



Department of Business and Management

Subject: Corporate Strategies

**“Lost in Transactions”: Overcoming a Market
Failure Through Embeddedness and Network
Structures**

Supervisor: Paolo Boccardelli

Examinee: Francesca Capo
637271

Assistant Supervisor: Francesco Rullani

Academic Year: 2011/2012

*“We are caught in an inescapable network of mutuality,
tied in a single garment of destiny. Whatever affects one
directly, affects all indirectly”*

Martin Luther King

Table of Contents

o	Abstract	(I-II)
o	Introduction	(III-IV)
o	Chapter One- “Lost in Transactions”	
-	We don’t need no Institutions- Coase’s Theorem	(V-XIII)
-	Mind the failure: Transaction Costs Theory- Definition (Coase & Williamson)	(XIV-XXIII)
-	Market or non-market: That is the question	(XXIV-XXXI)
o	Chapter Two- With a little help from my friends	
-	Social Capital: definition and frame	(XXXII-XXXIX)
-	All that glitters is not gold: detrimental effects of Social Capital	(XL-XLVII)
-	No firm is an island: creation of network structure as source of competitive advantage.	(XLVIII-LVII)
o	Chapter Three- Sometimes you can’t make it on your own	
-	All that firms can leave behind: moving away from vertical integration	(LVIII-LXVIII)
-	Embeddedness Theory: when quality matters	(LXIX-LXXVIII)
-	Fighting Transaction Costs: can networks of organization win?	(LXXIX-LXXXV)
o	Conclusions	(LXXXVI-LXXXVIII)
o	References	
o	Acknowledgements	

Abstract

It is true: the equilibrium between private costs and private benefits in a free market produces, by itself, efficient results. But what about social benefits and social costs? Do they reach an equilibrium by themselves, without the intervention of governments and institutions? Are the free market concept and Adam Smith's invisible hand enough to provide welfare and benefits from both private and public actors?

As these questions raised in the minds of economists, it became clear that there were failures in the market, failures that had to be filled.

This work starts exactly from this point: the market is not able to self regulate, particularly when regarding the disequilibrium between social costs and social benefits, disequilibrium that inevitably leads to the so called "spillovers" or "externalities". How externalities work and can be solved thanks to the negotiations between private parts in order to provide efficient results for the actors involved is what Ronald Coase deals with, in his paper "The Problem of Social Costs" (1960). But in his projections and assumptions, he leaves out an important aspect that regulates transactions between individuals: their costs. He in fact assumes that in carrying out market transactions there are no costs. Of course, that is an unrealistic assumption.

Thus what are specifically these transaction costs? How do they generate? Is there a way to reduce them?

Network could be the answer. In fact at the core of this work stands the attempt to analyse, after a brief description of what social capital is, what are its roots and what theories have been developed about (of course without excluding the possible detrimental effects which it may cause), how firms have been increasingly linking each other in the last decades creating network closed structures; how, according to modern theories, social ties

have affected the economic landscape and more specifically economic exchanges acting at the roots of what cause transactions to be not costless.

Whereas Transaction Cost Economics highlights the opportunistic side of relationships, the network paradigm developed by authors such as Burt and Coleman focuses on another advantageous side of relationships, claiming that “with a little help from our friends” it is possible to overcome some of the barriers that inevitably lead to an increase in transaction costs. Whereas according to neoclassicists coordination is unnecessary, because maximizers will choose, according to the price system, the best optimally adaptive responsive, modern theorists find it pivotal to create economic opportunities that would not be otherwise achievable through markets, contracts or vertical integration.

The last part of this work begins exactly explaining that it might be possible to leave behind market arrangements such as vertical integration: the stronger social ties are, the more firms are embedded in a network than the more complementarity between members or parts of the network structure happens, and trust, confidence and cooperation are enacted.

Transaction Cost Economics states that “Concepts such as trust and reciprocity only muddy the clear waters of economic analysis”: the purpose of this work is to overcome this prejudice and moreover to demonstrate, taking into account researches of contemporary authors, how being embedded in a network could be a source of competitive advantage.

It is not only about economic analysis, profits and costs. Networks are significantly shaping the global panorama and the way through which individuals, firms, governments cooperate and achieve collective goals. Social ties would let information flow freely, just as desirable in each modern democracy.

Introduction

When it comes to economics, what substantially matter for an individual is how to maximize his own welfare. Think about Robinson Crusoe: he used to live alone on a desert island and had to choose each day how to split his time and deploy his energies into several activities in order to maximize his welfare. Should he build up a hut where to sleep, should he go fishing, or perhaps he would be better off in going hunting? To decide he must had recalled the marginal condition of Walras/ Jevons, according to which he should have been carrying on all these activities until one more hour spent on each of these would have produced the same extra benefit. Thus, whether he found easier to capture a deer instead of catching a fish, he should go hunting.

Until you are alone on a desert island, this should be the way (economically speaking) in which you are supposed to live your life. But then it comes (hopefully?) Friday. Crusoe and Friday are able to exchange “commodities” for their reciprocal advantage. And that’s all: Crusoe is not bothered that Friday has a larger and more beautiful hut; neither he is by the smoke that comes out from the fire Friday burns up. Robinson just cares about himself and about what he has. That is the desirable condition for any economist: an atomistic rivalry.

Yet the world is not a desert island, and no one is Robinson Crusoe. People do care about others, they ruin each other to achieve prestige, wealth, recognition. In this sense, spillovers are unavoidable hence they are everywhere: building a house could damage your neighbours as you potentially obstruct their view. Smoking could hurt the health of people around you. If you listen to music at high volume, your roommate will not be able to sleep. That is why a laissez-fair view in an economic perspective cannot work. As Arthur Pigou states “ *Even in the more developed countries*

there are imperfections and many obstacles prevent the community productive means to be deployed in the most efficient way¹”.

He continues: “ *Industrials care about the net private product coming from their activities and not about the social one²”.*

To sum up: the utopian economics believes that the free market, being able to generate prices according to which companies and consumers break even private costs and private benefits, can produce by itself, efficient results. And what about social costs and social benefits? As the existence of spillovers demonstrates, the market has failed. The prices the market sets up reflect only private costs and benefits, in a way that the overall result produced by the economy is not efficient nor socially desirable.

¹ Pigou, A.G., (1920), *The Economic of Welfare*, Macmillan & CO., page 129.

² Cassidy, J. (2009), *Come Crollano i Mercati- La Logica delle Catastrofi Economiche*, Einaudi Editore, page 138.

Chapter I – “*Lost in Transactions*”

- We don't need no Institutions: Coase's Theorem

As Arthur Pigou, in his books “The Economics of Welfare” (1920), introduced the concept of social costs, it became clear that the invisible hand which used to equilibrate the market was scarred, and that this scar had been for a long time hidden and ignored by many economists.

To overcome the dichotomy between private and social benefits and compensate for the market deficiencies brought to life by the existence of externalities, Pigou proposed simple ways that go from taxation and fiscal regulation to public supply of services. Thanks to these measures and an efficient allocation of resources, he argued, “output could move toward the socially optimal level”. He, in a word, suggested to turn to Government intervention, in a way to internalize the externalities.

His analysis encountered many critics. One of the critics worth mentioning was raised in 1960, a year after his death, by an English economist named Ronald Coase. Two lines about his life will be useful to frame him in the relative context. He was born in Willesden (a suburb of London) in 1910, son of two telegraphists who worked for the post office. He attended the London School of Economics, achieving a bachelor of commerce degree in 1932. He then moved to New York, starting working at University of Buffalo, and obtaining the American citizenship in 1950. He then moved to Virginia in 1960 and to Chicago in 1964, becoming the editor of the *Journal of Law and Economics*.

Coase highlighted two main falls in Pigou's studies: first of all, externalities are not univocal. They are, in fact, reciprocal. The core of our questions should not be how it is possible to avoid the harm that A could inflict to B, but rather whether would be worthwhile to let A harm B or vice versa. To make an example: when putting out cattle to pasture, it is unavoidable in most of the cases that crops in a neighbouring land will be destroyed. Thus to increase the supply of meat, a decrease in the supply of

crops is to be taken into account. “*The nature of the choice is clear: meat or crops.*”³”

Secondly, it may happen that for the Government the cost of internalizing an externality can be more than the benefits obtained by eliminating it.

Hence does the existence of spillovers justify Government intervention? That question ran through Ronald Coase’s mind; in his essay, “The Problem of Social Cost” he pointed out how, in most cases, this problem narrowed to a merely conflict of property rights. When a chemical factory dumps toxic fumes in a neighbour housing estate, the right of the factory to exercise its own activity clashes with the right of the people living there to breath fresh and clean air. Thus, whose right will prevail?

Let’s start from two assumptions: the price system is costless and the damaging business has to pay for all the damages caused. Then, think about a peasant and a farmer operating on neighbouring properties: the cattle straying of the farmer will probably destroy crops. In addition, it is possible that by augmenting the size of the cattle-raiser’s herd (supposing that there is no fencing between the properties) the total damage to the peasant’s crops will increase.

To be clearer, numbers can be helpful: fencing the property will cost annually \$9 and \$1 is the price of the crop per ton. An increase in the cattle’s herd from two to three steers, given the assumption of liability of the farmer for the damages, will determine an annual loss of crops of 6 tons. Of course, the decision on whether or not increase the size of the herd will take into account not only the additional cost of crops, but also other factors, such as whether the additional meat produced will at least break even those costs.

Anyway in this situation, it seems obvious that fencing the property is not convenient at all. But if the farmer is thinking about having a herd with

³ Coase, R. H., (1960), The Problem of Social Cost, Journal of Law and Economics, Vol. 3, pp. 1-44.

four steers or more, knowing that this will determine 4 additional tons of crops loss, then fencing at \$9 will be the best solution.

Someone could easily think that the peasant could take advantage of this situation where a farmer has to pay for the damages caused by his cattle to the crops, by increasing the amount of crops cultivated. Actually that is not the case: on the contrary it may happen that the amount of planting is decreased. Again, arithmetic can clarify the issue: when \$12 is the value of crops cultivated and \$10 is the cost of land cultivated, the net gain for the peasant will be \$2. That is easy. When the cattle starts straying in that land, and the value of crop damaged is \$1, the net gain will always be \$2, as \$11 is the price obtained by selling the product on the market and \$1 will be paid by the farmer.

Suppose now that for the damaged crops the farmer will have to pay \$3; in this case, the net gain will remain \$2. The farmer would be better off if the peasant would be agree not to cultivate his land for any payment less than \$3 and, on the other hand, the peasant would agree not to cultivate his land for any payment greater than \$2.

In this case a mutually satisfactory bargain can be closed, leading to the abandonment of cultivation.

This situation is verified even if the cattle follows a specific route, damaging only a specific part of the land; the amount of crop damaged could be enough to lead them to the same bargain of not cultivating that piece of land.

However, in this case, another possibility could rise. Cultivating crop in that piece of land gives a value of \$10 and the total cost of cultivation is \$11. Clearly, in absence of the farmer, the peasant will choose not to cultivate this land. On the other hand if the farmer was involved, and the land cultivated, it could happen that the cattle would destroy the whole crop, and the farmer be forced to pay \$10: it means that overall the peasant will lose \$1, and the farmer \$10. Both of them will have interest in stopping this situation, and specifically the purpose of the peasant will be to persuade the farmer to pay for an agreement to leave this land uncultivated.

Surely the farmer will not abandon the location as the payment made will not be so high (not greater than the cost of fencing the property) and will moreover not vary according to the size of the herd. Thus the allocation of resources will not be affected by this agreement: what could be altered is only the distribution of wealth between the peasant and the farmer.

To sum up: if the pricing system is costless and the farmer is liable for the damages caused, in computing the additional costs derived by an increase in the size of the herd, a decrease in the value of production elsewhere will be considered. Consequently those additional costs are weighted against the value of additional meat produced and, supposing perfect competition, for the farmer the allocation of resources will result optimal.

Then, what is worth to be mentioned is that a decrease in the value of production elsewhere which the farmer takes into account could be less than the price he has to pay for the damages caused to the crops. That is possible because market transactions could lead the two person involved to reach an agreement which brings to the abandonment of cultivation.

When the value of the damages the farmer will cause is greater than the amount the peasant agrees to pay for the use of land, the abandonment solution is desirable (specifically, the price the peasant will agree to pay for the use of the land is the difference between “*the value of production when the factors are employed on this land and the value of additional product yielded in their next best use*”⁴).

In conclusion, market transactions lead to the maximization of the value of production, allowing for the abandonment of cultivation whether the damages caused to the crops exceed the price paid for the land to be used.

The other case with which Coase deals in his essay is the one involving a damaging business not liable for the damages caused (always assuming that the pricing system works smoothly).

⁴ Coase, R. H., (1960), The Problem of Social Cost, Journal of Law and Economics, Vol. 3, pp. 1-44.

In this case, an increase in the size of the herd will of course harm the peasant. That is why, he will be willing to pay an amount equal, suppose, to \$3 if the farmer reduces his herd to two steers, \$5 to one steer and \$6 if he stops straying his cattle. On the other hand, for the farmer, if the value of production when increasing the herd will be greater than the potential additional costs he will have to pay, the herd will be increased. Does not matter if the farmer is liable or not for the damages caused: the size of the herd will stay the same. Does not matter whether \$3 will be the sum paid by the peasant not to increase the herd of one steer or the gain for the farmer from the additional meat produced in adding one steer. Surely, without establishing that allocation of rights (whether the farmer is liable or not) market transactions to re-allocate or transfer them will not take place. But if the pricing system is costless the maximization of the value of production will anyhow happen, independently of the combination of rights between the people involved.

What has been described until now, and all the numerical examples provided, simply support one thought: according to Coase, when the property rights have been correctly specified and the laws apply effectively, an economically efficient result could be granted simply by the negotiation between private parts.

To sum up: let's recall the farmer above mentioned, whose heads of cattle happen to pasture in a nearby agricultural estate, destroying part of the crop. As long as the farmer and the peasant are able to face the costs deriving from having damaged the crop and the "trespassing law" has been clearly defined, they both will be stimulated to close a financial deal that will regulate future "invasions". The law will then play its role, establishing who will have to compensate the other. If the farmer is believed by the law to be liable for the damage, he will surely fence his cattle, or give the peasant an agreed amount to withstand possible occasional trespassing. If vice versa, (the farmer is not believed to be liable for the actions incurred by

its cattle), then will be in the peasant's interest (at his own expenses) to fence its property or to pay the farmer.

When the law is clear does not matter who has to pay. In both cases, the final result is to be considered Pareto-efficient, that means that is not possible to increase satisfaction for one part without diminishing that of the other part.

At the end of the speech, each person in the assembly to whom Coase was explaining his thoughts shared his view: any private negotiation could guarantee an efficient result. That is how Arthur Pigou's thesis was being surpassed: the Government does not have to stop the farmer harming the peasant (or viceversa) or to tax him if doing so.

And that is not all: in his book, "Economics of Welfare", Pigou also dealt with the problem that arises between social and private net products, when two people sharing their services or products, also indirectly benefit or harm a third person, who could anyway not claim compensation for the injuries suffered nor be claimed to pay for the benefits received. In that situation, according to Pigou, Government action could intervene to improve and regulate those "natural" tendencies, opposing the classical economists arguing that "the value of production would be maximized if the Government refrained from any interference in the economic system and the economic arrangements were those which came about "naturally"⁵.

Thus in his view, where the economic welfare has improved thanks to self-interest, it is because institutions have led them to do so; the system could well perform thanks to State action.

"But even in the most advanced States there are failures and imperfections (...) There are many obstacles that prevent a community's resources from being distributed (...) in the most efficient way. The study of these constitutes our present problem (...) Its purpose is essentially practical. It seeks to bring into clearer light some of the ways in which it now is, or eventually may become, feasible for governments to control the

⁵ Coase, R. H., (1960), The Problem of Social Cost, Journal of Law and Economics, Vol. 3, pp. 1-44.

*play of economic forces in such wise as to promote the economic welfare, and through that, the total welfare, of their citizens as a whole.*⁶”

And specifically what are these ways? Pigou reported the example of the damages caused by sparks from railways to woods around them. The first mistake is easily noticeable: there is nothing “natural” in the construction of a railway. For sure, it may happen that steam-engines are used without express statutory authority: but in this case the railway will ought to compensate for the damages caused to the woods, and that will mean that compensation happen where the State does not intervene. Thus seems at least strange that Pigou, who aimed at providing some kind of compensation, had chosen this example to show how Government action could improve “natural” tendencies.

But let’s go on in explaining this issue and make clear, as it has previously been done for the farmer and the peasant, that two situations could happen to be: one in which the railway is not liable for damages and one in which it is liable. In a situation of perfect competition and specifically, for the former one, suppose that the railway will gain \$200 in running one train per day and \$300 if it runs two trains. Thus, if the cost of one train is \$100 and that of two trains is \$150, it would be better off to run two trains.

And if one train could destroy up crops for a value of \$70 and running two trains will result in a destruction of \$140? Here, in case of liability, running one train becomes a desirable condition under which is possible to reduce the harm provoked.

Anyway, if the numbers change, the situation becomes quite different. In fact, if the damages provoked by one train increase to a value of \$100 and by two trains to \$170 it derives that it will not be profitable to run any trains. In this case, does it mean that there should be not railway? That is what Coase questioned about the Pigouvian system: is not always true that compensating damages provoked to a third part (in this case, the wood) is desirable. It depends on the situations. The best way to decide whether

⁶ Pigou, A.G., (1920), *The Economic of Welfare*, Macmillan & CO

liability has to be encountered, according to Coase, is to compare the private and social product.

In simple terms: when a vehicle approaches a traffic light that is red, it is common knowledge that it should stop. But if there are no other cars coming in the other directions, would the vehicle be better off in ignoring the red signal?

Surely that will allow the driver to get home earlier (private product) but that also will mean that he will be fined (social product). And given that the latter will be greater than the former, he will choose not to pass across the intersection.

Does it mean that would be better if there were no fines, as in this case the total product would increase?

This is what was defined, by George Stigler in his “Memoires of an Unregulated Economist”⁷, Coase’s Theorem. This “theorem” seemed to be, at that time, a brilliant breakthrough, a stunning insight in economics. Particularly, its charm seemed obvious to all the people who used to support the *laissez-faire* principle and its related economic doctrine: if, as it had been demonstrated until that moment, Coase was right and Pigou was wrong, there were many reasons to doubt several Government policies. Thus, while the free market concept was riding again the wave of success, Coase could surely emerge as its intellectual leader. In an article published in 1974, he supported the thesis that, contrary to the popular wisdom, the private sector was able to provide several public goods⁸ (in “The lighthouse in economics” he claimed that lighthouses were not public goods which only the Government could provide: actually in XIX century they were privately provided, as they owners were able to self-financing themselves by charging ships who came into the port).

Furthermore what has been argued until now, according to him, is that in case of externalities, spillovers, harm provoked from A to B, or from B to A, or from A and B to C, the intervention of Government will not be useful

⁷ Stigler, G., (1988), *Memoires of an Unregulated Economist*, Chicago Press.

⁸ Coase, R.H., (1974), *The Lighthouse in Economics*”, No.2, pp. 357-76

to achieve the most efficient solution nor to elevate this world to the condition of best world to live in. The recognition of who is liable between A B or C will not help re-establishing the lost equilibrium, as in most cases, as it has been previously consistently demonstrated, the maximization does not depend on liability and even if it did, it would not be simple (almost impossible) to clearly determine whether the liability should be placed. Think about noise pollution in the airports. It is believed to be caused by the airplanes: but if around the airport were no ears to be bothered, the problem would not have occurred. But given that there are, the harm could also go in the other direction (say from the ears to the airplanes). Then who to tax? The ears or the airplanes⁹?

After all that has been discussed, the answer seems easy: no one. Where the transaction costs are zero, market mechanisms are able to achieve the socially optimal equilibrium by themselves.

It could be mentioned the fact that Coase did not want to formulate any theorem, and that his conjectures were not meant to be classified as axioms. Critics argued that many economists, and George Stigler himself, were mistaken in elevating Coase's thoughts to the state of "theorem", as his assumptions could be better defined as a revival of Adam Smith's Theorem.

Anyway, what is interesting in his conjectures, thoughts, assumption, "theorem" is the way in which he proclaimed, or re-proclaimed, the free-market as a self-functioning machine, which is able (under particular conditions) to self-regulate and to achieve optimal social results.

⁹ McCloskey, D., (1998), Other Things Equal- The So-Called Coase Theorem, Eastern Economic Journal, Vol. 24, No. 3

- Mind the failure: Transaction Cost Economics

The particular conditions for which the market is able to self-regulate and to efficiently reach an equilibrium do not have to be undervalued. Coase himself, in his previously discussed article “The Problem of Social Cost” admitted that, when an externality damages not only A or B, but rather A and B and C and D and so on, let all these parts converge towards an efficient solution could be difficult and costly. Economists refer to these costs as transaction costs: on the occasion of the Nobel Prize Conference (which he won, in 1991), Coase pointed out that the “theorem” which carries his name is applicable only if these costs are minor¹⁰. He does not exclude the possibility that a Government intervention when these costs are positive could produce a better result than the agreements between private parties do. And Pigou himself would not disagree on this thought: when the spillovers affect a wider pool of individuals, private negotiation would not be feasible, as the relationship between these individuals are too complicated. In this case, the very visible hand of Government would be the best possible option.

And for sure, in this case Pigou was right. For thirty years after the Second World War, two factories managed by General Electric have been discharging in the Hudson River more than 450 tons of Pcb, polychlorinated biphenyl, which are highly carcinogen, polluting 320 km of water. In 1976 the State of New York forbade fishing in that polluted area and a year later the Federal Government prohibited the use of Pcb. On its side, General Electric Corporation put up a fight against the attempts to be enforced to pay for the damages caused. At the end of 2002, the EPA (Environmental Protection Agency) forced the company to drag stretch of the river to finally clean the Hudson from the residual Pcb. Albeit the Hudson Valley had

¹⁰ Coase, R.H., Conference in the occasion of the Nobel Prize, 9 December 1991, to be found at the webpage http://nobelprize.org/nobel_prizes/economics/laureates/1991/coase-lecture.html

became the largest toxic site in the country, at the beginning of 2009 the dragging works still had not been started (they in fact began in May 2009).

What happened to General Electric demonstrates how absurd could be, under particular conditions, to rely on Coase Theorem to prevent environmental disasters. The problem was, in fact, not in the establishment of property rights. Even if General Electric would have been willing to close an efficient deal, granting a compensation for both fishermen and bathers, so that it could have been able to continue using the Hudson as a dump, how could have done it? In the Hudson Valley live thousands of people and moreover, as history has demonstrated, Pcb parts stay on the river floor for decades. Computing all the individual costs and benefits as well as the private negotiations would have been impossible. In these circumstances, where pollution on a wide scale is involved, the Government intervention is the only way to achieve somewhat of an equilibrium between social benefits and costs.

The same problems rose, surely in larger measure, when it comes to global warming. Coase Theorem has little significance: in this case, who will be damaged is not even born yet. From a Pigouvian perspective, the main problem is that carbon is a way too cheap: the market prices consumers pay for products as fuel and electricity generated by fossil fuels do not reflect the environmental impact of their gases. Thus, the best way to let the cost of carbon match its social cost is imposing a “pigouvian tax” on products such as fuel which would be directly proportional to their gas emissions.

Hence, failures in the market arise when transaction costs are too high to let the Coase theorem’s forces work to solve the issue.

But what are transaction costs?

Let’s start understanding when a transaction takes place “ A transaction occurs when a good or service is transferred across a technologically separable interface”¹¹. It derives than transaction costs are all the costs

¹¹ Williamson, O.E. (1981), The Economics of Organization- The Transaction Cost Approach, The American Journal of Sociology, Vol. 87, No.3, 548-577

coming out from those exchanges, from those transfers. Searching for information about the market, is a cost (both in terms of money and of time); defining an agreement involves costs between parties; negotiating with your neighbour to avoid invasion and damages to your property (to recall Coase's situation mentioned in the previous paragraph) is a cost.

Hence, it seems that, in the study of economics, transactions costs play a pivotal role. In 1934, John Common¹² recognized that, the act of mediating the exchange of goods or services was mainly exercised by government structures, and that the way in which these parts were harmonized was central to the study of institutional economics.

Coase himself, in his paper "The Nature of the firm"¹³, pointed out how fundamental is the cost of using the price mechanisms (that means, transaction cost), because this ultimately influence the way in which a firm decides if to undertake within itself a particular activity, or to rely on the market to perform that function.

*"The choice between the firm and market organization is neither given nor largely determined by technology but mainly reflects efforts to economize on transaction costs; the study of transaction costs is pre-eminently a comparative institutional undertaking; and this very same comparative contractual approach applies to the study of economic organization quite generally, including hybrid forms of economic organization, externalities and regulation."*¹⁴

Thus, given their importance, how to minimize them? According to Oliver Williamson, economic organizations were born to achieve this goal.

In his paper, "Transaction – Cost Economics: The Governance of Contractual Relations"¹⁵, he aimed at identifying the dimensions which characterize transactions, claiming how inadequate the neoclassical model is

¹² Common, J. (1934), *Institutional Economics, Its place in Political Economy*, MacMillan Company.

¹³ Coase, R. H (1937), *The Nature of the Firm*, *Economica*, New Series, Vol. 4, No 16, pp 386-405.

¹⁴ Williamson, O.E., Winter, S.G., (1993), *The Nature of the Firm- Origins, Evolution and Development*, Oxford University Press, page 12

¹⁵ Williamson, O.E., (1979), *Transaction-Cost Economics: The Governance of Contractual Relations*, *Journal of Law and Economics*, Vol.22, No.2, pp. 233-261

for the failures in the market which has highlighted. In the attempt to identifying the governance structure that best fit a specific transaction, he tracks a legal background to the study of transactions. Recalling Ian Macneil¹⁶ he proposes three categories of contracts: classical contract law, which involves make present in place or time (so-called presentiation), according to which the identity of the counterparts is irrelevant and the deal is constrained by the formal aspects of the contracts; neoclassical contract law that includes long-term contracts and cause at least three problems to arise (it would be impossible to forecast future contingencies and thus to set required adaptations and moreover these adaptations could lead to the onset of controversies); relational contracting (based on trust). But in suggesting governance structures in which to fit each transaction, Macneil was missing some critical dimensions to characterize them. And that is when Williamson came over. Uncertainty, frequency and degree to which durable transaction-specific investments are incurred are what to be concerned of when classifying transactions according to his nature.

Leaving away for a minute the *uncertainty* dimension (which will be further discussed), Oliver Williamson proposed the matrix below reported in order to describe six different types of transactions that take place according to the above mentioned characteristics:

¹⁶ Macneil, I. R., (1974), The Many Futures of Contracts, Southern California Law Review

		Investment Characteristics		
		Nonspecific	Mixed	Idiosyncratic
Frequency	Occasional	Purchasing Standard Equipment	Purchasing Customized Equipment	Constructing a Plant
	Recurrent	Purchasing Standard Material	Purchasing Customized Material	Site-Specific Transfer of Intermediate Product Across Successive Stages

Figure 1-¹⁷ Illustrative Commercial Transactions

To match these characteristics, three broad types of government structures are proposed: non-transaction specific, semi-specific and highly specific.

		Investment Characteristics		
		Nonspecific	Mixed	Idiosyncratic
Frequency	Occasional	Market Governance (Classical Contracting)	Trilateral Governance (Neoclassical Contracting)	
	Recurrent		Bilateral Governance (Relational Contracting)	Unified Governance

Figure 2- Matching Governance Structures with Commercial Transaction¹⁸

¹⁷ Williamson, O.E., (1979), Transaction-Cost Economics: The Governance of Contractual Relations, Journal of Law and Economics, Vol.22, No.2, page 247

¹⁸ Williamson, O.E., (1979), Transaction-Cost Economics: The Governance of Contractual Relations, Journal of Law and Economics, Vol.22, No.2, page 253

The first ones (that involve both recurrent and occasional transactions) are commonly referred to as the market, in which buyers and sellers simply exchange goods at equilibrium prices¹⁹. When the transactions in place are recurrent, rely on the market is an efficient solution, as what parties need is just their own experience, based on which they will decide to continue the already long term exchange relationship or to stop it, and turn easily elsewhere. On the other hand, when transactions are nonspecific but occasional, buyers and suppliers could rely on the experience of others who trade the same good or service, in order to avoid opportunism.

The second category of governance structures is the semi-specific one, which in the table above is called “trilateral governance” (Neoclassical Contracting). Given the specificity of the investments, in this case market seems to be unsatisfactory: what is needed is an institutional form that falls between the boundaries set up by classical contract law to let these transactions been enacted (recall the above classification of contracts by Ian Macneil) and the high costs which will be incurred with a bilateral form of governance. Thus, when transactions are occasional, instead of bearing the cost of contracting between two parties, relying on a third party to avoid opportunism represents the most efficient solution.

Finally, when investments are of a specific or semi-specific kind but frequently take place (recurrent transactions), there is no need for a third party to be involved in the transaction. In fact, no one of the two parties will try to take advantage on the other, or will behave opportunistically, as this may jeopardize their future contractual relationships. In this case, a bilateral form of governance structure may suffice²⁰.

This particular solution is feasible when there are few buyers and sellers in the market and when scale economies can be achieved by outside procurement. Surely, as compared to vertical integration, a greater adaptability to the market is needed; however, transactions are frequent

¹⁹ Porath, B. Y. (1978), The F-Connection: Families, Friends and Firms and the Organization of Exchange, The Hebrew University of Jerusalem, Report no. 29/78

²⁰ Dahl, C. A., (1947), International Energy Markets- Understanding Pricing, Policies and Profits, PennWell Corporation, pp 169-181

enough to recover the contract setup costs. Hence, on one hand, buyers will not switch supplier or divert products to other uses: this will in fact require new setup costs and the high specialization of the products will not allow a target switch. On the other hand, for the same latter reason, suppliers will not search for other buyers to negotiate with.

In this case it is also true that, given that each part gain separate profits from the transactions, adjustments may happen. Specifically quantitative adjustments are not likely to alter the equilibrium and increase opportunism between parties as price adjustments do. These ones could in fact constitute a zero-sum game: the gain obtained by one party will inevitably result in a loss for the other. Of course, not all price adjustments are equal: whereas a particular condition that is beyond parties' control (so-called "escalator clauses") is verified, price adjustments are allowed.

That is not all: there is yet another solution to minimize transaction costs. When the specificity of physical and human assets is high²¹, economies of scale can be achieved in-house. The mode of organization becomes that of vertical integration (or unified governance, as from the table above): superior adaptive properties are achieved through this structure, both in terms of quantities and of prices. There is no need to close agreements with other parties: a firm will reach maximization of profits on its own. Surely, vertical integration will be worth doing if the administrative costs of organizing between firms are lower than the transactions costs associated with the market²².

Oliver Williamson's attempt to minimize transaction costs using governance structures which best fit specific investments' characteristics could probably be considered successful, as he paved the way in

²¹ Williamson, O.E., (1991), Comparative Economic Organization: The Analysis of Discrete Structural Alternatives, *Administrative Science Quarterly*, Vol.36 No.2, pp. 269-296. Williamson distinguishes between six types of asset specificity: site specificity, when different units are located side by side; physical asset specificity, when specialized machines are required to create a product; dedicated assets, which are investments in particular plants made for customers' requests; human asset specificity, given by learning by doing; temporal specificity; brand name capital

²² Coase, R. H., (1960), The Problem of Social Cost, *Journal of Law and Economics*, Vol. 3, pp. 1-44.

recognizing a market failure that could not have been ignored. However, there are yet other dimensions to be analyzed in order to have a complete understanding of this gap between firms themselves, and between the firms and the market around them.

Uncertainty is one of these dimensions. To be clear, a definition can be useful: according to March and Simon (1958)²³, “uncertainty is a key variable in explaining organizational behaviour”. For Thompson²⁴, “ an organization’s primary task is coping with the uncertain contingencies of the environment”; Pfeffer and Salancik²⁵ suggest that “ organizations structure their external relationship in response to the uncertainty resulting from dependence on elements of the environment”; Michael Porter considered uncertainty a trigger to the achievement of competitive advantage.

But where does uncertainty arise? With this aim, Sutcliffe and Zaheer²⁶ identify three different kinds of this dimension: primary, competitive and supplier uncertainty. The first one is related to exogenous conditions, and is not a voluntary non-disclosure of information. It does not depend on the person with who we are related, it does not depend on their behaviour (Williamson would have called this latter kind of uncertainty “behavioural uncertainty”²⁷): it is just based on the external environment and all the factors that can affect it, such as tariffs, standards, changes in technology.

The competitive uncertainty, as easily deducible from its name, refers to the one deriving from potential or actual actions undertaken by a firm’s competitor. It is what comes out from the so-called “horizontal competitive forces” which Porter describes in his analysis²⁸: the uncertainty that arises

²³ Sutcliffe, K. M., Zaheer, A.,(1998), Uncertainty in the Transaction Environment: An Empirical Test, Strategic Management Journal, Vol.19, pp 1-23.

²⁴ Sutcliffe, K. M., Zaheer, A.,(1998), Uncertainty in the Transaction Environment: An Empirical Test, Strategic Management Journal, Vol.19, pp 1-23.

²⁵ Sutcliffe, K. M., Zaheer, A.,(1998), Uncertainty in the Transaction Environment: An Empirical Test, Strategic Management Journal, Vol.19, pp 1-23.

²⁶ Sutcliffe, K. M., Zaheer, A.,(1998), Uncertainty in the Transaction Environment: An Empirical Test, Strategic Management Journal, Vol.19, pp 1-23

²⁷ Williamson, O., (1975), Market and Hierarchies, Analysis and Antitrust Implications: A Study in the Economics of Internal Organization, Free Press, New York

²⁸ Porter, M.E. (2008), The Five Competitive Forces that Shape Strategy, Harvard Business Review, pp 86-104

from threat of potential entrants, of substitute products and of actual rivals in a specific industry. Of course also this kind of uncertainty can be deliberate (due to firm's strategic issues) or unintentional (due to lack of knowledge of competitors).

The last type of uncertainty, the supplier one, depends instead on the exchange partners which whom the firm is tied. It may arise as a result of opportunistic behaviour from those partners, from the firm's suppliers. But we will come back on the issue of opportunism later on in this chapter.

To recap, an easy scheme of the kinds of uncertainty is provided below:

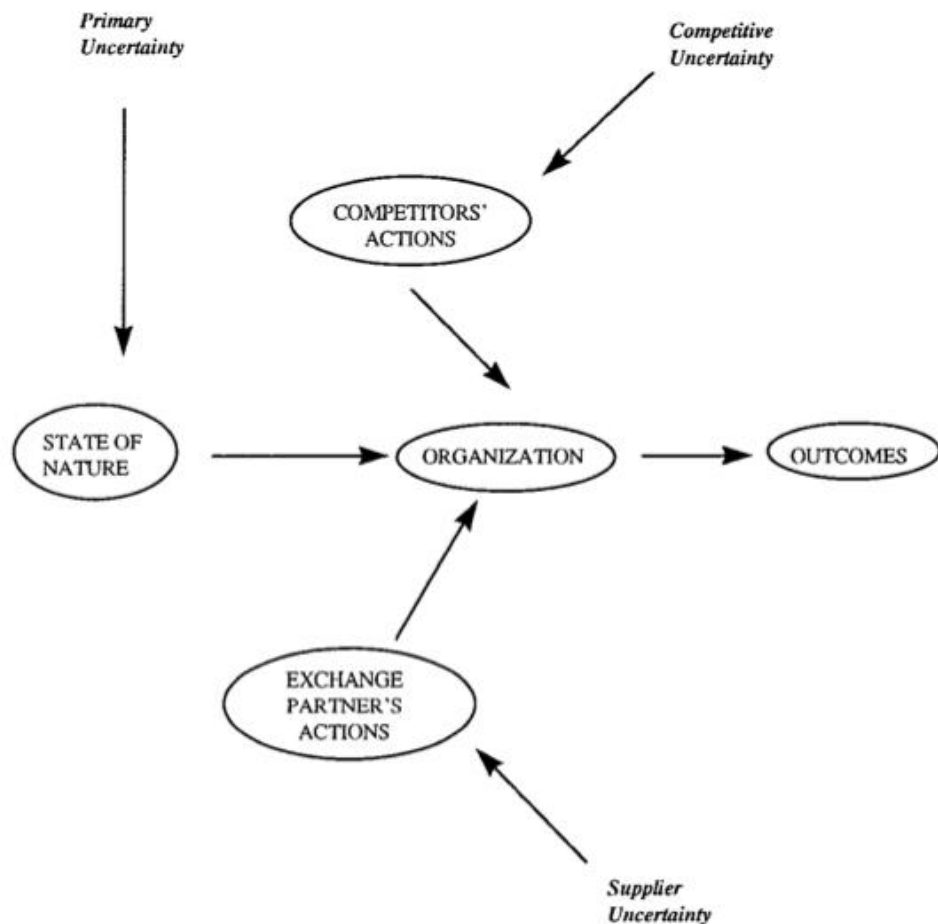


Figure 3- Sources of Uncertainty ²⁹

²⁹ Sutcliffe, K. M., Zaheer, A., (1998), Uncertainty in the Transaction Environment: An Empirical Test, Strategic Management Journal, Vol.19, pp 1-23.

A description of the kinds of uncertainty is also provided by Milliken³⁰ who distinguishes between state, effect and response uncertainty. State uncertainty definition is quite identical to that of primary uncertainty above given. It is uncertainty about the state of the environment: what will be consumers' tastes next year? What will be the shift in demographic and sociocultural trends? We do not know it for certain.

And then, how these changes will impact on us, on our organizations? That is what Milliken refers to as "effect uncertainty": we may be aware that an earthquake will hit our residential area, but we will not be able to estimate exactly the damages that it will cause to our house.

The third one, "response uncertainty" refers instead to difficulty of predicting which consequences will have choosing one alternative instead of another, particularly when the choice is made in a rush.

Whenever it depends on a state of the environment, effect or response to it, or on suppliers or competitors of an organization, uncertainty exists, and is a central issue in the transaction costs economics. When uncertainty is high, transaction specific investments should not be performed in the market. Williamson knew it³¹, and suggested also an alternative to the market structure which, at that time, seems more than valid.

³⁰ Milliken, F.J., (1987), Three Types of Perceived Uncertainty About the Environment: State, Effect, and Response Uncertainty, *Academy of Management Review*, Vol.12, No. 1, pp 133-143

³¹ Williamson, O. E., (1975), *Markets and Hierarchies: Analysis and Antitrust Implications*, New York, Free Press.

- Market or non-market: That is the question

“To a greater or lesser extent, and varying from place to place, the democratic state has increasingly become a do-everything state. Whether this happens under the pressure of circumstances or by virtue of deliberate choice, our political systems are intervening more and more in hitherto unregulated realms. More and more areas of decision are collectivized, that is, decided authoritatively for all. Much of this expansion is either sought or deemed acceptable. The battle begins, however, where the ‘visible hand’ of the state enters a course of collision with the ‘invisible hand’ of the market”³².

Who wins this battle? Actually no one, as it has already been discussed up to now in this chapter: but what we have learnt so far is that the invisible hand of the market is scarred, as there are failures which lead to the rise of social costs, or externalities. According to Ronald Coase, Government intervention or any other kind of strategic planning from the above state are not the best solution to avoid spillovers, they are not either a solution in fact: the agreement between private parties is enough to grant a socially optimal outcome. But this could only happen in the best world to live in: the one with no transaction costs, where the pricing system is costless. And that is not our world, not the world we actually live in.

Thus does in this case the very visible hand of the State become helpful to address the unsolved problem of externalities?

According to Arthur Pigou, the answer would be ‘yes’: when externalities affect a huge number of people, as we have demonstrated, Government intervention could limit the spillovers. But is there a way thanks to which each individual, or better say, each organization, can cope on its own with those market failures?

Hierarchy is the way: according to Williamson, for transactions that are highly idiosyncratic (that means specific), that happen frequently and

³² Thompson, G., Frances, J., Levacic, R., Mitchell, J., (1991), *Market Hierarchies & Networks: the Coordination of Social Life*, London, SAGE Publications, p. 154

involve uncertainty about their outcome, the best solution is to have vertical integrated firms. Surely, if the market was perfect, there would have been no need for hierarchy: information would have flown freely and decision making would have been rational. But the market is not perfect at all, information is not available for everyone and individuals are characterized by a 'bounded rationality'.

Individuals within an organization (and overall) are for sure intentionally rational, they do want to achieve their ultimate goals and correctly cope with the uncertainty of the environment. However they are not able to do so: because of the emotional architecture as human beings they sometimes fail³³.

The notion of 'bounded rationality' arose to highlight falls in the classical concept of rational economic models of choice: the decision maker is not always able to choose the alternative that will yield the highest level of benefit, as he often acts impulsively.

Think about a hunter: if he happen to stand in front of a ferocious lion, he would surely not lose time in writing down on a paper how to give his bullet the best trajectory. He would (and we would too) hazard a solution to the problem as soon as possible, without bearing the risk of been torn apart by the problem (in this case, the lion), before having found what would have been the best solution.

He would, to be clearer, just shoot the lion.

And that is what regularly happens in the everyday life. Contingencies on one side, and our emotional hemisphere of the brain on the other make us often take wrong decisions.

'Bounded rationality' is one of the reason why Williamson proposed hierarchy as a solution to transaction costs. The other dimension that he took into consideration when moving this proposal was 'opportunism'.

'Opportunism' in this case means that the economic actors take their own advantage of the situations, and to do so they use all the means available, even if they are not licit, even if they imply acting in a fraudulent way.

³³ Jones, B.D., (1999), Bounded Rationality, Annual Review of Political Sciences, Vol. 2, pp. 297-321

A distinction between the concept of ‘opportunism’ and ‘utilitarianism’ is worth doing: the latter in fact, has to do with the achievement of each personal advantage but at least in a legal, if not moral, way, while the former is often involved with deceitful actions.

According to Williamson³⁴, ‘opportunism’ is mainly shown thanks to what he calls ‘the lack of information’: that means refusing to provide necessary information, providing partial or misleading information, taking advantage of someone’s trust to cheat on the counterpart of the deal.

‘Opportunism’ is at best verified when the situation involves small numbers, few people who take part to the deal. When the number of people involved in the deal increases, competition increases in turn, thus there are more information available and less risk of fraud. A situation of perfect competition should hence discourage the opportunistic behaviour from agents.

Unfortunately, this is not the case. Opportunism in a situation that involves high transaction costs is well explained by the game theory model³⁵: suppose there are two agents, who, in dealing with each other, have either the choice to act opportunistically or to cooperate. To be more specific, let’s put it in numbers: if both the agents decide to cooperate, they will receive a payoff of \$15. The total payoff is of course the value of the total composite quasi rent that the transaction may generate, and is worth \$30. Suppose that, if agent A acts opportunistically, and agent B cooperates, the former will receive a payoff of \$20 and the latter will receive nothing (in this case, part of the composite quasi rent will be lost thanks to the non-cooperation between the parts). On the other hand, if they both act opportunistically, they will both be compensated with a payoff of \$10 (also in this case they will receive less than the total compensation, as the price for a lack of cooperation). Given this scheme, and assuming they do not know what will be each other move, if agent A thinks agent B will

³⁴ Williamson, O. E., (1975), *Markets and Hierarchies: Analysis and Antitrust Implications*, New York, Free Press.

³⁵ Hill, C.W.L., (1990), *Cooperation, Opportunism and the Invisible Hand: Implications for a Transaction Cost Theory*, *Academy of Management Review*, Vol.15 No.3, pp. 500-513

cooperate, he would surely act opportunistically, as in this way he would get more than if cooperating (\$20 instead of \$15). At the same time, if he thinks that agent B will act opportunistically, he will surely do the same, as if it does not, he would get nothing.

The conclusion of the game theory model is straightforward: it is better to act opportunistically, no matter what the other agent does.

That of course does not mean that everyone everytime acts opportunistically: “ *Opportunism is a variety of self-interest seeking but extends simple self-interest seeking to include self-interest seeking with guile. It is not necessary that all agents be regarded as opportunistic in identical degree. It suffices that those who are less opportunistic than others are difficult to ascertain ex ante and that, even among the less opportunistic, most have their price.*³⁶ ”

In the situation of repeated transactions or exchanges, moreover, other dimensions may play their role: reputation for instance. Even if there is always uncertainty about future contingencies, two economic agents may prefer to undertake a cooperative behaviour in lieu of an opportunistic one because the latter will give them an immediate higher yield, but a possible decrease of trust by other economics agents with who they could have to cope in the future. But the argument here is not how future exchanges may influence the economic behaviour between agents: it is, instead, how to uproot high transaction cost per sé.

Thus, to sum up, human beings have to deal not only with their bounded rationality, but also with the dishonesty of the others, together with the temptation of acting by themselves in a dishonest way³⁷.

And that is why Williamson proposed hierarchies as a solution to the high transaction costs. That is why he preferred to cope with the inefficiencies of bureaucratic organization instead of facing the higher transaction costs.

³⁶ Williamson, O.E., (1979), Transaction Cost Economics: The Governance of Contractual Relations, Journal of Law and Economics, Vol.22. No. 2, pp. 233-261

³⁷ Bonazzi, G., (2008), Storia del Pensiero Organizzativo, Franco Angeli

Here it is worth recalling what it has been previously stated in this chapter: as Ronald Coase suggested, in fact, the importance of transaction costs stands in the role they play in letting a firm decide whether to undertake by itself a particular activity, or to rely on the market to do so. Undertaking a particular activity means creating a hierarchical structure or, to say that in technical words, means being vertical integrated.

Specifically vertical integration is the strategy thanks to which a firm or an organization decides to undertake by itself an activity that is usually performed outside the firm. Vertical integration could be of two kinds: backward or forward. Backward integration means substantially owning a firm that create the basic materials of which our product is made, it means owning the supplier side of the chain. Forward integration means, as easily deducible, owning the other side of the chain, the distribution and retailing one. To make an example: a firm that produces automobiles can be backward integrated if it owns the firms that make metal or tires, and forward integrated if it owns an automotive showroom.

Surely also vertical integration has its costs; but when the administrative costs of undertaking a particular activity are lower than the costs of contracting to secure this activity by someone else, the argument is that an intrafirm organization is worth creating³⁸.

There are several advantages that this structure yields. Higher control is one of these: the firm can ensure a greater accuracy of its workforce and product-service mechanisms, as well as an easier monitoring of its reward and compensation systems. Then, a vertically integrated firm can take advantage of a freely flow of information, as communication is spread throughout the firm's parts. Moreover, a strategic independence can be achieved: the firm is able to respond by itself to the market demand.

Through higher economies of scale that the process of vertical integration yields, profitability is enhanced, and the overall risk of relying on external sources is obviously reduced.

³⁸ Coase, R. H. (1937), The Nature of the Firm, *Economica*, New Series, Vol. 4, No 16, pp 386-405

As Williamson states³⁹ also two anticompetitive effects may arise as a consequence of vertical integration: price discrimination and entry-barrier effects. Price discrimination allows a firm to charge different prices for identical goods (first degree discrimination), different prices for different quantities (second degree discrimination) and, finally, different prices to different kinds of consumers (third degree discrimination); a firm can decide to vertically integrate in the sector when demand is more elastic, and thus consumers are particularly price sensitive, to then charge higher prices to those consumers who are, instead, less price sensitive and whose demand is inelastic, maximizing in this way its profits.

Entry barriers can be then increased whether a firm decide to integrate upward or backward, especially if in this way grants for itself access to scarce resources: competitors may be then in charge of higher costs in entering that particular industry.

On the other side, thus among the disadvantages, the problem of coordination is worth mentioning: achieving an equilibrium between these parts may be challenging, as conflict between them is always in sight. Greater internal flexibility would be in this case required. Then the high administrative costs that the firm will have to bear may constitute another disadvantage, but it is clear that if a firm has chosen to vertically integrate with its suppliers or distributors, these costs will not be exorbitant, or at least they will be lower than the costs it will have to bear if it choose other forms of contracts, or if it choose to rely on the market.

For sure, between these two polar alternatives (namely, market and hierarchies) stands some hybrid solution for firms: companies can in fact relying on the aforementioned “other forms of contracts”, such as franchising, licensing, reciprocal trading. As almost everything in the world, also these hybrid forms of organization carry with themselves some advantages together with some drawbacks. On one side, they can preserve ownership autonomy that in turn increases incentive intensity; they report

³⁹ Williamson, O.E., (1971), The Vertical Integration of Production: Market Failure Consideration, The American Economic Review

higher administrative control with respect to the market but, on the other side, they have stronger dependence on contract enforcing. The table below, will be useful to have a clear scheme of the three discussed alternatives (note that adaptation of type A, autonomy, is the one according to which consumers react independently from price changes, while adaptation of type C, cooperation, refers overall to the firm's capacity to realign to the environmental changes)

Distinguishing Attributes of Market, Hybrid, and Hierarchy Governance Structures*			
Attributes	Governance structure		
	Market	Hybrid	Hierarchy
Instruments			
Incentive intensity	++	+	0
Administrative controls	0	+	++
Performance attributes			
Adaptation (A)	++	+	0
Adaptation (C)	0	+	++
Contract law	++	+	0
* ++ = strong; + = semi-strong; 0 = weak.			

Figure 4- Governance structures and their attributes⁴⁰

However, even if in terms of governance costs hybrid forms carry out advantages with respect to the market, hierarchy remains the best solution as it bears lower costs than hybrid does.

Hence, to summarize, what has been argued by Oliver Williamson is that to minimize transactions costs and together solve the hold-up problem, whenever the assets exchanged are highly specific (idiosyncratic), whenever these exchanges happen frequently and whenever they drag with themselves

⁴⁰ Williamson, O.E., (1991), Comparative Economic Organization: The Analysis of Discrete Structural Alternatives, Administrative Science Quarterly, Vol. 36 No.2, p. 281

the risk of uncertainty, firms should turn to hierarchies, relying no more on the market.

Hence, to recall the question posed above: non-market, that is the answer.

Chapter two- “*With a little help from my friends*”

- Social Capital: Definition and Frame

The concept of social capital traces back, in a way, to XIX century: to win the “*anomia*” (literally from the greek “a-nomos”, lack of laws, but more generally used to emphasise the fall of social values and standards in the everyday life) Emile Durkheim⁴¹ highlighted the importance of group life and social reconciliation. Specifically, this *anomia* could have led individuals to perceive an overall social disorder and, as a consequence, to open a gap between the ideological state of things and the goals each one could have actually achieved. This gap, in turn, would have created a sense of dissatisfaction in each individual, leading in many cases to suicide: but that is another issue that will not be discussed further.

The notion of Emile Durkheim that is worth mentioning regards the positive consequences that could be achieved being embedded in a group: when solidarity arises between members of the society, the struggle for existence could, in a way, be eased.

Talking about the revolution, the Industrial one, Karl Marx recognizes the role that a unified group may play in subverting the capitalist order and creating an equilibrate, optimal society. But the subversion of capitalism is again another issue that will not be further discussed.

Of course, to better understand what is social capital, a definition of capital by itself could be helpful: in this case it could be useful again to recall Marx and the significance that he gave to the term “capital”⁴². According to him, capitalists, because they control the means of production, are able to capture a part of the surplus value. That part is capital. Actually capital can, apart from being considered the result of a process, also be thought as the process itself, and specifically as an investment process

⁴¹ Durkheim, É., (1897), *Le Suicide: Etude de Sociologie*, Les Presses Universitaires de France, Paris

⁴² Marx, K., (1867), *Das Kapital, Kritik der Politischen Oekonomie*, Hamburg, Verlag von Otto Meissner

thanks to which capitalists can produce and then capture the surplus value. Surely, that view of capital is at least limited and at best outdated: further theories have in fact attributed the power of capturing this part of surplus value to other classes of the society, namely laborers, masses and workers. As for the neo-capital models, each individual, during his life, can appropriate knowledge, skills, and can further invest on this capital. That is when the boundaries between capitalists and non-capitalists become indistinct, because in this exchange of goods and services, capital flows from each part of the society, and becomes a shared commodity.

Here it is when the analysis of these flows becomes pivotal: social relations yield in fact returns for individuals. That is social capital: the benefits coming out from engaging in a cooperative behaviour between each other.

As the concept was developed, two streams of thoughts started to gain acceptance⁴³: the first stream is concerned with the notion of social capital at a collective level, and with how certain groups invest in this capital, in a way that this shared asset could improve their lives. The second stream has to do both with the concept of how individuals take advantage of their embedded relations to yield their own profit and with the way in which they invest in these relations. While seeking to achieve their personal goals and to maximize their own profits, in fact, individuals also benefit the collective.

As Coleman argues, both these streams present holes in their walls. For the first one, the ‘sociological one’, each individual is merely a puppet in the hands of environment, and has not a single personal stimulus; for the second one, the ‘economic one’ instead, individuals are shaped by the social norms and overall, the social context through which they attempt to maximize their profits.

Many authors have tried to pull together these two streams, analyzing the way in which social groups affect the economic exchanges and thus returns.

⁴³ Coleman, J.S., (1988), Social Capital in the Creation of Human Capital, The American Journal of Sociology, Vol. 94, pp 95-120

According to Ben Porath⁴⁴, the identity of the people and the fact they belong to certain groups (such as families) is an important factor to be considered in transactions. How relationships matter in the seek for each own utility was, until that moment, an issue that had never been discussed; the scenario in which the majority of economics used to place transaction was basically the cold impersonal market. For Baker⁴⁵, even traders, in the super rational market of the Chicago Options Exchange, engage in relationships between each other which affect their performance and their trade, and hence their economic behaviour. In his thoughts, the stock options market evolves from a merely economic structure to a social structure where individual actions have a strong effect on the volatility of their stocks. In this context, of course, opportunism may arise: but the detrimental effects of social capital will be further discussed.

Mark Granovetter⁴⁶ recognizes that the influence of social capital on economic outcomes is exercised in three ways: by affecting the incentive reward punishment systems first; by directing the flow of information, and their quality, secondly; by delivering trust, thanks to which exchanges are at best performed.

Surely what these authors have highlighted is of great interest in recognizing the value of social capital in shaping transactions costs and possibly minimizing them, that is the final purpose of this dissertation.

To recall and deepen the aforementioned concept of social capital, an example could be helpful: “ *In the process of negotiating a sale in the diamond market, a merchant will hand over another merchant a bag of stones for the latter to examine in private at his leisure, with no formal insurance that the latter will not substitute one or more inferior stones or a paste replica. The merchandise may be worth thousands, or hundreds of thousands, of dollars. Such free exchange of stones for inspection is*

⁴⁴ Porath, B. Y. (1980), The F-Connection: Families, Friends, and Firms and the Organization of Exchange, Population and Development Review, Vol.6, No.1, pp.1-30

⁴⁵ Baker, W. E., (1984) The Social Structure of a National Security Market, The American Journal of Sociology, Vol. 89, No. 4, pp. 775-811

⁴⁶ Granovetter, M., (2005), The Impact of Social Structure on Economic Outcomes, The Journal of Economic Perspective, Vol. 19, No.1, pp. 33-50

*important to the functioning of this market. In its absence the market would operate in a much more cumbersome, much less efficient fashion*⁴⁷”. It is straightforward that trust is essential in this exchange, and that in turn this exchange, as Coleman argues, is fundamental to the functioning of the market.

At this point it is important, however, to make a distinction between social capital and human capital. Whereas the latter relies in fact in the individual’s ability to deploy their personal skills and knowledge in the creation of physical capital, with respect to which becomes obviously a less tangible asset, the former is expressed in the relations between individuals, and is hence yet less tangible than human capital. It may be thought that the two concepts are, in a way, complementary: and that is true because skills and knowledge often arise and are acquired as a result of learning, learning which is, in turn, fostered through relations.

But what are specifically the types of social capital? The first kind of social capital concerns obligations between individuals, obligations that derive from expectations that in turn derive from trustworthiness: it comes straightforward that, if X does something for Y and X trusts Y, he will expect in the future his exchange partner (in this case Y) to reciprocate the favour (payoff that will create an obligation from Y). Individuals usually help each other. I said usually, not always, as it is important to highlight again that, to create social capital, there is a condition *sine qua non*: trustworthiness of the environment.

The second kind regards the increase in the flow of information that social relations carry within themselves. It is commonly known that information is costly, and the minimum cost which has to be sustained to obtain information is attention. Unfortunately, attention is a precious resource that is not widely spread. But here come social relations: why spend time and efforts in gathering the final trends about these summer outfits, turning over the pages of thousands of fashion magazines, when my

⁴⁷ Coleman, J.S., (1988), Social Capital in the Creation of Human Capital, The American Journal of Sociology, Vol. 94, pp 95-120

best friend has a ten years experience in being obsessed with all sorts of stylists, fashion shows, models and so on? She can easily tell me whether I am completely out of time with this or that dress, without the need for me to spend hours in trying to get that information. Are you interested in having updated news from all over the world? There is no need for you to go and catch the everyday newspapers at the newsstand, or to lie for half an hour in front of the television listening to the newscaster and trying to capture which of all those information broadcasted is relevant. Ask your cousin who is a journalist, who for this reason surely knows more than you do, and you will save again time, effort and also money⁴⁸.

Finally, the third kind of social capital is concerned with all those implicit and explicit norms established in a particular society⁴⁹: the widely recognizing norm that could forge social capital is that individuals should act for the benefits of the community, instead that for their own benefits. Moreover, when rewards, honour, collective support go with these norms, social capital is fostered and the overall social welfare is improved.

To have a comprehensive view of the meaning of this concept developed so far, another definition of social capital will be provided. Bourdieu⁵⁰ in his paper “The Forms of Capital”, in recognizing the emergence and consequent importance of social capital in the everyday life, starts from an accurate definition of capital that is worth mentioning. According to him: “*Capital is accumulated labour which, when appropriated on a private, exclusive basis by agents or groups of agents, enables them to appropriate social energy in the form of reified or living labour (...) It is what makes the game of society*⁵¹.” It is not like playing the roulette, where a moment could let you become as rich as a king and the next one could let you sink into the depths of poverty. He continues: “*Our universe it is not one which yields perfect competition and perfect equality of opportunity, it is not one without*

⁴⁸ Katz, E., Lazarsfeld, P. F., (1955), *Personal Influence: the Part Played by People in the Flow of Mass Communications*, Free Press

⁴⁹ Coleman, J.S., (1988), *Social Capital in the Creation of Human Capital*, *The American Journal of Sociology*, Vol. 94, pp 95-120

⁵⁰ Bourdieu, P., (1986), *The Forms of Capital*, Wiley Online Library

⁵¹ Bourdieu, P., (1986), *The Forms of Capital*, Wiley Online Library

*accumulation, without heredity or acquired properties, in which every moment is perfectly independent from the previous one, every soldier has a marshal's baton in his knapsack, and every price can be attained, instantaneously, by everyone, so that at each moment anyone can become anything*⁵².”

It is also true that, in order to fully understand the functioning of capital in the society, the other forms in which it is shaped have to be understood. One of these other forms is social capital: the pool of resources that can be achieved thanks to the relationships in which each individual is embedded. It is straightforward that the volume of social capital depends both on the size of connections that each individual has, and on the amount of capital that each connection carry within itself. These connections, in turn, were not originally part of the nature, were not given at all. When individuals were posed to life, connections between them were not considered part of the plan. They arose as a consequence of a common effort from individuals in investing in each other.

And what these efforts are for? What these investments in relations are for? What social capital is for?

Many authors⁵³ argued that its purpose is the value creation: the cognitive, structural and relational dimensions of social capital are inextricably linked to each other. The link between the cognitive and the structural one is given by the fact that social relations are means through which common values and goals are shared across individuals, and that contribute to the creation of a common vision of the world around them. By interacting among each other, people adopt same languages, practices, codes. Then, the link between the cognitive and relational dimension relies on the assumption that a trusting relationship between two or more members enhance their alignment of visions, interests, values, and that common visions, interests, values increase, in turn, trust between each other because they will feel as striving to achieve the same, collective, goals.

⁵² Bourdieu, P., (1986), The Forms of Capital, Wiley Online Library

⁵³ Tsai, W., Ghoshal, S., (1998), Social Capital and Value Creation: the Role of Intrafirm Networks, The Academy of Management Journal, Vol.41 No.4, pp. 464-476

Once trust is built, cooperation happens, and opportunism is alleviated if not defeated. In this scenario, resources are at best exchanged, information flow freely and organizations are able to self innovate and to deploy their assets efficiently to achieve ‘value creation’. The scheme below summarizes the points discussed so far:

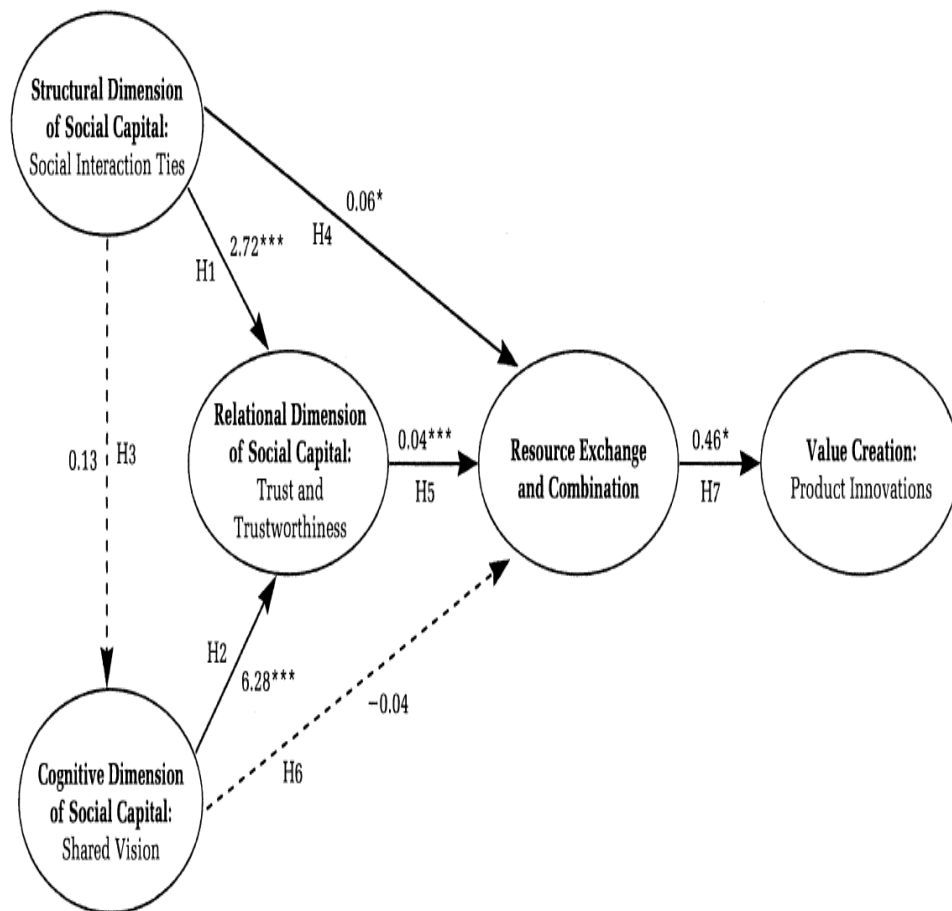


Figure 5- Social Capital and Value Creation⁵⁴

Thanks to social capital, synergies are enacted and the entire community gains benefits.

Moreover in our purpose social capital should be conceived as a way to minimize transaction costs: in fact, as it has already been stated,

⁵⁴ Tsai, W., Ghoshal, S., (1998), Social Capital and Value Creation: the Role of Intrafirm Networks, The Academy of Management Journal, Vol.41 No.4, pp. 464-476

opportunism, which is an important determinant in the price mechanism, is alleviated and as the information are shared, for firms enforcing relationships between each other became a feasible alternative.

- All that glitters is not gold: detrimental effects of Social Capital

The argument that the concept of social capital carries within itself has been of great interest for the last two decades: whether it was seen as something instrumental for individuals or families, as each one's ties accrue benefits to each other, or it was treated as a source of social control, granting the observance of norms, it has been considered to be one of the *"most successful exports from sociology to other social sciences and to public discourse"*⁵⁵.

Hence pages and pages have been written about this concept, particularly emphasizing the advantages that can derive from being embedded in a group. However, as pleasant can be for an individual to know that his efforts to build trusting relationships with other people yield a return both for himself and for the other people, other possible consequences have to be taken into account. Stuck in a reality that always has in store for everyone negative things together with the good ones, also social capital has its bad alter-ego. Thus, the purpose of this paragraph is just to highlight these externalities. These can range from economic inefficiencies to inequality, from preventing innovation to corruption. But let's proceed step by step: it is straightforward that what benefits some people do not necessarily benefits other people; on the contrary, it is may be that what benefits X harms Y, as for the Pareto optimum described in the first chapter. When ties are strong within a group, the access to other may be denied, and inequality arises. This may happen when a community group controls, for example, a piece of the market, exercising a monopoly: is the case, for example, of the Jewish control over the diamond's market in New York City⁵⁶. In this situation, it is almost impossible for other merchants in that sector to establish a profitable business: *"The same social relations that enhance the ease and efficiency of*

⁵⁵ Portes, A., (2000), The Two Meanings of Social Capital, Sociological Forum, Vol. 15 No.1, pp. 1-12

⁵⁶ Portes. A., (1998), Social Capital: Its Origins and Applications in Modern Sociology, Annual Review of Sociology, No.24, pp. 1-24

*economic exchanges among community members implicitly restrict outsiders*⁵⁷". To be more specific, let's take into consideration two individuals, namely A and B: once A has recognized in B some ethnic characteristic thanks to which he can assume B belongs to his own group, for a unconscious bias which is common to all individuals, he will grant trust to this new member B, allowing the creation of a strong relationship. Whereas if A happen to meet C, whose ethnic traits are slightly different from his own ones, there will be no rich soil on which trust can be rooted. Despite there can be other 'more rational' reasons that lead A not to trust C, the decision on whether to build a relation with him is merely based on his traits being different from his ones and from the ones of the group to which A belongs. Hence, if there is a job vacancy in a sector in which A's group is concentrated, the close relation between the incumbents and the employer will probably cause C to be excluded, as his traits, in the eyes of the majority, give no assurance about his skills and knowledge.

The impossibility for outsiders to interact and enter into established social groups, may give rise, in turn, to another negative consequence: the difficulty to achieve innovation. This mainly because members of a certain group are stuck in the process of attracting similar members to be part of their community, and this may prevent businesses to acquire resources (in this case human resources) who can bring in new fresh and why not, successful perspectives: what if C was a great entrepreneur? A's group will never have the possibility to exploit his capacity and skills.

Then there is another disadvantage that social capital carries within itself: because conformity arises among communities, individual freedom may be discouraged. As a source of social control, in fact, social capital may undermine personal initiative as being aligned with specific norms could lead an individual to put down his own thoughts and follow those of the community.

⁵⁷ Waldinger, R. (1995), *The Other Side of Embeddedness: A Case Study of the Interplay of Economy and Ethnicity*, *Ethnic and Racial Studies*, Vol. 18 No.3, pp. 555-580

Hence summarizing the dark side of social capital is evident for the externalities that poses not only to the outsiders, individuals that are not part of specific groups, causing exclusion to arise, but also to insiders, to members of social groups, as they enact strict dependencies on each other. Moreover, when social capital is thought, as for Coleman, as the collection of norms and rules in a specific society, another negative consequence can be verified: in this case, in fact, constraints posed by norms and rules can prevent individuals from express their full-selves.

Still: trust is the central idea around which social capital is built. When we know someone, or this someone has characteristics similar to the other members of the group, we will probably trust him, and start building a relation with him. However, the same mechanism applies the other way around: if we do not know someone, that will probably lead us to distrust him, designing a stereotyped process in the society. Is not also true, moreover, than when trust is enacted, the pursuit of common wealth is always sought. Cooperation between individuals based on trust can in fact pursue negative ends. Think about the Mafia, for example: a closed circle of members whose final aim is to appropriate rents with forcing manners at the expense of the society. The members ‘entrusted’ use to protect each other creating a dense structure from which other individuals do not benefit but that is, on the contrary, really harmful for them. We are not going to discuss further about mafia: it is enough, in the light of our argument, to underline how trust has not to be thought of just as a way to reduce transaction costs, because it can sometimes be manipulated to pursue perverse behaviours.

It has also been previously stated that, in order to achieve a reduction in transaction costs, trust and social structures act on the flow of information, enhancing it: but it is important to remember that if thanks to social capital good information are shared, bad information are shared too. And bad news make individuals “*vulnerable to group wide shocks*⁵⁸”. Think about investors, who trade in the financial market based on the information they

⁵⁸ Grootaert, C., (1998), Social Capital: the Missing Link?, Social Capital Initiative, Working Paper No. 3

receive from others, within the same market. People in the financial market use to think that the person they are trading with will not act opportunistically, appropriating the entire benefits that come from that transaction. The standard economic model does not even take into consideration possible frauds, or simply selfish behaviour: then the system collapses, and at the end it is clear that people have speculated on other, and that many investors, or investments, were not trustworthy.

The financial crisis that affected the economy worldwide in 2008, apart from being the result of the collapse of a speculative bubble in the real-estate market, has been the negative consequence of a decrease in the overall trust. When it was clear that, for the debt it had accumulated granting sub-prime loans to person who gave no monetary guarantees, there was no possibility for the investment bank Lehman Brother to be rescued (as had not happened in the March of the same year for Bear Stearns), people who had invested in the company felt cheated. As the financial colossus went bankruptcy, bad news spread all over the continents, and mistrust started to gain acceptance among the majority of investors, causing a global deep financial and economic recession. For the absence of trust, people started withdrawing money from banks, so that the scarcity of liquidity became unsustainable for the banks themselves, leading the crisis to deepen and deepen.

This mini-excursus of the recent financial and economic crisis was to explain one of the other, dark sides of social capital, where all the good that can be provided thanks to relations between individuals is left aside as social linkages become means for bad news, as what is shared are disapproving feelings, as people rely no more on each other and trust is disregarded. As for almost everything in the world, all that glitters is not gold: in this case the positive outcomes deriving from being part of a community have to be weighted with the negative consequences that this embeddedness may cause.

Then there is yet another important detrimental effect for the homo sociologicus worth to be analyzed: that is corruption.

It is what leap over fair behaviour and provide some individuals with benefits that other people do not have⁵⁹. It is what deploys assets unequally granting more wealth to the rich and less to the poor. It is what fattens up governments and drains public welfare. Corruption is the result of a vicious circle: when inequality is spread among a society, corrupt behaviours are more likely to be enacted, and this in turn create much more inequality.

The link between inequality and corruption, and thus between inequality, corruption and trust gives rise to what is called 'inequality trap'. To be clearer: when disparity among people is perceived in the society, the logical consequence will be that individuals will mistrust each other. This general mistrust could lead person to adopt corrupted behaviour, as people will have no faith in institutions or legal systems: there will be, in this case, lower incentives to act fairly and to obey to social norms. To close the circle, then, it is straightforward that this corruption will cause more inequality and hence, the process restarts. If this is true then vice versa, generalized trust will result in lower corruption. To recall our main argument hence, social capital and so trust seem to have another positive effect: lowering corruption.

Unfortunately, that is not always true; it is in fact important to distinguish between two main kinds of trust: generalized and particularized trust⁶⁰. The former regards the legal framework, government institutions and unknown individuals to whom trust is granted in advance. The latter is involved instead with the specific trust individuals allow to their families, their friends, to the members of the community to which they belong. In fact, if for the former trust the result will be a lower degree of corruption, the contrary it is true for the latter: whereas on one side confidence in institutions paves the way for an individual to behave correctly, as the

⁵⁹ Uslaner, E. M., (2005), *The Bulging Pocket and the Rule of Law: Corruption, Inequality and Trust*, For the presentation at the Conference 'The Quality of Government: What It Is, How to Get It, Why It Matters', The Quality of Government Institute, Department of Political Science, Gotemborg University

⁶⁰ Tonoyan, V., (2003), *The Bright and Dark Sides of Trust: Corruption and Entrepreneurship*, presented at the 'International Conference on Trust and Entrepreneurial Behaviour in East and West European Economies: Concepts, Developments and Comparative Aspects', University of Bremen

system works fairly and equally, on the other side trusting one person to be a good person could lead to favouritism.

If it happens to be trust between an entrepreneur and an officer, it may also be verified in this situation a kind of corruption from one to another to arise. Particularized trust usually creates strict and closed communities, within which advantages are granted; and what about the outsiders? Can they join the same advantages? Surely no.

Worth of note is, in this perspective, the notion of guanxi⁶¹. Guanxi is a Chinese term used to describe an intricate system made of strong relationships between individuals, a structure made up of interpersonal exchanges, not only economical, but of various nature. Since they are young, children in China are directed towards specific social groups, thanks to which they will ensure, for themselves and for their families, particular benefits. In a guanxi, people grow up knowing they will grant each other understanding, favours, assurances.

A guanxi includes within itself two other important concepts: mianzi and renqing. Mianzi has to do with a person's reputation and prestige. Is the status that each individual enjoys in a community, and is made up of both material wealth and social position. In order to hold an influential position in a guanxi, a person shall have a certain level of mianzi.

Renqing is basically an obligation, an implicit promise of rendering favours in exchange of being part of the guanxi; is the known principle according to which each individual embedded in this structure will grant favour to others. The structure of a guanxi entails several characteristics: the first one is the reciprocity, which as it has just been stated, has to do with the concept of renqing. In case of reciprocity, it is not necessary, however, that the exchange involves assets having equal value. It may be, in fact, that a favour is granted to poorer individuals who will surely not be able to equally repay for it.

⁶¹ Park, S.H., (2001), Guanxi and Organizational Dynamics: Organizational Networking in Chinese Firms, *Strategic Management Journal* No.22, pp. 455-477

Secondly, a guanxi can be transferable: being linked to a person X who is already part of the guanxi can allow that individual to enter the structure. Third its nature is not at all emotional, but purely utilitarian; it has been created merely for individuals to ensure practical advantages. Finally a guanxi is intangible: there is no written code, no specific rule, or material punishment for non compliance. Behaving not accordingly to the unwritten norms, could only hurt an individual's mianzi (reputation).

“Guanxi is social capital because it involves exchanges of social obligations and determines one's face in society⁶²”: as a source of social capital, it is clear that this structure may create several advantages for the individuals who join it, for the firms, because it may happen that guanxi is transferred to corporate level, and finally for the Chinese economy in general. Many studies have tried to link the existence of guanxi to an increased national economic performance; however, what is useful to highlight for our purpose is the dark side of guanxi and, consequently, of social capital.

First of all, it is straightforward that guanxi is costly. Some statistics: to feed its guanxi network, in the area of Heilongjiang, a household uses to spend around 15% of its disposable income⁶³; in 1993 the ICAS (Hong Kong Independent Commission Against Corruption), stated that investors in the area of Hong Kong use to direct 3% to 5% of their investment to gift for the maintenance of their guanxi⁶⁴.

Apart from its cost, another critical issue may arise from these structures: given that, as it has previously been stated, almost everyone in China is part of a guanxi, a conflict of interest follows when an individual holds a position in the legal and government system. What happens in fact, in this case? Will a person follow the unwritten rules of the guanxi, and behave

⁶² Park, S.H., (2001), Guanxi and Organizational Dynamics: Organizational Networking in Chinese Firms, Strategic Management Journal No.22, pp. 455-477

⁶³ Yan, Y.,(1996), The Culture of Guanxi in a North China Village, The China Journal, Vol.35, pp.1-25

⁶⁴ Chan, K.M., (1999), Corruption in China: A Principal Agent Perspective, Handbook of Comparative Public Administration in the Asia Pacific Basin, Public Administration and Public Policy, Vol.73, New York, pp.299-324

according to its reciprocity principle, or will he correctly pursue his legal position, avoiding the rising of favouritism? This is the main problem, as in many cases a guanxi network lead to corrupt transactions. And that means that, in the light of social capital, if generalized trust may reduce corruption, on the other side, particularized trust, as it is performed in guanxies, lead to an increase in the corrupted behaviour.

Apart from the ethical issues that being included in a network of this kind may determine, the example of this particular Chinese structure has been made to demonstrate one of the drawbacks that can derive from social capital. It was worth mentioning these negative effects because, if our efforts are directed to overcome a failure in the market, it would not make sense to cause the rise of other failures in the society: it is important in fact to weight possible disadvantages in walking the route towards a reduction in transaction costs.

- No firm is an island: creation of Network Structures as a source of competitive advantage

The English poet John Donne in his “Meditation XVII” claimed, in the middle of XVI century, that “*No man is an island, entire of itself; every man is a piece of the continent, a part of the main*”: human beings are not single atoms, divorced from the others, because all mankind is interconnected.

Thus, in the same way, many scholars have argued that “No firm is an island”: organisations and companies are linked to each other and are embedded in the environment around them. They are much more than single, free and independent units. Each one is an important, if not necessary, piece of the overall market, just as each organ in our body is fundamental to the well functioning of the whole organism.

*“Each of us is part of a large cluster, the worldwide social net, from which nobody is left out. We do not know everybody on this globe, but it is guaranteed that there is a path between any two of us in this web of people. Likewise, there is a path between any two neurons in our brain, between any two companies in the world, between any two chemicals in our body. Nothing is excluded from this highly interconnected web of life.”*⁶⁵

And where are individuals, and thus firms embedded in?

Networks is the answer: the structure made up by linkages between its parts, thanks to which each actor is connected to another one through a dyadic relation.

The born of the idea of networks, albeit seems new, actually traces back to Leonhard Euler, a Swiss mathematician and physicist, who in 1736 was able to propose a solution to the problem of the ‘Seven Bridges of Konigsberg’.

⁶⁵ Barabasi, A. L., (2002), *Linked: The New Science of Networks- How Everything is Connected to Everything Else and What it Means for Science, Business and Everyday Life*, Perseus Publishing, New York

Konigsberg's city was crossed by the Pregel River; the river, with its tributaries, divided the city into two islands, the connection of which was granted by the presence of seven bridges.

The main issue for Euler was to be able to have a walk throughout the city, passing each bridge, and to come back to the starting point, without crossing a bridge twice.

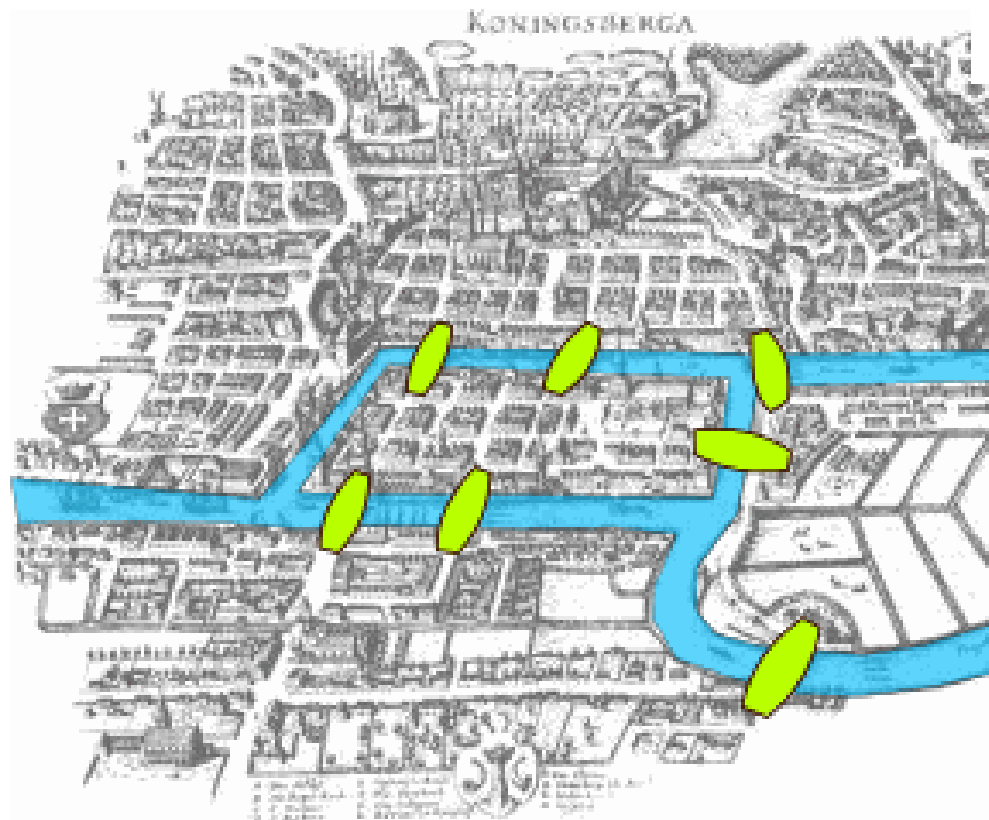


Figure 5- Seven Bridges of Konigsberg (Source Wikipedia)

The solution that Euler found was a negative one: it was in fact not possible to have a route that allows to pass each bridge and to come back at the same point without having crossed a bridge twice. The only way to make this happen was if the bridges were eight, instead of seven: and in fact in 1875 a new bridge was built and the problem solved.

However what Euler discovered was much more than the necessity of building another bridge: his thoughts carried the basis for the so called 'graph theory' which in turn is where network structures find their roots.

The mathematician in fact, is acknowledged to have conceived those bridges as part of a graph that is basically a set of nodes tied together by links⁶⁶.

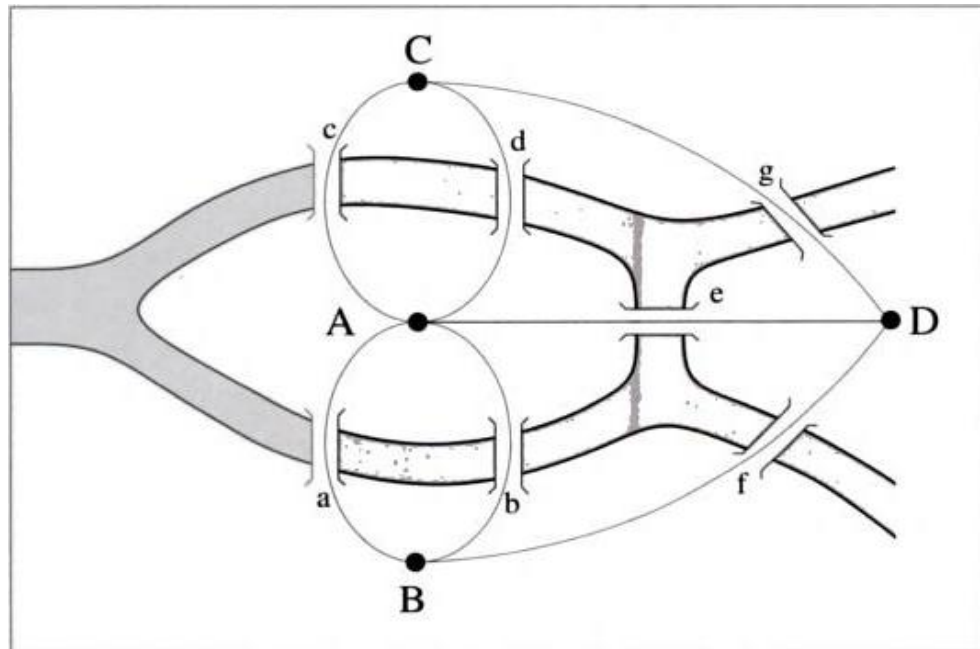


Figure 6- Bridges of Königsberg as nodes connected by links⁶⁷

As it is noticeable in the picture above, Euler highlighted four nodes A, B, C and D (each one representing an area of Königsberg's city) and seven links (the lines between the nodes, representing Königsberg's bridges). In this case, the nodes B, C and D have each one three links, while A has five. What he proved was basically that if more than two nodes have an odd number of links (as in this case, where there is no single node with an even number of links), one node can not be both the starting and ending point of a route. But then another bridge is built between B and C, and thus the odd nodes becomes two. There is now a way for an individual to walk

⁶⁶ Barabasi, A. L., (2002), *Linked: The New Science of Networks- How Everything is Connected to Everything Else and What it Means for Science, Business and Everyday Life*, Perseus Publishing, New York

⁶⁷ Barabasi, A. L., (2002), *Linked: The New Science of Networks- How Everything is Connected to Everything Else and What it Means for Science, Business and Everyday Life*, Perseus Publishing, New York

throughout Konisberg crossing each bridge once and coming back to the starting point.

However, what his insights had demonstrated, for our purpose, is that the structure built around individuals, and the subsequent links it creates, is not to be considered as a detached entity: each link, in fact, have an effect on the others and thus on the whole structure in which people are embedded. As one more bridge has given the Konisberg's inhabitants new routes to walk throughout, one more link can open up new possibilities for the individuals belonging to that network.

But then, specifically, how these networks are created? In order to give an answer to this question, it is necessary to jump back in XX century, and to the theories of two Hungarian mathematicians, Paul Erdos and Alfréd Renyi. In 1959, in fact, they gave birth to the so called 'random network theory':

Imagine to organize a party, hosting a hundred people who do not know each other at all. As human beings are directed towards socialization, they will probably soon start to getting known to each other, creating small groups of two or three person. Then, as human beings are also used to get easily bored in talking to the same person, they will later switch to other groups in the party.

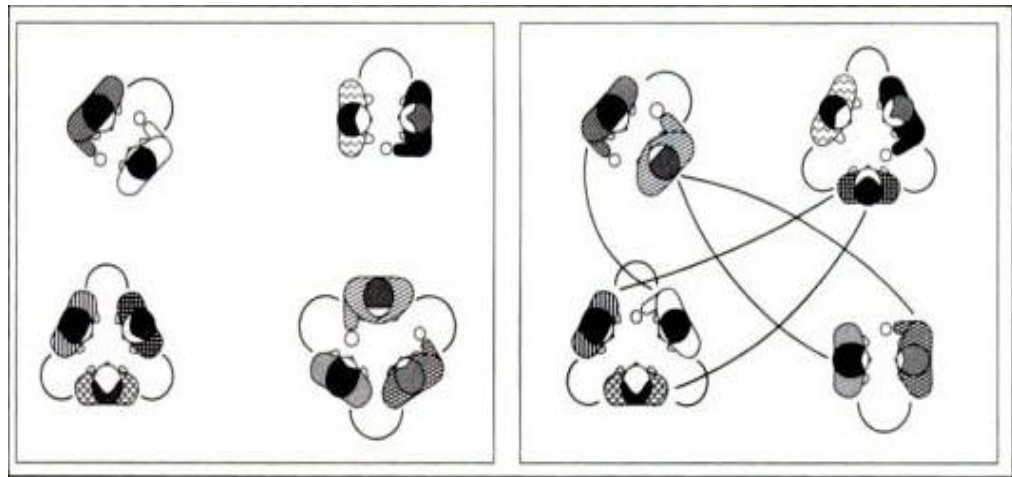


Figure 7- The party⁶⁸

From the figure, it seems evident that, albeit an invitee does not know each person of the party, through these links there will soon be an unique network that includes all the guests.

Hence, what is needed in order to create a large cluster joined by many individuals is one link. One link to stay connected⁶⁹. One link to be part of the whole. One link to navigate away from the islands, and become part of the continent.

Erdos and Renyi were also able to provide statistics about the number of links each individual may enjoy. According to their researches, the number of acquaintances for a person follows a Poisson distribution, meaning that each one has approximately, on average, the same number of links.

Once having stated that individuals, and thus firms, are linked to each other, and are able to create dense network structures, the question comes naturally: what are they for? What these networks are for?

It has already been claimed, in the first paragraph of this chapter, how social capital can contribute to the 'value creation'. How the enhanced flow of information resulting from the relationships between individuals can not

⁶⁸ Barabasi, A. L., (2002), *Linked: The New Science of Networks- How Everything is Connected to Everything Else and What it Means for Science, Business and Everyday Life*, Perseus Publishing, New York

⁶⁹ Barabasi, A. L., (2002), *Linked: The New Science of Networks- How Everything is Connected to Everything Else and What it Means for Science, Business and Everyday Life*, Perseus Publishing, New York

only minimize transaction costs, but can moreover bring in innovative ideas that will add value for both individuals and firms.

Well, at the same time, networks allow to create and effectively sustain competitive advantage.

To understand how this is possible, a step back has to be made. Given that the concept of network has to play a substantial role in the business strategy of an organization, it is important to underline what basically makes a strategy.

The term 'strategy' is an old one, and recalls the techniques through which militaries used to organize their troops in the battles. Translated into the management field, it has gained acceptance as the way in which a firm efficiently deploys its resources and assets and effectively organizes its activities within a changing environment, in order to achieve its goals.

"Strategy is about winning"⁷⁰, is about succeeding in the market.

The majority of studies in the field of business strategy have concentrated their efforts in conceiving organizational effectiveness as the result of profits' accumulation, accumulation granted through exchanges in the environment⁷¹. But actually, as Michael Porter stated⁷² *"Strategy is not about doing things better, but rather about doing things differently"*. The key to success shall not be found in the mere operational effectiveness, but rather encompasses a wider range of aspects, between which, of course, network plays its role.

A firm can overcome competitors when it is able to make a difference, and is then also able to preserve it. In order to achieve operational effectiveness, a company shall be able to create and deliver greater value to its customers, thus having the possibility to higher its prices or, on the other hand, shall be able to perform more efficient results and thus, to lower its average unit costs.

⁷⁰ Grant, M.R., (2010), *Contemporary Strategy Analysis*, John Wiley & Sons Ltd, p.4

⁷¹ Hakansson, H., Snehota, I., (2006), *No business is an Island: The network concept of Business Strategy*, *Scandinavian Journal of Management*, Vol. 22, pp. 256-270

⁷² Porter, M., (1996), *What is Strategy?*, *Harvard Business Review*, pp. 61-78

Once operational effectiveness is achieved, in turn, profitability increases. But that is only one side of the coin: while managers struggle to improve operational effectiveness through programs such as time-based competition, total quality management, partnering, the best practises become so widely diffused that competitors can easily imitate the advantages achieved by one company.

Moreover the process of imitating 'best practises' may also lead to the creation of the so-called 'latecomer advantage': companies who arrive later in the market are basically given the possibility to have access to already tested technologies, practises, knowledge, without having to replicate the entire processes that early-comers have already performed.

As Alexander Gerschenkron wrote⁷³, in the context of globalization, these firms who arrive late on the industrial scene are faced with many opportunities to link up with existing practises and tap into advanced technologies, achieving the same profitability that previous comer firms have struggled to reach through an increased operational effectiveness.

Thus the more global economy becomes interconnected, the more possibilities rise for such linkage: in this way zero-sum competition happens, and in the long term the advantages that operational efficiency may have created, leading to less average costs or higher prices, becomes useless, as the 'best practises' have spread everywhere.

Whereas operational effectiveness is easily imitable, strategy is not at all. In fact, when strategies are effectively enacted, there are no advantages that latecomers can exploit; there are no technological trajectories to be replicated. When a firm is able to think of an unique strategy, it will consequently achieve an unique value.

That is the core concept, that is what strategies are for: enable firms to make the difference, organizing their activities and deploying their resources in a way that no other can reply.

⁷³ Gerschenkron, A., (1965), *Economic Backwardness in Historical Perspective*, F. Praeger, New York

Surely, to be able to do this, a strategy has to be well embedded in the environment surrounding it. There should be a match between the firm's capabilities, activities and resources deployed and the characteristics of the environment.

This match, furthermore, has to be continued controlled, as the environment constantly changes. It is important thus that the resources that a firm carries out thanks to its strategies are significantly adaptive, that the activities can be easily re-managed when the market requirements and consumer's needs shift.

If an organization must adjust its goals and processes to the environment, it is known that this environment, in turn, is made of other organizations which also has to be adaptive. That means that a circle of continuous exchange relationships between firms is created, a circle where each individual party significantly influences the others. That is the route: a firm organize its activities and deploys its resources in order to achieve its goals on the basis of a 'strategy'. This strategy has obviously to match the conditions of the environment around it, as to deliver superior value and create a sustainable competitive advantage, other forces and other actors within the market have to be taken into account. These other actors may be other firms, with which the firm establishes a series of exchanges that eventually evolves into relationships. It is worth to remember that these relationships, these linkages are not composed of discrete transactions: it is rather intended as a continuous over time mechanism thanks to which firms considerably influence each other.

Within this mechanism, interdependencies are gradually created⁷⁴: for a firm to achieve its goals while staying related to other firms, activities within one party have to be connected with activities performed by another party; this means that each party stays involved, in a process of 'mutual orientation'⁷⁵.

⁷⁴ Porter, M., (1996), What is Strategy?, Harvard Business Review, pp. 61-78

⁷⁵ Ford, D.I., Hakansson, H., Johanson, J., (1986), How do Companies Interact?, Industrial Marketing and Purchasing, Vol. 1, pp. 26-41

In this sense it is worth to recall a brief description of what interdependencies are. Interdependencies are enacted when elements, both tangible and intangible, are shared between two or more businesses of the same firm. Specifically, interdependencies can be of three types: tangible, intangible, with competitors.

Tangible interdependencies are enacted between value chains of different business units, that in this way share assets that are tangible (e.g. facilities, plants). These kinds of interdependencies enable firms to achieve economies of scope, as business units can achieve lower costs in using the same assets. Tangible interdependencies can derive from joint market activities (shared distribution channels), production activities (shared logistics or components), infrastructure activities (shared IT systems) and procurement activities (shared raw materials).

Intangible interdependencies are concerned with the sharing of knowledge between business units within a firm: they can derive from sharing same strategies, or value chain configurations.

Finally, interdependencies with competitors derive from competing with the same rivals in the same businesses.

While interdependencies are created within firms, a web of relationships is created between firms: being embedded in these relationships with specific actors can be called a network.

Here we are: through strategies, firms can create competitive advantage being a link by itself in the whole web of linkages, in the worldwide network. In this sense, it is moreover important to highlight that the environment that surrounds firms is not simply to be intended in its general meaning, as the overall set of actors that stands around a firm. What matters first is, in fact, the ‘relevant environment’, the specific set of organizations with whom an individual firm can undertake transactions, exchanges, can build relationships, can interact in order to best performing its activities and achieving its goals.

Without a set of related entities, a firm loses its identity. Without a consistent network, from whom to learn, from whom to grow, a firm cannot

go so far. There is much more than operational effectiveness to regard at: to successfully manage a firm's behaviour, a shift from the simply allocation of its internal resources has to be made. This shift is towards the way these firms relates their activities to a set of other firms that are part of its 'related environment'; is towards the way these firms manage their business units, their activities in a way to make them fit with the other parties outside their boundaries, to the other parties that constitute their context.

As well as in the common life, who survive is who at best fit with the environment, who at best is able to adapt to the constant changes that permeates our universe. As between individuals who survive is not the strongest, in the same way, who succeed in an economic context is not the one who simply makes higher profits, but is instead the one who is able to sustain these profits in the long term, because it has developed a web of relationships thanks to which it is able to walk throughout crisis and changes without collapsing.

Firms are not merely the result of a production function: they can not walk their way to profitability and success without considering who stands at both sides of this route. What stands around is often more important than what firms have inside themselves, particularly because what they have around is not ocean, is not desert.

They cannot be entire of themselves because, after all, no firm is an island.

Chapter three- “Sometimes you can’t make it on your own”

- All that firms can leave behind: moving away from vertical integration

The path that has been followed until now is one that starts from the assumption of an unbalance between social and private benefits deriving from failures in the market, and tries to overcome this dichotomy by proposing arrangements between private parts, claiming, in a way, how markets can self-regulate without a Government to intervene in.

However, this view of markets as self-functioning machines has highlighted its falls: there are some particular conditions under which this could happen. These conditions in our work carry the name of ‘transaction costs’: when exchanges are not costless (i.e. always), Coase’s theorem loses its validity.

The core argument shifts thus from market to hierarchies: the latter, in fact, at the beginning seems to be a feasible solution to the transaction costs’ issue. But what if, instead of simply solving the issue, it happens to be a way for firms to together grow and create competitive advantage (i.e. being embedded in network structures)?

Then the solution will be neither market nor hierarchies.

However, it could be useful to proceed step by step: it has been claimed, in the first chapter, that the efficiency of the market has been hit by some failures, which have derived from externalities. More precisely externalities arise when the behaviour of an individual has a negative influence of the welfare of other individuals, and this negative influence is not reflected in the market prices. Recall the difference between private and social costs, and private and social benefits. The latter, in fact, equal the private costs

incurred by an individual undertaking an activity, plus any other ‘external’ costs included⁷⁶.

It may happen that these external costs are not reflected in the prices of the goods or services: when consumers buy airplane’s tickets, they are not charged with the costs of the negative externalities that the air pollution or noise cause to the people living in that area. Consumers just pay for their travel or for additional services related to the travel. That means that overall the market does not release correct information about the costs and values attached to its goods and services. The market fails to transmit these information.

Then as the markets are imperfect, and as the Government often cannot cope, by itself, with those externalities, an agreement between private parties could, under some circumstances, overcome the negative spillovers created by this disequilibrium between private and social costs and benefits.

However, the issue is not so simple as it may seem. When these externalities affect a huge number of individuals and, moreover, in presence of transaction costs, private parties’ agreements will not work.

To minimize these transaction costs and overcome this failure in the market, hierarchies were the solution originally proposed.

What do we mean by hierarchies?

A hierarchical structure, in its literal meaning, is one that links entities or items with asymmetric relations, for which each entity is found to be above or below the other ones, and can be linked directly or indirectly to the other ones. Hierarchies always involve in their significance different degrees of subordination between entities: on the basis of the maximum degree of subordination, it is also possible to distinguish between a ‘linear hierarchy’ (where 1 is the maximum degree) and a ‘branching hierarchy’ (where there can be 2 or more degrees).

Within the concept of hierarchies stands the one of ‘vertical integration’. Vertical integration specifically describes the choice of a firm to integrate

⁷⁶ Thompson, G., Frances, J., Levacic, R., Mitchell, J., (1991), *Market, Hierarchies and Networks- The Coordination of Social Life*, SAGE Publications, London

within itself a greater number of intermediate stages of production, stages needed in order to obtain the final product. Firms that are vertically integrated share the same ownership and are controlled through a hierarchical structure. Of course, the degree of vertical integration will be determined by the extent to which a firm's ownership will cover successive stages of the value chain: specifically it is identified by the ratio of the firm's value added to its sales revenue (e.g. its bought-in goods will be higher than its sales revenues if the firm buys rather than makes)⁷⁷.

Vertical integration can be of two kinds: backward or upward. The former regards the ownership and control of the production stages (i.e. components, raw materials); the latter has to do with the control of activities usually performed in successive stages (i.e. distribution channels).

Moreover, this kind of integration can be fully or partial: a firm may decide to integrate only for some products or some services.

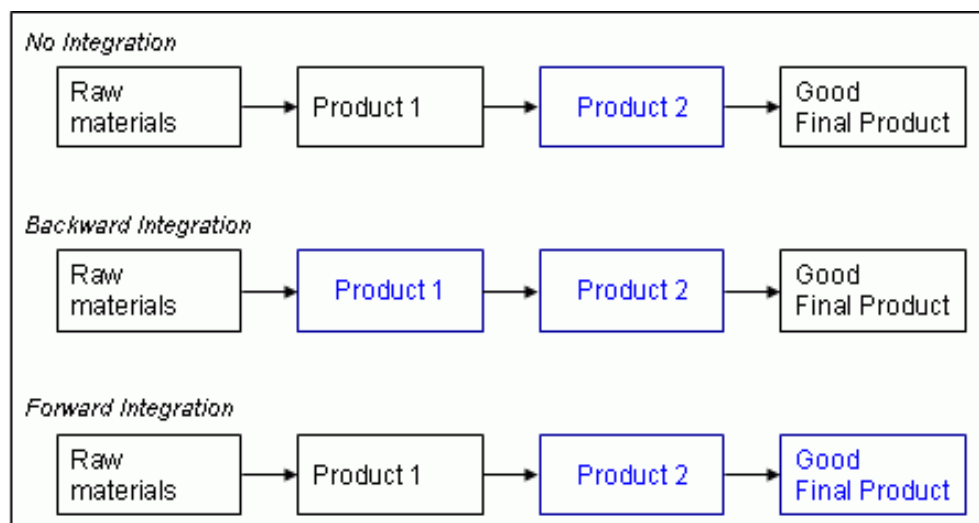


Figure 8- Vertical Integration⁷⁸

And what do firms achieve by vertically integrate? What are the benefits of this strategy?

Surely the main advantages stand in the cost's reduction: where duplicate sources of overhead can be removed, a leapfrog of unneeded stages of

⁷⁷ Grant, M.R., (2010), Contemporary Strategy Analysis, John Wiley & Sons Ltd, p.4

⁷⁸ Source: <http://www.strategy-train.eu/index.php?id=137>

production and distribution can be also achieved⁷⁹. Furthermore if the goods and services are purchased daily, this kind of integration can also prevent time consuming contracts or negotiations to happen.

With regards of the outstanding environment, vertical integration may lead to superior control, to advantages in product differentiation that competitors may not be able to achieve; it can reduce the risk of opportunistic behaviour from other firms with which it deals for the procurement of raw materials or components. Vertical integration may allow firms to rapidly respond to possible changes in consumer's tastes, as the direct control of different stages may grant a more efficient adaptability, making possible to easily and rapidly converge investment expectations.

Vertical integration can be regarded as a way to strengthen a firm's core business model⁸⁰: it can, in fact, facilitate investments in specialized assets. This is because when the firm invests in a specialized asset, mainly to achieve competitive advantage, its suppliers, in turn, have to invest on them: however, given that it will not often be the case in which companies providing raw materials or components will be available to spend more money and time in the procurement of specialized assets, owning these stages will be the only solution.

Then, with all these advantages that vertical integration creates, it may seems that it represents the best solution to also reduce transaction costs. However, together with these benefits, drawbacks also come out.

First of all, it is not always the case that vertical integration leads to a reduction in the cost's structure: when the market provides for lower suppliers, for a firm continue to rely on existing owned-suppliers may, on the contrary, increase its cost's structure.

Secondly, when technology changes too rapidly, a firm that is vertically integrated may be locked into obsolete practises, that will prevent it from seizing new opportunities in changing technologies.

⁷⁹ Harrigan, K. R., (2003), Vertical Integration, Outsourcing and Corporate Strategies, Beard Books, Washington D.C.

⁸⁰ Hill, C.W.L., Jones, G.R. (2008), Strategic Management. An Integrated Approach, South Western Cengage Learning

Third, it may happen that, when demand for a specific good is not predictable, a firm that is vertically integrated will hardly be able to manage flowing volume of these goods within the value-added chain. For example, if a car maker that has integrated with its suppliers unfortunately has to cope with a decline in the market of the demand for cars, it will find itself locked into a business that is no more at best efficient, with a consequent rise of the cost's structure.

Fourth, vertical integration gives rise to anticompetitive effects. Actually the argument is widely disputed: some scholars argue that it may lead to a foreclosure of competition in downstream or upstream markets, while others object that vertical integration with an upstream or downstream firm does not actually change its market power, or increase its monopolistic position as, for example, if each of the integrated firms has control over the 10% of its specific market, the market share will not change. Rivals in fact, will continue to maintain 90 % of the market share⁸¹.

However, until the end of 1960s, the 'traditional foreclosure theory' as a consequence of vertical integration, has been the most widely accepted: it was in fact believed that these kind of mergers could harm competitors while increasing their costs⁸².

The question on whether this concentration can create or strengthen a dominant position in the market, preventing effective competition to take place, together with the other drawbacks that it may cause, have led many scholars, in recent times, to start thinking about other structures to overcome the transaction's cost issue.

Thus, if for decades many firms have continued enjoying the benefits of vertical integration, growing stronger and stronger once having incorporated or (on the other hand) eliminated its rivals, nowadays other, even more multifaceted and polyhedral organizational forms are gaining acceptance and further consideration.

These forms are networks.

⁸¹ Hart, O., Tirole, J., (1990), Vertical Integration and Market Foreclosure, M.I.T. Libraries

⁸² Yongmin, C., (2001), On Vertical Mergers and their Competitive Effects, Journal of Economics, Vol. 32, n. 4, pp. 667-685

The old established boundaries of firms are blurring and collaborative partnerships, other from vertical integration, are rising.

The view of economic exchanges moving in a continuum that goes from market to hierarchies does not include the entire diversity that characterizes economic actors, and the choices they make in the everyday life: there is something that is neither fish nor fowl, a deeper structure that has to be taken into account. The markets themselves cannot be considered separately from the social structure, as they bear within themselves information asymmetries deriving from differential social accesses⁸³.

⁸³ Thompson, G., Frances, J., Levacic, R., Mitchell, J., (1991), *Market Hierarchies & Networks: the Coordination of Social Life*, London, SAGE Publications, p. 154

<i>Key Features</i>	<i>Forms</i>		
	<i>Market</i>	<i>Hierarchy</i>	<i>Network</i>
Normative Basis	Contract— Property Rights	Employment Relationship	Complementary Strengths
Means of Communication	Prices	Routines	Relational
Methods of Conflict Resolution	Haggling— resort to courts for enforcement	Administrative fiat—Supervision	Norm of reciprocity— Reputational concerns
Degree of Flexibility	High	Low	Medium
Amount of Commit- ment Among the Parties	Low	Medium to High	Medium to High
Tone or Climate	Precision and/or Suspicion	Formal, bureaucratic	Open-ended, mutual benefits
Actor Preferences or Choices	Independent	Dependent	Interdependent
Mixing of Forms	Repeat transactions (Geertz, 1978)	Informal organization (Dalton, 1957)	Status Hierarchies
	Contracts as hierarchical documents (Stinchcombe, 1985)	Market-like features: profit centers, transfer pricing (Eccles, 1985)	Multiple Partners Formal rules

Figure 9- Comparison of forms of economic organization⁸⁴

The table above summarizes the different kind of economic organization according to several key features: however, characteristics such as interdependency, open-ended tone, mutual benefits climate, should immediately give the idea of how advantageous this structure could be.

“Many firms are no longer structured like medieval kingdoms, walled off and protected from hostile forces. Instead, we find companies involved in an

⁸⁴ Ibidem, supra

*intricate latticework of collaborative ventures with other firms, most of whom are ostensibly competitors*⁸⁵.”

In network structures, transactions are enacted between groups of individuals engaged in reciprocal, mutually supportive actions. There is no more space in networks for discrete exchanges or administrative fiat.

There is nowadays no more favourable climate for the elephants of hierarchies to graze freely⁸⁶; more agile forms are taking place.

Networks are particularly useful when the information needed is one that is reliable and accurate and rapid. This kind of information can rarely be inferred from price adjustments: it is in fact thicker than the one found in the market⁸⁷. It is, moreover, freer than the one that flows within a hierarchy.

Know-how, technological skills, specific styles of production, innovation are the commodities that at best flow in a network structure; these are, in fact, qualitative commodities that cannot be easily traded in the market or through a hierarchy.

When talking about networks, it is worth mentioning one specific industrial structure that involves within itself all the advantages of networks: the cluster.

The term ‘cluster’ traces back to Alfred Marshall who, in the second half of the XIX century, referred to a particular socio-economic entity, where the industries are part of the same productive sector and are localized in a defined area.

What he meant, basically, was a place where conglomerates of small firms were able to create productive and organized structures based on both competitive and cooperative principles, in a way to identify that geographic area as a sort of ‘homeland’, specialized in a given production sector.

⁸⁵ Ibidem, supra

⁸⁶ Johnston, R., Lawrence, P., (1988), Beyond Vertical Integration- the Rise of the Value-Adding Partnership, Harvard Business Review, pp. 94-101

⁸⁷ Kaneko, I., Imai, K. (1987), A Network View of the Firm, presented at 1st Hitotsubashi-Stanford conference

These are places where: *“The mysteries of the trade become no mysteries: but are as it were in the air, and children learn them unconsciously.”*⁸⁸

Know-how, technological skills, innovation are thus in the air within a cluster: an environment so dense of knowledge that almost everyone is familiar with a growth’s perspective, and firms can easily achieve competitive advantage as they learn from each other, as they share their information and together make their weaknesses become strengths.

In this ‘industrial atmosphere’, workers and owners can build up a strong cultural identity and enact a resource-leverage process. Marshall continues: *“If one man starts a new idea, it is then taken up by others and combined with suggestions of their own; and thus it becomes the source of further new ideas”*⁸⁹.

The strengths of clusters stands exactly in the capacity of combining the organizational potential of the socio-economic environment in which these firms are located, in this way also contributing to the coordination of economic actors. The physical proximity and the acceptance of common codes of behaviour, in turn, enhance cooperation between firms and favour the knowledge sharing.

However, as it has already been stated, clusters promote not only cooperation, but also competition: rivals, in fact, compete intensely to win and retain customers. Without this intense competition, a cluster will fail.

As Michael Porter states⁹⁰, *“Competition can coexist with cooperation because they occur on different dimensions and among different players”*.

Then, specifically, how clusters affect competition? First of all, they spur the productivity of firms located in that area: they can operate more efficiently in the procurements of inputs, in accessing information, technologies and institutions, in measuring and stimulating their improvements. From it the labour market can, in fact, benefit. For an

⁸⁸ Marshall, A., (1890), *Principles of Economics*, Macmillan and Co. Ltd, London, p.198

⁸⁹ Ibidem, *supra*

⁹⁰ Porter, M. E., (1998), *Clusters and the New Economics of Competition*, Harvard Business Review, pp.77-90

employer looking for high-skilled workers there is no need to start a research process that will require costs, both in terms of time and of money. They will just need to have a look around, and they will find a massive workforce within which they can pick up the man who at best fit that position. No press, no advertisements, no waste of energies, low transaction costs involved.

Clusters minimize transaction costs also in the procurement of important inputs: firms can source locally, instead of from distant suppliers. In this way, there will be low inventory needs, low delays and importing costs, low overall risk of opportunism from suppliers (as they may overprice their commitments). Being located in the same area improves communication and allows suppliers to provide additional support in, for example, the installation of components. That is when local sourcing becomes more advantageous than outsourcing: particularly when advanced technologies and specialized inputs are needed.

Secondly, clusters affect competition through complementarities: the whole resulting from associations between individuals in a cluster is more than the sum of the parts. Complementarities can arise between products in facing customers' needs, between activities, may be enacted in marketing processes: however, they all make clusters more attractive for clients.

Third, competition is affected as the rivalry between peers located in the same area (within a cluster) enhances pressure on them, even among individuals or firms that do not compete directly. Moreover, "*Peer pressure, pride and the desire to look good in the community spur executives to outdo one another*⁹¹"; in this climate, there is thus road for innovation to be developed.

Based on these characteristics, it seems clear that the advantages that location could bring to firms, industries and overall, to the socio-economic panorama are more than what we think: these concentrations of highly specialized skills, knowledge, cooperation and competition, better

⁹¹ Porter, M. E., (1998), Clusters and the New Economics of Competition, Harvard Business Review, pp.77-90

information, innovation and efficiency in productivity are engines for growth. They may be more and more powerful than other forms of integration.

In fact, “*Alliances are mere transitional devices and because of this are destined to fail*⁹²”. There is no more place for neither markets nor hierarchies.

⁹² Porter, M. E., (1998), Clusters and the New Economics of Competition, Harvard Business Review, pp.77-90

- Embeddedness Theory: when quality matters

In the name of networks, old structures are going to be abandoned. Being linked to other individuals, being located in the same area, sharing knowledge and information boosts economic productivity, creates synergies among business units, enhances operational efficiencies, promotes value creation. Being embedded in a network affects positively economic life, allowing for the creation of integrative agreements and of economies of time, and leads to Pareto improvements in both adaptation and efficiency.

Surely the concept of embeddedness requires deeper attention. While both classical and neoclassical economic theories used to assume rational and selfish individuals, not at all affected by social relations⁹³, at the other extreme lies embeddedness, according to which both institutions and individuals are heavily influenced by social relations, and are not independent at all.

It was in fact believed that, initially, the economic behaviour used to deal with social structure and was furthermore embedded into social relations; as the world started to modernize itself, however, economic transactions in turn started to be led by rational and selfish calculations, calculations that only aimed at achieving individual gains. Not every scholars agrees on this argument of modernization: it has been also stated⁹⁴, in fact, that earlier societies were not so embedded in social structures or were at low embedded at least as modern societies are. On this atomized and self-interest view of economic actors, the so-called “new institutional economics theory” also agrees.

However, the argument proposed here claims the opposite: people, institutions, firms, economics actors are rooted in social structures, thus they must be at influenced from them. The assumption which have been carried until recent ages has to be overcome, was not for the fact that this

⁹³ Granovetter, M., (1985), Economic Action and Social Structure: the Problem of Embeddedness, *American Journal of Sociology*, Vol. 91, Issue 3, pp. 481-510

⁹⁴ Smith, A., (1776), *The Wealth of Nations*, Andrew Skinner, Baltimore, Penguin

assumptions, this view of the markets, of institutions, has highlighted falls in its structure.

Albeit positioning firms and economic actors at the other extreme (the embedded one), as opposed to the atomized school of thoughts, is not the best nor a desirable solution, we cannot abstract completely from this view. Therefore, whereas Dennis Wrong⁹⁵ considered individuals as too sensitive to the opinions of others (he used the term ‘oversocialized man’), and thus highly influenced by them and, on the other hand Thomas Hobbes⁹⁶ sustained the utilitarian argument of atomized, selfish, loose and disconnected individuals, our argument will position itself a middle way between them. The moderate approach we are proposing is in fact that of individuals (and consequently firms) who, in pursuit of their interests and achieving their goals (and thus in creating and sustaining competitive advantage), exploit their social relations and make their condition of being embedded in whatever network or cluster or *guanxi* a way to overcome possible difficulties (or failures) they may meet on their road to success.

Granovetter explains this position clearly⁹⁷: *“Social influences are all contained inside an individual’s head, so, in actual decision situations, he or she can be atomized as any Homo economicus, though perhaps with different rules for decisions. More sophisticated (and thus less oversocialized) analyses of cultural influences make it clear that culture is not a once-for all influence but an ongoing process, continuously constructed and reconstructed during interaction. It not only shapes its members but also is shaped by them, in part for their own strategic reasons.”*

Thus, instead of simply supporting the easier position in this debate, that is the one opposed to an atomized individual in a *laissez-faire* market that has (as it has been demonstrated) failed, we want to support and draw the

⁹⁵ Wrong, D., (1961), The Oversocialized Conception of Man in Modern Sociology, American Sociological Review, Vol.26, Issue 2, pp. 183-93

⁹⁶ Hobbes, T. (1651), Leviathan

⁹⁷ Granovetter, M., (1985), Economic Action and Social Structure: the Problem of Embeddedness, American Journal of Sociology, Vol. 91, Issue 3, pp. 481-510

attention on a kind of embeddedness that is not only halfway between the extremes, but that bears within itself an important characteristic that has not to be undervalued: quality.

The key distinction between an economic literature that claims that transactions take place between disconnected individuals who are linked by impersonal ties and one that suggests that these transactions happen between exchange partners linked by closed relationships stands exactly in the quality of embeddedness: instead of looking at the number of relations, what matters is how close these relations are.

Paradoxically, the positive effects that network structures bring are actually positive until they reach a threshold, after which embeddedness may derail economic performance: that is when the other extreme is reached, leading individuals to be too much dependent from their social ties.

That is why Brian Uzzi⁹⁸ concentrated part of his studies to understand how the structure of a network impacts its economic outcomes and performance. Specifically, he developed a research on 23 entrepreneurial firms with the aim of identifying the characteristics of embeddedness that shape economic outcomes and then suggesting which of these should be pursued to avoid the negative effects that result once reaching the above mentioned threshold.

He interviewed the CEOs and the selected staff of these 23 firms (belonging to the women's better-dress apparel industry of New York City), firms that varied in sales, location, type, workers' gender and ethnicity, etc (in order to have a more representative sample).

The study was structured in four phases: first of all, he conducted two pilot interviews to understand the effects his materials and way of presenting could influence the accuracy of reporting; secondly, he used open-ended and slightly direct interviews (trying to get as much precise information as he could); third, he organized the interpretation of the data collected; fourth, he

⁹⁸ Uzzi, B., (1997), Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness, *Administrative Science Quarterly*, Vol. 42, Issue 1, pp. 35-67

attempted to provide validity to his results by collaborating with a pool of industry experts.

The first finding of the interviews is not a surprising one: transactions seemed to occur through two exchange forms. The first is of an arm's-length type, meaning that these exchanges are independent and of equal measure. According to the interviewees these specific types of transactions are the occasional ones, through which people use to discuss money, and other narrow economic issues. The second kind is the embedded one, that of close relationships, that based on trust, according to which individuals go beyond the mere business relationships, as they are interested in what their exchange partners do outside business, outside the company.

Interviewees reported that the majority of inter-firm relationships were of the first kind, of an arm's-length kind; however, even if less in number, close relationships were, according to the interviewees, more significant.

At the core of these significant relations stands, as it has already been stated, trust. When someone acts with trust, it means that he believes other will not behave opportunistically nor by calculating risk: they will, instead behave heuristically, intuitively, genuinely believing in the bona fide of their exchange partners. According to the interviewees, trust within relations increases competitiveness providing access to otherwise not exploitable resources. It's not about money, or self-interest: it is that force which enhances the organization's ability to overcome problems.

Moreover, continues Uzzi⁹⁹, the information we find in trusty relations is not of an elusive, superficial or detached kind: is one more dense, and proprietary and consistent for the firm's strategy, as it comes from individuals who pursuit the same goals and interests. What the author calls a 'fine-grained' information brings advantages to networked firms as, for example, it enhances the accuracy of long-term forecasts and the helps overcoming possible asymmetries between exchange partners.

⁹⁹ Uzzi, B., (1997), Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness, *Administrative Science Quarterly*, Vol. 42, Issue 1, pp. 35-67

Other findings came from his researches and interviews: it resulted that, for many, embeddedness and relations led individuals to do more than what expected from the contract: interviewees stated that for business friends, they will have agreed to work, if necessary, on Saturday or Sunday.

Then, if time for economists is the scarcest resource, embeddedness helps in this sense as it is able to quickly capitalize on market opportunities; it mainly overcomes the problem of effectively allocate assets, allowing firms to capture consumers' preferences by making product designs and production levels closer to them. Specifically when it comes about highly specialized goods to which consumers are best sensitive, having close relations with suppliers or other economic actors involved in the production processes, may allow firms to quickly respond and adapt to future changes in demand.

Furthermore, Uzzi suggested that embeddedness operates at a level that promotes not only continuous amounts (in terms of quantity or prices, as the neoclassical approach stated), but enhances a kind of qualitative analysis, based on deeper observations; quality becomes pivotal as people get into the idea that the person to whom they are dealing are important, and thus goods and services proposed have to be of high quality.

Contrary to the popular neoclassical argument, that supports the thesis that coordination is not at all necessary among firms because the price system (and thus the market) on its own directs individuals who want to maximize their profits to choose the best adaptive responses, it has been found that social relations assist adaptation, as coordinated solutions are elaborated for organizational problems. Authors such as Dore¹⁰⁰ and Lincoln¹⁰¹, when analyzing 'keiretsu network structures', found that coordinated firms were able to communicate each other potential problems (e.g. future economic slowdowns or under-productivity of target firms) and collaborate to find solutions to them. If there were no coordination, it would

¹⁰⁰ Dore, R., (1983), Goodwill and the Spirit of Market Capitalism, *British Journal of Sociology*, Vol.34, pp. 459-482

¹⁰¹ Lincoln, J.R., Gerlach, M.,L., Ahmadjian, C.,L., Keiretsu Networks and Corporate Performance in Japan, *American Sociological Review*, Vol.61, pp. 67-88

not have been possible for these firms to identify potential challenges only on the basis of the information that the price system suggested.

The difference is clearly explained in Uzzi researches: *“In close relationships we work together. I handle their last minute garment changes and ship fast and jobbers help me expand and solve production problems (...). Other jobbers push the price down when the contractor tells his production problems. Eventually the contractor wants to leave the manufacturer because he doesn’t pay enough next time (to make up for earlier price concessions). But in the time a good contractor needs to find a new jobber to replace their business they lose their best workers and then they go out of business.”*¹⁰² - explains a contractor of one of the 23 firms interviewed, suggesting that price is not a good signal for organizational adaptation and may, on the contrary, be used to mask problems when pursuit for self-interest.

To sum up: Adam Smith’s view of people doing the best for the society by doing selfishly for themselves is no more acceptable. It is instead true that firms that act in the societal interest do more for the entire economy and for others than they do by merely following selfish goals. If competitive advantage is achieved through complex adaptation, networks are the forms to choose.

However, here comes a paradox: once a firm became too embedded, negative consequences may arise. That means that the same processes that, within networks, allow firms to find each time the best fit with the environment, may lower their ability to adapt.

Embeddedness may become a liability under three conditions: a core actor of the network leaves the structure; markets become over-rationalized because of stronger institutional forces; the network is characterized by too much embeddedness.

The first condition is easily understandable: when a firm has established a close relation with, to say, one manufacturer, who brings in specialized

¹⁰² Uzzi, B., (1997), Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness, *Administrative Science Quarterly*, Vol. 42, Issue 1, pp. 35-67

assets, and he, for some reasons, closes his business, the firm will find itself subject to a higher risk of failure than if it had diversified its ties. Damages arise for a firm when it has rooted itself deeply in a network, excluding resources that stand out of this network.

The second condition under which embeddedness may become risky is when markets in turn become “over-rational”, mainly because of specific institutional arrangements. When, during 1980s, corporate conglomerates, in the fashion industry in USA, bought retailers such as Macy’s and A&S, many firms broke their strong relationship with their manufacturers. In this case, the action of buying (previously characterized by close ties), was transformed in a merely ‘numbers buying’ (a practice that poses the accent on one-shot relationships and short-term profits). Thus the old buyers, who once had personal relationships with the stores, were substituted by impersonal buyers, who may knew the accountability rules, but knew few about the stores and had scarce dialogue with the people working there. Embeddedness, thus, may pose high risk of failure when institutional forces act to preclude the achievement of competitive advantage by rationalizing markets.

Finally, the third condition under which social ties can become dangerous is when overembeddedness is enacted. That means that a network does not engage in relationships with outside members (a kind of bias that has already been discussed in the second chapter, when talking about the disadvantages of social capital), causing information to become redundant, and precluding the flow of potential innovative ideas. Uzzi states that “*The networks become ossified and out of step with the demands of its environment, ultimately leading to decline.*”¹⁰³

Therefore, given these conditions, how embeddedness should be used and what matters about it? How to make it a positive asset for the firms, instead of a liability?

¹⁰³ Uzzi, B., (1997), Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness, Administrative Science Quarterly, Vol. 42, Issue 1, pp. 35-67

Two variables have to be taken into account: first of all, the way in which a firm links to its network. The optimal way to link to a network would be one that is halfway between arm's length ties and an overembedded network:

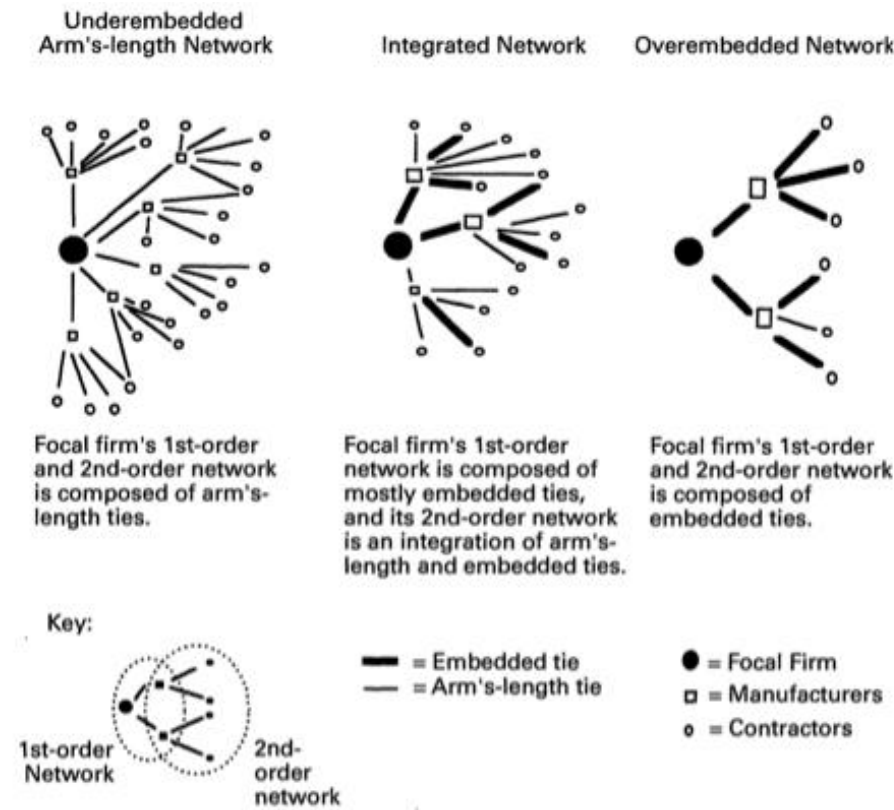


Figure 10- Network structure and embeddedness from a focal firm's perspective¹⁰⁴

Uzzi findings demonstrated that, among the apparel industry analyzed, links to embedded ties decreased the rate of failure for firms and furthermore links to a network which represents a halfway solution between the arm's length principle and the over-embeddedness one, drove down further this rate.

As the figure demonstrates, there is a difference not only in the kind of networks, but also, within networks themselves, in the quality of their links.

¹⁰⁴ Uzzi, B., (1997), Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness, Administrative Science Quarterly, Vol. 42, Issue 1, pp. 35-67

Thicker lines are the embedded ones, while the thin ones are that following the arm's length principle.

That lead us to the second variable that influence the efficiency of embeddedness on economic performance: the composition of the network. Like almost everything in life, the main issue to be concerned with is not 'how many' but instead, specifically, 'which kind', 'how'.

Quality is a prerogative also in social capital, in relationships, in trust, in embeddedness. When there is no quality, there will be no positive effects; on the contrary, it may happen that negative consequences arise.

As Uzzi said, "*embeddedness is like a puzzle*¹⁰⁵"; what we need to do, is just understand the mechanism, and get the right place to each piece of the puzzle. Then, when everything will have found its specific position, economies of time, Pareto's improvements, adaptation, flexibility, efficiency will then happen.

The picture here below represents the positive outcomes that can result from being part of an integrated network as well as the negative consequences that exceeding in the pity of embeddedness may cause.

¹⁰⁵ Uzzi, B., (1997), Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness, Administrative Science Quarterly, Vol. 42, Issue 1, pp. 35-67

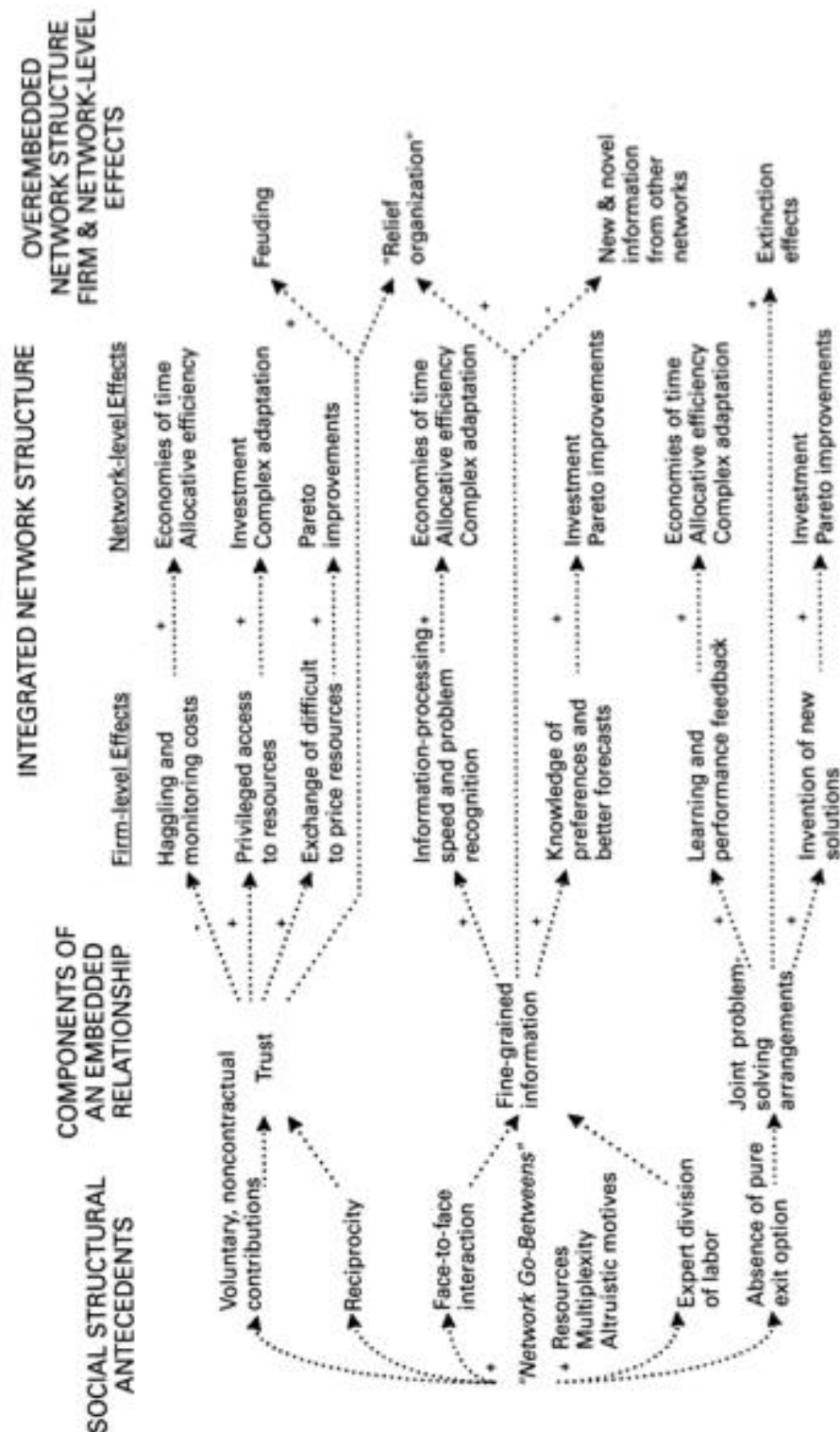


Figure 11- Antecedents and consequences of embeddedness and interfirm network structure¹⁰⁶

¹⁰⁶ Uzzi, B., (1997), Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness, Administrative Science Quarterly, Vol. 42, Issue 1, pp. 35-67

- Fighting Transaction Costs: can network of organizations win?

When arriving on Pandora, humans could not believe what they had in front of them: wide rain forests, trees that could get up to 300 meters, an uncontaminated nature which collects species never seen before. The air there was not breathable for those humans, but the world they were experiencing was worth the effort of, to say, living without air (better with some filter masks!).

Special creatures inhabited this primordial world, creatures tall more than 3 meters, with a blue striped skin; but the Na'vi population had something much more exceptional than their blue skin. They seemed to have, in fact, a special relation with the planet they inhabited, a deep empathy with the ground under their feet and with the other species living on Pandora.

This empathy was possible thanks to synapsis, which linked Na'vis with the other forms of life around them. These special connections allowed for the creation of a one, all-embracing network, where everyone was linked to each other.

Surely the main message of this recent movie is neither that of synapsis nor that of the links this population had established with their homeland; it is something that has to do with dominance, abuse of power, disregard of other, different, people.

However, what I find of great significance in this story is the relation that 'individuals' have between each other, and how, through the filaments of their tales, they communicate with animals and give them instructions. Over there, everything was networked to everything else, live or dead, especially through real neural networks.

Unfortunately this is just fantasy: we do not live on Pandora, we do not have long tails that connect us with other species, we do not enjoy neural synapsis with the ground or with animals.

Anyway there is still something in common with our world: just as on Pandora, in a broader sense, it is possible to admit that in our real life nothing happen in isolation.

And what are the advantages of not being isolated?

To a great extent it has been argue within these chapter how the presence of transaction costs has determined a failure in the market; thus, where past solutions (i.e. hierarchies) failed to solve this problem, network structures could, instead, succeed.

Let's make a step back: if it is true that superior performance for firms is achievable through specialized investments¹⁰⁷, through specific assets, it is also true that this superior performance, just as everything in our life, comes with a cost.

These costs are 'transaction costs'. Many studies have demonstrated that, when a firm makes an investment in specialized assets, transaction costs increase for the fear of opportunism¹⁰⁸: in fact, when the specificity of an asset rises, there is the need for more complex governance structures, for more complex contracts, to avoid the bargaining will result in higher costs than profits from specialized assets.

Therefore, as already demonstrated in the first chapter, when investments become more specific, transaction costs are presumed to increase.

To be clearer, it is worth mentioning that, as several studies have demonstrated, this logic that stands between specificity of investments and consequent increase in transaction costs is more likely to be verified within hierarchies than across markets.

But why been simply satisfied with markets when it is possible to achieve much lower level of transaction costs? And then, in turn, why content themselves only with a reduction of these costs, when it is possible to reach more?

¹⁰⁷ Dyer, J.H., (1996), 'Specialized Supplier Networks as a Source of Competitive Advantage: Evidence from the auto-industry', *Strategic Management Journal*, Vol.17, Issue 4, pp.271-292

¹⁰⁸ Dyer, J.H., (1997), 'Effective Interfirm Collaboration: how Firms minimize Transaction Costs and maximize Transaction Value', *Strategic Management Journal*, Vol.18, Issue 7, pp.535-556

It was found, for example, in the Japanese industry, that both suppliers and manufacturers, notwithstanding they made greater asset specific investments (with respect to U.S.) were, however, compensated not only with lower transaction costs, but also with superior performance.

How could this happen? Where was Williamson's theory on the logic of transaction costs and asset specificity?

What differed in the Japanese situation was that these suppliers and manufacturers were part of a 'keiretsu' group. Again, network structures demonstrate their importance and the differential they could make in fighting transaction costs.

A brief description of the structure of a 'keiretsu' is, at that point, worth doing.

The term indicates clusters of firms, operating in different industry sectors, and linked by ties that are more ethical or of membership than juridical or contractual. Like other network structures, 'keiretsu' are differently both from the organizational models developed by Chandler¹⁰⁹ (that were based on the concept of 'visible hand', highlighting that managerial efficiency was sufficient to achieve superior performance and survive the failures) and from that of Adam Smith's 'invisible hand'¹¹⁰ (according to which, instead, market were self-regulating machines) .

¹⁰⁹ Chandler, A. D., (1977), *The Visible Hand: the Managerial Revolution in American Business*, Printed in United States of America

¹¹⁰ Smith, A., (1976), *The Wealth of Nations*, Waking Lion Press

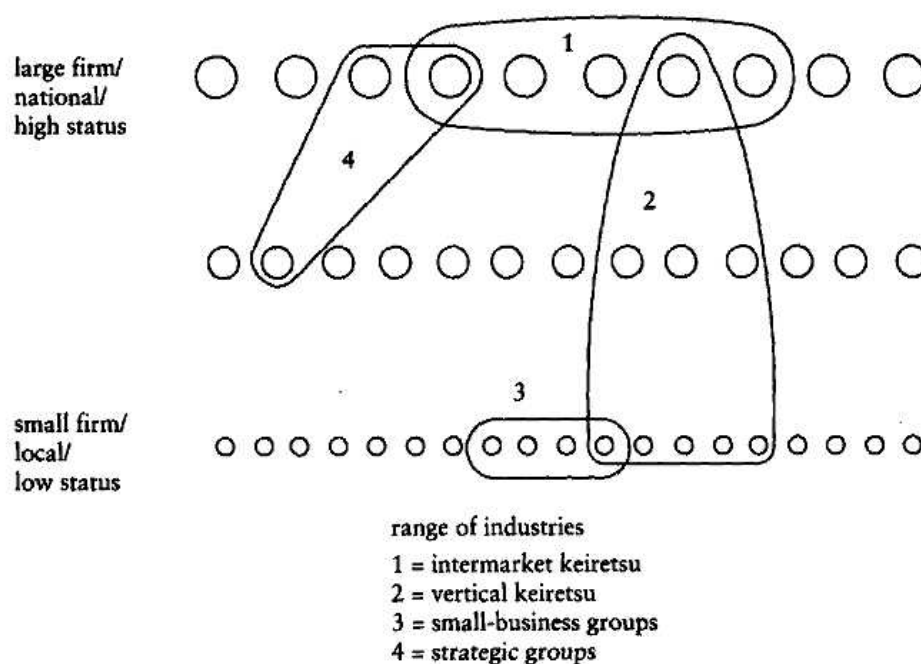


Figure 12-Different Structure of 'keiretsu' Networks¹¹¹

The figure above clearly describes the different kinds of 'keiretsu' networks: inter-market 'keiretsu', vertical 'keiretsu', small business groups and strategic groups.

The first one involves large firms concentrated around a major commercial bank; it mainly represents a Japanese elite group of same-size firms from different industries, characterized by loosely associations.

The second one, vertical 'keiretsu', deals on the other hand with tighter hierarchical structures concentrated on one large parent firm which controls smaller satellite firms within the same industry. As deducible from the picture, it often happens that the large parent company maintains its own inter-market 'keiretsu'. The vertical 'keiretsu' may be furthermore classified in three categories: 'sangyo keiretsu', dealing with the supply and production stages; 'ryutsu keiretsu', responsible at a distribution level and 'shihon keiretsu', engaged in the flow of capital from the large parent firm.

The third kind regards business groups which involve small firms from different industries, competing with the larger ones through collaboration.

¹¹¹ Gerlach, M., (1992), *Alliance Capitalism: The Social Organization of Japanese Business*, University of California Press, Berkeley

These kind of structures are embedded in their local communities and may thus enjoy greater collaboration coming from these dense ties.

Strategic groups, finally, regards wide ranges of inter-firm organizations that mainly pursue instrumental needs (also called, in fact, ‘functional groups’): they are concerned with alliances, joint-ventures and other forms of cooperation created to bridge industries and firms that are part of different ‘keiretsu’.

‘Keiretsu’ are defined as “*institutionalized relationships among firms based on localized networks of dense transactions, a stable framework of exchange, and patterns of periodic collective action*”¹¹²,

These structures are one of the major source of Japanese competitive advantage and have, moreover, The ability to reduce transaction costs. Some numbers to understand the position they occupy within their country of origin: since 1990¹¹³, firms which were part of the six largest ‘keiretsu’ (which accounted only for 0,007% of the Japanese firms), were responsible for the 14% of total sales, 4% of employment and 12% of profits. Great figures if we think how few they were.

As compared to their Western rivals, for example, ‘keiretsu’ manufacturers have fewer suppliers, to which they are linked through long-term flexible contracts characterized by frequent communication: in this way both the exchange partners (i.e. the manufacturer and the supplier) have no need to turn to the costly vertical integration, and can therefore achieve reductions in costs. Let’s have a practical example: it was found that¹¹⁴, in Toyota’s ‘keiretsu’ system were needed only 340 people to buy parts for 3.6 million automobiles while for General Motors the need was of about 1500 buyer for the same amount of automobiles, a decrease in transaction costs that accounted for \$700 cost advantage per automobile for Toyota.

¹¹² Gerlach, M., (1992), *Alliance Capitalism: The Social Organization of Japanese Business*, University of California Press, Berkeley

¹¹³ Dow, S., McGuire, J., (1999), *The Sources and Advantages of Japanese Industrial Organization*, *Asia Pacific Journal of Management*, Vol.16, pp.47-74

¹¹⁴ Dyer, J., Ouchi, W., (1993), *Japanese-style Business Partnerships: Giving Companies a Competitive Advantage*, *Sloan Management Review*, Vol.35, pp. 51-63

‘Keiretsu’ and similar network structures demonstrate that is possible for firms to achieve not only an increased asset specificity, but also to lower transaction costs, providing in this way a source of competitive advantage.

This as opposed to the theories developed until recent times, according to which transaction costs increase as firms may safeguard from the hazard of opportunism. In fact, to avoid being, to a certain extent, cheated, firms should deepen their researches (thus increasing their search costs to evaluate the best potential exchange partner); then, contracting costs will be incurred, as when trust is not part of the deal, written forms may avoid ‘surprises’. Third, monitoring costs are also needed, as firms will have to check the behaviour of their partner. Finally, if the latter does not perform accordingly to the contract, enforcement costs will be incurred.

Surely, during the years after this logic had been developed, some solutions were proposed: they were mainly concerned with legal contracts.

These kinds of governance structures were able to specify the obligations to which each economic actor of the exchange was subjected, and also aim at identifying a third part who had the right to sanction a trading partner that behave opportunistically. To recall Williamson classification, when asset specificity is low, the kind of contract needed is the classical one, which bears relatively low costs. But when asset specificity increases, other forms of contracts (neoclassical one) are needed and, consequently, costs start to rise. Alternatives for this problem are represented by structures which involve characteristics such as trust, cooperation, identification and reciprocal obligations. These structures are the one where social capital flows freely, where information is shared and innovation easily achievable: these structures are the industrial clusters, the Chinese ‘guanxi’, the Japanese ‘keiretsu’.

These structures are networks. As two authors have argued, then, the question to be answered is no more how to simply reduce, or fight, transaction costs by finding structures based on mutual relationships: it is,

instead, “*how can exchange relations be structured to maximize transaction value (which include both production and transaction costs)?*”¹¹⁵”

Here lies the shift of this thesis, not merely proposing a solution to the problem or a way to fill in the crack that transaction costs have created in the market but furthermore providing alternatives that may overcome this failure while creating competitive advantage, while contributing to the success of the firm, while adding value.

This is what networks are for and after all, what strategies are for.

¹¹⁵ Zajac, E., J., Olsen, C.,P., (1993), From Transaction Cost to Transactional Value Analysis: Implications for the study of Interorganizational Strategies, Journal of Management Studies, Vol.30, pp. 131-145

Conclusions

If Adam Smith was wrong, as for the market inefficiency in establishing prices that reflect both private and social costs, afterwards other scholars who criticized the *laissez-faire* theory arguing increasing Government's intervention in economics were wrong too. The Pigouvian argument according to which the externalities caused by the private-social disequilibrium could be fully recovered through ways that go from taxation and fiscal regulation to public supply of services could not work, as history has fully demonstrated. In some ways, as capitalism, communism has failed too.

Successive economists have then tried to fill this vacuum, claiming how individuals were by themselves able to find a solution to the problem of externalities, by merely come to a private understanding. Well, this trial was unsuccessful. Coase's theorem, as capitalism and communism, has failed too. And what did not work in this case?

Transaction costs: in fact, the assumption from which Ronald Coase drew his theorem was that, in the agreements that private parties could reach to minimize externalities, the price system was costless. That, of course, cannot happen in the real world. So what?

Oliver Williamson thought that economic organizations were the ones able to solve the issue and reduce transaction costs: he in fact identified different kinds of governance structures that, on the basis of some characteristics, could best fit a specific transaction. Thus, according to him, for transaction that are highly idiosyncratic, that happen frequently and involve uncertainty about their outcome, the best solution was hierarchy. Hierarchies are needed because market are not perfect, information does not flow freely and moreover human beings have limited rationality (Williamson calls it 'bounded rationality') and act opportunistically.

However, if vertical integration can, to some extent, minimize transaction costs, it is also true that this kind of structure bears within itself several drawbacks: it may cause anticompetitive effects to arise, it may lead

to conflict (as for the difficulty of efficiently coordinate the different parts), it may lock firms into obsolete practices. Thus have hierarchies failed too?

I would be cautious in arguing a failure of vertical integration, as this system, to some extent, could work: but aren't we always searching for the best?

Well, that is the argument: vertical integration is not the best for firms, neither in fighting transaction costs nor in achieving competitive advantage.

To me (and to many authors) networks are the best. Within a network, there is rich soil for social capital to grow; there is place for trust, cooperation and then, development. Within a network, social capital can flourish, thus contributing to the value creation: it has been argued, in fact, how the key of social capital stands exactly in the location an individual can enjoy in a network, together as in the strength of his ties, together as in the efficient allocation of his resources.

With these findings in hand, old theories on the wastefulness of trust have to be surpassed: many economists were wrong in stating that reciprocity only muddy the clear water of economic analysis, as it can, on the contrary, minimize transaction costs and together boost the economic performance and the overall efficiency.

Within networks, in fact, complementarity is likely to be experienced and together also competitiveness is enhanced: obviously, it is that kind of competitiveness from which firms can learn and grow. As it has already been stated, *"Peer pressure, pride and the desire to look good in the community spur executives to outdo one another"*¹¹⁶, enabling firms to exploit synergies in order to achieve common goals and overcome possible challenges.

And many countries have understood the lesson: nowadays, clusters of firms together with other similar structures ('guanxi', 'keiretsu') are actually shaping a new era in economics; the global business environment is in fact moving away from multi-level hierarchies that were centrally coordinated

¹¹⁶ Porter, M. E., (1998), Clusters and the New Economics of Competition, Harvard Business Review, pp.77-90

toward structures that are far more flexible and dynamic than the traditional pyramid-shaped organizations. Without forgetting that networks are the ones who already made up our society: electronic networks are the ones who process financial transactions in real time within financial markets; our best invention in the last two decades (Internet) is nothing much than a bundle of computer networks; the global economy in toto is a network of labour pools engined by money and information, is a network of financial transactions, production sites and markets.

Thus, within a business panorama that is becoming more and more volatile and a pace of change that continuously increases, the only way to succeed for firms is to become agile, creative, responsive and alert. They must be able to learn and then adapt, to self-organize but also to decentralize their activities, to be more bottom-up, instead of the merely top-down, monolithic and hierarchical structures of the XX century.

We are nowadays a century ahead, and we must, as firms, let the old business paradigms go, and be ready to embrace new operating strategies in dealing with the pressing short-term issues of the today's demand.

As Michael Porter stated¹¹⁷: *“The old models of corporate strategy and capitalism are dead. We are witnessing a paradigm shift from hurting to helping”* : firms by cooperating with each other will be able to weather the storms, and transform externalities into opportunities.

Hence, organizing firms under network structures should be the direct consequence of an environment which is already shaped by these forms. And, beside the paradox they may bear, as too much embeddedness (just as overall too much is never positive), can lock firms into un-productive and obsolete ties, preventing them from innovation, we are used to the natural selection and know that who survive is the fittest: then why don't firms just fit with the environment around them, by becoming part of the main and, through networks, part of this highly interconnected web of life ?

¹¹⁷ Source: <http://www.guardian.co.uk/sustainable-business/business-success-nature-inspiration?newsfeed=true>

References:

- Baker, W. E., (1984) The Social Structure of a National Security Market, The American Journal of Sociology, Vol. 89, No. 4, pp. 775-811
- Barabasi, A. L., (2002), Linked: The New Science of Networks- How Everything is Connected to Everything Else and What it Means for Science, Business and Everyday Life, Perseus Publishing, New York
- Bonazzi, G., (2008), Storia del Pensiero Organizzativo, Franco Angeli
- Bourdieu, P., (1986), The Forms of Capital, Wiley Online Library
- Cassidy, J. (2009), Come Crollano i Mercati- La Logica delle Catastrofi Economiche, Einaudi Editore, page 138
- Chan, K.M., (1999), Corruption in China: A Principal Agent Perspective, Handbook of Comparative Public Administration in the Asia Pacific Basin, Public Administration and Public Policy, Vol.73, New York, pp.299-324
- Chandler, A. D., (1977), The Visible Hand: the Managerial Revolution in American Business, Printed in United States of America
- Coase, R.H., Conference in the occasion of the Nobel Prize, 9 December 1991, to be found at the webpage

http://nobelprize.org/nobel_prizes/economics/laureates/1991/coase-lecture.html

- Coase, R. H (1937), The Nature of the Firm, *Economica*, New Series, Vol. 4, No 16, pp 386-405.
- Coase, R. H., (1960), The Problem of Social Cost, *Journal of Law and Economics*, Vol. 3, pp. 1-44.
- Coase, R.H., (1974), The Lighthouse in Economics”, No.2, pp. 357-76
- Coleman, J.S., (1988), Social Capital in the Creation of Human Capital, *The American Journal of Sociology*, Vol. 94, pp 95-120
- Common, J. (1934), *Institutional Economics, Its place in Political Economy*, MacMillan Company
- Dahl, C. A., (1947), *International Energy Markets- Understanding Pricing, Policies and Profits*, PennWell Corporation, pp 169-181
- Dyer,J.H., (1996), Specialized Supplier Networks as a Source of Competitive Advantage: Evidence from the auto-industry’, *Strategic Management Journal*, Vol.17, Issue 4, pp.271-292
- Dyer, J.H., (1997), Effective Interfirm Collaboration: how Firms minimize Transaction Costs and maximize Transaction Value, *Strategic Management Journal*, Vol.18, Issue 7, pp.535-556
- Dyer, J., Ouchi, W., (1993), Japanese-style Business Partnerships: Giving Companies a Competitive Advantage, *Sloan Management Review*, Vol.35, pp. 51-63
- Dore, R., (1983), Goodwill and the Spirit of Market Capitalism, *British Journal of Sociology*, Vol.34, pp. 459-482

- Dow, S., McGuire, J., (1999), The Sources and Advantages of Japanese Industrial Organization, Asia Pacific Journal of Management, Vol.16, pp.47-74
- Durkheim, É., (1897), Le Suicide: Etude de Sociologie, Les Presses Universitaires de France, Paris
- Ford, D.I., Hakansson, H., Johanson, J., (1986), How do Companies Interact?, Industrial Marketing and Purchasing, Vol. 1, pp. 26-41
- Gerlach, M., (1992), Alliance Capitalism: The Social Organization of Japanese Business, University of California Press, Berkeley
- Gerschenkron, A., (1965), Economic Backwardness in Historical Perspective, F. Praeger, New York
- Granovetter, M., (2005), The Impact of Social Structure on Economic Outcomes, The Journal of Economic Perspective, Vol. 19, No.1, pp. 33-50
- Granovetter, M., (1985), Economic Action and Social Structure: the Problem of Embeddedness, American Journal of Sociology, Vol. 91, Issue 3, pp. 481-510
- Grant, M.R., (2010), Contemporary Strategy Analysis, John Wiley & Sons Ltd, p.4
- Grootaert, C., (1998), Social Capital: the Missing Link?, Social Capital Initiative, Working Paper No. 3
- Hakansson, H., Snehota, I., (2006), No business is an Island: The network concept of Business Strategy, Scandinavian Journal of Management, Vol. 22, pp. 256-270
- Harrigan, K. R., (2003), Vertical Integration, Outsourcing and Corporate Strategies, Beard Books, Washington D.C.

- Hart, O., Tirole, J., (1990), Vertical Integration and Market Foreclosure, M.I.T. Libraries
- Hill, C.W.L., (1990), Cooperation, Opportunism and the Invisible Hand: Implications for a Transaction Cost Theory, Academy of Management Review, Vol.15 No.3, pp. 500-513
- Hill, C.W.L., Jones, G.R. (2008), Strategic Management. An Integrated Approach, South Western Cengage Learning
- Hobbes, T. (1651), Leviathan
- Johnston, R., Lawrence, P., (1988), Beyond Vertical Integration- the Rise of the Value-Adding Partnership, Harvard Business Review, pp. 94-101
- Jones, B.D., (1999), Bounded Rationality, Annual Review of Political Sciences, Vol. 2, pp. 297-321
- Kaneko, I., Imai, K. (1987), A Network View of the Firm, presented at 1st Hitotsubashi- Stanford conference
- Katz, E., Lazarsfeld, P. F., (1955), Personal Influence: the Part Played by People in the Flow of Mass Communications, Free Press
- Lincoln, J.R., Gerlach, M.,L., Ahmadjian, C.,L., Keiretsu Networks and Corporate Performance in Japan, American Sociological Review, Vol.61, pp. 67-88
- Macneil, I. R., (1974), The Many Futures of Contracts, Southern California Law Review
- Marshall, A., (1890), Principles of Economics, Macmillan and Co. Ltd, London, p.198

- Marx, K., (1867), *Das Kapital, Kritik der Politischen Oekonomie*, Hamburg, Verlag von Otto Meissner
- McCloskey, D., (1998), Other Things Equal- The So-Called Coase Theorem, *Eastern Economic Journal*, Vol. 24, No. 3
- Milliken, F.J., (1987), Three Types of Perceived Uncertainty About the Environment: State, Effect, and Response Uncertainty, *Academy of Management Review*, Vol.12, No. 1, pp 133-143
- Park, S.H., (2001), Guanxi and Organizational Dynamics: Organizational Networking in Chinese Firms, *Strategic Management Journal* No.22, pp. 455-477
- Pigou, A.G., (1920), *The Economic of Welfare*, Macmillan & CO
- Porath, B. Y. (1978), *The F-Connection: Families, Friends and Firms and the Organization of Exchange*, The Hebrew University of Jerusalem, Report no. 29/78
- Porter, M. E., (1998), Clusters and the New Economics of Competition, *Harvard Business Review*, pp.77-90
- Porter, M.E. (2008), The Five Competitive Forces that Shape Strategy, *Harvard Business Review*, pp 86-104
- Porter, M., (1996), What is Strategy?, *Harvard Business Review*, pp. 61-78
- Portes, A., (2000), The Two Meanings of Social Capital, *Sociological Forum*, Vol. 15 No.1, pp. 1-12
- Sutcliffe, K. M., Zaheer, A.,(1998), Uncertainty in the Transaction Environment: An Empirical Test, *Strategic Management Journal*, Vol.19, pp 1-23.

- Smith, A., (1776), *The Wealth of Nations*, Andrew Skinner, Baltimore, Penguin
- Stigler, G., (1988), *Memoires of an Unregulated Economist*, Chicago Press.
- Thompson, G., Frances, J., Levacic, R., Mitchell, J., (1991), *Market Hierarchies & Networks: the Coordination of Social Life*, London, SAGE Publications, p. 154
- Tonoyan, V., (2003), *The Bright and Dark Sides of Trust: Corruption and Entrepreneurship*, presented at the 'International Conference on Trust and Entrepreneurial Behaviour in East and West European Economies: Concepts, Developments and Comparative Aspects', University of Bremen
- Tsai, W., Ghoshal, S., (1998), *Social Capital and Value Creation: the Role of Intrafirm Networks*, *The Academy of Management Journal*, Vol.41 No.4, pp. 464-476
- Uslaner, E. M., (2005), *The Bulging Pocket and the Rule of Law: Corruption, Inequality and Trust*, For the presentation at the Conference 'The Quality of Government: What It Is, How to Get It, Why It Matters', The Quality of Government Institute, Department of Political Science, Gotemborg University
- Uzzi, B., (1997), *Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness*, *Administrative Science Quarterly*, Vol. 42, Issue 1, pp. 35-67
- Waldinger, R. (1995), *The Other Side of Embeddedness: A Case Study of the Interplay of Economy and Ethnicity*, *Ethnic and Racial Studies*, Vol. 18 No.3, pp. 555-580

- Williamson, O.E., (1991), Comparative Economic Organization: The Analysis of Discrete Structural Alternatives, Administrative Science Quarterly, Vol.36 No.2, pp. 269
- Williamson, O., (1975), Market and Hierarchies, Analysis and Antitrust Implications: A Study in the Economics of Internal Organization, Free Press, New York
- Williamson, O.E. (1981), The Economics of Organization- The Transaction Cost Approach, The American Journal of Sociology, Vol. 87, No.3, 548-577
- Williamson, O.E., Winter, S.G., (1993), The Nature of the Firm- Origins, Evolution and Development, Oxford University Press, page 12
- Williamson, O.E., (1971), The Vertical Integration of Production: Market Failure Consideration, The American Economic Review
- Williamson, O.E., (1979), Transaction-Cost Economics: The Governance of Contractual Relations, Journal of Law and Economics, Vol.22, No.2, pp. 233-261
- Wrong, D., (1961), The Oversocialized Conception of Man in Modern Sociology, American Sociological Review, Vol.26, Issue 2, pp. 183-93
- Yan, Y.,(1996), The Culture of Guanxi in a North China Village, The China Journal, Vol.35, pp.1-25
- Yongmin, C., (2001), On Vertical Mergers and their Competitive Effects, Journal of Economics, Vol. 32, n. 4, pp. 667-685

- Zajac, E., J., Olsen, C.,P., (1993), From Transaction Cost to Transactional Value Analysis: Implications for the study of Interorganizational Strategies, Journal of Management Studies, Vol.30, pp. 131-145

Acknowledgements

Il momento che stiamo vivendo, da individui e da aziende, in Italia e nel mondo, è uno di quelli, per dirlo semplicisticamente, di forte crisi. Alle inefficienze dei singoli processi produttivi ed organizzativi si affiancano infatti continue inefficienze, per non dire fallimenti, dei mercati, un po' come quello qui identificato di Adam Smith e della sua mano invisibile. E sebbene le strategie non dovrebbero solo essere pensate ma realizzate, e le soluzioni non dovrebbero soltanto essere trovate ma piuttosto applicate, è pur vero che quanto argomentato in questa tesi non rimane mera teoria e vi spiego anche il perché.

Mi piace ricordare una frase che ho letto su un pezzo del muro di Berlino che dice: "Die beständigkeit der ignoranz"- La persistenza dell'ignoranza. Certo, essa va sradicata dal suo contesto, perché quella a cui si riferisce è un'ignoranza beccera, che non solo ottunde ma devia verso il male, devia verso, per rimanere in tema, esternalità negative. L'ignoranza a cui mi riferisco è una più genuina, più buona, se vogliamo: è quella di chi non sa e si lascia quindi trascinare dalle cose, dagli eventi. E' quella di chi non conosce e nemmeno si informa, rimanendo intrappolato in pratiche e sistemi obsoleti e magari poco redditizi.

Ecco, questa tesi vorrebbe provare a ritinteggiare un po' quel pezzo di muro: senza nessun consiglio pratico, senza nessuna specifica dritta; soltanto con chiacchiere e tanta teoria, che però si sa, è sempre alla base dell'azione e del cambiamento perché, checchenedica Williamson, abbiamo una razionalità un po' meno limitata di come sembra.

Queste pagine hanno il solo scopo di far prendere coscienza, agli individui per le loro aziende, che esistono strutture migliori, strutture che grazie ad una rete di relazioni possono garantirsi non solo vantaggi, ma in generale un'agilità e flessibilità che in un mondo così cangiante è quantomeno una prerogativa per sopravvivere.

Queste pagine non disvelano di certo la suprema conoscenza: ma sono felice di dire che aiutano a rendersi conto che un modo c'è, in questo caso,

per ovviare ad un piccolo fallimento del mercato, che informano e contribuiscono a fare magari un po' di luce, in generale, sul buio dell' "ignoranza".

Come in tutte le cose, sapere porta quasi sempre ad agire, soprattutto se quello di cui veniamo a conoscenza può darci tanti buoni frutti.

E allora agiamo: come tanti altri paesi hanno già fatto, sfruttiamo questo universale network di conoscenze e di relazioni più strette perché, si sa, l'unione fa la forza. Lasciamoci coinvolgere da questa rete, rimanendo ovviamente coscienti ed attenti a non rimanere intrappolati perché, si sa anche questo, il troppo storpia.

A questo punto credo di dover ringraziare quel pezzo di muro che, fotografato in camera, mi spinge sempre a ricercare ed a voler conoscere, ad andare un po' più in là, oltre la mera superficie delle cose.

Insieme a lui devo ringraziare il mio Professore, Paolo Boccardelli, perché lo spunto ad informarmi su queste strutture me lo ha dato lui, e perché mi poi lasciato la libertà di costruirci un mio discorso intorno, senza alcuna limitazione.

Insieme al muro, ed a Paolo, debbo poi ancora una volta ringraziare la mia famiglia tutta: senza di loro, posso dirlo, non sarei niente.

Ringrazio le amiche di sempre (questa volta siete le prime citate!) perché so che avete creduto in me e continuerete a farlo.

Ringrazio quelle nuove, che mi hanno accompagnato in questo percorso universitario e che spero continueranno a far parte della mia vita.

Ringrazio i miei colleghi di lavoro, che mi hanno capita ed hanno avuto la pazienza di sopportare i miei sfoghi e le mie lacrime, dimostrando flessibilità e, più di tutto, umanità.

Ringrazio il mio, di network, ringrazio quella rete di conoscenze che permea la mia vita: ringrazio i compagni di serate, quelli dei caffè sporadici, quelli delle chiamate una volta ogni sei mesi, quelli racchiusi in una fotografia appesa al muro, quelli di una vacanza, quelli sparsi per il mondo. Vi ringrazio tutti perché, anche se alcuni per un istante, avete fatto parte

della mia vita, ed avete contribuito ad essere, con orgoglio, quella che sono oggi.

Grazie perché io vi sento; grazie perché, senza saperlo, mi spronate. Mi spronate perché spero, nella vita che mi resta, di incontrare persone belle come voi, con cui condividere anche solo un caffè, una telefonata sporadica, una fotografia, una vacanza, un pezzo di mondo.