

What Gives Industrial Clusters a Sustained Growth?

Sweta Singh

This article analyzes the sustainable practices and operations of firms belonging to industrial clusters. The effective functioning of an industrial cluster is explored and argued from two prominent paradigms of organizational theory, the network paradigm, and the resource dependence paradigm. From the network theory perspective, embedded relations, trust-based relations, and matching theory explanations are argued to discourage opportunistic behavior. Resource dependence theory focuses on the firm's ability to establish relationships to access resources, creating dependencies, power imbalances, and uncertainty among firms. In the case of the industrial cluster, social proximity acts as a source of strength. The inter-organizational relationships depend on trust, embeddedness, and informality of relationships.

Sweta Singh is Assistant Professor, Indian Institute of Management Amritsar, India Email: swetas@iimamritsar.ac.in

Introduction

Industrial clusters can be defined as “the concentration of specialized industries in particular localities” (Marshall, 1925). The term industrial clusters has seen interest from scholars of different disciplines such as geography (Krugman, 1991), sociology (Saxenian, 1994), strategy (Porter, 1990), political economy (Best, 1990) and more recently economy (Belleflamme et al., 2000). Clothing trade in Northern Italy, the electronics industry in California, timber products in Sweden, Kanpur leather industry in India are a few examples of such industrial clustering. Probably, due to the success observed in geographically co-located economic activities, the amount of attention given to territorial agglomeration has increased steadily. The importance of these clusters has been noted by many scholars including Porter (1998: 90) who states that “In a global economy- which boasts rapid transportation, high-speed communication, and accessible markets- one would expect the location to diminish in importance. But the opposite is true. The enduring competitive advantages in a global economy are often heavily local,

arising from concentrations of highly specialized skills and knowledge, institutions, rivals, related business, and sophisticated customers.”

The competitiveness of industrial clusters has been attributed to new market exploitation and cost reduction

The benefits accruing to the firms in an industrial cluster are manifold. For example, Molina-Morales (2001) found that the population of a firm with culturally homogeneous community benefits from the localized accumulation of skills. The first justification of the benefits derived from industrial clusters is Marshallian economies (Marshall, 1925) according to which economies can benefit from increased pooling of common factors like skilled human resources, technological spill-overs and specialized suppliers. Further, the intangible resources like knowledge, experience and information can aid the smooth functioning of industrial clusters (Mudambi et al., 2017). The diversity of local condition, institutional and economic environment influences the learning process and is as essential as microeconomic linkages (Saxenian, 1994). Industrial clusters have been recognized to generate knowledge (Li et al., 2019), competitive advantage (Schmitz, 1999), collective efficiency (Desmarchelier & Zhang, 2018), and better performance than isolated ones (Delgado et al., 2016). The competitiveness of industrial clusters has been attributed to new market exploitation and cost reduction (Iammarino & Mccann,

2006), but the sustainable development of industrial cluster has received insufficient attention.

Sustainability is a broad context and can have different connotations. The life cycle of a group of firms in a cluster and its sustainability could be understood from the environment perspective as well as economic development. Industrial clusters emerge, grow, stagnate and decline, and sometimes they emerge from crisis and regenerate. The question then arises: what factors contribute to clusters ability to sustain and what are the sources of their sustainability? This paper aims to offer arguments from a network-based perspective and resource dependence perspective to explain and understand the sustainability of firms belonging to the industrial cluster.

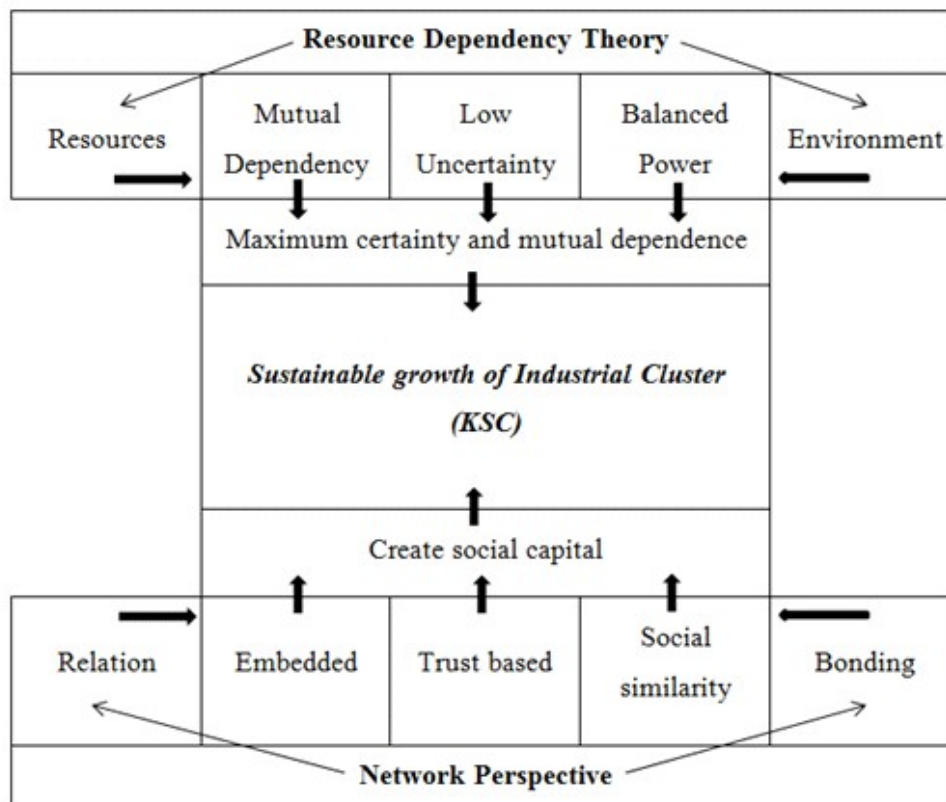
A Network-based View

The network is “*a set of actors connected by a set of ties*” (Borgatti & Foster, 2003) and networking is “the process of contacting and being contacted by people in our social network and maintaining these linkages and relationships... a set of relations, linkages, or ties among people” (Burke, 1993). Social capital, in general, is the value of relationships and is often considered as a powerful renaming of a large band of network research (Walker et al., 1994). Relationships with other firms, organizations, and the government is characterized by reciprocal services, intimacy and emotional intensity. Through networking, organizations can get access to financial, strategic and information resources. Firm’s network position

can foster performance (Gulati et al., 2000). The value of superior network position can be realized in numerous ways to enhance the performance of the firm. Business is based on long term relationships; hence the position of the actor in the social structure is irrelevant. We ad-

dress here questions like: (1) what type of networks does exist in an industrial cluster? (2) how the network affects the business among firms in an industrial cluster? (3) can the network and linkages among firms lead to the sustained growth of firms and industrial cluster as a whole?

Fig. 1 Application of Insights from a Resource Dependence Perspective and Network Theory to Explain the Sustainability of Industrial Cluster



Network Structure in Industrial Districts

The interest among researchers about inter-firm networks has shown increasing trends (Sydow, 2002). Network literature has extensively documented the

benefits of ties in an organizational context. Insights from network theory can be used to explain and understand the web of interdependencies. In industrial clusters, the collaborative networks inside and outside the cluster do not include every firm in the cluster (Boschma &

Wal, 2007). The firms in industrial clusters are embedded such that the different links present them different opportunities (Taddeo et al., 2017).

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The ties and network in an industrial cluster will be seen through three lenses of network paradigms: embeddedness, trust-based relations and matching theory.

Embeddedness: Embeddedness, as discussed by Granovetter (1985), is a critical network mechanism according to which all forms of economic behavior are embedded in a social context. The main argument of this phenomenon reflects that economic behaviors are affected by social relations and the structure of the overall network of social relations. It is a continuous process which is shaped by relations of different constituents which facilitates trust-based relation and discourages opportunism. Restricted access, collective sanctions, reputation and macro culture, are cultivated in such type of relations (Jones et al., 1997). Embedded ties enhance business performance (Bai & Johanson, 2018). The repetitiveness of the relations generates embedded logics of exchange and has been found to affect the cost of capital (Uzzi, 1999); continued client relations (Baker et al., 1998) and clients (Uzzi, 1997). The Embeddedness of relationship between inter-organizations follows from ‘whole’

networks (Knoke, 1990). Strong embeddedness of economic transactions in social relations between organizations can depreciate opportunistic behavior (Shahmehr et al., 2015). Opportunistic behavior has a control effect which leads to incurring relative cost for an alternative course of action. In addition to cooperative behavior, dense embeddedness further leads to network closure and cohesive groups which facilitate learning, cooperation and trust. Industrial clusters are said to have an unusual level of social integration and embeddedness, which arises from durable social capital, social history and collective action (Gordon & McCan, 2000).

In such clusters where the trade is between local linkages, cooperation with firms outside the district is minimal (Gebreeyesus & Mohnen, 2012). The information is obtained from local and informal relations. The social relations are thus recognized, and preference for a transaction is given to those with a known reputation. This reputation builds over time results in dense, socially embedded relations which fosters business activities and is often long-term relation. Thus, the socially sustainable embedded relationship influences the ability of the industrial cluster to sustain such that the economic, as well as regional prosperity, becomes evident.

Network Based on Trust

Industrial districts have been found to have cooperative relations and trust among firms (Paniccia, 1998). Coleman’s (1990) view on network closure focuses

on the risk of being a broker and proposes that networks with closure can be advantageous for a firm. Also called bonding (Adler & Kwon, 2002), a closed network at firm level represents a situation where all firms are connected to other external sources like other firms, suppliers and customers. It affects access to information such that information is diffused and all firms have the potential to get access to it. A critical feature of a closed network is that it is less risky to trust others in the network. Coleman (1990:103) emphasized the importance of trust to the extent that he argued: "But without a high degree of trustworthiness among the members of the group, the institution could not exist." Other scholars (e.g., Putnam, 1995) argued that closure of the group and density within the group is required to enhance trust, norms, authority and sanctions. This solidification ensures that all individuals of a group can mobilize resources. Coleman (1990) argued that actor benefits from the dense network because such network discourages opportunisms and facilitate trust among actors. Such dense networks are characterized by the presence of a high level of trust and strong compliance of social norms (Tsai & Ghoshal, 1998). Such a high level of trust diminishes the risk of opportunism (Xu et al., 2012).

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In such clusters, economic actors focus on cooperation with whom they

have a strong interpersonal relationship (Dakhli & Clercq, 2004). Coleman (1990) posits that relying on norms and sanctions cultivates free sharing of information. In an empirical study (Zaheer & Venkatraman, 1995) found that trust and network closure reduced cost related to monitoring alters and enhanced relation-specific investment, which finally, in turn, enhanced firm performance. Other benefits of a closed network include mutual understanding between actors and reduced possibility of misinterpretation of a firm's action by alters (Gulati, 1995). Further, it has been argued that trust is something which comes out of the community by itself (Brusco, 1992). Repeated interactions, when found satisfactory, gradually lead to the development of trust. In addition to that, in such closed structure norms play an essential role in restricting opportunistic behavior. In an industrial cluster, the networks among actors are characterized by: (1) strong compliance of norms and (2) cooperation which facilitates (3) free flow of information and (4) discourages opportunism. Inter-organizational trust in an inter-firm network is regarded as an essential control mechanism and as an enabler to sustained organizational development (Nooteboom, 1996).

A Matching Theory of Explanation

Most of the firms in a typical industrial cluster are entrepreneurial. The literature on entrepreneurs' network posits that quality and structure of entrepreneurs' interpersonal ties shape access to information and hence can affect outcomes like venture growth (Vissa &

Chacar, 2009), and capability acquitting. There have been studies with a supporting view of how similarity can enhance tie formation (Ruef et al., 2003).

The theory of planned behavior (Ajzen, 1991) and bounded solidarity and enforceable trust (Portes & Sensenbrenner, 1993) can be used to explain such tie-formation and networking behavior. According to the theory of planned behavior (Ajzen, 1991), intentions are the primary driver of specific behavior. According to this theory, an individual's intentions are derived by attitudes (a person's disposition), subjective norms and behavioral control factors (variables that affect a person's perception about performing behavior). Matching theory argues that when an actor perceives net positive benefit out of a match, the actor enters into the match. The high level of trust between in-group members in ethnic entrepreneurship can be explained by bounded solidarity and enforceable trust (Portes & Sensenbrenner, 1993). Bounded solidarity refers to network formation based on common group membership, whereas enforceable trust is the fear of loss of reputation. Systematic evidence of both mechanisms was showed by Kalnins & Chung (2006), who found that entrepreneurs from Gujarat helped each other by in-tangible resources (e.g., valuable information about trade) and tangible resources (e.g., cheap supplies).

Whether social similarity can foster the formation of economic exchange ties in the inter-organizational alliance can be explained using matching theory

Social similarity has been found to foster trustworthiness.

(Mitsuhashi & Greve, 2009). Social similarity fosters tie formation because it improves the odds of creating a trustworthy relationship. After all, individuals group themselves based on attributes such as race and occupation. Social similarity has been found to foster trustworthiness (Brewer, 1979). Ease of communication shared knowledge, attitudes, and worldviews arising out of social similarity can further improve ties among individuals (Rogers & Bhowmik, 1970).

Resource Dependence Paradigm

Pfeffer & Salancik (1978) in their seminal book, "The External Control of Organization: A Resource Dependency Perspective" maintains that organizations are resource insufficient and they have to depend on the environment and organizational context for acquisition of resources. They described internal power struggles between individual dynamics as well as industry level dynamics. But power struggle and dependence are most widely used to understand inter-organizational relation. This perspective explains to understand the motivation of the organization to form inter-organizational relation, which can ensure organizational survival and enhance firms' autonomy. Since external actors control resources, hence: (1) social context matters, (2) organizations have strategies to pursue an interest, and (3) power is important to understand actions taken by the organization.

Multiple external players constrain the choice of organization, and thus firms are concerned with building acceptance with external stakeholders. To sustain, it is essential for an organization to proactively and efficiently manage competing demands. In response to that, the organization tries to minimize dependency and especially aspires to avoid critical resource uncertainty (Nienhueser, 2008). Dependency and uncertainty derive out of environment impact power distribution and resource acquisition. So, the organization tries to maximize independence and certainty and takes measures to cope with the same (Hillman et al., 2009). Few examples of tactics employed by the organization to reduce dependence on external actor include coordinated activities with other organizations, joining associations, and forming alliances and joint ventures (Pfeffer & Salancik, 1978). Firms compete with each other for a resource which increases dependency on the immediate actors for the same. Alliances have been considered one of the tactics to deal with dependence on other firms. It is an agreement between organizations to pursue joint objectives through sharing resources, knowledge and coordination activities (Scott & Davis, 2007: 206). Though the resource dependence perspective has not been applied to study the functionality of industrial cluster, it seems logical to study the resource dependence perspective in this context.

In industrial cluster, both vertical and horizontal coordination are prevalent (Chakrabarti & Varman, 2009). Manufacturing units in industrial cluster form alliances with suppliers for raw material,

and with distributors for catering domestic demand and export. The firm's ability in an industrial cluster to establish a relationship with suppliers, business associations, customers to access resources determines their business functioning. Firms often strengthen their relationship with customers and suppliers to bring certainty in their business. The above phenomenon can be explained through arguments of resource dependence perspective, which explains that in a resource-dependent environment, firms absorb constraints by forming alliances (Van Witteloostuijn & Boone, 2006). In the flow of needed resources, organizations restructure their dependencies by forming coalitions and reduce uncertainty. Pfeffer and Salancik (1978) suspected that firms in inter-industry alliances could gain from coordinating their actions implicitly. Further, industrial clusters very often form friendly relation with other actors with whom they perform business activities. This can reduce uncertainty and stabilize the flow of valued resource. The research questions, thus, are: how does the availability of recourses affect the sustainability of industrial clusters? What strategies do they employ to avoid being co-opted by their dependents?

Mutual Dependency & Power Balanced Relation

The underlying assumption of the resource dependence perspective is that no organization can sustain in isolation and without transaction with its environment (Aldrich & Pfeffer, 1976). A critical aspect of performing better is to be aware of critical resources an organization

The heart of the resource dependence perspective is the control over the resource, which is central to the functioning of a firm's performance.

needs, and how external variables can influence the acquirement of these required resources. In industrial clusters, constraint absorption tactics include favorable exchange conditions. Casciaro and Piskorski (2005) argued that the ability of an organizations to absorb constraints depends on what an organization can do to absorb constraints. Mutual dependence absorbs constraints successfully. In industrial clusters, as the mutual dependence increases between organizations, the attempts to absorb constraints become increasingly successful. The heart of the resource dependence perspective is the control over the resource, which is central to the functioning of a firm's performance. According to Pfeffer and Salancik (1978), there are four measures which determine the organization's dependence on other actors for a resource (fig.2).

The Magnitude of Exchange

An organization's vulnerability to extra organizational actors depends on the share of total inputs and share of total outputs. If the organization depends on only one or a few inputs, then the dependence on the provider of that critical resource is higher. Similarly, if an organization creates only one or a few products, then the dependency of that organization on its customer increases.

Criticality

The criticality of the resource is the measure of an organizations ability to perform in the absence of the resource and market for output (Pfeffer & Salancik, 1978).

Concentration

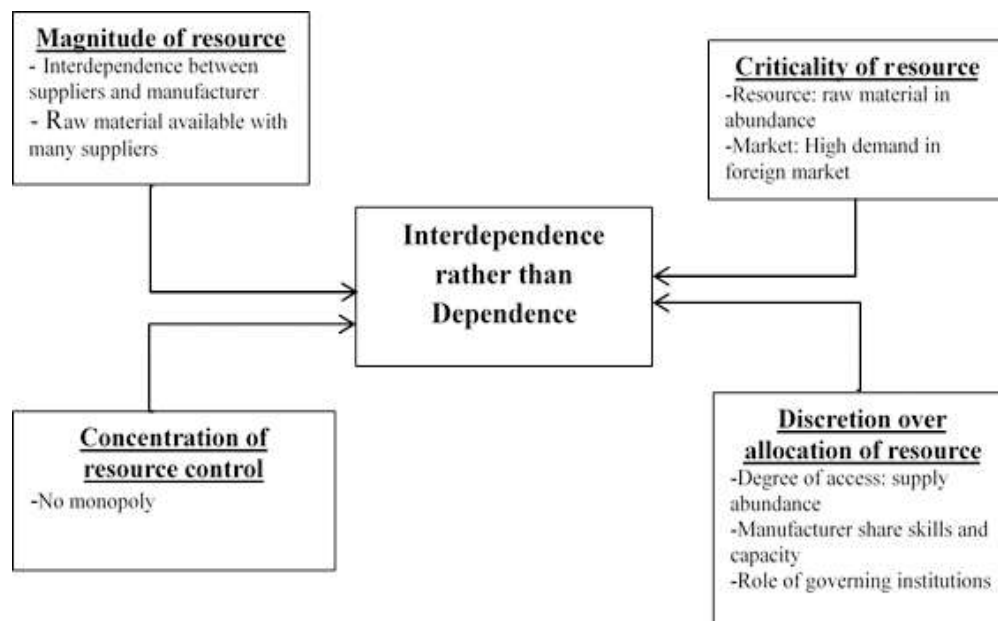
According to Pfeffer & Salancik (1978), control over an important resource does not solely assure the ability to create a dependency for another organization. Concentration is the extent to which input-output transaction is done by a few or one organization. Higher the concentration, higher is the dependence for other organization. One primary reason for concentration could be the monopoly position of an organization or group of organizations. This concentration allows focal organizations to substitute sources for the same resources.

Discretion

The fourth determinant of dependence is discretion about allocation and use of a resource produced by other, external agent. Discretion about resource allocation is a source of power. In a dense organizational environment, absolute discretion is rare, more commonly the degree of shared discretion is prevalent. The basis for control over other firms in a vertical chain can originate from the degree of access over a resource. The higher the degree of access to a resource, the higher one can enjoy the control over firms in need of that resource.

Further, the ability to make rules or regulate the possession can also give actors control over the resource. This dependence can be created by rules and regulations regulating access to supplies.

Fig. 2 Factors Leading to Interdependence Among Various Actors in Industrial Clusters



The higher the dependency on an external actor for resources, the higher is the demand of actor (Pfeffer, 1982). Control over resources gives external actors perceived power and advantages in their relationships. Power imbalance arises out of dependencies of one actor on the other, or in simple terms can be represented by the ratio of a more powerful actor to less powerful actor. To portray the power dependence structure, both resource dependence and power imbalance need to be considered simul-

taneously (Pfeffer & Salancik, 1978). For any given level of mutual dependence, the level of power imbalance can be different. But in a high mutual dependence environment, the power is also expected to be balanced. A failure of any exchange will damage mutually dependent actors equally.

The mutual dependency comes into existence when one actor does not have entire control over required resources. According to Pfeffer and Salancik (1978), in behavioral interdependence "the activities are themselves dependent on the actions of another social actor". Casciaro and Piskorski (2005) argued that power relations should consider a

In a high mutual dependence environment, the power is also expected to be balanced.

dyadic relationship and each actor's dependence on the other. In an industrial cluster there exists symbiotic interdependence and the output of one becomes the input of others, and it is possible for both to be better off or worse off simultaneously. This interdependence facilitates the germination of cooperation which in turn impacts the performance of the cluster as a whole and reduce the extent of influence an external agent can have.

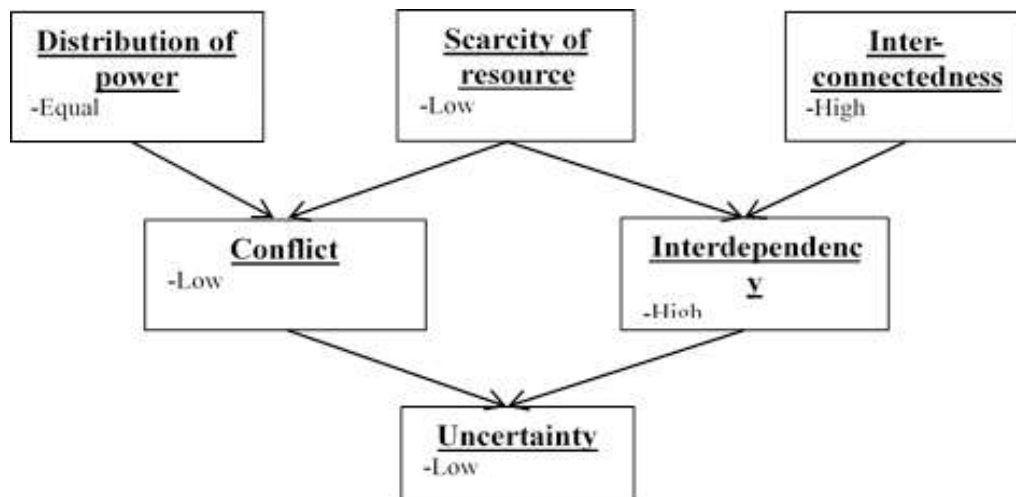
Low Uncertainty

When an organization faces instability and turbulence of the resource environment, it tries to buffer demand by "altering purposes and domains to accommodate new interests, sloughing off parts

of themselves to avoid some interests, and when necessary, becoming involved in activities far afield from their stated central purposes" (Pfeffer & Salancik 1978: 24). Unpredictability and uncertainty are often considered troublesome for organizations and can derive from a lack of coordination among social units.

There are various parameters which can determine the level of uncertainty in the environment in an industrial cluster which are the availability of raw material, interconnectedness, and the degree of conflict (Pfeffer & Salancik, 1978). So, a low level of conflict and willful interdependence reduces the degree of uncertainty in the environment, which leads to sustained growth (fig.3).

Fig. 3 Factors Leading to a Low Level of Uncertainty in Industrial Cluster



In high mutual dependence configuration, the resource exchange is critical for the survival of all the actors, and the symbiotic exchange relationship can reduce uncertainty in the environment. In an industrial cluster: (1) the social units

are engaged in coordinated activities and (2) have access to resources which are produced locally; hence (3) businesses are interconnected, which results in (4) low level of conflict, which in turn (5) fosters long term relationships which

are (6) open to restructuring when required.

Discussion

A few researchers believe that apart from geography, other forms of proximity like social and cognitive, are required for inter-firm learning (Capello & Faggian, 2005). In the case of the industrial cluster, social proximity acts as a source of strength. The inter-organizational relationships depend on trust, embeddedness and informality of relationship. According to Gordon & McCann (2000), there are two features of such trust-based relationships: (1) firms take cooperative and joint ventures without dreading about opportunism, (2) to support mutually beneficial goals, firms often forms a group. The intense network and informal relationships facilitate the free flow of information. Information regarding technology, human resources, market, orders joint selling in case of excess demands. The relationships are embedded in social networks and operate based on norms, institutions and shared assumptions. Industrial clusters reflect not just the decisions and responses taken based on economic complementarities and opportunities, but also an unusual level of social integration and embeddedness.

Industrial clusters also manage dependencies and reduce the constraints created by their environment by creating mutual dependence, power balanced relations and reducing the level of uncertainty in the environment. The joint action of various actors in an industrial cluster

can derive competitive advantage from local economies (Schmitz, 1999). A few empirical studies have found evidence of the higher performance of firms situated in the industrial cluster than isolated ones (Schmitz, 1999).

The sustained growth of industrial clusters can be due to depreciation of effect and control of external actors.

Tesfom et al. (2004) argued that resource dependence perspective could be applied to understand the need for a firm's resource acquisition in case they are exporting their product and services. Firms can accumulate resources from the home market that are required to export. When home market conditions are favorable firms can benefit from the presence of valued resources. In other words, home market favorability and factor condition enhance SME's ability to produce. Sustained growth very often originates from a favorable local context. The sustained growth of industrial clusters can be due to depreciation of effect and control of external actors. The suppliers, manufacturers, and exporters are intertwined and are interdependent and have power balanced relations.

Conclusion

The organization in an industrial cluster derives benefits from localization economies which are generated by the proximity of firms producing similar products. Pfeffer and Salancik (1978 :1) stated that "to understand the behavior of an

organization, you must understand the context of that behavior—that is, the ecology of the organization.” This is what has been the aim of the paper—to understand the reason for the sustainability of industrial cluster. As discussed earlier, firms belonging to the same sector enjoy higher productivity when located together. The interdependencies with other organizations and the network of the cluster were analyzed and are thought to be among a few explanations as to why industrial clusters irrespective of facing problems has achieved sustained growth.

The lifeline of a business is competition, but the prevalence of trust, mutualism and reciprocity is one of the reasons industrial clusters sustain. Firms derive growth out of local economies and joint action. Supportive institutions and healthy positive cooperative ethos are necessary for industrial clusters’ sustainability.

Both resource dependence and network perspective focus on the cooperative side of the relationship formation and are relation-based paradigms. The analysis of industrial cluster from resource dependence perspective reveals that mutual dependencies, power balanced relations and low uncertainty in inter-firm setting can predict their performance and growth sustainability. On the other hand, from the network perspective, embedded and trust-based relationship and relationship based on social similarity can facilitate cooperative behavior among the firms within a cluster. The prevalence of trust, embeddedness and matching criterion in interpersonal relationship is viewed as potential strength in an industrial cluster.

References

- Adler, P. S. & Kwon, S. W. (2002), “Social capital: Prospects for a New Concept”, *Academy of Management Review*, 27(1): 17-40.
- Ajzen, I. (1991), “The Theory of Planned Behavior”, *Organizational Behavior and Human Decision Processes*, 50(2): 179-211.
- Aldrich, H. E. & Pfeffer, J. (1976), “Environments of Organizations”, *Annual Review of Sociology*, 2(1): 9-105.
- Bai, W. S. & Johanson, M. (2018), “International Opportunity Networks”, *Industrial Marketing Management*, 70: 167-79.
- Baker, M. J., Buttery, E. A. & Richter-Buttery, E. M. (1998), “Relationship Marketing in Three Dimensions”, *Journal of Interactive Marketing*, 12(4): 47-62.
- Belleflamme, P., Picard, P. & Thisse, J. F. (2000), “An Economic Theory of Regional Clusters”, *Journal of Urban Economics*, 48(1): 158-84.
- Best, M. H. (1990), *The New Competition: Institutions of Industrial Restructuring*, Cambridge: Polity Press.
- Borgatti, S. P. & Foster, P. C. (2003), “The Network Paradigm in Organizational Research: A Review and Typology”, *Journal of Management*, 29(6): 991-1013.
- Boschma, R. A. & Wal, L. J. (2007), “Knowledge Networks and Innovative Performance in an Industrial District: The Case of a Footwear District in the South of Italy”, *Industry & Innovation*, 14(2): 177-99.
- Brewer, M. B. (1979), “In-group Bias in the Minimal Intergroup Situation: A Cognitive-motivational Analysis”, *Psychological Bulletin*, 86(2): 307.
- Brusco, S. (1992), “Small Firms and the Provision of Real Services”, in Pyke, F., W. Sengenberger (eds.), *Industrial Districts and Local Economic Regeneration*, International

- Institute for Labor Studies, Geneva, 177-96.
- Burke, R. J. (1993), "Women on Corporate Boards of Directors", *Equal Opportunities International*, 12(6): 5-13.
- Capello, R. & Faggian, A. (2005), "Collective Learning and Relational Capital in Local Innovation Processes", *Regional Studies*, 39(1): 75-87.
- Casciaro, T. & Piskorski, M. J. (2005), "Power Imbalance, Mutual Dependence, and Constraint Absorption: A Closer Look at Resource Dependence Theory", *Administrative Science Quarterly*, 50(2): 167-99.
- Chakrabarti, M. & Varman, R. (2009), "Labor in Global Value Chains: A Study of the Leather and Footwear Manufacturing Cluster of Kanpur", *Aspects of Indian Economy*, 47, retrieved from <http://rupe-india.org/47/leather.html> on 18 October, 2019.
- Coleman, J. S. (1990), *Foundations of Social Theory*, Belknap Press of Harvard University Press, Cambridge, MA.
- Dakhli, M. & Clercq, D. D. (2004), "Human Capital, Social Capital, and Innovation: A Multi-country Study", *Entrepreneurship and Regional Development*, 16(2): 107-28.
- Delgado, M., Porter, M. E. & Stern, S. (2016), "Defining clusters of Related Industries", *Journal of Economic Geography*, 16(1): 1-38.
- Desmarchelier, B. & Zhang, L. (2018), "Innovation Networks and Cluster Dynamics", *The Annals of Regional Science*, 61(3): 553-78.
- Gebreeyesus, M. & Mohnen, P. (2012), "Innovation Performance and Embeddedness in Networks: Evidence from the Ethiopian Footwear Cluster", *Elsevier Science Ltd. World Development*, 41: 302-16.
- Gordon, I. R. & McCann, P. (2000), "Industrial Clusters: Complexes, Agglomeration and/or Social Networks?" *Urban Studies*, 37(3): 513-32.
- Granovetter, M. (1985), "Economic Action and Social Structure: the Problem of Embeddedness", *American Journal of Sociology*, 91(3): 481-510.
- Gulati, R. (1995), "Social Structure and Alliance Formation Patterns: A Longitudinal Analysis", *Administrative Science Quarterly*, 40(4): 619-52.
- Gulati, R., Nohria, N. & A., Zaheer (2000), "Strategic Networks", *Strategic Management Journal*, 21(3): 203-15.
- Hillman, A. J., Withers, M. C. & Collins, B. J. (2009), "Resource Dependence Theory: A Review", *Journal of Management*, 35(6): 1404-27.
- Iammarino, S. & McCann, P. (2006), "The Structure and Evolution of Industrial Clusters: Transactions, Technology and Knowledge Spillovers", *Research Policy*, 35(7): 1018-36.
- Jones, C., Hesterly, W. S. & Borgatti, S. P. (1997), "A General Theory of Network Governance: Exchange Conditions and Social Mechanisms", *Academy of Management Review*, 22(4): 911-45.
- Kalnins, A. & Chung, W. (2006), "Social Capital, Geography, and Survival: Gujarati Immigrant Entrepreneurs in the US Lodging Industry", *Management Science*, 52(2): 233-47.
- Knoke, D. (1990), *Political Networks: The Structural Perspective*, Cambridge, Cambridge University Press.
- Krugman, P. R. (1991), *Geography and Trade*, MIT press.
- Li, S., Han, S. & Shen, T. (2019), "How Can a Firm Innovate When Embedded in a Cluster? —Evidence from the Automobile Industrial Cluster in China", *Sustainability*, 11(7): 1837.
- Marshall, A. (1925), *Principles of Economics*, (8th edn.), London, Macmillan.

- Mitsubishi, H. & Greve, H. R. (2009) "A Matching Theory of Alliance Formation and Organizational Success: Complementarity and Compatibility", *Academy of Management Journal*, 52(5): 975-95.
- Molina-Morales, F. X. (2001), "Human Capital in the Industrial Districts", *Human Systems Management*, 20(4): 319-31.
- Mudambi, R., Mudambi, S. M., Mukherjee, D. & Scalera, V. G. (2017), "Global Connectivity and The Evolution of Industrial Clusters: From Tires to Polymers in Northeast Ohio", *Industrial Marketing Management*, 61: 20-29.
- Nienhueser, W. (2008), "Resource Dependence Theory—How Well Does It Explain Behavior of Organizations?" *The International Review of Management Studies*, 19(1+2): 9-32.
- Nooteboom, B. (1996), "Trust, Opportunism and Governance: A Process and Control Model", *Organization Studies*, 17(6): 985-1010.
- Paniccia, I. (1998), "One, a Hundred, Thousands of Industrial Districts. Organizational Variety in Local Networks of Small and Medium-sized Enterprises", *Organization Studies*, 19: 667-99.
- Pfeffer, J. (1982), *Organizations and Organizational Theory*. Marshfield, MA, Pitman.
- Pfeffer, J. & Salancik, G. R. (1978), *The External Control of Organizations: A Resource Dependence Approach*, NY: Harper and Row Publishers.
- Porter, M.E. (1990), "The Competitive Advantage of Nations". London and Basingstoke: Macmillan.
- Porter, M. E. (1998), "Clusters and the New Economics of Competition", *Harvard Business Review*, 76(6): 77-90.
- Portes, A. & Sensenbrenner, J. (1993), "Embeddedness and Immigration: Notes on the Social Determinants of Economic Action", *American Journal of Sociology*: 98(6): 1320-50.
- Putnam, R. D. (1995), "Tuning in, tuning out: The strange disappearance of social capital in America", *PS: Political Science & Politics*, 28(4): 664-84.
- Rogers, E. M. & Bhowmik, D. K. (1970), "Homophily-heterophily: Relational Concepts for Communication Research", *Public Opinion Quarterly*, 34(4): 523-38.
- Ruef, M., Aldrich, H. E. & Carter, N. M. (2003), "The Structure of Founding Teams: Homophily, Strong Ties, and Isolation among US Entrepreneurs", *American Sociological Review*, 68(2): 195-222.
- Saxenian, A. (1994), *Regional Advantage: Culture and Competition in Silicon Valley and Route*, Cambridge, MA: Harvard University Press
- Schmitz, H. (1999), "Collective Efficiency and Increasing Returns", *Cambridge Journal of Economics*, 23(4): 465-83.
- Scott, W. R. & Davis, G. F. (2007), *Organizations and Organizing: Rational, Natural, and Open System Perspectives*, Pearson Prentice Hall: Upper Saddle River NJ.
- Shahmehri, F. S., Khaksar, S. M. S., Zaefarian, R. & Talebi, K. (2015), "How Relational Embeddedness Affects Business Performance Through Trust: Empirical Research on Emerging SMEs", *International Journal of Entrepreneurship and Small Business*, 26: 61-77.
- Sydow, J. (2002), "Inter-organizational Relations", in A. Sorge (Ed.), *Organization*, London, Thomson Learning.
- Taddeo, R., Simboli, A., Morgante, A. & Erkman, S. (2017), "The Development of Industrial Symbiosis in Existing Contexts. Experiences from Three Italian Clusters", *Ecological Economics*, 139:55-67.
- Tesfom, G., Lutz, C. & Ghauri, P. (2004), "Comparing Export Marketing Channels: Developed versus Developing Countries", *International Marketing Review*, 21(4/5): 409-22.

- Tsai, W. & Ghoshal, S. (1998), "Social Capital and Value Creation: The Role of Intra-firm Networks", *Academy of Management Journal*, 41: 464-76.
- Uzzi, B. (1997), "Social Structure and Competition in Inter-firm Networks: The Paradox of Embeddedness", *Administrative Science Quarterly*, 42(1): 35-67.
- Uzzi, B. (1999), "Embeddedness in the Making of Financial Capital: How Social Relations and Networks Benefit Firms Seeking Financing", *American Sociological Review*, 64(4): 481-505.
- Van Witteloostuijn, A. & Boone, C. (2006), "A Resource-based Theory of Market Structure and Organizational Form", *Academy of Management Review*, 31(2): 409-26.
- Vissa, B. & Chacar, A. S. (2009), Leveraging Ties: The Contingent Value of Entrepreneurial Teams' External Advice Networks on Indian Software Venture Performance", *Strategic Management Journal*, 30(11): 1179-91.
- Walker, J., Wasserman, S. & Wellman, B. (1994), "Statistical Models for Social Support Networks", in S. Wasserman & J. Galaskiewicz (Eds.), *Advances in Social Network Analysis*, Thousand Oaks, CA: Sage.
- Xu, G. N., Liu, X. F., Zhou, Y. & Su, J. (2012), "Effects of Relational Embeddedness on Technological Innovation: An Empirical Study in China", *Chinese Management Studies*, 6(1): 108-23.
- Zaheer, A. & Venkatraman, N. (1995), "Relational Governance as an Interorganizational Strategy: An Empirical Test of the Role of Trust in Economic Exchange", *Strategic Management Journal*, 16(5): 373-92.