust produced, however, is mainly tacit, based on contextual assumptions, and indeed inaccessible to parties located outside. As consequence of globalization of the markets and diffusion of open and digital infrastructures the market is demanding for an increment of the level of trust-codification. Local systems are faced with the interaction between two contradictory requirements. The first is to increase their capacity to produce codified-trust in order to increase or maintain their competitiveness in the global markets. The second is to reduce the level of codification produced in order to preserve the competitive advantages associated to the use of tacit trust in the local system.

This paper has two major goals. The first is to define the major factors influencing the capacity of local systems to respond to the increment of the global demand of codified trust. The second is to define a set of strategies local production systems may implement to achieve compatibility. We identify three major strategies: de-coupling, coupling and loosely-coupling. The first is based on the development of a strong local leadership, which has the major function of de-coupling the local production of trust from the global demand of trust. The second, coupling, is based on the development of local system of trust production structured according to global standards. The third, loosely coupling, is a mix of the two. It is based on a large group of local leaders whose major function is, on the one hand, to guarantee the trustworthiness of the system, on the other, to increase the visibility and cohesiveness of the system on the base of open and codified standards. As we shall see the feasibility of each strategy depends on three major factors: level of local inertia, sector and market position of the community, and leadership structure.

We support our thesis with some initial evidence from a case study of a de-coupling industrial district. Powell [2] defines an industrial district as a network of place, a socially integrated, decentralized production system composed mainly of small and medium and export oriented production unit. The object of the case study is the eyewear district of Cadore, a valley located in the Dolomiti-Alps 100 km north of Venice specialized in the production of glass-frame. It is characterized by a strong private leadership, which is not equally distributed among four leaders. As we shall see this leadership inhibit the process of codification of contextual trust and the influence of public leadership in trying to divert the cycle. The case study is the result of semi-structured interviews with the two major private leaders, the major public leaders and 10 enterprises equally distributed among the following three categories: follower, specialist and subcontractor.

BACKGROUND LITERATURE

A. Trust

In the literature trust is defined as positive expectation about behaviors and intentions of another parties. Some authors define trust as unilateral choice. Others instead consider trust as mutual relation between two or more parties. The first mainly focuses on the contextual motivations behind the trust-decision. The second definition instead abstracts from the specific situations and focuses on the motivations underlying the existence of trust between persons. We refer to trust as mutual relationship existing between two of more parties comprising the positive expectation and confidence about their respective trustworthiness.

In order to review the vast literature on trust we refer to the categorization proposed by [3], which distinguishes among three major perspectives: under-socialized, over-socialized and embedded. The major advantage of this categorization respect to others proposed in literature is that it refers to different conceptualization about human nature and rationality. The *under-socialized* perspective is based on the assumption of economic rationality, behaving according to the maximization of the self-interest. The perspective is under-socialized because assumes a strong individualism of human nature. The *over-socialized* perspective instead is based on the assumption of normative rationality, behaving according to a set of norms and values shared within a community. The assumption is over-socialized because assumes that individual behavior is mainly function of a set of social rules previously internalized. According to [3] both perspectives share a common assumption, that is atomization of society and non-influence of ongoing social relationships on individuals' behavior. In the *embedded* perspective social relationships are fundamental element of social behavior. On the one hand, they regulate and enforce the respect of social rules embedded and shared within networks. On the other, they support the social production and reproduction of norms.

In the *under-socialized* perspective *trust* is defined as economically rational and calculus-based choice, which depends on the information available and its relative credibility. [1] Institutional and formal mechanisms of controls substitute the lack of trust between parties. Three are the major forms of institutionalization of trust: structural and procedural mechanisms, selection mechanisms and insurance mechanisms [6].

In the *over-socialized* perspective *trust* is defined as form social capital that arises in community characterized by the prevalence of positive norms and values [7,8]. The base of trust is endowed prevalently in the tradition and historical development of the community. Internalizing trust requires long period of apprenticeship. However, because of its nature of cultural- and ethical-habit, it is also hard to modify or destroy [7].

In the *embedded* perspective *trust* is also defined as social capital. However, differently from the over-socialized perspective trust is embedded in the connectivity and cohesiveness of the network structure [3,9]. Trust evolves both within relationships and network structure with the time and frequency of interaction [10,11,12]. Lewicki and Bunker [11] describe the life cycle of relational trust. Three sequential stages characterizes the development of trust within a relationship: calculus-based, knowledge-based (mutual predictability of the respective behaviors) and identification-based (mutual internalization of the respective preferences and goals). Similarly, Ring and Van de Ven [12] describes the development of inter-organizational cooperative relationships as cycle process of negotiation, commitment and execution. The initial formal content of the agreement is gradually embedded in a network of informal agreement and social relationships until it guarantees efficiency and reciprocity in the relationship.

[1] See among others [4] and [5].

B. The role of IT in supporting Trust

In the previous section we review the literature on trust distinguishing among three perspectives. This section uses the same three categories to interpret the different perspectives on the role of IT in supporting trust.

In the *under-socialized* perspective *IT is a substitute for the lack of trust*. Authors belonging to this tradition mainly highlight the efficiency and effectiveness of IT as substitute for the lack of trust. The theoretical framework of reference is mainly transaction cost theory, which postulate opportunism as the main character of human nature [13]. Williamson [13] suggests the existence of a trade off between internal costs (hierarchical) and external costs (market) of coordination and control, which depends mainly on transaction-complexity and -idiosyncrasy. Malone et.al. [14] suggest that IT reduces transaction costs providing the technological base for an overall shift toward proportionally more market coordination. IT impacts on the structure of transaction costs in three major ways: reducing the unitary cost of processing information, reducing the searching cost (electronic brokering) and reducing the switching costs. Clemons et.al. [15] separate the problem of coordination, explicit coordination, from the one of ownership, internalization. Explicit coordination is a form of coordination characterized by a strong operative and strategic coupling between two or more legally independent parties. They [15] suggest that IT support the transition toward intermediary form of coordination and control, between market and hierarchy. Two are the major reasons: maximization of resources productivity and minimization transaction risks. Miles and Snow [16], in their conceptualization of dynamic networks, suggest that the broad access to computerized information systems is a substitute for lengthy trust building process based on experience. Their idea is that participants to a network agree on general structure of payment per value added and monitor their respective contributions through continuously updated computerized information system.

The *over-socialized* perspective *contrasts* the idea that the development of trust is functional to the development of common inter-organizational information system. They suggest that trust is embedded on a shared context of positive norms and values grounded in the history and in the tradition of a community. Due to their tacit and abstract nature the functionality of these norms and values can not be engineered in computerized systems. Fukuyama [7] suggests that trust do not resides in computerized system and, since community depends on trust that is culturally determined, virtual community will emerge in differing degrees in different cultures. Fukuyama [7] concludes that only communities well endowed of positive norms and values will be capable to fully internalize the advantage deriving from the adoption of IOS. This thesis, however, contrasts with the findings of Kumar et.al. [17], which have shown that a common culture of trust may inhibit the adoption of 'communitarian' information system. Two are the major motivations. First, a common culture of trust reduces the value associated to the adoption of common IOS. Second, there is a difference between relationship-oriented versus task-oriented communities. In the first the communication is functional to the accomplishment of the task. In the second it is also functional to the development of the relationship. The consequence is that in

this second type of communities the communication is comparably more interactive and broad than in task-oriented community.

In the *embedded* perspective there is a *concurrent development* between mutual trust and adoption of inter-organizational information systems. Nohoria and Eccles [18] suggest that there is a trade off between transaction-complexity/uncertainty and adoption of inter-organizational information systems. The higher is the transaction-complexity and uncertainty the more parties relay on face-to-face interactions to build a common base of trust and understanding in business relationships. They suggest that the adoption of IOSs is a good substitute for the lack of trust within standardized business transactions, such as market and hierarchical transactions. Differently, in the network form of organization the adoption of IOSs goes together with a proportional increment of the number of face-to-face interactions. Hart and Saunder [19], similarly, suggests that development of mutual trust in buyers-suppliers relationships is a necessary condition to promote continuity in the process of adoption of inter-organizational information systems. The major motivation is that the development of mutual trust facilitates the development of a shared vision about the advantages deriving from sharing information.

C. Industrial districts and the problem of local versus global

An industrial district, in its simplest conceptualization, is defined as a spatial agglomeration of a number, usually a large, of enterprises specialized in one or more phases of a specific value chain dynamically and temporarily working together to respond to specific market needs. This definition is part of the flexible-specialization perspective on industrial district.[2] In this tradition the success of industrial districts is explained as consequence of the development of flexible technologies. Flexible technologies make economically efficient to peruse strategies of specialization within a context providing complementary services and productions. In this perspective there is a strong parallelism between the definition of industrial district and the one of network organization. An industrial district is a network of place [2]. However, it is the concept of territory that makes industrial districts so different from other forms of networking.

The territory is not simply, as classical economy suggests, an empty geometric space, defined by transportation cost and endowed with a given set of existing resources.[3] The territory has also an active role in shaping economic and social actions. It is a social context characterized by specific social conventions, institutions, competence, knowledge and relational structure. All these elements play an active role in shaping the process of territorial networking. We point out two major consequences deriving from assigning to the concept of territory and active role.

Industrial districts are embedded in historically defined and socially constructed communities [23]. In this perspective an industrial district is a spatially concentrated community of many small and medium, technologically advanced, and export-oriented enterprises. The sense of belonging to the same community of norms, values, meaning and knowledge leverages the social production and re-production of mutual trust and knowledge. This characteristic of industrial districts is effectively captured by the expression industrial atmosphere, which denotes the leading role played by the social context for the success of the industrial district. The industrial district, in this perspective, is defined as communitarian market characterized by abstention from opportunistic practice and a certain proclivity toward the cooperation [24]. Furthermore, the cohesiveness of the social and economic networks intensifies the value of individual reputation asset and major mechanism of market selection. Thus, the cohesiveness of the network structure in the district is the major mechanisms underlying the reproduction of the base of trust.

In order to highlight the leading role of the network structure is useful to consider the milieu or network approach [25]. In this perspective an industrial districts is defined as local network of a global cognitive circuit continuously converting contextual knowledge, which is mainly tacit, into global knowledge, which is mainly explicit, and vice versa. The efficiency of local systems and indeed of industrial districts depends on the balance between openness and closeness. The level of openness and closeness of an industrial district is dependent from the number and typologies of connection between local system and global market. An excessive closure, which mainly derives from a limited number of direct connections with the global market, implies a gradual impoverishment of the local resources, consequence of non-appropriability. Conversely, an excessive openness, consequence of a large number of direct connections with the global market, implies the gradual erosion of the cohesiveness of the local system and indeed of the mechanism underlying the reproduction of the advantages of localization. The sustainability of the local system is indeed linked to the definition of local and versatile integrators capable of translating local knowledge into global knowledge and vice versa. In other words the function of these integrators is to dynamically balance the level of codification of the knowledge locally produced and its accessibility, through open codification language, and vice versa.

GLOCALIZING TRUST: COMPATIBILITY CREATION BETWEEN LOCAL AND GLOBAL STANDARDS OF TRUST

The review of the socioeconomic literature highlights the distinction between two major forms of trust, namely tacit and codified. We borrowed these two terms from the literature on knowledge management. These two terms are used to address the distinction between knowledge of experience (tacit) and knowledge of the code (codified or explicit knowledge). The development of tacit knowledge is consequence of the experience of interaction between subject and object of knowledge. Its value is confined within the boundaries of the context of experience. Codified knowledge, instead, is abstracted from the context, through a set of assumptions delimiting its applicability, and defined in the form of logical sequence of predicates. The same concept applies to trust. Trust is tacit when is value depends mainly on contextual conditions, such as belonging to the same community or being part of the same socioeconomic network.

[2] See among others [21].

[3] See for an extensive review of the subject [22].

The value of codified trust is independent from the context. It has been previously abstracted from the context and codified in the form of contractual and computerized digital infrastructures.

The cost of accessibility to a certain resource, and indeed its relative economic value, depends on two major factors: the level of codification and diffusion of the codification code. The more a resource is codified on the base of globally shared standards the lower is the cost of accessibility to that resource because the less its functionality is dependent on contextual factors. However, a resource that is highly codified may remain local for at least two major reasons. The first is that the cognitive cost of learning the codification code is high. This is the typical example of resources shared among specialist. For instance, the cost of learning the language of law is high for a person that is not lawyer. The second reason is that there are property rights that prevent the access to that resource to unauthorized persons. Furthermore, there is a hidden cost associated to codification, which is the loss of flexibility and adaptability to contextual situation.

In section II.B we review the prevalent perspectives on the role of IT in supporting trust. The under-socialized perspective, which is prevalent in the field of the IT, suggests that the efficiency and effectiveness of IOS as trust mechanisms implies a substitution of the tacit component of trust. In the over-socialized perspective, instead, it is suggested that the adoption of IT is functional to the sustainability of the tacit component of trust.

The embedded perspective suggests that codified, and indeed the development of IT, and tacit trusts dynamically complement each other. In this perspective the adoption and development of codified trust takes the form of a learning process, whose major function is to support the conversion of trust from tacit to codified and from codified to tacit. This perspective is coherent with the one addressed in section II.C. Local production system are interpreted as part of global cognitive circuit. Their efficiency is dependent on the ability to develop local and versatile integrators (meta-organizers) between local and global (tacit and codified).

In developing our model we take this latest perspective as starting point. The goal is to develop a model to explain which are the major factors influencing the capacity of local system to learn to produce global-codified trust. We assume that as consequence of the globalization of the markets, on the one hand, and the diffusion of global digital infrastructure, on the other, the demand of codified trust increases. The need for the local system to switch from one model of production toward another based on codified trust depends on the balance between cost of incompatibility and benefit deriving from localization. The cost of incompatibility is given by the cost of developing local converter, from tacit to codified and vice versa, and the loss of market opportunities due to incompatibility. The possibility to save on local transaction cost and the opportunity to increase the capacity of the local system to support the growth of local small and medium enterprises give the advantages of localization.

The learning capacity of the local system depends on three major dimensions: the internal cohesiveness, the sector, and the market position of the community. The internal cohesiveness of the local system, on the one hand, underlies the efficiency and effectiveness of the local production of trust. However, in case of incompatibility, the internal cohesiveness of the system produces inertia toward the adoption of global-codified standard of trust. The reasons are mainly two. The first is that the costs of switching from one model to another are high. The second is the local base of trust is source of competitive advantage for the local system. Second, the cost of incompatibility is not uniformly distributed among sectors. For instance in the automotive industry this demand started in the early 80' with the transition toward just in time models of production. This transition has implied large investment in inter-organizational information systems and quality systems. In more traditional sectors, such as textile, this transition is only at its initial stage. Thus, the cost of incompatibility is higher in innovative and capital intensive sector. It is relative lower in traditional sectors. Third, the market position of the local community, at least in the short-run, reduces the local perception of the demand for codification. A community that is leader in some sector has already a consolidated reputation in the market. This reduces the need to invest in codification as way to increase the reputation for trustworthiness and quality in the global market.

The key factor influencing the strategic behavior of the local community, however, is the structure and character of the local leadership. Leadership can be characterized along two major dimensions: symmetry and public versus private. The symmetry of the leadership [28] defines the distribution of power. A leadership is symmetric when the power is distributed among a large number of parties. Conversely, a leadership is asymmetric when the power is concentrated among small number of powerful parties. The degree of symmetry of the local leadership defines the individual capacity of the local leaders to influence the dynamic evolution of the local system. If the leadership is highly asymmetric each of the leader is capable, independently on the others, to influence the dynamic of the local system. If the leadership is symmetric the local leaders need to cooperate in the definition of common strategies of development. This characteristic favorites the development of open and public standards instead of closed and private standards. The distinction between public and private leadership characterizes the main goal of the leadership. Private leaders, in fact, aim to maximize their internal profit whether public leaders are interested to the maximization of the overall welfare of the community. The two interests coincide until the strategy of the private leadership is functional to the maximization of the overall welfare of the community. However, when the private leadership start to implement strategies of globalization of the value chain or reducing the competitiveness of the local system through strategies of internalization there is conflict of interest between the two. Furthermore, the existence of strong private leadership diminishes the influence and the credibility of the public leadership with the major consequence of reducing its strategic role. In the case of highly distributed leadership, instead, the function of the public leader is to support the cooperation among private leaders.

In our perspective three are the alternative strategies that may be implemented to increase the level of compatibility between local and global markets: de-coupling, coupling and

loosely coupling. The first strategy, *de-coupling* (fig 2.a), characterizes local production system belonging to traditional markets and with a strong local private leadership and global market reputation. In this case the advantages of localization are higher then the cost of incompatibility. The major reason is that the global demand for codification is low. The local leadership has the interest to reduce the production of codified trust for two major reasons. The first is to reduce the opportunity to enter the local network for its competitors. The second is to reduce the risk of emergence of local competitors. The local leadership de-couples the local and global demand of trust investing in global reputation and extending their control on the value chain both up-stream and down-stream. In this perspective the adoption of IT remain confined within the boundary of the local leadership. The major risk associated to this strategy is that the welfare of the local production system depends mainly on the success of the leadership and their strategic behavior.

The second, *coupling* (fig. 2.b), characterizes local production system belonging to innovative or automation intensive sectors characterized by a strong leadership, which may be either public or private. Furthermore, these sectors tend to be characterized by high level of global competition. Thus, the cost of incompatibility are higher then the benefits of localization. The strategy of coupling is based on the internalization, at the local level, of the model of trust production adopted in the global market. The local leadership externalizes most of the critical activities and productions. It uses its power to enforce the adoption of inter-organizational information systems and total quality control systems. Two are the major limits of this strategy. The first is it implies high initial investments. The second is that it dramatically reduces the entry barrier, as consequence of codification of the local trust base, jeopardizing the internal cohesiveness of the local system.

The third strategy, *loosely coupling* (fig. 2.c), may take place both in innovative and automation intensive sectors and in traditional sectors. The rationality behind, however, is different. In the first type of sector is mainly consequence of the high cost of incompatibility whether in the seconds is mainly consequence of the local competition. The strategy is based on the development of a large network of local integrator specialized in one part of the production process or in specific type of production. The function of these local integrators is double. The first is that of guarantor for the trustworthiness of the system. In this perspective they provide a combination of insurance-like arrangement and total quality system to guarantee the trustworthiness of the system. The second is to integrate the local system through the implementation of IOS and certification systems. The system is partially codified and partially tacit. The combination between tacit and explicit evolves according to the evolution of the demand. In order to maintain internal compatibility the local leaders cooperate in the definition of common public standards. The function of the public leadership is mainly to support and facilitate the internal cooperation between local private leaders. The major advantage of this strategy is that the conversion takes place gradually and diffusely. This reduces the initial investment and supports the process of learning within the local system.

A CASE STUDY OF DE-COUPLING DISTRICT: THE CASE OF THE EYEWER DISTRICT OF CADORE

D. *Origin, development and prevalent culture of the district*

Cadore is a valley in the province of Belluno, about 100-km north of Venice specialized in the production of eyewear frames. The district has a long history. Its origin can be traced back to the XII century during the Venetian Republic. It experienced a long period of depression after the break down of the Venetian Republic. Finally, it has been revitalized at the end of the previous century, when Angelo Frescura and Lozza founded 1878 the first industrial firm of frames in Cadore[4]. Nowadays, the district counts more than 10.000 enterprises producing 80% of the Italian production and about 50% of the world production. The initial development of the district can be explained by a specific combination of cultural/geographical and economic factors. The geographical isolation, that to some extent still characterize the valley, has favored the creation of a solid base of intra-community relationships. The evolution of the district is the result of continuous spin off promoted by existing companies. The consequence of this process is an organization of the district based on stable networks of informal relationships. The underlying culture has been defined as individualistic, but not egoistic. Cooperation and trust mainly resides in the vertical relations.

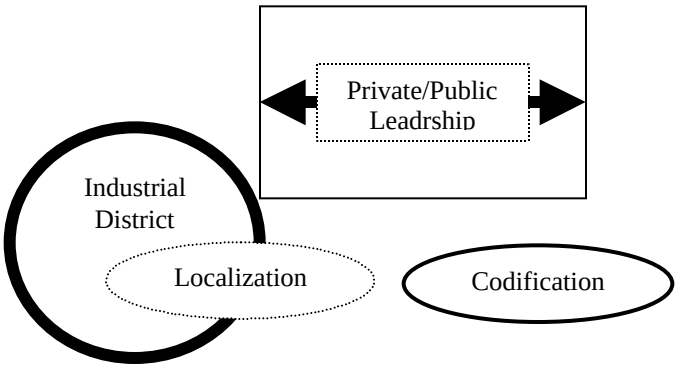

Fig 2.a: De-coupling district

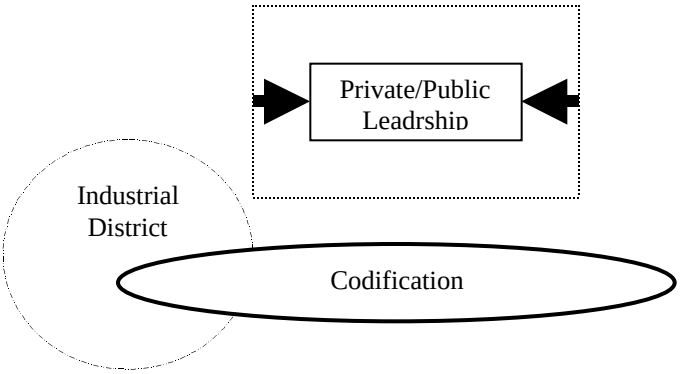

Fig.2 b: Coupling district

[4] The company of Frescura and Lozzo is the current Safilo.

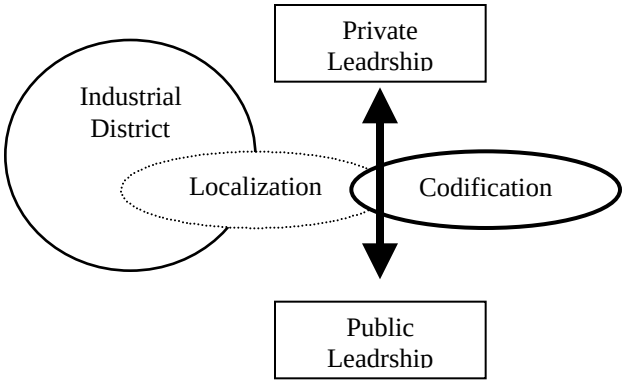

Fig. 2.c: Loosely coupling district

The recent evolution of the district is characterized by two peculiarities: a long period of growth and the exceptional profitability of the sector.[5] Three are the major consequences. A *production-centered culture*. In the last 25 years the major problem has been producing and companies have a strong tendency to concentrate their investment in production. *Lack of market selection*s. The exogenous growths of the demand and the high profitability of the sector have reduced the efficiency of the local market as mechanism of selection. *Systemic inertia and myopia*, companies in the district tend to run over the same successful model and incapable to reinvent it.

E. Structure of the district

Private leadership: The leadership of the district is strongly asymmetric and private. There are four market leaders: Luxottica, Safilo, De Rigo and Marcolin. The role of leadership, however, is not equally distributed. Luxottica in 1996 billed 4 times more than Safilo, 9 times more than De Rigo and 19 times more than Marcolin. The strategy of the leaders is characterized by two major elements: global branding and vertical integration both upstream and down stream. The strategy of branding is based on the acquisition of reputation for quality and design through the payment royalties to the major griffes (Valentino, Armani, Max Mara etc.). Upstream the leaders have internalized large part of the production process. They relay on local production capacity only in the case of peak of demand or special type of productions. The decision of internalizing the production process is mainly motivated by the need to reduce the cost of control. Strategic markets are controlled through local commercial branches controlled with a quote of the capital higher than 50% or through joint venture. Developing and minor markets are controlled through contracts of exclusiveness with local agents. The cooperation among leaders is low and it is limited to the definition of common standards linked to the reduction of the cost of duplication, such the definition of common product identification codes.

The others: The structure of the district is characterized by three major typologies of company: specialist, producers and sub-contractor. The specialists are companies specialized in specific type of production, mainly small components (screw, noses, face), accessories (mainly eyewear-cases), galvanic-working and painting/enameling. The specificity of these productions have favored the formation of leadership of specialty not only locally, but also globally. These companies are present in the major markets of production or commercialization with their own commercial branches and exclusive agents. They have maintained a strong relationship both with the leaders and the other local producers. Thus, they are strategic nodes of integration. They externalize large part of their production to local sub-contractor with whom they maintain long-terms relationship.

The producers are companies of small and medium dimension producing and commercializing directly their product. There is a distinction between two types of producers: follower and traditionalist. The followers are characterized by strategies of commercialization following closely the on of the leaders, based on the acquisition of royalty and promotion of their own brand and direct control of the commercial channel. Traditionalists follow the traditional model of commercialization, based on the mediation of the wholesaler. Both types of companies externalize large part of their production to local sub-contractors with whom they have long-term relationship.

The category of the sub-contractors represents the majority of the companies localized in the district. These are mainly small artisan companies. They can be either specialized in one or more phase of the production process or to produce the finished frame. These companies do not have any relationship outside of the district and indeed they are completely dependent from the success of their major clients in the district.

Public leadership: Four are the major public leaders directly involved in the strategic development of the district. These are industrial and artisan association, Certottica and local chamber of commerce. The associations play two major functions: political lobbying and provision of services. The services provided are the traditional ones: fiscal/quality/innovation advisory, export consortia and so forth. Certottica is a center of certification. It is financed directly by Veneto Innovazione, the regional agency for innovation, local industrial associations and Anfao, the national association of the optical companies. The local chamber of commerce is important in the district as leader and coordinator of the collective operator for the eyewear district. The collective operator is an association between the local chamber of commerce, the two mountain-communities of Cadore and Longaronese/Zoldano, and three associations (Artisan, Industrial and small and medium enterprises). The major function of the collective operator is to promote the development of the district by promoting the creation of innovative services and the diffusion of new technologies and methodologies of production and management through a

[5] The district in the last 25 years has experienced a continuous growth. The profitability of the sector can be highlighted by the following example. The cost of production of a frame of medium quality is 8 Euro and its price for the consumer is 75 Euro.

collective project called eyewear-village (Cittadella dell'occhiale).

F. The digital infrastructure for electronic commerce

In the district there is not any common digital platform for electronic commerce. The term digital infrastructure here is used to describe the IT endowment of the different typologies of companies identified above and their strategy of development. In general the diffusion of IT in the district is low. Unfortunately there are no comprehensive data that confirms such statement. A survey of 1995 evidences that on a sample of 55 small and medium companies 87% have at least one computer, 38% an internal network, 16% a mini-computer, 22% a server and 38% a modem.

The structure of the information system of the leaders is characterized by a 'central server' located in the companies' headquarter and a network of 'terminals' located in the commercial branches. The network is mainly used to update the central system with data relative to the selling trend and to automate the ordering cycle. None of the leaders have a digital connection with their local suppliers. The central system supports two major function: accountancy/administration and production planning and control.

The internal information systems of the others - small and medium producers, specialists and subcontractors - is functionally similar to the one of the leaders. Dimension and structure of the information system are proportional to the dimension of the company. The major elements of innovations are enclosed in the strategy of development of the specialists. These companies show a large propensity and interest toward open technologies. For instance, the major producer of accessory (Fedon) in the district is starting a project to test an extra-net platform for customizing the relationships with its clients.

Two major projects respectively aimed/aims to support the introduction of a common digital platform for electronic commerce in the district. The first, financed by a local saving bank and sponsored by the local industrial association, was a study of feasibility of an EDI infrastructure for the district. The feasibility study was entrusted to Consozio Venezia Ricerche, a research consortia that initially promoted the initiative. The goal of the feasibility study was twofold: verifying economic impact of the project, identifying a group of initiators and a set of procedures to start with. The project proposes two alternative strategies of development. The first, sponsorship, based on the direct involvement of the leaders as sponsor of the innovation. The second, institutional, based on the creation of an EDI-center with the function of developing and promoting the adoption of this technology. The first was considered to be less feasible than the second one because private leaders did not show any commitment to the project. The second was proposed to the directive committee of the industrial association, which rejected the proposal. The committee did not evaluate the development of this infrastructure as useful for the competitiveness of the district. Two are the major motivations justify such a result. The district, at the time of the proposal, was in one of its period of major growth. The second, the development of an EDI infrastructure was considered to be the source of rigidity.

The second project is named local plan of action. It is project promoted by the collective operator for the district. The investment is of 6 billion Lire, 70% financed by the public sector (regional government and European Community). Two are the sub-projects relevant for the codification of trust and the development of a common platform for electronic commerce. The first is the establishment of a common quality brand for the district. The second project instead aim to develop an internet trading system not only for selling products, but also for selling the availability of production capacity. Both projects will be finished in the year 2000. Thus, it is impossible to address any conclusion on the result of these two projects. However, during our interviews we have observed lack of information about the two projects and a diffused skepticism, especially among leaders and specialists, about their implications.

G. Discussion

The district of Belluno represents a strong version of de-coupling district. In our conceptualization the leaders are local interface between contextual trust and codified trust. The case of Belluno shows that leaders, in order to increase quality and control along the value chain, have internalized the production process and minimized their dependence on the district.

The case of Belluno evidences that the structure and cycle of evolution of the sector influences the process of codification of the trust-base. The growth of the demand and high profitability of the process has contributed to the development of production center culture in the district. Furthermore, the continuous success has contributed to the consolidation of the traditional business model based on the informal base of trust. The major consequence has been the inhibition of the searching process for systemic innovation and efficiency.

The structure of the district has inhibited the process of codification of contextual-trust. Confronted with the choice of internalizing the production process or controlling it through the development of inter-organizational information systems, the leaders have choose the first option. The action of the public leadership shows some difficulty to produce some relevant influence on the dynamic of the district. In our perspectives two are the major limits: lack both of credibility and competence. The possibility of the specialists to drive this process is limited by their position in the district. On the one hand, the specialists are waiting for the leaders imposing these modalities of networking. On the other, they have only limited influence on the strategy of the followers. Finally, the followers are not able independently to promote such evolution.

In our perspective two are the possible alternative scenarios that may change the current situation toward position more compatible with the global demand for codification. The first is based on the inversion of strategy of the leaders. The second is based on the creation of new form of partnership between public and private sector that aims to support the creation of open forms of leadership.

The decision to reorganize the value chain may be motivated by the need to reduce the operative cost in a mature sector. This can move in two complementary

directions. The first direction is to increase the level of cooperation between production and distribution. The second is to increase the level of flexibility by externalizing the production to a selected group of specialists and sub-contractors that respond to certain parameters of quality and trustworthiness. In this scenario the role of the leader is to guarantee of the quality and trustworthiness along the value chain and to provide services functional to the coordination. IT here performs the major function of supporting cooperation and control along the value chain. In this perspective the leaders may cooperate in the definition of a common open technological platform in order to reduce the internal and the external cost of duplication. The past positive experiences in the field of standardization may represent a solid starting base.

The second strategy is based on the creation of open form of leadership initially sponsored by the public leader. The public leadership of the district has adopted a defensive strategy to protect the district from the global competition. The local plan of action moves in this direction. The definition of quality brand for the district aim to qualify the district with respect to the emerging countries. This strategy, however, it is not sustainable in the long run. The public leadership can play a positive role only if promotes internal competition between alternative project. The goal of these projects should be the creation of open forms of market leadership. The nature of this leadership is not determined by the absence of entry barriers, but by the definition of common system of accrediting and control. The new leaders should compete in their ability to guarantee the respect of the rules. The higher is the level of trustworthiness generated the higher the attractiveness of the community the higher is the profitability associated to the participation to the community and vice-versa. Information technology in this case could be used to strength the cohesiveness of the industrial district around multiple leaders.

H. Conclusion

This paper had two major goals: identifying the major factors influencing the process of glocalization of trust and defining strategies local systems implement to create compatibility. We identified three major factors influencing the capacity of local systems to produce global-codified trust: the internal cohesiveness, the sector and the market position of the community, and the structure of the local leadership. We identify three major strategies of glocalization: de-coupling, loosely coupling and coupling. Different contextual conditions of application and different roles of IT in supporting trust characterize each of this strategy.

The case of de-coupling district we present confirms most of our expectations. The leadership-structure and strategy inhibits the transition toward forms of electronic trust. The public leadership is not capable to introduce any changes in the dynamic of the district. The success and the structure of the district, on the one hand, and the prevalent culture shared, on the other, prevent that the transition may take place spontaneously. At conclusion of our analysis we identify two possible scenarios that may support the transition toward position more compatible with the development of forms of electronic trust. The first is based on inversion of strategy of the leadership, which may decide to reduce the internal cost of production and to increase its flexibility though inter-organizational information systems. The second is based on a partnership among followers, specialists and public leadership. The function of the public leadership is, on the one hand, to promote form of aggregation and, on the other, competition among group on the definition of quality-parameters.

This part of the research is only in its initial stage and it will be object of further investigation. We will also analyze other case studies responding to the other two models we develop. Our goal is to develop six case studies belonging to different sectors, innovative versus traditional, in order to cross-analyze the dynamic of different form of leadership in the two type of sectors.

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