

Proximity and creation of relational value: Case of the automotive subcontracting of level two's relationships in Morocco

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ABSTRACT

The challenge which represents the risks related to the relation of subcontracting and the importance of the modes of management of these risks in the performance of the relation of subcontracting, the comprehension and the determination of interaction enter the subcontractor and the customer; they lead the subcontractors particularly to search or create relational values able to maintain, to sustain the relation and to avoid all risks of opportunism and uncertainty of the customers. And thus we supposed that the proximity will play a significant role in the search and the creation of relational values. We put our attention on automobile subcontracting since recently the development of the subcontracting of proximity in automobile industry in Morocco becomes the concern first with the needs for the companies of the sector (Moroccan association of industry and the automobile Trade, 2014).

Keyword: Proximity, relational value, automobile subcontracting, relation between firms, Correlation of Pearson.

INTRODUCTION

Dupuy et Torre (2000) suppose that *“the geographical proximity can constitute, by establishment of generating repeated relations of common culture and cooperative links, even of confidence, a factor of cohesion and diffusion of information, favorable to the establishment and the perpetuation of cooperative relations”* (Dynamic of proximity, p.77). On their assumption, the authors specify only the geographical form of proximity. Only, so that a link of confidence is founded in the relation between economic actors, the intervention of the forms of no geographical proximity is essential and complementary. In general, they are to be regarded as most important with the establishment of a perennial confidence between two companies. However, confidence is a relational value among others. The innovation through the training rises from the co-operative interaction between actors (OECD, 1992) and the proximity facilitates the interactions at the same time direct and repetitive. For Boschma (2004), the proximity (cognitive) stimulates the learning and the innovation in a relation between companies. The satisfaction is considered as the mediator of the behaviors of actors in relationship (Oliver, 1980; 1997; Westbrook, 1987). It represents *“an emotional state coming from a process of evaluation emotional and cognitive which occurs at the time of a specific transaction”* (Plichon, 1998, Vanhamme 2002). Satisfaction is a value searched by the companies in their relation with their partner.

The study of our paper is to bring brief replies to the principal question: could the proximity create relational value in a relationship between a subcontractor and his customer?

The plan of our paper will be conveyed by four main axes:

Firstly, a literature review on the link which can exist between the proximity and different relational value with knowing confidence, the learning and satisfaction, abstraction made as of

other existing values in a relation of companies. Secondly, the methodology which we followed to bring of the brief replies to our study through a directing survey addressed to 41 companies of automobile subcontracting of second level installed in Morocco. Thirdly, the results which we obtained. Fourthly, proposals for the development of the analysis followed by a conclusion of our article.

LITERATURE REVIEW

A value, in the subjective sense, is perceived as the expression of the interest which a particular agent carries to a product, a service or a behavior, which results from a psychological process of evaluation. We refer here to the subjective values (relational) and no objective. Analysis of space dimension in the economy, we incite to discover the concept of proximity regarded as one of the bases of the coordination of economic agents in a geographical space. The proximity is a short distance which separates two or several companies. It is generally articulated around two principal dimensions: a dimension of nature geographical and another of no geographical nature (Torre, Rallet, 2005). We are considering to bring elements of the literature on the existing link between the proximity and different relational value: Confidence, Learning and Satisfaction.

Proximity and Confidence

The Confidence maintains the dialectical relationships to the proximity (Dupuy et Gilly, 1994; Servet, 1994; Torre, 1995). To study the link between confidence and proximity, it is initially to distinguish a double dimension from confidence (Sabel, 1992). The first dimension is the multiplicity of the interpersonal exchanges where the geographical proximity plays a significant role with its creation (interpersonal confidence). On the other hand, the second dimension relates to the presence of a history and a common representation between the actors in relation where the no geographical proximity appears largely in this dimension (Community confidence).

In a context of shared exchanges, the interpersonal relationships are more important compared to the industrial relation or commercial relation. The establishment of the agreement protocols relatively informal, which can be regularly validated, requires the need for geographical relations of proximity. This need for space bringing together between two individuals allows direct contacts and repeated known on the expression the "*face-to-face repetitive discussion*". Indeed, when two actors meet regularly the confidence is reinforced owing to the fact that problems of coordination can be easily solved, through physical bringing, in contrary, to contacts located at a distance that could harm confidence in the relation and would thus generate uncertainty between the two parts. The relation which is established between the individual actors is founded on the repetition of the interactions. More the distance is weak and more repetitive the interactions will be, what creates a multiplicity of the exchanges between the individuals. The repetition of the relations of face-to-face discussion, permitted by the geographical proximity, will be born from the links of partnership. These links of partnership, as for them, are founded on a confidence which would imply a total co-operation. Generally, the geographical proximity is a solution with the reduction of uncertainties by supporting the face-to-face discussion direct and repetitive between the economic actors what would reinforce the introduction of the link of confidence. But the geographical proximity must remain at the very least a "*setting of relational availability*" (Bergson, 1984), between companies located in same space. The trust relationship must be due by the no geographical presence of proximity, such as: the culture, organization, institution, community...

The presence of a representation and a common history between two economic actors makes it possible to tie and maintain a trust relationship. In a relation between actors, to have the same culture, the same religion, the same language or the same ethnic heritage a bringing together in no geographical matter represents. According to Giddens (1991), a no geographical proximity is important as regards link of confidence especially when it acts of ethnic networks, in which the reference to the same origin gives birth to the trust relationship. Orléan (1994) had given an explanation on this subject in which it estimates that *“when a firm A seeks to evaluate if it can trust a firm B, what it analysis is the nature of the relation of the firm B at a certain community and its rules by raising the following question: is it a reliable and faithful member of this community?”*. The Confidence is thus related to a community of actors in relation. Harrison (1992) also defines that: *“Proximity, therefore experiment, therefore confidence, therefore collaboration, therefore reinforced regional economic growth”*. There thus exists well a significant link between proximity and confidence in a relation between companies.

Proximity and Learning

Learning and interaction are currently two important concepts with all processes of technology innovation. The proximity is source of creation of training and innovation by stimulating the interactions between the economic actors (companies, association, public administration, university, etc). Lundvall (1988) supported that the companies learn and adapt to *“better practice”* when they are in interaction with the other companies and the other organizations. So the innovation rises from the co-operative interaction between actors (OECD, 1992). In the literature on the innovation of the evolutionary economy, several researches insist on the basis of interactive and institutional of the learning and the creation of the knowledge (Asheim, 1996). Indeed, the concept of learning is central. It allows the economic agents to generate dynamic advantages the such as innovation thus exceeding any attempt at search for imitation (Storper, 2000). The innovation is the result of interactive Learning. According to the thought of Boschma (2004), the proximity stimulates the interactions and contributes to the training and the innovation. The organizational proximity for example in its rather broad definition refers to the way in which the interaction and coordination between actors are organized within a company or in a network of actors. The actors share here the same space of relation. Moreover, the actors can also share the same space of reference and knowledge. The organizational proximity explains clearly why the interactions between companies or organizations are generally influenced, modeled and limited by their institutional environment. The institutional proximity can be another stimulative form of the interactions between actors and thus learning and innovation’s creation (Boschma 2004, Zukin and Di Maggi 1990). As it was defined higher, this form of proximity indicates that the economic actors will share *“[...] a space common compound of representations, models and rules applied to the thought and the action”* (Kirat and Lung, 1999). Other forms of no geographical proximity can stimulate interactions and thus create training and innovation the such as cognitive proximity (Boschma, 2004, Boba-Olga and Grosseti, 2008), social proximity (Boschma, 2004), political proximity (Talbot, 2008), cultural proximity (Boschma, 2004), circulatory proximity (Frigant, 1996) or technological proximity (Tremblay D.G. et al., 2003). Moreover, without being unaware of its greater importance, the geographical proximity’s form also makes it possible to support the interactions between actors by the short distance who separate them and makes the interaction increasingly repetitive what makes it possible to reinforce the process of learning and innovation (Nonaka 1994, Carrincazeaux and Lung, 1998; Malecki and Oinas, 1999; Gilly and Torre, 2000). Torre (2009) could give according to his study a space translation of the relations between actors within the dynamic framework of the training through the proximities by determining exactly three sequences different of interactions close or remote of the joint project of production and exchange of knowledge.

Grabher (1993) supports the fact that the cultural and geographical proximity are intermingled and are reinforced one the other, which facilitates the interactive learning: *“a homogeneous culture creates rules and generates confidence, and its geographical limits increase the probabilities of social interaction and communication, which reduce the problem of limited rationality”*. The membership of networks of institution and knowledge generates *“a mental adhesion with common categories where agents are at short cognitive distances from/to each other”* (Torre, 2010; Torre and Beuret, 2012). Any form of proximity can intermingle and become combinations of proximity supporting the capacity of the economic actors to be learned and innovate. A play of complementarity and substitution takes shape thus between the geographical proximity and other forms of proximity. Several researchers could show the substitution effect and of complementarity between the forms of proximity and the influence on the training and the innovation of the economic actors (Hausmann, 1996; Sierra, 1997; Edquist, 1997, Rallet and Torre, 1999; Nooteboom, 2000; Frenken, 2001; Maskell, 2001; Boschma, 2004).

Proximity and Satisfaction

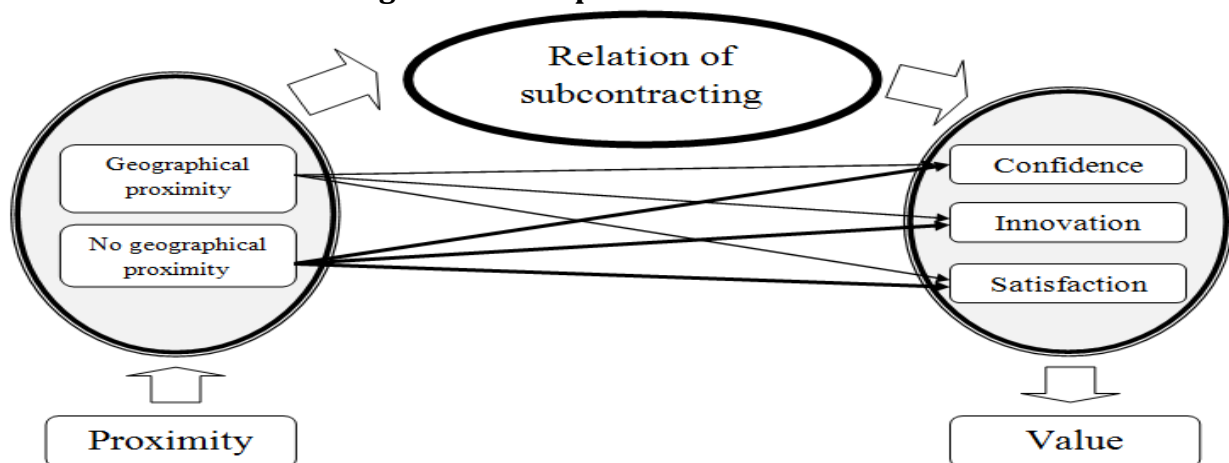
The satisfaction is a value searched by the companies in their relation with other companies. The satisfaction, in the strict direction of the term, is a state which results from the achievement of a desire. That means that there will be satisfaction if and only if the product/service exactly provided to the customer what the latter wished. However, this definition does not take into account the aspect of the behavior (Hunt, 1977; Aurier and Evrard, 1998). However, each relation of actors has a characteristic different from/to each other concerning their satisfaction. Indeed, each actor in relation with his own characteristic to satisfy such or such relation with such or such actor and different factors important which enables him to be satisfied with the relation with its partner. In a relation between two companies, satisfaction depends mainly on the performance carried out by one of the two companies in relation. In other words, for a customer satisfaction will depend on the performance carried out by the supplier as regards the respect of the legal tendencies describes in the contract (Atkinson, 1999). Moreover, satisfaction is regarded as the mediator of the behaviors of actors in relation (Oliver, 1980; 1997; Westbrook, 1987). It represents *“an emotional state coming from a process of evaluation emotional and cognitive which occurs at the time of a specific transaction”* (Plichon, 1998). Indeed, according to this definition, we note that satisfaction also refers on the behavioral aspect of the actors within a relation. She is regarded for certain authors as a psychological state and a phenomenon not directly observable (Aurier and Evrard, 1998).

We suppose that the proximity makes it possible to stimulate satisfaction in a relation between two or several economic actors particularly between sub-contracting company and customer company.

The geographical proximity is relating to the distance which separates two companies in space. A reduction of the space distances makes it possible to reduce costs of transaction between the subcontractor and the customer. The bringing together physical and temporary between the subcontractor and the customer allows the knowledge of the two parts, the mutual understanding of the problems and the practices of work what contributes to the cost cutting of negotiation and writing contract of the subcontract. For the theory of the costs of transaction, the relation between the subcontractor and the customer are one of the means of reducing the sum of the manufacturing costs and transaction (William Son, N; Quélin, 1997). Relational satisfaction between company can be generated by the availability and the bringing together of infrastructure. On this level, the use of a circulatory proximity allows the cost

cutting of circulation of the goods. In other words, the subcontractor needs to imbricate transport of the products within the productive processes, while controlling the temporal constraints related to tended flows (Frigant, 1996). The geographical proximity depends much and in a fundamental way to the development on the means of communication and New technologies of Information and the Communication (Torre, 2009) who generates a strong cost cutting of coordination between the subcontractor and the customer. The adoption of standards and common rules between the subcontractor and the customer is an important asset with the satisfaction of the relation. An organizational and institutional proximity is likely to generate this satisfaction. The use of the standards of production and organization adopted by the subcontractor makes it possible to have better a quality of the organization of this one on its activities and its production especially when these standards are appreciated by the customer. Generally, the concept of satisfaction for companies necessarily refers the specific satisfaction of a transaction between two or to several individuals representing the company who are placed high in terms of decision. We can join Vanhamme (2002) but on the basis of satisfaction of the customer companies specific to a transaction with their sub-contracting companies. Moreover, the satisfaction of the customer on the performance of his relation with the subcontractor reflects a competitive advantage of the subcontractor. The benefits of a cultural, political and social proximity on the behavior of two companies in relation make it possible to generate satisfaction. Indeed, two companies are satisfied with their report when they have for example a common language of communication which to allow them to facilitate the realization of the activities or having a common social culture which facilitates the meetings and, generally, the meetings of business. Boschma (2005) specifies that a cognitive proximity, understood as the division of the same knowledge base, is regarded as the essential condition with the creation of values as the innovation because it allows the learning between the economic agents. The use of this form of proximity does nothing but satisfy the relations between the subcontractor and his customer owing to the fact that it generates a trust relationship and of learning contributing to the innovation with the companies of subcontracting.

Figure 1. Conceptual schematization



Proximity, Relation and relational Value

Source: EL KANDILI (2016)

METHODOLOGY

Our methodology of work rests primarily quantitative analysis through a questionnaire addressed to 41 companies of automobile subcontracting of second level installed in Morocco. The results of this questionnaire will be the object of two types of analysis: Descriptive analysis and Correlative analyze.

Field of Analyze

Establishment of the Renault factory to attract several subcontractors of the automobile equipment: about twenty equipment suppliers of row 1 and several equipment suppliers of row n+1 are already present to provide the factory. For the year 2015, we have count nearly 250 companies belonging to automobile industry installed in Morocco.

Table 1. The number of automotive manufacturer and automotive equipment installed in morocco

Category	Effective	Frequency in %
Automotive	2	0,8
Manufacturer/Assembler	23	9,2
Automotive Equipment of Row 1	225	90
Automotive Equipment of Row n+1		
Total	250	100

Source: EL KANDILI (2016)

Automotive Equipment's Suppliers of Row 2:

These firms are part of the automotive equipment's suppliers of row n+1 and are also selected the suppliers of row 2 who are more or less internationalized companies and mainly local. Their customers are particularly subcontractors of the equipment suppliers of row 1 but also of the manufacturers or assemblers of vehicle. Generally, the equipment suppliers of row 2 are suppliers in direct contact with the equipment suppliers of row 1. The suppliers of row 2 manufacture primarily parts and components which return in "subsets" manufactured by the suppliers of row 1 who thus deliver them to the customer. As a whole, these companies are of less scale and constitute a dense and complex grid companies which gather a multiplicity of trades: 1) Founders of the metallurgists, 2) the manufacturers of filters, 3) the industrial rubber manufacturers... The automobile subcontractors of second level are of the subcontractor of capacity and speciality.

Quantitative Survey

The directing questionnaire was selected for reasons of no availability in face-to-face discussion with the respondent. In other words, in the event of no availability direct of the respondent, the questionnaire can be sent and answered by this one without our presence. However, in the event of presence with the respondent we use in parallel the questionnaire with closed questions and a questionnaire with questions neither entirely opened, nor entirely closed. This questionnaire will be guided according to the maintenance followed with the respondent.

Choice of the blocks of questioning

So that we can prepare our questionnaire, we initially started to reflect on the choice and the number of the block of question which we will put in the questioning. We identified five blocks of questioning represented by the following items:

- 1) Item a: IDENTIFICATION
- 2) Item b: REPORTS CUSTOMERS
- 3) Item c: TRUST & DEVELOPMENT OF CONSUMER LOYALTY
- 4) Item d: LEARNING & INNOVATION
- 5) Item e: SATISFACTION

Each block edge contain 2 to 6 is questions has total of 15 questions¹.

Sample of the analysis:

The companies answering our investigation concern the equipment suppliers of second rank. This category of company of Moroccan automobile industry is part of automobile equipment of row N+1. These companies having a direct relationship with the equipment suppliers of first rank or row N+1 and often with the car manufacturer.

- a. Answering company: Equipment supplier/Subcontractor of row 2.
- b. Locality: the answering companies all are localized in the Moroccan territory²
- c. Origin: the answering companies are in the majority originating in France, Morocco and Spain
- d. Type of subcontracting: subcontracting of capacity and subcontracting of speciality.

Customer relation: equipment suppliers of row 1 and manufacturer (and or assembler). Nationality: Moroccan (15), French (12), Spanish (6), German (2), Portuguese (2). Four companies only did not specify their nationality.

For the directing questionnaire, 41 out of 150 persons in charge of companies having answered our directing questionnaire³. Table below watch this result:

Table 2. Many companies answering the directing questionnaire

Category of Survey	Sample size	Size of the population of reference	Rate of answer expressed as a percentage
Directive	41	150	27.33 %

Source: Investigation 23rd-25th April 2014

Descriptive and correlative analysis

The data resulting from the directing questionnaire were treated and analyzed by statistical application software (SPSS). The representation of the tables and graphs was allowed by the transfer of data towards Excel. We could satisfy us only with the description of the data of the directing questionnaire. In other words, we analyze our data according to the tables of absolute and relative frequency and the representations of graphs statistical (pie-chart, histogram, and diagram in stick). Moreover, we carried out an analysis of correlation (Pearson)⁴ to determine the link and the effect between the variables of our study. This analysis also makes it possible to test a good part of our assumptions.

¹ See Appendix: Directing questionnaire of the investigation (French/English).

² The majority of these companies are localized in the Moroccan territory and mainly in Casablanca and Tangier. Here proportions amongst participating companies gathered by town of localization:

- 1) Town of Tangier: 59 participating companies is 44,02%
- 2) Town of Casablanca: 39 participating companies is 29,10%
- 3) Other Moroccan cities: 6 participating companies is 4,50%
- 4) Foreign cities: 30 participating companies is 22,38%

³ See Appendix: Professional statute of the respondent to the investigation (Table 8)

⁴ Also called linear coefficient of correlation, the correlation of Pearson makes it possible to study the intensity of the connection which can exist between two or several continuous variables. It makes it possible to detect the presence or the absence of a linear relation between two or several continuous quantitative characters.

The correlation of Pearson⁵ also called linear coefficient of correlation makes it possible to study the intensity of the connection which can exist between two or several variables continuous. This coefficient makes it possible to detect the presence or the absence of a linear relation between two continuous quantitative characters. The coefficient of correlation must be significant (the value of p must be smaller than 0.05). If the coefficient is no significant, it is considered that it is similar to $R = 0$. On the other hand, when it is significant, the coefficient of correlation gives two important information: the direction of the linear relation between the two variables and the force of the linear relation between the two variables.

RESULT

We consider in terms of our results an analysis of correlation in order to determine the existence of link between the proximity (geographical and no geographical) and certain relational values (confidence, learning and satisfaction) in the relation between automotive subcontractor in Morocco and their customers.

Proximity and Trust

The relation between the geographical proximity and trust is negative ($- .435^{**}$). That means that even companies located at very weak distances cannot enter directly in trust relationship. Moreover, the exchanges between the companies (subcontractor and customer) are not influenced by a geographical proximity where two companies are located in the same area. We can that to confirm that the geographical proximity is only one setting of relational availability between the companies and does not allow to be able at it a relation to only integrate and thorough of exchange and confidence between the companies of automobile subcontracting in Morocco with their customers. However, the relation between the adoption of rules and common values and the trust relationship is positive and significant ($.567^{**}$). This relation also supports the division between the automotive subcontractor and his customer ($.257^*$). In the same way, the relation is positive and significant between an institutional proximity and the joint design and development between the subcontractor and his customer ($.547^{**}$), are the creation of learning. Finally, the relation between company is satisfactory when the two companies (automobile subcontractor and customer) adopt the same rules and values within their organization ($.397^*$), that is to say the creation of satisfaction⁶.

We could note that 40/41 answering companies have a relation based on confidence and the development of consumer loyalty and that 29 of them have an intense partnership with their customers. This result, it is clear that the value confidence exists in the relation of the companies of automobile subcontracting with their customers. The table shows that all the companies having answered our investigation approve that the development of consumer loyalty is important with the confidence of the customers. The development of consumer loyalty makes it possible to gain the confidence of the customer and to reduce any spirit of mistrust. It rests primarily with the regards of the commitments prescribed in the specifications of the customer (37/41). This respect is sign of confidence on the realization of waiting's customer. The respect of behavioral, organizational and technical standards by the subcontractor ensures the customers a confidence making it possible to reinforce the relation. For example, the fact that a subcontractor protects the information from the customers and respects the preferences of the customers about the use of their personal information is a

⁵ We have to use the correlation of Pearson within our framework of study since this coefficient of correlation makes it possible to analyze the linear relations and we do not have to use the coefficient of correlation of Spearman since it concerned the monotonous non-linear relation which does not concern the results of our case.

⁶ See Appendix: Table 5, Table 6 and Table 7

development of consumer loyalty in oneself and thus allows the latter, the customers, to call on the sub-contracting company again and to recommend it. The respect of the commitments by the sub-contracting company enables him to have a good reputation (35/41) in the market and thus inspires the confidence of the customers. To have a good reputation a component of confidence (Kreps, 1990) represents. Moreover, to subscribe to rules and standards recognized universally by the companies of the sector also makes it possible to inspire confidence with the customers. For our investigation, 26 companies out of 41 admit that to have a certification is source of inspiration of the confidence of the customers. It can be regarded as a component of a trust relationship between two companies.

Table 3. Aspects of Trust

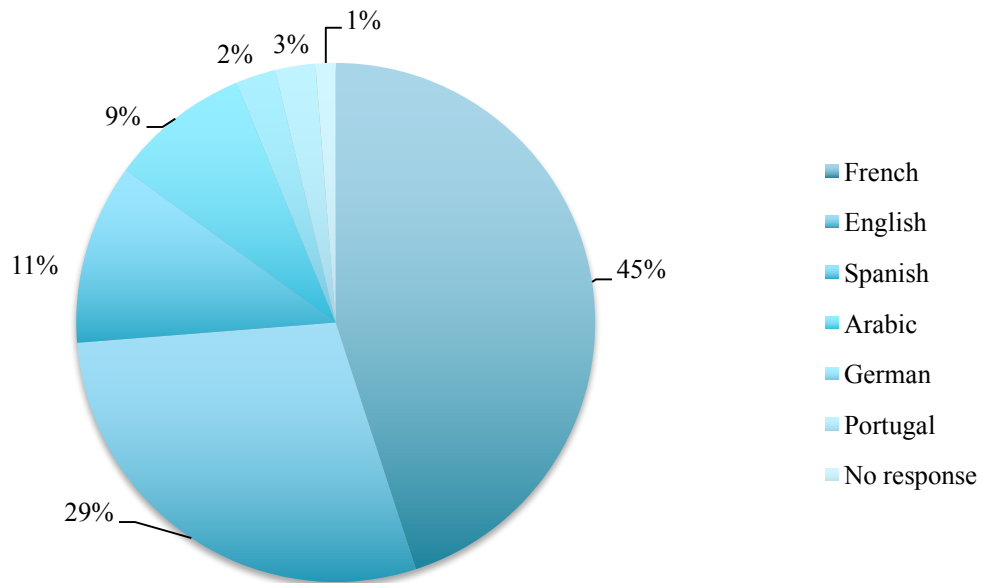
Aspects of Trust	Frequency			Percentage		
	Yes	No	Total	Yes	No	Total
Development of consumer loyalty	41	0	41	100	0	100
Respect of the specifications	37	4	41	90,2	9,8	100
Reputation	35	6	41	85,4	14,6	100
Certification	26	15	41	63,4	36,6	100

Source: Investigation April 23rd-25th, 2014

Confidence requires relations between direct face-to-face discussions and the customers is 97.6% of the companies answering known as just this aspect (40/41). The action of commitment between the subcontractor and his customer is effective only through mutual observations of the actions to realize between the two partners. These observations will be done according to the meetings and of the interactions frequent and organized in time (36/41) what makes it possible to detect and to reduce the intentions being able to harm confidence between the two partners. These meetings characterize the relations of co-operative subcontracting. Moreover, to show transparency in the dialogue makes it possible to support confidence in the relation especially when this dialogue is written or recorded (38/41). The subcontractor and the customer conform to all the written agreements and verbal representations. When that the subcontractor and the customer communicate themselves in all honesty on actions maintained during their commitment, the risk of uncertainty decreases and it is thus easier to find solutions with conflicts of behavior to coordination. The membership of common representations can contribute to found a confidence in the relation between subcontractor and customer. The membership common to cultural representations (43.9%) or social (24.4%) supports confidence in the relation of subcontracting.

The results of the figure presents the answers of the persons in charge of companies on the language used to communicate with their customers. It is French who is used more with 45% of use by the guarantors followed by English with 28.75% and of Spanish with 11.25%. These results explain the importance of at the same time cultural, historical and geographical bringing together particularly at the time of a communication of the companies installed in Morocco with their customers with the French customers and Spanish.

Figure 2. Language of communication

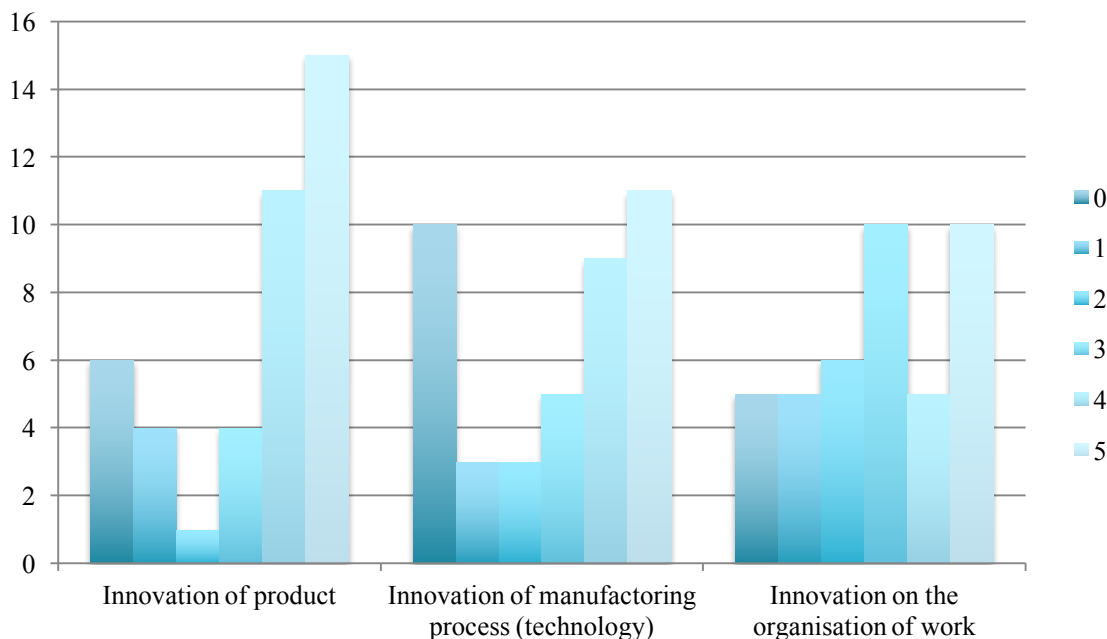


Source: Investigation April 23rd-25th, 2014

Proximity and Learning

There exists a significant positive relation between the geographical proximity and the personal interaction of two companies in relation (.528 **). Moreover, the relations of companies located at very short geographical distance facilitate the direct face-to-face discussion. By the means of the interaction and face-to-face discussion, confidence can be easily founded what can make favorable the training and thus the innovation between the companies of automobile subcontracting in relation to their customers and very near geographically (located in the same industrial area). A positive relation, less significant, is present between the organizational proximity [2] (common organizational procedure) and various variables like the interaction (.268*), the design and the development joint (.247*), and the access to the information networks (.260*). This aspect of organizational proximity influences the training and the innovation of the companies sub-contracting at the time of the relation with their customers. There exists a positive relation between the common language and the design and the common development between the automobile subcontractor and the customer (.588 **). That means that the innovation is supported by of the adoption has common language between the two companies. Moreover, thesis companies cuts access to the information networks easily what also supports to their learning (.267*). However, we note a negative relation between the common language and the respect of the specifications of the specifications (- .250*). This explains why this respect is based much more on technical sides and organizational of the subcontractor that on cultural aspects and common languages. The innovation can relate to the products, on the technology or manufacturing processes and organization of the production and work⁷.

⁷ See Appendix: Table 5, Table 6 and Table 7

Figure 3. Types of innovation of the answering companies

Source: Investigation April 23rd-25th, 2014.

The relation between subcontractor and customer based on the exchange and the division of information makes it possible to support the training and thus the innovation of the companies of subcontracting in particular. The innovation rises from the aptitude to share information and knowledge when two companies are in relation. A company which practices subcontracting seeks more and more to find information, knowledge, methods or technologies outside the company to enrich its own processes of innovations. 92.7% of the answering companies approve the division of information and know-how in their relation with their customers. The information flow in a relation between firms supports the value innovation. The development of the TIC would have an impact on the geographical structuring of the scientific exchanges and technological which contribute to the emergence of the training and thus of the innovation (Massard, Torre, Crevoisier, 2004). Information or the knowledge can be circulated by the individuals or the staff of companies. 82.9% of the answering companies carry out exchanges and displacements of their staffs with their customers. We also attend a setting in computer network in the relation under-treat-donor of orders by the means as of computerized systems of data exchange (70.7%).

To note that certain companies of automobile subcontracting installed in Morocco put in the forefront the proximity like one of the important bases to their strategy in the relation with the customers. In the document presented at the time of the event, the company of X5 subcontracting is given like partner of proximity engaged to the sides of the car manufacturers, equipment suppliers and industrialists: *"Beyond the geographical proximity of our factories and centers of engineering, the proximity reflects the direction of the relation built with our customers. We are at their sides by the reactivity of our teams, the flexibility of our industrial engineering and the Co-development of the products and processes"*. (Source: Extract of the advertising document presented at the time of the event by the company of X5 subcontracting.

Proximity and Satisfaction

There exists also a relation positive, less significant, between the geographical proximity and satisfaction (.215*). That means that the companies of automobile subcontracting are satisfied with their geographical position with their customers. More the relations between automobile

subcontractor and customers are close geographically and more the relations are more or less satisfactory in general. Finally, the relation between company is satisfactory when the two companies (automobile subcontractor and customer) adopt the same rules and values within their organization (.397*)⁸.

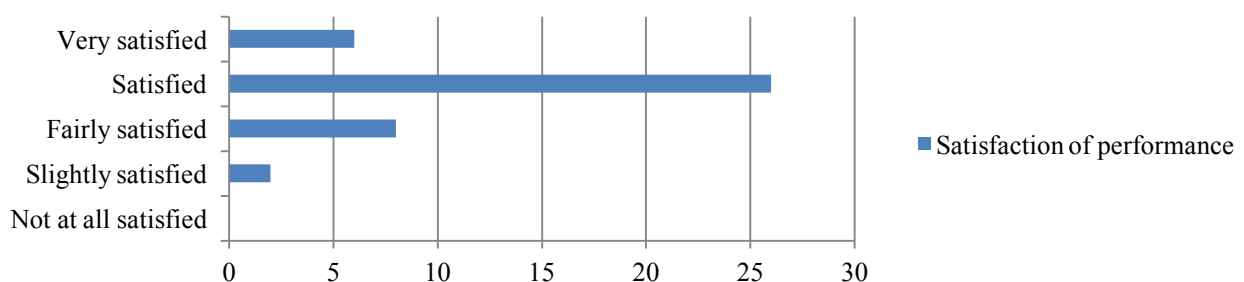
Table 4. Factors of relational satisfaction

Factors	Number of response	Frequency in Percentage (%)
Respect	12	92.3
Commitment	10	76.9
Communication	9	69.2
Exchange	9	69.2
Division	6	46.1
Participation	4	30.7
Recognition	3	23,1
Support	1	7.7

Source: Investigation 23rd-25th April 2014

The results presented in the table show that the respect (92.3%) and the commitment (76.9%) are two factors very important to satisfy the automobile relation of subcontracting. The communication and the exchange are also important with relational satisfaction between the automobile subcontractor and its customer is a common proportion of 69.2%. The division and the participation carried out within a relation of company are source of satisfaction. In terms of results, we have 46.1% for the division and 30.7% for the participation in projects customers. Other factors can have effect on relational satisfaction like the recognition and the support on behalf of the customer. In the figure, 26 guarantors admit that the customers are satisfied with their performance within the relation, that is to say a proportion of 63.4% of the total of guarantor. Moreover, 8 companies approve an excellent satisfaction of the customers on their relational performance.

Figure 4. Satisfaction of performance



Source: Investigation 23rd-25th April 2014

Concerning the satisfaction of the customers on the behavior of the relation whom they have with their subcontractor, we note that the recipients in these relations are mainly satisfied with the behavior of the relation (24 responsible) and very satisfied for some (7 responsible).

⁸ See Appendix: Table 5, Table 6 and Table 7

PROPOSAL FOR A DEVELOPMENT OF THE ANALYSIS

Proposal 1. Structural Equations (PLS Path Modeling)

It is possible to model the link between Proximity, Value and Relation. The use of an approach PLS Path Modeling makes it possible to study a number of blocks of variables on the same individuals and give an estimate of the network of causality between group of variable (Tenebaus, 1998). It enrolled perfectly within the scope of a modeling of structural relations on latent variables. In other words, this method of analysis makes it possible to bind built (latent variables) to their measurements (manifest variables) and consequently to give an estimate of the whole of the links between built (Formell and Lacker, 1981). We give a proposal for a model by an approach PLS-PM by introducing the following blocks: Geographical proximity (GP); No Geographical Proximity (NGP), Relation (R), Trust (T), Learning (L) and Satisfaction (S)⁹.

Proposal 2. Small-World and Relational Graphs

We also propose the use of the methods of analysis through the model of the small-world network and the relational graphs for the development of our study. Indeed, these methods apply the studies on the existing relations between a small group of individuals or company. One of the methods of partitioning of graph having had the most success is that proposed by Newman and Girvan (2003): a) to calculate the intermediarity of the links of the graph, b) to remove that which has strongest (in the event of betweenness equalizes, to draw one with the fate from them), c) to recompute the intermediarity of the remaining links and again. The relevance of cutting obtained is checked via the calculation of the modularity (modularity). Because of this partition, it would be easier to study each type of proximity with the value created within a relation of company.

CONCLUSION

The proximity plays a significant role with being able to create value or to facilitate its creation within the relation which is between the automobile subcontractors with their customers. It can exist other factors which influence the relational values within a relation between subcontractor and customer. Our approach of investigation enabled us to obtain certain information on the subject. The automotive production is a complex activity in which the companies of subcontracting are confronted with two facets of actions: it is initially a question of designing a complex product, combination of many components, and recovering dissimilar technological fields; it is then a question of articulating massive flows of information and matters taking into account the mass production (Frigant, 2005). According to our point of view on the range of our work, we recognize the existence of limits which pushes to open several questions about the contents of this research and which it is important to take into account.

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⁹ See Appendix PLS-PM Proximity and Relational values (Figure 5)

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APPENDIX

Table 5. Correlations between the importance of the proximity geographical and various variables (Confidence, Training, Satisfaction)

Variables	Geographical proximity 1		Geographical proximity 2	
	(correlation Pearson)	Sig. (2tailed)	(correlation Pearson)	Sig. (2tailed)
Trust relationship and development of consumer loyalty	-.435**	.002	-.096	.552
Partnership	-.230	.148	-.148	.357
Sharing	-.084	.603	.041	.798
Exchange	.092	.569	-.584**	.000
Respect	-.162	.312	-.014	.933
Face-to-face	.295*	.042	-.096	.552
Personal interactions	.528**	.000	-.057	.721
Conception and development	-.008	.960	.172	.282
Networks of information	.081	.617	-.146	.363
Global satisfaction	.215*	.030	-.057	.721

** Significant correlation at the 0.05 level.

* Significant correlation at the 0.01 level.

Table 6. Correlations between the importance of the organizational proximity and various variables (Confidence, Training, Satisfaction).

Variables	Organizational proximity 1		Organizational proximity 2		Organizational proximity 3	
	(Pearson correlation)	Sig. (2tailed)	(Pearson correlation)	Sig. (2tailed)	(Pearson correlation)	Sig. (2tailed)
Trust relationship and development of consumer loyalty	.154	.335	-.220	.168	-.536**	.000
Partnership	-.123	.444	.237	.136	.116	.471
Sharing	.287*	.015	-.193	.227	-.277	.080
Exchange	.578**	.000	.237	.136	-.134	.404
Respect	-.008	.960	.063	.694	-.196	.219
Face-to-face	.154	.335	.114	.478	.090	.577
Personal interactions	.573**	.000	.268*	.040	.038	.813
Conception and development	-.008	.960	.247*	.031	-.005	.977
Networks of information	-.020	.904	.260*	.036	.222	.164
Global satisfaction	.065	.684	.111	.489	-.049	.762

** Significant correlation at the 0.05 level.

* Significant correlation at the 0.01 level.

Table 7. Correlations between the importance of the institutional proximity and various variables (Confidence, Training, Satisfaction)

Variables	Institutional proximity 1 (correlation Pearson)	Sig. (2tailed)	Institutional proximity 2 (correlation Pearson)	Sig. (2tailed)	Institutional proximity 3 (correlation Pearson)	Sig. (2tailed)
Trust relationship and development of consumer loyalty	-.120	.455	.567**	.000	.138	.391
Partnership	.068	.673	-.011	.945	-.047	.769
Sharing	-.019	.906	.257*	.023	-.108	.503
Exchange	.068	.673	.102	.526	.207	.194
Respect	-.250*	.000	-.063	.694	-.108	.503
Face-to-face	-.120	.455	.220	.168	.368*	.018
Personal interactions	.026	.870	.046	.775	.010	.951
Conception and development	.588**	.000	.547**	.000	.227	.154
Networks of information	.267*	.012	.057	.725	.570**	.000
Global satisfaction	.026	.870	.397*	.010	.147	.361

** Significant correlation at the 0.05 level.
 * Significant correlation at the 0.01 level.

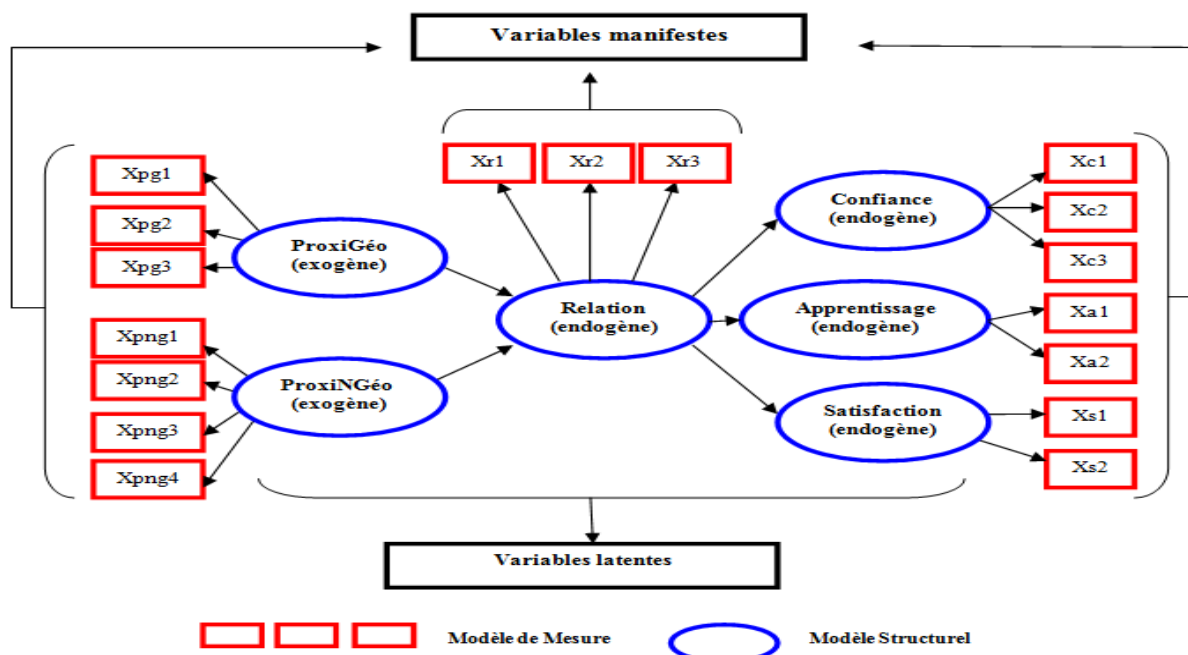


Figure 5. Proposal for a model between Proximity, Value and Relation by the approach PLS Path Modeling

Source: Fact by the author according to Tenenhaus (1998)

Table 8. Professional statute of the guarantors to the investigation

Professional statute	Effective	Frequency in %
Director / Sales Manager	11	26,8
General manager	9	21,9
Manager	4	9,7
Leader	3	7,3
Director	2	4,9
Chief Executive Officer	2	4,9
Managing director	2	4,9
Responsible business	1	2,4
Technical director	1	2,4
Tooling expert	1	2,4
Managing Director	1	2,4
Engineer / Consultant	1	2,4
Project Pilot	1	2,4
Partner Manager	1	2,4
Export Manager	1	2,4
Total	41	100

Source: the investigation of April 23-25 2014