

The Role of Resources and Capabilities in Subcontractors' Internationalization Processes. An Analysis on Italian Subcontracting SMEs

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Abstract

With the aim of providing some answers to the key question “what’s the role of specific resources and capabilities in enhancing subcontractors’ internationalization processes?” and so contributing to the development of the literature on small manufacturers’ internationalization processes we carried out a web-survey on a sample of 89 Italian subcontracting SMEs belonging to the plastic and mechanical industries.

Results show that many of the monitored resources and capabilities (R&C) can have an important role in fostering subcontractors’ internationalization processes but also that the weight of specific resources and capabilities change as subcontractors grow.

Keywords: Internationalization, Subcontractor, SME, Resource-based view

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1. Introduction

While we already know many things about the internationalization strategies (Cooper and Kleinschmidt, 1985; Chetty and Campbell-Hunt, 2004), stimuli and barriers (Cavusgil and Nevin, 1981; Leonidou, 1995a, 1995b; Crick and Chaundry, 1997; Morgan, 1997) of firms operating in final markets, we can count on much less information on subcontracting companies (Croom et al., 2000; Raines et al., 2001).

Why and where do subcontractors internationalize? And, more relevantly, how do they do it? Despite some answers to these questions having been given by scholars (see, for example,

Graziani, 2001; Andersson, 2002; Johnsen, 2007), we are still waiting for a more complete theoretical framework.

With the aim of contributing to the development of the literature on small companies' internationalization processes, we tried to explore the role of subcontractors' specific resources and capabilities (also R&C from now on) in enhancing their internationalization processes.

A wide *internationalization* concept has been used in order to explore the “where” and the “how” of internationalization paths of subcontracting firms. Then, a quantitative research design was applied to a sample of 89 Italian small and medium subcontractors.

2. Literature review and research hypothesis

2.1 What subcontracting was and is

Managerial literature on subcontracting can be analyzed from a historical perspective. Three distinct periods characterized the evolution of this body of research. The first, which encompasses the late sixties and seventies, should be defined as the “pioneeristic phase”. In this period, the growth of research interest in subcontracting went hand in hand with the development of empirical evidence on local manufacturing systems (such as industrial districts and manufacturing clusters) as a credible alternative to the “Chandlerian way” of growth (Piore and Sabel, 1984).

Different research streams have often converged in identifying flexibility, production quality, product reliability and minor costs as the main competitive advantages of localized production systems (Pyke et al., 1990; Corò and Grandinetti, 1999). Within this amount of contributions, subcontractors' efforts have quite often been underemphasized and a minimalist interpretation of subcontracting has emerged. Chaillou (1977) introduced the well-known distinction between “specialized” and “capacity” subcontractors. Subcontracting activity is described as the execution

of a job order in which the customer establishes the technical standards and takes all the risks of the products selling upon himself, while the subcontractor produces it (Chaillou, 1977).

The only partial suitability of this depiction began to emerge clearly from the early eighties, when scholars became increasingly attracted to the variety of subcontracting relationships. We call this the “second period” of subcontracting theory evolution. Since then, many researchers proposed further and sometimes very sophisticated taxonomies that quite often felt the effect of the Transaction Cost Economics perspective (Zanoni, 1984).

In the last twenty years, we have observed a deep change in the global competitive scenario and in firms’ competitive behaviours as well. Markets have become more open and companies’ internationalization strategies more frequent. Also, subcontractors have quite often been forced to internationalize their production activities in accordance with their clients looking for new cost-saving opportunities in emerging markets. Here, we see the beginning of the third period of subcontracting theory evolution, a phase in which the gap between developed and simple suppliers has amplified.

For many European subcontractors formerly competing mainly for costs, this meant being pushed to evolve or, at worst, forced out of business. This process of “ecologic selection” has caused a general improvement in subcontractors, bringing into the light an increasing number of companies evolving by cooperating with their customers in critical strategic areas such as new product development, R&D and internationalization activities (De Toni and Nassimbeni, 2001; Kimura, 2002; Grandinetti et al., 2007).

Terms such as integrated/strategic outsourcing or supplying partnership began to fill research papers in the supply management field. At the same time, buyer companies began to incorporate advanced capabilities (such as innovation capacity, co-design and co-prototyping capability, just-

in-time delivery, total quality production, etc.) into their suppliers' evaluation and selection methods (Hurmelinna et al., 2002; Fliess and Becker, 2006).

Thus, a new concept of *subcontracting* emerged. As Grossman and Helpman (2002: p3) recognized, subcontracting began to mean "more than just the purchase of raw materials and standardized intermediate goods. It means finding a partner with which a firm can establish a bilateral relationships and having the partner undertake relationship-specific investments so that it becomes able to produce goods or services that fit the firm's particular needs". Kimura (2002: p164) added that "there also seems to be a general consensus that subcontracting is a long-term arrangement" and that "a one-shot transaction cannot be called a subcontracting arrangement".

In defining the concept, we preferred referring to *subcontracting* rather than to *subcontractors*. The reason is based on the existence of some subcontractors that are also suppliers of standardized goods and/or producer of they own products, and some others that sometimes buy and sell products without making any physical transformation over them. This implies that from a theoretical point of view it comes more significant to define the activity (*subcontracting*) rather than the actors (*subcontractors*) The subcontracting activity can be seen as a relationship between two companies in which the first (customer) requires the supplying of non-standardized goods or services - or a combination of they both - and the second (subcontractor) provide to the supplying with respect of the client's specific requirements and expectations. In today's subcontracting relationships those *specific requirements and expectations* quite often concern "intangibles", such as co-design services, just-in-time delivering, and quality assurance.

2.2. *Subcontractors' typical internationalization processes*

During the last years, we have been observing a significant increase in the research interest in the supply chain management area. As internationalization aspects are concerned, a growing amount of

contributions are bringing to light many interesting cases of supply networks' relocation processes carried out on a global scale (Camuffo et al., 2007). However, these processes are quite often observed from the procurement perspective only and, as a consequence, suppliers have received only limited attention, and subcontractors even less.

There's a reason why we recognize distinctiveness in subcontractors' international behavior apart from "simple" suppliers. As Andersen et al. (1997: p239) effectively explained: "in their process of internationalization industrial subcontractors are usually very close related to their customer (...) therefore, industrial subcontractors primarily dedicate their activities to specific contractors, in such a way it suggests a collaborative process of internationalization".

Differently, for suppliers, the higher is the complexity of business relationships, the lower is the chance to become internationalized (Andersson, 2002).

However, pulled internationalization processes (also called "piggy-backed" processes) are not the only alternative for subcontractors. Independent processes are possible as well even if the previous ones have been stressed further by scholars because they are distinctive to those companies.

With regard to subcontractors' typical internationalization paths, several headlines have been given by some scholars (Winkelmann, 1996; Andersen, 1999; Andersson, 2002; Andersen and Christensen, 2005; Johnsen, 2007).

The most complete attempt to systematize the research field probably belongs to Andersen et al. (1997). After recognizing subcontractors' distinctiveness, the authors identified four typical internationalization routes:

1. internationalization by following domestic customers to the international marketplace;
2. internationalization through integration into the supply chain of an MNC (multinational company);
3. internationalization in cooperation with domestic or foreign system suppliers;

4. independent internationalization.

With regard to Andersen et al.'s (1997) findings, two aspects can be underlined, at least. The first is that three out of four paths provide the presence of a third subject, which is a domestic customer in the first route, a multinational company in the second and a supply system in the third. This is quite typical in studies on subcontracting companies since they are figuratively embedded in a plurality of dyadic relationships that are on average characterized by a significant level of idiosyncrasy (Croom et al., 2000). This implies that the strategic behavior of a subcontractor is strongly influenced by its counterparts, even in the case of international strategies.

The second aspect regards the specific identity of the partners: they're clients as suppliers (or even competitors). That suggests that managing good relationships, both vertical and horizontal, can be of great relevance to subcontractors in order to foster their internationalization processes. This could also be read in this sense: subcontractors should develop specific relational resources and capabilities if they want to increase their chances to internationalize.

2.3 The relationship between internationalization and subcontractors' resources and capabilities

Empirical findings have provided only limited evidence about subcontractors' internationalization processes. Notwithstanding this, it has been recognized that subcontractors own specific features that make their internationalization processes singular. This pushes us to rethink the contribution that owning and developing specific resources and capabilities (R&C) could give to their internationalization processes.

While resources represent assets controlled by the firm that are used as inputs to organizational processes (Barney, 1991), competences and capabilities concern the firm's ability to combine, develop and use its resources in order to differentiate it from its competitors (Prahalad and Hamel, 1990; Teece and Pisano, 1994). Starting from these definitions, we refer to R&C as the

combination of a body of resources and the company's ability to manage, leverage and exploit them within the market (Hamel and Prahalad, 1994). The strategic value of these resources and capabilities depends on their potential to be a source of competitive advantage by enabling organizations to exploit market opportunities and neutralise threats (Barney, 1999).

The analysis of resources and capabilities only from an internal perspective does not examine the interrelationships and advantages when two or more organizations to exploit relational rents could contribute to the development of competitive advantage (Dyer and Singh, 1998). Critical resources and competence can be expended or built up beyond the boundaries of the firm and be integrated in inter-organizational routines and process. According to Håkansson and Waluszewski's (2002) and Ciabuschi's (2002) proposals, we also include in the companies' resource and capabilities tool kit their ability to manage, leverage and exploit relationships. Their importance in fostering subcontractors' development, also in an international sense, is easily understandable and it has been adequately discussed in the previous sections. When subcontractors internationalize, they must consider the possibility of associative advantages for their internal and relational capabilities. Thus, enhanced subcontractor's internationalization degree is likely to be the joint result of their capability to utilize knowledge it gains from the network, as well as the capability to exploit the knowledge it develops internally (Zaheer and Bell, 2005).

So, two R&C macro-types have been recognized: *functional* and *relational*. This distinction doesn't reflect different contents of the competences, which might be overlapped, but it's based on the source of the resources combined into capabilities. While *functional* R&C refers to resources and capabilities that reside inside companies' boundaries and are characteristic of the subcontracting activity, *relational* R&C are developed across organizational boundaries and can be achieved by the combination of complementary resources, defined as distinctive resources of alliance partners (Dyer and Singh, 1998).

Within our study, three types of *functional* resources and capabilities have been taken into account: technology, design and innovation.

Subcontractors can count on their technological resources and capabilities first and foremost. The motives are quite understandable: subcontractors are evaluated and selected by their clients on their technological profile, most of all. Even if other factors count (for example, quality assurance, on-time delivery, innovation capacity, etc.), an up-to-date technological profile cannot be disregarded by a subcontractor that wants to preserve its competitiveness (De Toni and Nassimbeni, 2001; Hsu et al., 2006; Kocabasoglu and Suresh, 2006).

The relationship between technology and internationalization has been discussed by Flor and Oltra (2005), among others, who found that technological innovation capabilities have a positive impact on export performance. Also, Karagozoglu and Lindell (1998) observed that internationalized companies generally show a clearer technological development strategy as well as a more advanced technological profile.

Therefore, also in the case of subcontractors, an advanced technological profile can play a significant role in fostering internationalization processes since it allows companies to compete easily in broader markets and industries.

However, as we stated before, subcontractors are in many cases no longer suppliers of production capacity (and technology) only. Often and often, the *intangible* contribution given by them is of high relevance to their clients. Design and innovation are good examples of intangible contributions.

The literature on strategic sourcing has often stressed the importance of involving the best suppliers since the first phases of a New Product Development (NPD) process in order to achieve better performance in terms of product reliability and process efficiency and to shorten the research and development phase (see, among many others, Wynstra et al., 1999; Hurmelinna et al., 2002).

Moreover, as the level of idiosyncrasy between buyers and suppliers rises, supplying relationships become more “sticky” and subcontractors’ chances to be piggy-backed into new markets increase. So, even if supported by only limited empirical evidence (see, for example, Möller and Törrönen, 2003; Flor and Oltra, 2005), we believe that the development of design and innovation capabilities can foster subcontractors’ ability to become more internationalized. Hence, our first research hypothesis is the following:

H1a: *a higher endowment of technology resources and capabilities is positively and significantly related to a higher subcontractor’s international profile.*

H1b: *a higher endowment of innovation resources and capabilities is positively and significantly related to a higher subcontractor’s international profile.*

H1c: *a higher endowment of innovation resources and capabilities is positively and significantly related to a higher subcontractor’s international profile.*

Further, three types of relational R&C have been taken into account: *Network, Customer Relationship Management* and *Supply Chain Management*.

Subcontractors’ likelihood to enter into foreign markets doesn’t rely only on their “internal” profile but on their “external” connections as well. Street and Cameron (2007) acknowledged that external relationships can be seen as resources and Andersen et al. (1997) remarked that internationalization goals’ achievement will also depend on the quality of a company’s connections. For example, it can be easier to become internationalized when getting in touch with multinational companies or first-tier suppliers that already take part in internationalized supply chains. Di Guardo and Valentini (2007) discussed the many ways in which SMEs can “actively” take advantage of the local presence of a multinational corporation. Other examples are Raines et al. (2001) and Bradley et al. (2006), who deeply discussed how business-to-business relationships can foster suppliers in entering new foreign markets. Further, also Johanson and Vahlne (2009) in revising their world-

wide known “Uppsala” internationalization model recognized that: “internationalization depends on a firm’s relationships and network. We thus expect the focal firm to go abroad based on its relationships with important partners who are committed to developing the business through internationalization” (Johanson and Vahlne, 2009: 15).

Hence, we can recognize the existence of a specific ability of subcontractors to become (and to remain) connected to localized MNCs and/or to internationalized supply networks leveraging on their relational skills. We define this set of specific resources and capabilities as *Network R&C*.

MNCs and/or internationalized networks can encourage suppliers’ internationalization processes both by facilitating their entrance into new foreign markets (exporting to foreign branches of a local client is an example) and by transferring new “appropriate” knowledge (Kotabe et al., 2003; Johanson and Vahlne, 2009).

Referring to this last point, Kotabe et al. (2003) acknowledged that buyer–supplier relationships can also work as channels for knowledge transfer. This means that, by collaborating with their customers, subcontractors can acquire knowledge that is not relation-specific only. Learning achievements can also extend to the “modes” of collaborating and this knowledge can be further exploited by the subcontractor in new markets and industries and with new clients at decreasing costs.

Hence, we consider a second relational R&C that has been defined as Customer Relationship Management (or CRM). It refers to the ability to collaborate effectively with customers in a variety of aspects, such as technology, design, quality and innovation, making use of appropriate resources at their disposal.

Finally, being able to manage one’s own supply system can have a significant role in fostering internationalization processes as well. For subcontracting companies, establishing stable relationships with second-tier subcontractors is a way to extend and widen their products and

services portfolio and consequently become more attractive to potential clients (Karagozoglu and Lindell, 1998; Andersen and Christensen, 2005). We consider Supply Chain Management (or SCM) R&C as a subcontractor's ability to coordinate a stable and reliable supply network.

Consistently with these theoretical findings, we hypothesize that:

H2a: a higher endowment of network resources and capabilities is positively and significantly related to a higher subcontractor's international profile.

H2b: a higher endowment of customer relationship management resources and capabilities is positively and significantly related to a higher subcontractor's international profile.

H2c: a higher endowment of supply chain management resources and capabilities is positively and significantly related to a higher subcontractor's international profile.

Further, we hypothesize that the two R&C categories (functional and relational) can be differently related to internationalization results in subcontractors of different sizes.

An ample consensus can be found within the literature on the positive relationship between the dimension of a firm and its likelihood of being internationalized even if a minor convergence has emerged in the direction of the relation ("what causes what") (Cavusgil and Nevin, 1981; Miesenbock, 1988; Bonaccorsi, 1992; Calof, 1994; Majocchi and Zucchella, 2003).

The intervenient role of R&C has remained, more than frequently, underinvestigated with the result that we know very little about the linkage between specific R&C activation in companies of different sizes within their internationalization processes.

We can only suppose that larger companies should rely on a wider body of functional R&C in order to achieve their international goals (as they can count on superior financial, human and managerial R&C) and that, on the contrary, smaller firms should preferably rely on their relational ability.

Consistent with these premises, we hypothesize that:

H3: a stronger connection between relational R&C and internationalization profile can be found in smaller subcontractors rather than in bigger ones, while

H4: a stronger connection between functional R&C and internationalization profile can be found in bigger subcontractors rather than in smaller ones.

In order to distinguish smaller from bigger subcontractors, we introduced the threshold of 20 employees. We chose this threshold for its organizational meaning, first. At a certain stage of their growth process, small companies start to feel the need for more organization: functions start to be defined and the decisional power begins to be decentralized from the apex to the middle management (Scott and Bruce, 1987). The organizational aspect begins to become more critical and investment in organizational structure, resources and capabilities is systematically taken into account.

Secondly, Italian smaller companies (under the “15 employees” threshold) can benefit from a lighter normative system (simpler balance sheets, fewer infrastructural requirements) and a more flexible labor normative system. Hence, overcoming the 20 employees threshold (which corresponds to 15 employees plus 1 entrepreneur or more) has a “metaphorical” connotation for smaller companies as it means being willing to lose public facilities in order to pursue growth objectives and to become more structured. Further, we have to remember that 92.7% of Italian manufacturing firms (and subcontractors among them) do not reach the threshold of 20 employees. This advised us against choosing a higher threshold.

Finally, Mittelstaedt, Harben and Ward (2003) already discussed the role of this specific threshold in distinguishing between more and less internationalized companies.

Figure 1 summarizes the hypothesized relationships between the variables.

figure 1 here

3 Methodology, method and operationalization of the variables

An online survey was carried out. We asked SubforNet– a committee of 7 regional chambers of commerce supporting networking among subcontractor companies – to forward an e-mail to a random list of subcontractors. Entrepreneurs or companies’ managers were invited to complete an online questionnaire that had been temporarily hosted on a web page of the University of Udine website.

In accordance with Couper (2000), and Kaplowitz et al. (2004), we asked for the e-mail delivery to be repeated after 15 days. In both cases, the research team briefly explained the research objectives and how the results would be published at the end of the research process.

Finally, we asked every local committee kindly to take note of the total number of feedbacks received with the purpose of estimating a total response rate.

With the purpose of separating subcontractors from simple suppliers in responding companies, we chose to define a subcontractor as a company realizing 50% minimum of its turnover through subcontracting activities. So, we asked the respondents to indicate how much of their turnover (as a percentage) came from subcontracting activities and how much from non-subcontracting ones.

Then, with the aim of separating SMEs from bigger companies (not included in this study), we asked companies to indicate their staff headcount (SH) number. We used the SH as the only proxy for the company dimension because of the difficulties in obtaining balance sheets’ dataⁱ. According to the European Council Recommendation No. 2003/361, we considered as “SME” all the companies having an SH number smaller than 250.

As regards the internationalization variable, it was measured in a great variety of manners: export sales on total sales (ESTS), number of foreign markets and FDI presence are only some possible examples. However, the export percentage has been the more common applied measure in empirical studies involving small and medium companies (Reid, 1981; Cavusgil, 1993).

Recently, many authors have started to report an increase in the number of SMEs internationalizing through different modes (international subcontracting, FDI, etc.) and in “non-traditional” markets (see, for example, Kuo, Li, 2003). Even in the case of Italian subcontracting firms, the SubforNet (2007) found a significant increase in the number of companies internationalizing their sourcing and production activities in the Eastern European countries and in the Far East.

Therefore, multiple measures of internationalization have been increasingly taken into account within the literature.

Ruzzier et al. (2007), among others, developed a Luostarinen’s intuition and identified (and tested) a four-dimensional variable in order to estimate the degree of internationalization (DOI) of a company.

Other scholars used multiple measures, such as Manolova et al. (2002) and Hollenstein (2005), that focused on SMEs’ internationalization “modes”. Conversely, Brush et al. (2002) and Mol et al. (2004) moved from Johanson and Vahlne’s (1977) “psychic distance” concept and suggested more sophisticated measures of a company’s internationalization scope.

In short, we observe that internationalization modes and scopes, together with the export level, have at present a prominent role in measuring the internationalization level of companies, especially in the case of smaller companies. For this reason, we asked the companies to indicate the following data: 1) their export sales ratio, 2) the internationalization modes they are experiencing and 3) the geographical markets they have reached. In addition, referring to point 1, the companies were asked to “qualify” their export activity, distinguishing between a *systematic* and an *occasional* export activity.

Since this preliminary study has an explorative aim, we didn’t build any sole internationalization measure. As we stated previously, we limit our goal to the exploration of the existing linkages between many internationalization aspects and the above-mentioned resources and capabilities.

Further, we keep export apart from other internationalization modes because of its prominence in smaller companies' internationalization paths. As predicted by many "stage" models, export is not only the more common mode in SMEs' internationalization processes but also the first "step" of their wider internationalization strategies (Johanson and Vahlne, 1977, 1990).

R&C variables are presented in the Appendix section at the end of the paper (see tables 3 and 4). With the only exception of innovation capabilities, all the variables are composed of four items and have been tested with a Cronbach's Alpha. We assigned to every variable the average value of its constituent items. Three control variables have also been taken into account: the staff headcount (SH) number as a proxy of the company dimension, the company's age as a proxy of company experience and a measure of financial R&C that was originally identified and tested by Ruzzier et al. (2007).

Received data have been subjected to correlation analysis in order to find significant relationships between the variables. Constructs have been formerly tested by a Cronbach's Alpha estimation test. The low returning rate of compiled questionnaires joint with the explorative aim of the paper discourage the use of more complex statistical techniques such as regression models or structural equation modeling.

4 Results

In total, 125 completed questionnaires were received,ⁱⁱ 19 of which were eliminated because the answering companies violated the constraints of the 50% (maximum) turnover deriving from subcontracting activities and/or the 250 (maximum) staff-headcount number.

Since 89 out of the 106 (84%) remaining companies belonged to the mechanic and the plastic industries, we decided to restrict the analysis to these sectors only. Plastics and mechanics have many things in common: a similar cost structure (fixed costs are generally higher than workforce

costs), a high automation level and analogous final markets (household appliances and automotive, among others). Furthermore, the two sectors overlap in the case of the moulds production for plastic injection.

table 1 here

The 89 subcontractors show a good international profile (table 1). Around 60% of them are exporters (and more than half are systematic exporters) with an average ratio of 15%, which doubles if non-exporters are excluded. Of the companies, 20% declare that they import non-subcontracted goods and, more interestingly, the same percentage of subcontractors declares that they carry out international subcontracting activities.

A total of 8% of the companies have made a strategic alliance with another firm for internationalization purposes and around 7% have made a foreign direct investment. No joint ventures were registered.

As regards internationalization scope, West and Central Europe remain the preferred destination for more than 50% of the sample but Eastern European countries are fast growing and concern, at present, around 30% of the companies. Distant destinations also seem to be in companies' reach: 11% of subcontractors have trade or supply relationships in North America and East Asia.

The internationalization levels of groups A (subcontractors with an SH number lower than 20) and B (the other companies) are compared in the second and third columns of table 1.

table 2 here

As expected, the companies of group B are on average more internationalized.ⁱⁱⁱ Maybe the most interesting finding is that minor subcontractors are internationalized as well. Of the companies of group A, 20% show, as a matter of fact, stable relationships with clients or suppliers in the Eastern European markets and 7% also in the Far East. None of them made foreign direct investments, but 14% declare that they import subcontracted goods and 7% have concluded a strategic agreement to take advantage of internationalization opportunities.

Hence, relationships between the functional and relational R&C, internationalization aspects and control variables have been explored through a correlation analysis.^{iv} Significant correlation values have been emphasized in bold in table 2.

As regards the first research hypothesis, we observe that functional resources and capabilities are often related to companies' internationalization scope aspects. The relationship is more significant in the case of Western and Central European and Eastern Asian markets, two internationalization areas that have very different characteristics. The first is normally an export area for Italian subcontractors while the second is a new supplying and production area normally reached through supplying relationships or, when possible, directly through FDIs.

Export and FDI are also the internationalization modes more related to the companies' functional R&C endowment. The relationships are strong and significant in both cases even if it has to be observed that they are also significant for the "None" variable in table 2, which means "the absence of any internationalization mode".

These findings seem to support the overall sustainability of the first hypothesis, which hence finds confirmation.

Also, in the case of relational R&C, a stronger relationship with scope items has been found. However, differently from functional ones, in that case relational R&C seem to be connected mostly to supplying and production markets such as East Europe and East Asia. A feeble

relationship seems to connect relational R&C and the modes of internationalization with two important exceptions: export – in particular in its systematic version – and the “None” variable again.

For these reasons, we could argue that the second research hypothesis finds only some partial confirmation since relational R&C seems to count in a more selective way in comparison with functional ones.

As regards the third and the fourth hypothesis, they both find strong confirmation elements in the empirical analysis. As a matter of fact, in minor subcontractors (group A), internationalization aspects (and “scope” aspects above all) more often show a significant correlation with relational R&C while the contrary happens in major companies (group B), which seem to rely primarily on their functional R&C in order to achieve their internationalization goals.

With regard to control variables, they show different trends: while the company dimension is always positively and significantly related to all the internationalization aspects (even if it doesn’t play any role in explaining firms’ internationalization level under the 20 HC threshold), financial R&C never are. Differently to what was expected, age seems to play a deterrent role in subcontractors’ internationalization: the younger a company is, the more it will be able to internationalize in wider markets (scope) and in many ways (modes). In a certain sense, the result seems to support the born global perspective on the internationalization of younger firms.

5 Discussion

The empirical analysis reveals a leopard-spot pattern in which the linkage between internationalization items and subcontractors’ resources and capabilities sometimes appears strong and significant and sometimes weak.

Starting from the internationalization *scope* variable, the overall data seem to suggest that functional R&C are more important in sustaining subcontractors' internationalization routes towards traditional exporting markets (such as Western and Central European countries and North America), while relational R&C give the impression of assisting companies towards new supplying and production markets (see Eastern European countries) for the most part. The result has a sense: the easier a foreign market can be reached, the more independent a small subcontractor can be in reaching it. On the contrary, as the difficulties increase, the subcontractor will need more help.

Actually, after splitting the sample, the framework acquires more clarity. As a matter of fact, relational R&C become crucial in helping minor companies to become internationalized, especially in new and emerging markets. On the contrary, functional R&C are foremost relevant to bigger companies.

These findings add some interesting elements to Andersen et al.'s (1997) taxonomy on subcontractors' typical internationalization paths. In particular, our findings seem to suggest that "supported" internationalization paths (which rely on relational R&C) are more likely to take place when (a) the destination market is more difficult to reach – or more "psychically" distant in Johanson and Vahlne's view – and (b) the company is very small.

As the distance decreases and subcontractors grow, relational R&C become less important and internationalization paths more independent.

The measured relationship between Network R&C and internationalization scope items gives further support to our explanation. Consistent with Di Guardo and Valentini (2007), we find that developing a business relationship with localized multinational companies and already internationalized networks of companies can have great importance in fostering subcontractors entering distant markets, especially for minor ones.

A similar conclusion can be drawn as far as CRM resources and capabilities are concerned, even if a stronger relationship with all the monitored internationalization items was expected, according to Raines et al.'s (2001) and Bradley et al.'s (2006) previous findings.

As regards internationalization *mode* aspects, we see that relationships with R&C seem to be generally weaker even with the important exceptions of FDI and export. Actually, as we said in the previous section, if observed from a “negative” perspective, relationships are much stronger than they appear: correlation indexes with no internationalization modes are negative and strongly significant.

Therefore, this may suggest that R&C development can have a different impact on non-internationalized and internationalized companies. While within the former, a low R&C endowment can prevent subcontractors from internationalizing, within the latter, a higher endowment has no “automatic” triggering role. However, this can't be taken as a conclusion but only as a research proposal looking for further support.

Finally, the export variable – and especially the systematic export activity – find in general a strong connection with all the resources and capabilities that have been monitored.

6. Conclusions

To conclude, smaller subcontractors seem to rely first and foremost on their relational resources and capabilities for internationalizing, especially in emerging markets. However, as they start growing, functional ones become of rising importance.

Hence, in subcontracting companies, R&C's contribution to internationalization can't be generalized and two internationalization models are possible at least: a “relational” model, built upon subcontractors' relational R&C that fit smaller companies for the most part, and an “independent” model that uses functional R&C and suits mostly bigger subcontractors.

The main limit of this study can be found in the smallness of the responding sample that was involved, which doesn't permit us to generalize the evidence that has emerged to the national subcontracting population (even if limiting it to the mechanical and plastic sectors only).

Future research involving more subcontracting companies would permit us to verify whether the relationship between the company size, R&C types and subcontractors' internationalization paths could be validated or not also using more sophisticated statistical techniques.

In addition, the different roles of R&C in preventing or favouring the reaching of internationalization goals still remain unclear and in need of further investigation with enlargement of the tested sample.

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Tables and figures

Figure 1

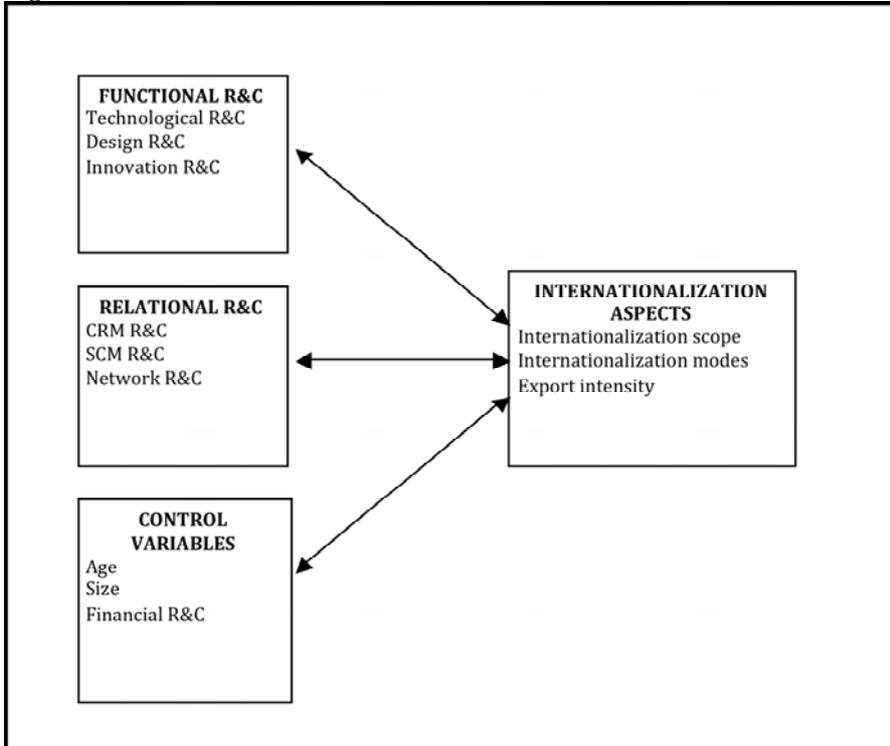


Table 1

INTERNATIONALIZATION ASPECTS	TOTAL (N=89)		GROUP A (N=56)		GROUP B (N=33)	
	N	%	N	%	N	%
Internationalization scope						
West–Central Europe	48	53.9%	23	41.1	25	75.8
East Europe	26	29.2%	11	19.6	15	45.5
North America	10	11.2%	4	7.1	6	18.2
East Asia	10	11.2%	4	7.1	6	18.2
Others	7	7.9%	2	3.6	5	15.2
Internationalization modes						
Import NOT in subcontracting	17	19.1%	7	12.5	10	30.3
Import in subcontracting	17	19.1%	8	14.3	9	27.3
Strategic alliances	7	7.9%	4	7.1	3	9.1
Joint venture	0	0.0%	0	0.0	0	0.0
FDI	6	6.7%	0	0.0	6	18.2
None	34	38.2%	28	50.0	6	18.2
Export intensity						
% of export on turnover (total sample/group)	15.5%	-	9.1%	-	26.4%	-
% of export on turnover (exporters only)	29.4%	-	22.2%	-	36.2%	-
Occasional exporters	21	23.6%	14	25.0	7	21.2
Systematic exporters	31	34.8%	11	19.6	20	60.6
Non-exporters	37	41.6%	31	55.4	6	18.2

Table 2

R&C AND CONTROL VARIABLES		INTERNATIONALIZATION SCOPE					INTERNATIONALIZATION MODES					EXPORT	
		WEST-C. EUR.	EAST EUR.	NORTH AMER.	EAST ASIA	OTHERS	IMPORT NON-SUB.	IMPORT SUB.	STRAT. AGREEM.	FDI	NONE	ESTS	EXP_SYS
WHOLE SAMPLE	FUN - TEC	.193*	0.043	0.153	.182*	0.150	0.055	0.096	-0.013	.182*	-.239*	.234*	.223*
	FUN - DES	0.140	.216*	.178*	.246*	0.153	0.160	.196*	0.025	.230*	-.274**	.219*	0.118
	FUN - INN	.202*	0.108	0.105	0.105	0.145	0.021	0.090	-0.046	.256**	-0.120	.230*	.177*
	REL - CRM	0.108	.220*	0.147	.218*	0.146	0.106	0.098	0.077	0.093	-.209*	.180*	.197*
	REL - NET	0.171	.290**	0.010	.251**	-0.059	0.062	-0.050	0.068	0.033	-.241*	0.079	.250**
	REL - SCM	.261**	.351**	0.088	0.006	0.119	0.128	0.152	0.110	0.162	-.246*	.180*	.303**
	CONT - DIM	.345**	.382**	.391**	.421**	.425**	.211*	.267**	0.152	.480**	-.328**	.480**	.438**
	CONT - AGE	-0.120	-0.120	-.387**	-.208*	-0.123	-0.061	-0.063	-0.010	-.220*	0.034	-.190*	-0.165
	CONT - FIN	0.152	-0.060	0.038	0.017	0.139	0.089	0.014	-0.034	0.136	0.023	0.035	0.045
GROUP A (STAFF HC < 20)	FUN - TEC	-0.003	-0.174	0.13	0.206	-0.007	-0.063	0.041	-0.099	ND	-0.088	0.099	0.045
	FUN - DES	0.048	0.051	0.122	.277*	0.027	0.114	.229*	-0.067	ND	-0.215	0.064	-0.035
	FUN - INN	0.019	-0.058	0.046	0.061	0.022	0.016	0.037	-0.125	ND	0.016	0.065	-0.031
	REL - CRM	-0.074	0.198	0.148	.245*	0.133	0.123	0.147	0.041	ND	-0.203	0.052	-0.004
	REL - NET	0.147	.275*	-0.013	.272*	-0.085	-0.043	0.04	-0.031	ND	-.288*	0.143	.223*
	REL - SCM	0.151	.416**	0.03	-0.031	-0.006	0.109	.232*	0.187	ND	-.268*	.281*	.247*
	CONT - DIM	-0.201	-0.018	-0.114	-0.154	0.042	-0.017	0.138	-0.087	ND	0.1	-0.115	-0.098
	CONT - AGE	0.09	0.203	-.387**	-0.043	0	0.11	0.015	0.188	ND	-0.12	-0.095	-0.048
	CONT - FIN	0.128	-0.164	-0.001	0.007	0.128	0.07	-0.018	0.007	ND	0.071	-0.169	-0.03
GROUP B (STAFF HC > 20)	FUN - TEC	.543**	.309*	0.117	0.063	.326*	0.126	0.105	0.186	0.251	-.499**	.324*	.382*
	FUN - DES	0.047	.317*	0.156	0.144	0.195	0.11	0.071	0.162	0.266	-0.185	0.211	0.058
	FUN - INN	.349*	0.18	0.073	0.048	0.192	-0.207	0.051	0.083	.349*	-0.128	0.26	0.217
	REL - CRM	0.255	0.077	0.048	0.103	0.066	-0.091	-0.125	0.143	-0.025	0.122	0.159	.300*
	REL - NET	0.094	0.253	-0.023	0.2	-0.119	0.138	-0.27	0.232	-0.038	0.046	-0.101	0.184
	REL - SCM	0.294	0.105	0.047	-0.033	0.173	0.022	-0.09	-0.062	0.151	0.148	-0.115	0.148
	CONT - DIM	.382*	.422**	.577**	.650**	.505**	0.115	0.29	.327*	.365*	-.359*	.488**	.382*
	CONT - AGE	-0.143	-0.274	-.329*	-0.27	-0.093	-0.071	-0.03	-0.224	-0.157	-0.039	-0.06	0.037
	CONT - FIN	0.022	-0.036	0.033	-0.044	0.121	0.038	-0.002	-0.15	0.187	0.135	0.171	-0.06

*Correlation is significant at .05 (1-tail); ** Correlation is significant at .01 (1-tail); ND - = No data

APPENDIX

Table 3

R&C type and name		Items' description and measurement (<i>Likert scale from 1 to 7</i>)	Cronbach's Alpha
FUN	Technology	Our company owns advanced production technologies in comparison with the average of the industry	.895
		Within our company we can count on a deep knowledge of technology	
		We can count on a deep and up-to-date knowledge of technology's advances within the industry	
		We are able to receive technology advances rapidly	
FUN	Design	Our company owns advanced technological resources (CAD and similar) for design activities	.864
		Within our company we can count on an adequate number of employees dedicated to design activities	
		We can count on a highly skilful personnel dedicated to design activities	
		Our technologies permit us to cooperate with our clients on design activities	
FUN	Innovation	Within our company we can count on an adequate number of employees dedicated to innovation activities	.861
		Our company has an adequate endowment in term of facilities and equipment dedicated to innovation activities	
		We are able to develop new technological solutions internally	
REL	CRM	We actively cooperate with our customers on design activities	.847
		We actively cooperate with our customers on logistic activities	
		We actively cooperate with our customers on new product development activities	
		We actively cooperate with our customers on quality aspects	
REL	SCM	We actively and systematically cooperate with our suppliers in production activities	.927
		We can count on a stable and reliable supplier network	
		The supplier network management activity permits us to be more efficient	
		The supplier network management activity permits us to be more effective	
REL	Network	A relevant quota of our turnover came/comes from business relationships with local MNEs or big companies	.797
		We have long-lasting business relationships with local MNEs or big companies	
		A relevant quota of our turnover came/comes from business relationships with highly internationalized companies	
		We take part in a highly internationalized network	
CON	Financial	If needed, the company would have easy access to risk capital	.801
		If needed, the company would have easy access to debt capital	
		The company has a good self-financing profile	

Table 4

Variable name	Items' description and measurement
Internationalization scope	The company has regular business relationships with suppliers or clients in the following areas (Yes=1; No=0):
	- West–Central Europe
	- East Europe
	- North America
	- East Asia
	- Others
Internationalization modes	What of the following internationalization strategies are implemented by the company? (Yes=1;No=0):
	- Import of products <u>not</u> in subcontracting
	- Import of products in subcontracting
	- Strategic alliances
	- Joint venture
	- FDI
	- None
Export intensity	- ESTS (0–100%) - kind of export (occasional=1; systematic=2)

ⁱ In Italy, companies with no limited liability are not obliged to publish balance data.

ⁱⁱ It hasn't been possible to estimate the total response rate since not all the SubforNet partners provided us with the data on sent and returned mails. However, it should not have overtaken the 5% threshold.

ⁱⁱⁱ The average SH within the whole sample was 22.1. Group A is composed of 56 firms with an average SH number of 10.4 and group B is composed of 33 firms with an average SH number of 41.9.

^{iv} We estimated the Pearson's correlation index. We used SPSS (vers. 14.0) both for the correlation analysis and for the Cronbach's Alpha estimation (see the Appendix at the end of the paper for Cronbach's Alpha estimators).