

# **Individualism-collectivism in Entrepreneurial Decision-making Behavior**

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## **Notes**

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Individualism-collectivism is a very broad construct that has been developed in the human thought since its origins. In organization studies, in a little more than two decades the definition of this construct has continued to broaden immensely. For example, Hofstede (1980) measured individualism-collectivism in terms of the relative importance of various work values, while Markus and Kitayama (1991) defined it in terms of self-construals, and Triandis (1993) argued that it is a “cultural syndrome” and that its components include subordination of personal to collective goals, extended family relationships, separation from in-groups, and interdependence from others.

Taking together the most widely accepted results of one of the largest theoretical debate in the organization studies, individualism-collectivism can be defined as a set of cultural characteristics of a person, a central theme around which elements of the subjective culture become organized – a “cultural syndrome” - that manifests some level of consistency in a society but also has inter-personal and inter-situational variance, and that has effects on social behaviors. Individualism is the condition where the individual has an independent self construal, high value is placed on personal autonomy and individual initiative, greater importance is accorded to personal interests than are the needs of groups if they conflict with personal desires, social behaviors are more likely to be driven by personal beliefs, values and attitudes than by social norms. Collectivism is the condition where the self is defined in terms of group memberships (interdependent self construal in terms of in-group memberships), high value is placed on collective identity and interdependence, the demands and interests of the group take precedence over individual needs and desires, social behaviors are more likely to be driven by social norms, duties, and obligations.

It can be referred to as a key distinguishing characteristic, at both the personal, the organizational, and the society levels, that influences human behaviors in many different aspects, from family relationships to the more formal and work-related interactions.

Despite the large body of theoretical research available, including investigations on its philosophical and historical foundations (Earley and Gibson, 1998; Triandis, 1995), and the development of one of the largest bodies of empirical research in the organizational field, the operationalization and measurement of individualism-collectivism remains problematic.

This is probably because, after so many years of research, since the Hofstede study appeared in 1980 - reawakening and further stimulating a line of thought that is fundamental in the organization studies tradition -, this construct has been excessively developed in breadth and depth, at the cost of precision and uniqueness (Earley and Gibson, 1998). Excessive breadth and differentiation in conceptualization have caused a proliferation of approaches to measurement, and a situationalism in the operationalization, that can vary from very broad to narrow and specific, depending more on the definition that is most workable for the study goal than on the acceptance of a consistent definition.

The lack of an unique conceptualization isn't the only problematic question. Another main difference between the existing approaches to the study of individualism-collectivism is that of the level of analysis. Since Hofstede (1980) demonstrated that countries differ in general levels of individualism and collectivism, a very intense research effort has been devoted to the understanding of cross-cultural variations, their causes and consequences. This line of research, at the between-cultures level of analysis, has been very prolific. Studies have been conducted most frequently using responses of groups of individuals from different nations, while, at this same level, very little has been done considering regional/sub-national groups or using different sampling procedures than that of geo-political boundaries for identifying cultural groups.

While there is between-cultures variation in individualism-collectivism, there is also great within-culture variation, and the construct can be considered and measured at this level. Consequently, scholars have also conceptualized individualism-collectivism at the within-culture level, investigating personal differences. The only *nuance* is that some scholars (Triandis, Leung, Villareal and Clack, 1985) propose a different label for the construct in within-cultural studies - that is: idiocentric vs. allocentric, referred to individual differences in a society - devoting the individualism-collectivism label only to the between-cultures differences. With this exception, scholars generally use the same label for the two, to the extent that a similar distinction in the characteristics included in the construct exists among individuals in a single society. Empirically, much less effort has been traditionally devoted to the understanding of differences between individuals of the same nationality and even less about people of the same regional/sub-national group and, more generally, at the within-culture level of analysis.

It can be argued that this construct can be related to other social entities between the individual and the society, such as organizations. Recently, an attempt to develop organizational individualism and collectivism constructs has been done, in terms of discernable dimensions of organizational culture across organizations, and consequent measures have been proposed and tested (Robert and Wasti, 2002). Apart from this contribution, differences regarding the level of analysis, especially important in the organization studies, are that of the between-firms or the within-firm level. The latter has been used by Hofstede (1980) for its between-culture study, but many scholars, using college students as the subjects of study, have simulated within-firm conditions for studies between-cultures (e.g. Erez and Earley, 1987; Earley, 1993) and also within-culture (e.g. Wagner, 1995). The former, between-firms level, is typical of studies about the firms' upper echelons, managers or entrepreneurs, again at the between-cultures (e.g. Holt, 1997) and at the within-culture (e.g. Morris, Avila and Allen, 1993) levels of analysis.

Finally, scholars of individualism-collectivism are very consistent in considering only individuals as data sources; even if some scholars in the cross-cultural research field have the very questionable habit of using in their studies individualism-collectivism country scores developed by Hofstede (1980), we must remember that they were calculated from individual responses about culture-specific personal values. A very important difference between studies is the way data is consequently analyzed. Considering responses data of individuals from different social groups (e.g. teams, organizational units, firms or other social groups such as countries, etc.), if data from each social group is analyzed separately, searching differences and similarities in the way people respond to the items, the study can be defined as an individual-level analysis; if the researcher ignore individual differences between people of a certain group and only considers differences between groups, the study can be considered an ecological-level analysis (Triandis, 1995). Certainly, scholars can do both kind of studies and even consider in one study between and within-groups differences; Leung and Bond (1989) call this a "pancultural" way of analyzing data.

The present study examines and seeks to refine measurement of individualism-collectivism. To achieve this object, we consider the conceptualization of the construct,

and the related problem of the level of analysis, contributing to the specification of the different dimensions of individualism-collectivism and of the consequent measures.

### **Conceptualization, operationalization and measurement**

Individualism-collectivism has been extensively conceptualized in philosophy and in general social theory, but its place in the organizational science has started to grow much later, since the appearance of Breer and Locke (1965) operational definition and the more well known study of Hofstede (1980).

In its attempt to identify the main dimensions of which work-related culture is composed, Hofstede conceptualized individualism-collectivism as a national culture dimension such that: it describes the relationship between the individual and the collectivity that prevails in a given society; it is reflected in the way people live together; it is intimately linked with societal norms; it will strongly affect the nature of the relationship between a person and the organization to which the person belongs; it can be measured in terms of the relative importance of various work values. Despite the broad definition of the construct, Hofstede used a very simple measure, continuous, one-dimensional and composed of only few items.

In the 2001 second edition of the book, Hofstede specifies that, while at the societal level individualism and collectivism should be treated as opposite poles along one dimension, at the individual level the two should be treated as different dimensions, as it is often suggested by scholars recently (e.g. Triandis, 1995; Robert and Wasti, 2002).

Following Breer and Locke (1965), Wagner and Moch (1986) considered individualism-collectivism as a multidimensional cultural construct consisting of beliefs, values and norms related to the motivational basis of workplace cooperation: for individualists, cooperation in a group is motivated by the contingent satisfaction of personal interests; and, for collectivists, cooperation stems from shared interests among group members that are pursued even if that can conflict with immediate personal desires. They conceptualize the construct as a single variable, that should be viewed as a continuum composed of intermediate points between the extremes, and that is multidimensional, with each dimension that can vary somewhat independently: individuals holding individualistic beliefs can have more collectivistic values and/or norms and vice versa. They tested the construct measure at the individual level of

analysis, and respondents were employees from different organizations in the same university.

As Hofstede's (1980) study results have signaled, the relationship between individualism-collectivism and another cultural dimension, that of power distance, is generally problematic, and it was strongly related to individualism-collectivism. Recently, Triandis (1993; 1995) has developed a two dimensional structure for assessing the construct, based on vertical-horizontal and individualism-collectivism. This is because, following Markus and Kitayama (1991), he considers that the conception of the self defining attribute of the construct can be independent or interdependent and same or different. The combinations give four types: horizontal individualism (same/independent); horizontal collectivism (same/interdependent); vertical individualism (different/independent); vertical collectivism (different/interdependent). The typology leads to different personal attributes and behaviors.

One operationalization and measurement of this four-type construct has been tested by Chiou (2001), in his cross-cultural study conducted in a fashion very close to the "pancultural" way of analyzing data.

Finally, a different conceptualization can be proposed, that incorporates distinctions between the horizontal and the vertical dimension as well as between beliefs, values and norms.

Norms are usually defined as widely shared standards that reflect society's expectancies and that are suitable for controlling individual behaviors. The two components of norms have been distinguished, among others, by Cialdini, Reno and Kallgren (1990) with regard to their descriptive meaning (what is believed to be typical or normal), and to their prescriptive meaning (what ought to be done). This line of reasoning has been included only marginally in the individualism-collectivism debate (e.g. Bierbrauer, Meyer, and Wolfradt, 1994), but it can be very useful in helping distinguish between the different cultural aspects of the construct. It can be derived that the operationalization of individualism-collectivism norms is usually related to their prescriptive meaning, while the descriptive meaning is normally associated with beliefs. Values, on the other hand, involve personal evaluation and judgment of desirability, in terms of preferences and/or attitudes. Because beliefs are related to what is typical, instead than desirable or prescribed, scholars should consider the differences in

conceptualization, operationalization and measurement and include all the three aspects.

It is widely accepted and often empirically confirmed that the vertical dimension, especially in relation with collectivism, places relatively greater importance on norms; since the consequent social behavior are more likely to be driven by social norms, duties, and obligations, we think it can be better measured in normative terms. Also, certain aspects of individualism, especially those related to the implications, in terms of behavioral requirements, of independency and distinctiveness, that are typical of horizontal individualism, can be better measured in normative terms.

On the contrary, the horizontal dimension, particularly in combination with collectivism, places relatively greater importance on personal values related to harmony, on preference for in-group interactions, and on interest in the well-being of the in-group. Also, vertical individualism is mostly related to values like being different and succeeding in competition. Thus, we think that these two dimensions are better measured in values terms.

Beliefs are not so precisely associated with the extremes, as suggested by their descriptive nature, and it can be speculated that they probably are associated with an average level along the vertical-horizontal dimension or that they better describe more pragmatic tendencies that distinguish contingently along the same/different self-conception.

Altogether, these speculations lead to hypothesizing a six factor measurement model (Fig. 2) that will be tested in this study and compared with the other models already described. This can be particularly useful considering that there are numerous operationalizations of individualism-collectivism in the literature. The construct validity of the various measurement models and the relationships among them are still unclear, and no one is consistently preferred or recommended.

## Figure 1. - Factors of the six pattern model

- **Factor 1:** *Beliefs/Prgamatic Individualism*
- **Factor 2:** *Beliefs/Pragmatic Collectivism*
- **Factor 3:** *Values/Vertical Individualism*
- **Factor 4:** *Values/Horizontal Collectivism*
- **Factor 5:** *Norms/Horizontal Individualism*
- **Factor 6:** *Norms/Vertical Collectivism*

Not only the concept and its operationalization, but even the consequent scale needs further refinement. In order to increase the possibility to use the construct of individualism-collectivism for predicting specific individual behaviors, scholars claim that measurement of the narrow, specific components of the construct may be most useful (Earley and Gibson, 1998), and that this is best achieved when there is a very simple measure, as in Earley (1993) seven-items measure o beliefs, or in Erez and Earley (1987) four items measure. This very simple measure are consistent with the operationalization of individualism-collectivism as a single dimension continues variable.

A completely different measurement approach is the one taken by Triandis and his colleagues who have developed measures having as many as 156 items. This is because individualism-collectivism is conceptualized as a very broad construct, and the various measures capture different aspects.

Furthermore, many scales include items mostly related to personal life, as the INDCOL Scale of Hui (1988) used at the individual level of analysis, while other

proposed measures are related to students relationships and activities (e.g. Breer and Locke, 1965) or to employees working inside the firm (e.g. Hofstede, 1980; Wagner, 1995). As a consequence, existing measures can be too general or use wording that precludes administration in different fields. This can lead to the development of measures that are appropriately designed to the particular field administration, on a contingent base, further increasing the measurement problem of a construct that is already too large and varied. On the contrary, students should try to simply combine and adjust existing measures to the specific field. In this way, it would be possible to overcome the exploratory approach that is still frequent in studies and do confirmatory tests on the developed measures.

The present study uses a combination of the existing measures, adjust them to the specific field, and run confirmatory tests on the developed measures.

### **Individualism-collectivism and entrepreneurship**

Studies have shown that countries differ in individualism-collectivism and that this cultural component is related to the wealth and economic development of societies, and to levels of entrepreneurship within a given country.

Australia, Canada, and the U.S. are predominantly individualistic; Japan, Korea, India, China and other Asian countries are predominantly collectivistic (Hofstede, 1980; 1991; Triandis, Bontempo, Betancourt, et al., 1986; Schwartz, 1994). Other regions, such as the Circum Mediterranean, are somewhere in between the two extremes. Italy, in particular, was at the mid-high level of the individualism distribution for Hofstede, and high in vertical individualism based on Schwartz data. These findings are in contradiction with earlier studies on traditional contemporary cultures that suggest the presence of collectivism in the Italian culture (e.g. Strodbeck, 1958). The differences can be due to a cultural shift but also to the difficulty in locating Italy along the individualism-collectivism dimension because of internal differences between the north and the south.

On the other hand, there is a strong disagreement about what the prevailing traits are in the two Italian areas. The more developed north is usually considered higher in individualism and, particularly, in horizontal individualism, while the south is considered higher in collectivism and, particularly, in vertical collectivism. This common beliefs about southern Italian culture are somewhat in contradiction with Banfield's (1958) very

negative description of the specific cultural patterns, that he describes as characterized by “amoral familism”; also, his description doesn’t help to clarify which cultural trait prevails in terms of individualism-collectivism, since “vertical individualism when one was dealing with out-groups and vertical collectivism when one was dealing with the family seem to be the prevailing patterns” (Triandis, 1995:92). However, this cultural characteristics are consistent with the existing high rate of family business in the local economy and with research results that show a high level of individualism among southern Italian entrepreneurs.

While it is very often argued, and much less tested, that individualistic cultural traits are antecedents of economic development of society, the direction of the cause-and-effect relation between the two is not that clear, as there is some evidence that economic development is linked to a cultural shift from collectivism to individualism (Sinha and Kao, 1988). The longitudinal dynamic of the construct is probably one of the main areas that deserve further investigation. In a study that compared values of Chinese, U.S., and Taiwanese entrepreneurs, findings show that cultural dimensions, such as power distance and uncertainty avoidance, are more malleable and can shift while collectivism is more enduring (McGrath, MacMillan, Yang, & Tsai, 1992). However, this shift is not necessarily positive for subsequent economic growth, as it has been recently underlined (Franke, Hofstede, and Bond, 1991; Earley and Gibson, 1998:278): “researchers caution ... that cultural individualism may eventually become a liability because the propensity for work in cohesive groups is increasingly becoming an asset for economic performance”. Even the increased tendency of firms to growth through external cooperative relationships, such as alliances and joint-ventures, requires a cultural framework that is in contrast with high individualism.

The entrepreneur’s cultural characteristics is one major area of research in entrepreneurship and, in this area, researchers have devoted much attention to individualism-collectivism, investigating convergences and divergences across cultures and social groups. In a cross-cultural study, McGrath, and MacMillan (1992) found that entrepreneurs share similar perceptions, suggesting that some entrepreneurial cultural components are independent of culture. Other studies, such as that of McGrath, MacMillan, and Scheinberg (1992) on entrepreneurs vs. non-entrepreneurs, suggest that values are an important differentiator between the two social groups; using Hofstede’s

(1980) cultural dimensions, they reported that entrepreneurs share a predictable set of values, such as lower uncertainty avoidance and higher power distance, masculinity and individualism than non-entrepreneurs.

Usually, in this research area, the entrepreneur is a person that has founded and actively manages his own firm (e.g. Busenitz, & Lau, 1996). Thus, the entrepreneur is also distinguished from small business owners, and from managers either of small firms or large corporations (e.g. Stewart, Watson, Carland, & Carland, 1998). Unfortunately, with this definition of the entrepreneur, research on individualism-collectivism, usually conducted at the ecological level of analysis, can explore just the differences and similarities with other social groups and only assume there is a cause and effect relation between individualism-collectivism and entrepreneurship in very general terms.

Following a different perspective, other studies describe entrepreneurs in terms of psychological profiles, such as high in achievement, openness to change, and individualism, and have investigated differences between groups, as between Chinese entrepreneurs and managers and between Chinese and U.S. entrepreneurs (Holt, 1997). Research on individualism-collectivism may consequently reach a deeper understanding of the relationship between individualism-collectivism and other entrepreneurial psychological characteristics, not only at an ecological level but also at an individual level of analysis.

The recent debate on entrepreneurship as a field and on its fundamental construct has outlined the necessity to conceptualize it in terms of discovery, evaluation and exploitation of opportunities of either persons and firms (Venkataraman, 1997; Shane and Venkataraman, 2001; Dialogue in AMR, 2001, vol. 26, no., 1), helping unifying a field otherwise split in two. Most part of the traditional entrepreneurship research has primarily been concerned with the individual, but a stream of research that has traditionally been a minority, in between entrepreneurship and strategic management (e.g. Miller, and Friesen, 1983; Covin, and Slevin, 1989; 1991), has preferred a firm level approach. The two groups have had difficulties in communicating and exchanging results because of profound differences over the conception of what the entrepreneurial field is; recently, the entrepreneurial construct has been accepted, to an increased extent, also as a firm-level phenomenon (e.g. Zahra, Karutko, and Jennings, 1999; Brown, Davidsson, and Wiklund, 2001). Even at this level, entrepreneurship is strongly

interconnected to the individual that manages the firm; consequently, he or she has often been portrayed as the key component in theories and models of entrepreneurship, as it is virtually impossible to separate top management cultural characteristics from firm's strategic choices (Covin and Slavin, 1991).

Following this conceptualization of entrepreneurship, its relationship with individualism-collectivism can be investigated at the within and between-firms levels. At the within-firm level, research on individualism-collectivism usually investigates the relationship between this dimension of the organizational culture and what is usually named "intrapreneurship". Considering individualism-collectivism in combinations with the horizontal-vertical dimension, Abraham (1997) found that the analogy of horizontal individualism to intrapreneurship was based on situational factors. Other researchers' findings support not only the hypothesized direct relationship between the two constructs, but also that the relation is curvilinear. For example, Morris, Avila, and Allen (1993) studied U.S. companies in the State of Indiana, and Morris, Davis and Allen (1994) studied firms in South Africa, the U.S., and Portugal, both finding a curvilinear relation between levels of organizational individualism and entrepreneurship, with highest levels of entrepreneurial activity at moderate levels of individualism-collectivism. Individualism-collectivism was conceived as a single continuous variable and measured with sub-scales from Hofstede (1980) and Earley (1989). Extreme collectivism or individualism was associated with lower levels of entrepreneurship. This relationship was explained based on the nature of entrepreneurship. Its dimensions, such as innovativeness, risk-taking, and proactiveness (Miller, and Friesen, 1983; Covin, and Slevin, 1989), involve both independent and group action: successful entrepreneurs must be self-motivated and creative, willing to act independently, and also must be adept at building coalitions and coordinating efforts with others (see also: Abraham, 1997). Thus, moderate levels of individualism-collectivism result in higher level of entrepreneurship.

Strangely enough, very little research has been conducted relating individualism-collectivism to the firm's entrepreneurial orientation at a between-firms level. For example, Tiessen (1997) argued that individualists excel in innovation and the generation of ideas, which is one aspect of entrepreneurship. However, they are relatively weak at resource leverage. In contrast, collectivists excel at resource

leveraging by relying on in-group relationships for acquisition and supply, but are relatively weaker at variety generation and innovation. Thus, while he suggests linkages of individualism-collectivism with specific entrepreneurial decision-making behaviors, he is more concerned on specifying the relation with different entrepreneurial functions than on clarifying what is the relationship between individualism-collectivism dimensions and entrepreneurship. Also, in his view, individualism and collectivism are two variables, not a continuum.

This analysis, instead, hypothesizes that individualism-collectivism needs a much more complex conceptualization than a two variables model, and that it has to incorporate distinctions between beliefs, values and norms, and the horizontal and the vertical dimension, also considering more pragmatic tendencies that distinguish contingently along the same/different self-conception.

Considering individualism-collectivism in terms of the proposed model that includes six factors, hypotheses can be formulated on the ability of the model to explain variance in entrepreneurship, seen as a firm's strategic propensity, and also on the relation between the model's dimensions and the dependent variable.

At a general level, we hypothesize that individualism-collectivism dimensions of values and to a lesser extent belief, but not of norms, should have a significant relation with entrepreneurship. This is because, as it is well established in the entrepreneurship literature, the construct of entrepreneurship involves innovation and risk-taking, that are more connected to breaking than to following the rules, and proactivism instead than a defensive, conservative posture. Thus, we hypothesize that entrepreneurship is related more to relative importance of values and beliefs than of norms, duties, and obligations. This not because individuals do not hold normative aspects of personal culture, but instead because, in general terms, their behaviors are less likely to be driven by social norms, and this is particularly true when behaviors include entrepreneurial risk-taking, innovation and opportunity exploitation.

One of the main and most established findings in the entrepreneurial research is that entrepreneurs are high in achievement motivation (McClelland, 1961; 1965), more than other social groups such as managers and small business owners (e.g. Stewart, Watson, Carland, & Carland, 1998). In the entrepreneurship conceptualization in terms

of opportunity, exploitation is a key aspect. It requires not only the perception that there is a chance of success but also a motivation to take that chance: “the exploitation of opportunities is a setting in which people can achieve, providing a valuable cue for those who possess a high need for achievement” (Shane, and Venkataraman, 2000:224). Also, entrepreneurship as a firm’s posture has been connected to the value top management places on industry leadership (Covin, and Slavin, 1991).

On the other hand, task achievement is considered one of the defining attributes of individualism-collectivism (Triandis, 1995), so that individualists’ values are more oriented toward task achievement, even at the expenses of relationships. Moreover, vertical individualists are especially concerned with comparing themselves with others and desire to win in all kinds of competitions.

All that leads us to hypothesize that stronger vertical individualistic values are related to higher entrepreneurship and that, since the proposed measure of the construct of vertical individualistic values goes from individualism to collectivism the relation should be negative, the higher the collectivism, opposed to individualism, the lowest the entrepreneurial strategic orientation.

*H1: The dimension expressing vertical individualistic values is negatively related to entrepreneurship.*

Entrepreneurship involves resources sharing and exchange. To recognize an opportunity, entrepreneurs have to have complementary information that can be reached only through multiple external sources, since there is specialization of information in society, and information is distributed among people according to the single individuals’ idiosyncratic life circumstances (Venkataraman, 1997; Shane, and Venkataraman, 2000). Thus, information search is related to social interactions, and the more the information is organized in knowledge elements that are specific and difficult to transfer, the more the social relationships must be tight for reaching the information necessary for opportunities’ discovery.

On the other hand, certain values the individual holds are more propitious for creating conditions that favor the discovery of entrepreneurial opportunity such as that of horizontal collectivism. For horizontal collectivists the well-being of the in-group is important to them since they hold preferences for group membership and value the

outcome of workgroup in very positive terms. As a consequence, collectivists put much emphasis on harmonious relationships that ensure group survival and that make group membership more enjoyable. Since harmonious relationships and group membership can increase the discovery of entrepreneurial opportunity, we can expect a positive relation between entrepreneurship and horizontal collectivistic values.

Also, entrepreneurial posture is established at the uppermost level of a firm, and the strategic management at this level have a widely recognized impact on organizational culture. Since certain aspects of the organizational culture, such as valuing and supporting the spirit and practice of teamwork, provide a better contest for entrepreneurship, we can confirm, from a different perspective (Covin and Slavin, 1991) that certain values the individual at the uppermost level of a firm holds, such as that of horizontal collectivism, are more propitious for entrepreneurship. Indeed, horizontal collectivism is usually measured in terms of preference for workgroup.

*H2: The dimension expressing horizontal collectivistic values is positively related to entrepreneurship.*

Entrepreneurial opportunities come in a variety of forms and can be distinguished in different categories (e.g. Drucker, 1985), but they exist primarily because different actors hold different beliefs about the relative value of resources, and consequently make different conjectures about resources value. Consequently, “an entrepreneurial discovery occurs when someone makes the conjecture that a set of resources is not put to its *best use*” (Shane, and Venkataraman, 2000:200). Considering the different categories of entrepreneurial opportunities (Drucker, 1985), some are related to the exploitation of market inefficiencies, that economists usually consider a short term opportunity; while others, such as the reaction to shifts in the cost-benefit of alternative uses of resources, or the creation of new information, are more long term. The former are mostly related to the development of economies of scale and/or specialization and usually do not require joint effort between economic actors but instead the opportunistic exploitation of information asymmetries; the later are more related to complementarities and economies of scope and usually require information sharing and the coordination of intensive interdependencies. As a consequence, long term opportunities are mostly related to information sharing and joint effort then to opportunism and information hiding.

Traditionally, entrepreneurship has been related more to innovation (Schumpeter, 1934) and proactivism in finding alternative uses of resources (Stevenson, and Jarillo, 1990) than on short term oriented exploitation of market inefficiencies. Thus, entrepreneurship is related to the beliefs on the different categories of entrepreneurial opportunities, and it is higher in relation to innovation and proactiveness and lower relatively to short term oriented opportunities exploitation.

Also, people hold different beliefs about the contingencies that most usually are related to the existence of entrepreneurial opportunities. While some people believe that opportunities are most usually found in the market, others believe that they can find better opportunities in more close and cooperative relationships. Thus, beliefs on conditions that can give the opportunity to enhance value creation, both in terms of productivity, efficiency and profitability, are related to entrepreneurship.

People differences in belief about what conditions lead to better results are one of the main attributes of individualism-collectivism. Individualists hold the belief that better outputs such as higher productivity, efficiency or profitability are best achieved when they can act independently of others or pursue personal interest in cooperative relationships, while collectivists believe that performances can increase if they cooperate in joint efforts and that cooperative environments, such as work groups or alliances, lead to higher value creation.

Along the horizontal and the vertical dimension, beliefs about conditions that can lead to better results are less precisely locatable, unless one considers more pragmatic tendencies that distinguish contingently along the dimension. For individualists, beliefs can be either related to the importance of achieving individual success at the expenses of others or to acting in coordination with a group if that is suitable according to personal interests; for collectivists, subordination to the in-groups can be either high or low, depending on contingencies. Also, pragmatism is a key characteristic for entrepreneurial opportunity existence, and it characterizes beliefs about conditions that can lead to better results.

Since entrepreneurship can be conceived in terms of beliefs about what constitutes an entrepreneurial opportunity, and opportunities related to innovation and proactivism in finding alternative uses of resources are best exploited with a long term orientation, entrepreneurship can be affected by individualism-collectivism beliefs on what conditions

can give the opportunity to enhance value creation. In particular, because collectivists believe that performances can increase if they cooperate in joint efforts instead than when they can act independently of others or pursue personal interest in cooperative relationships, we argue that collectivistic beliefs are more consistent with entrepreneurial characteristics with a pragmatic tendency about subordination to the in-groups. All that considered, we hypothesize:

*H3: The dimension expressing pragmatic collectivistic beliefs is positively related to entrepreneurship.*

In order to test this hypotheses, we consider that entrepreneurship, particularly at a between-firms level of analysis, is a strategic posture on opportunity recognition and exploitation, that is reflected in specific types of organizational-level behaviors such as: risk-taking, innovation, and proactive/aggressive competition. It can be measured in terms of a first-mover approach in product and market innovation, even at the expenses of higher survival traits and so higher risk-bearing; strategic proactivism in the face of uncertainty, in terms of a prompt reaction to, but also of efforts to anticipate, environmental changes; differentiation as a key competitive goal; a tendency to move quickly to exploit new resources.

### **Individualism-collectivism and cooperation.**

Research suggests linkages of individualism-collectivism with many aspects of decision making and to specific entrepreneurial decision-making behaviors, including risk taking (as for venture creation decision, R&D expenditures, innovation, etc) (e.g. Mitchell, Smith, Seawright, Morse, 2000), ethical decision-making (e.g. Husted, 2000), and cooperation (as for inter-organizational alliances or work groups) (e.g. Chen, Chen, and Meindl, 1998; Cox, Lobel, & McLeod, 1991; Steensma, Marino, Weaver, & Dickson, 2000; Wagner, 1995). All these are aspects of the decision-making activities employed by economic actors engaged in entrepreneurial activity. Investigations of the relationships between individualism-collectivism and specific decision making behaviors are important for understanding the processes by which this variable influences business outcomes and economic activity.

One of the main areas of investigation has been that of cooperation.

Cooperation can be considered at different levels of analysis, and particularly, at the intra and interorganizational levels (Smith, Carroll, and Ashford, 1995). Traditionally, research on the relationship of cooperation with individualism and collectivism have considered predominantly intraorganizational cooperation, and only recently scholars have intensified the investigation of the individualistic-collectivistic cultural determinants of interorganizational cooperation.

For studying this relationship, a very important area that deserves a preventive clarification is that of the definition of cooperation and of what cooperative behaviors are to be investigated. At the intraorganizational level, cooperation has been conceptualized in quite varied ways, and there is still a lack of a commonly shared agreement between scholars (Chen, Chen, and Meindl, 1998). At the interorganizational level, the problem of divergence can be even more dramatic, since interorganizational cooperation is an area much more recent for organizational research, developed mostly as a consequence of the much more intense debate on inter-firm networks, and because it has rapidly become very complex and internally differentiated.

In an attempt to clarify some of the main complex aspects, we intend to express a few basic considerations, following Barnard's tradition, and also drawing from recent contributions in the debate on inter-firm networks (e.g. Grandori, & Soda, 1995; Grandori, 1997). First, a very important distinction can be made, in conceptual terms, considering that coordination is a prerequisite for inter-firm coordination, as it is at any organizational level (Beer, Eisenstat, and Spector, 1990; Smith, Carroll, and Ashford, 1995), and that it is required in diverse intensity and modality depending on the mix of coordination mechanisms that characterizes the inter-firm organizational form. While the prevalence of market mechanism requires, to a much less extent, intense cooperation, in networks the mix of coordination mechanisms requires a more intense cooperation than that of market, but with variance in intensity and modality of cooperation between the different inter-firm organizational forms. Secondarily, even if coordination is often conceived in terms of social interaction and relationships, it is not a typical attribute of relationships that distinguish among them in terms of a dichotomy (such as only if there is cooperation there is a relationship), and not even an exclusive attribute of a relationship that is the opposite of competition and excludes its presence. Finally,

cooperation is affected by cultural attributes as well as by motivational and cognitive processes, especially in terms of convergence, divergence and conflict.

Thus, cooperation can be conceived in terms of wilful behaviours that are explicated in, and that contribute to shape, social interactions and relationships and that are necessary for coordinating interdependencies.

Even if the complexity of the cooperation concept makes still necessary further developments, it is not the object of the present study to compare and discuss the different approaches and definitions of cooperation that scholars have offered and, to a even lesser extent, to propose a comprehensive definition of the construct. We just intend to outline that cooperation is more intense if coordination of activities between firms requires behaviors such as exchange of information, sharing of services, or the fulfillment of agreements on resource sharing and joint activities, that can even provide that parties exchange stocks and shareholdings.

Since culture and culturally framed motivational and cognitive factors are prerequisite for cooperation, a major suggestion that scholars have made is that a deeper understanding of the relationship between cooperation and its cultural determinants is a new challenge for organizational research (Beer, Eisenstat, and Spector, 1990; Smith, Carroll, and Ashford, 1995). Despite the intense debate on cooperation that has involved also the interorganizational level, researchers have not significantly responded to that suggestion.

In their attempt to integrate the existing differences in the conceptualization of cooperation in a comprehensive model, Chen, Chen, and Meindl (1998) framed a structure of the conceptions of cooperation in a cultural continuum from general and abstract to specific and tangible, with cooperation seen as the subsequent behaviors of cultural values and goal relationships. Their definition of cooperation as behavior is consistent with our view, and both plunge their roots in the tradition of the organization studies' field that has in Barnard (1938) its strongest inspirer.

Since individualism-collectivism is related to both possible antecedents of cooperative behaviors, cultural values and goal relationships, the construct is best suitable for explaining cooperation. It is not surprising, then, that there is a general consensus on the significance of the relation between the two constructs.

Research and conventional wisdom suggest that collectivists tend to be more cooperative, whereas individualists are more competitive (e.g. Mead, 1976; Mann, 1980; Cox, Lobel, and McLeod, 1991; Triandis, 1995; Wagner, 1995). Apart from this very intuitive relation, no research have found support for the existence of a direct positive effect between individualism-collectivism and interorganizational cooperation. The few studies that have incorporated individualism-collectivism in their model have reached results that express not significant direct relationship (Dickson, and Weaver, 1997) or a significant relation with the use of specific inter-firms alliance mechanisms (Steensma, Marino, Weaver, and Dickson, 2000).

Moreover, inter-firm cooperation is probably a too complex phenomenon that has more rational than cultural determinants, and the role of culture can be better outlined in terms of its direct effect on motivational and cognitive prerequisites of cooperation than in terms of direct effects on interorganizational cooperative behaviours.

However, research on the relationship between individualism-collectivism and inter-organizational cooperation is still in its infancy, and deserves further scrutiny and empirical test.

Based on the generally made argument that individualism-collectivism has an effect on cooperation and that stronger collectivism increases cooperation intensity, in this study we will test a model of direct effects of individualism-collectivism different dimensions on interorganizational cooperation. We also hypothesize that, in terms of the vertical-horizontal dimension, interorganizational cooperation seems to be more suitable if parties hold values of equality and preferences for social relationships of a joint nature.

*H4: The dimension expressing horizontal collectivistic values is positively related to interorganizational cooperation.*

Considering a more specific and controversial relationship, the one with competitors, a general explanation of cooperation intensity based on individualism-collectivism can be formulated.

The existence of a positive effect of horizontal-collectivistic values on interorganizational cooperation with competitors can be hypothesized. This is because when a relationship can be characterized by cooperative as well as competitive behaviours, values that express solidarity, communality, harmony, etc. help to lower

competitive tendencies in favour of cooperation, and also to mitigate the subsequent effects of conflicts on the relationship.

On the other hand, values expressing individualism can be also positively related to cooperation. This is because, in order to decide to cooperate in a relationships with competitors, the decision maker has to have a strong external motivation, based more on the rational judgement of costs and benefits than on beliefs or norms, and a high self motivation, such as that of excelling in competition, in order to counterbalance the risks that this relationships can bring. This relationships are usually more complex to manage, because of the possible rise of conflicts of interests; as a consequence, the decision maker has to have a strong need for achievement in order to overcome the difficulties that circumstances can bring.

Finally, cooperation with competitors seems to be facilitated by conditions of difference, such as in size, market breath, etc., vs. similarity between partners, and such conditions are highly valued by people with a vertical cultural prevalence.

All that considered, we hypothesize that values of vertical individualism is one of the cultural factors that best predicts cooperation with competitors. Since the proposed measure of the construct of vertical individualistic values goes from individualism to collectivism, the relation should be negative: the higher the collectivism, opposed to individualism, the lower the interorganizational cooperation with competitors.

*H5: The dimension expressing horizontal collectivistic values is positively related to interorganizational cooperation with competitors.*

*H6: The dimension expressing vertical individualistic values is negatively related to interorganizational cooperation with competitors.*

## **Method**

### Sample.

Small firm entrepreneurs (owners that manage their firms) in two industries (jewelry and goldwork; and biological agricultural and agrifood) have been sampled. Both these industries are prominent in Italy, and both production and distribution firms are

represented. Firms and firm owners and/or managers have been identified by narrowing the universe to the Campania region and to the firms there located: for the jewelry and goldwork industry, most of the firms are located in Naples and Marcianise (CE), while for the biological agricultural and agrifood industry, firms are located mostly in the traditional area of localization agro-nocerino-sarnere (SA) but also firms located in other provinces of Campania have been eventually sampled. In both industries, Consortia are a very important phenomenon of inter-organizational integration and belonging to a Consortium is a typical characteristic for these firms. The most important Consortia present in Campania for each of the industries selected have been asked to help with the study, writing a letter of invitation to participate and communicating formally and informally their support. This has been done to increase the response rate. Owners have been sent a letter asking for their participation in the study, followed with a phone call and a visit to complete the questionnaires, and respond to the structured interview. The final sample consists of approximately 200 entrepreneurs.

#### Measures.

All study participants completed a set of questionnaires, assisted if needed by a previously trained person, and most of them also have been interviewed, particularly in a beginning phase of the field administration.

Measures of individualism-collectivism include those of Hofstede (1980), Wagner, and Moch (1986), Hui (1988), Triandis et al. (1990), Erez and Earley (1987), Triandis (1995) and Wagner (1995), that were combined and adjusted to the specific field. Selected measures were translated into Italian.

Responses are on a 5 point scale from strongly agree to strongly disagree (when necessary, items have been successively reversed scored to preserve consistency with a direction that goes from individualism to collectivism).

All individualism-collectivism variables included in correlation and regressions were calculated from items (we didn't use factor scores), summed and divided by No. of items. No. of items for each variable goes from 4 to 10 and Cronbach alphas go from ,72 (pragmatic-individualistic beliefs), to ,86 (vertical-individualistic norms).

Measures of entrepreneurship include 5 items, each related to a specific type of organizational-level behaviors such as: risk-taking; innovation, and proactive/aggressive

competition. It is measured in terms of a first-mover approach in product and market innovation, even at the expenses of higher survival traits; strategic proactivism in the face of uncertainty, in terms of a prompt reaction to environmental changes and in terms of efforts to anticipate environmental changes; differentiation as a key competitive goal; a tendency to move quickly to exploit new resources. Responses where on a 5 point scale from strongly agree to strongly disagree (successively reversed scored to preserve consistency with the hypothesized direction of the measure). Cronbach alfa for this measure is: ,72.

Cooperation intensity was measured based on a matrix that had in rows 10 different kinds of interorganizational relationships:

- a) exchange of information
- b) sharing of services
- c) supply agreements, purchasing groups
- d) common programs of human resources training
- e) production planning (sub-supply)
- f) sales, marketing and after-sales service agreements
- g) agreements on design of production process and/or products
- h) cooperation in production agreements (co-production)
- i) exchange of stocks and shareholdings
- j) programs of quality continuous improvement

Columns indicated if the relationship was with suppliers, customers or competitors. Respondents had to fill in the questionnaire's matrix putting a cross in the cell if the specific kind of relationship was established. Responses where then summed and divided by 30 for general interorganizational cooperation intensity. Cronbach alfa for this measure is: ,89. Responses from the column indicating relationships with competitors were used for measuring intensity of cooperation with competitors. Cronbach alfa for this measure is: 77.

#### Analysis.

Confirmatory factor analysis (CFA) has been used to examine the dimensionality and discriminant validity of the measures of individualism-collectivism. The measures

have then been used to study the effect individualism-collectivism has on strategic decision making behaviors of entrepreneurs.

The proposed study uses correlation and regression analysis to test the effect that the proposed determinants have on entrepreneurship, interorganizational cooperation intensity and intensity of relationships with competitors.

## Results.

### Confirmatory Factor Analyses

We examined the dimensionality of the measures of individualism-collectivism with confirmatory factor analysis. All analyses were performed with Lisrel 8.30, and the maximum-likelihood method was used to examine the covariance matrix of the items.

Four models on the same set of items were compared: a single factor model, a two-factor model, a four-factor model, and a six-factor model. In all multifactor models the factors were allowed to correlate. In the two-factor model, individualism items and collectivism items were specified to load on different dimensions. In the four factor model, horizontal and vertical collectivism and individualism items were specified to load on different dimensions. In the six-factor model, separate factors of norms, beliefs, and values for both individualism and collectivism items were specified.

Table 1 displays the results. Although none of the models provides an excellent fit, the six-factor model provided a significantly better fit than the one factor ( $\Delta\chi^2 = 632.90$ ,  $df = 15$ ,  $p < .000$ ); the two-factor ( $\Delta\chi^2 = 462.02$ ,  $df = 14$ ,  $p < .001$ ), or the four factor ( $\Delta\chi^2 = 195.67$ ;  $df = 8$ ,  $p < .00$ ). In the six-factor model, all but one item loaded significantly ( $p < .05$ ) on the predicted factors. Table 2 shows the estimated correlations between the six factors.



Table 1

**Confirmatory factor analysis results for the alternative factor structures of individualism-collectivism**

Models	$\chi^2$	df	p	GFI	RMSEA	NFI	CFI
<b>Six factor</b>	<b>1182.59</b>	<b>512</b>	<b>.000</b>	<b>.63</b>	<b>.10</b>	<b>.49</b>	<b>.62</b>
<b>Four factor</b>	<b>1378.26</b>	<b>520</b>	<b>.000</b>	<b>.58</b>	<b>.12</b>	<b>.41</b>	<b>.51</b>
Two factor	1644.61	526	.000	.50	.15	.29	.36
Single factor	1815.49	527	.000	.46	.17	.22	.27

Note. GFI = goodness of fit index; RMSEA = root mean square error of approximation; NFI = normed fit index; CFI = comparative fit index.

Table 2: Intercorrelations among factors for the six-factor model

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1					
Factor 2	.01				
Factor 3	.25	.14			
Factor 4	-.07	.62	.12		
Factor 5	.23	-.20	.44	-.33	
Factor 6	-.24	.29	.10	.36	.20

Table 3

**Statistiche descrittive**

	Media	Deviazione std.	N
ENTR_5	3,8930	,8176	114
COOPER	3,2845	2,3756	125
COOP_COM	,1552	,1936	125
B_P_I	3,2133	,8753	120
B_P_C	3,9153	,9517	121
V_V_I	3,0682	1,0267	121
V_H_C	3,4664	,8388	121
N_H_I	2,3833	,9994	120
N_V_C	4,2229	,5483	118

Table 4

## Correlazioni

		ENTR_5	COOPER	COOP_COM	B_P_I	B_P_C	V_V_I	V_H_C	N_H_I	N_V_C
ENTR_5	Correlazione di Pearson Sig. (2-code) N									
COOPER	Correlazione di Pearson Sig. (2-code) N	,197* ,035 114								
COOP_COM	Correlazione di Pearson Sig. (2-code) N	,202* ,031 114	,685** ,000 125							
B_P_I	Correlazione di Pearson Sig. (2-code) N	-,065 ,492 113	,043 ,637 120	-,094 ,306 120						
B_P_C	Correlazione di Pearson Sig. (2-code) N	,299** ,001 113	,195* ,032 121	,194* ,033 121	-,051 ,582 119					
V_V_I	Correlazione di Pearson Sig. (2-code) N	-,387** ,000 112	-,100 ,277 121	-,232* ,010 121	,227* ,013 118	-,093 ,316 119				
V_H_C	Correlazione di Pearson Sig. (2-code) N	,331** ,000 113	,298** ,001 121	,277** ,002 121	,075 ,414 119	,539** ,000 120	-,094 ,308 119			
N_H_I	Correlazione di Pearson Sig. (2-code) N	,013 ,891 110	,057 ,537 120	,021 ,816 120	,246** ,008 116	,198* ,033 117	,389** ,000 119	,254** ,006 117		
N_V_C	Correlazione di Pearson Sig. (2-code) N	,104 ,278 111	,175 ,058 118	,140 ,132 118	,093 ,319 116	,229* ,013 117	-,094 ,314 116	,306** ,001 117	-,168 ,074 114	

\*. La correlazione è significativa al livello 0,05 (2-code).

\*\*.. La correlazione è significativa al livello 0,01 (2-code).

## Tests of hypotheses

Entrepreneurship. Hypotheses 1-3 predicted that three aspects of individualism-collectivism; vertical individualism values, horizontal collectivism values, and pragmatic collectivism beliefs would be significantly related to entrepreneurship. Table 4 displays the correlation matrix of the independent and dependent variables. In support of all three hypotheses, the correlations of these aspects of individualism and collectivism with entrepreneurship are significant and in the expected directions.

Regression analysis was then used to examine joint relationships. All six individualism-collectivism scores were entered simultaneously to the equation as predictors. As shown in Table 5, with all predictors in the equation, vertical individualism values, horizontal collectivism values, and pragmatic collectivism beliefs maintain significant relationships to entrepreneurship. Each predictor thus accounts for unique variance in entrepreneurial behavior.

Cooperation. Table 4 also indicates that two aspects of individualism-collectivism: pragmatic collectivism beliefs and horizontal collectivism values have significant zero-order relationships with the dependent variable of cooperation. Again, regression analysis was used to examine joint relationships. As shown in Table 6, when all predictors were entered simultaneously into the equation, neither of these separate variables were found to be significantly related to cooperation. This result is likely due to the substantial correlation between the two predictors.

Cooperation with competitors. Table 4 shows that two dimensions: horizontal collectivistic values and vertical individualistic values were significantly related to cooperation with competitors, providing at list partial support for the hypotheses. Again, regression analyses (shown in Table 7) were used to examine joint relationships. As indicated, with all predictors in the equation, both horizontal collectivism and vertical individualism in terms of values accounted for significant variance in cooperation with competitors.

## Tables 5, 6 & 7

### Empirical results of linear regressions:

#### Entrepreneurship

##### Variabili inserite/rimosse<sup>b</sup>

Modello	Variabili inserite	Variabili rimosse	Metodo
1	N_V_C, B_P_I, B_P_C, V_V_I, N_H_I, <sup>a</sup> V_H_C		Per blocchi

a. Tutte le variabili richieste sono state inserite

b. Variabile dipendente: ENTR\_5

##### Riepilogo del modello

Modello	R	R-quadrato	R-quadrato corretto	Errore std. della stima
1	,532 <sup>a</sup>	,283	,239	,7275

a. Stimatori: (Costante), N\_V\_C, B\_P\_I, B\_P\_C, V\_V\_I, N\_H\_I, V\_H\_C

##### ANOVA<sup>b</sup>

Modello		Somma dei quadrati	df	Media dei quadrati	F	Sig.
1	Regressione	20,278	6	3,380	6,385	,000 <sup>a</sup>
	Residuo	51,343	97	,529		
	Totale	71,621	103			

a. Stimatori: (Costante), N\_V\_C, B\_P\_I, B\_P\_C, V\_V\_I, N\_H\_I, V\_H\_C

b. Variabile dipendente: ENTR\_5

**Coefficienti<sup>a</sup>**

Modello		Coefficienti non standardizzati		Coefficienti standardizzati	t	Sig.
		B	Errore std.	Beta		
1	(Costante)	3,545	,694		5,105	,000
	B_P_I	2,862E-03	,083	,003	,035	,972
	B_P_C	,160	,091	,187	1,764	,081
	V_V_I	-,296	,078	-,363	-3,790	,000
	V_H_C	,226	,110	,233	2,062	,042
	N_H_I	3,648E-02	,091	,042	,400	,690
	N_V_C	-6,38E-02	,153	-,041	-,417	,678

a. Variabile dipendente: ENTR\_5

Cooperation

**Variabili inserite/rimosse<sup>b</sup>**

Modello	Variabili inserite	Variabili rimosse	Metodo
1	N_V_C, B_P_I, B_P_C, V_V_I, N_H_I, <sup>a</sup> V_H_C		Per blocchi

a. Tutte le variabili richieste sono state inserite

b. Variabile dipendente: COOPER

**Riepilogo del modello**

Modello	R	R-quadrato	R-quadrato corretto	Errore std. della stima
1	,320 <sup>a</sup>	,102	,050	2,2968

a. Stimatori: (Costante), N\_V\_C, B\_P\_I, B\_P\_C, V\_V\_I, N\_H\_I, V\_H\_C

**ANOVA<sup>b</sup>**

Modello		Somma dei quadrati	df	Media dei quadrati	F	Sig.
1	Regressione	62,021	6	10,337	1,960	,078 <sup>a</sup>
	Residuo	543,342	103	5,275		
	Totale	605,363	109			

a. Stimatori: (Costante), N\_V\_C, B\_P\_I, B\_P\_C, V\_V\_I, N\_H\_I, V\_H\_C

b. Variabile dipendente: COOPER

**Coefficienti<sup>f</sup>**

Modello		Coefficienti non standardizzati		Coefficienti standardizzati	t	Sig.
		B	Errore std.	Beta		
1	(Costante)	-,179	2,088		-,086	,932
	B_P_I	8,073E-02	,259	,031	,312	,756
	B_P_C	,139	,285	,056	,488	,627
	V_V_I	-,230	,240	-,101	-,960	,339
	V_H_C	,630	,341	,225	1,847	,068
	N_H_I	6,111E-02	,281	,025	,217	,828
	N_V_C	,281	,462	,065	,609	,544

a. Variabile dipendente: COOPER

Cooperation with competitors

**Variabili inserite/rimosse<sup>b</sup>**

Modello	Variabili inserite	Variabili rimosse	Metodo
1	N_V_C, B_P_I, B_P_C, V_V_I, N_H_I, V_H_C <sup>a</sup>		Per blocchi

a. Tutte le variabili richieste sono state inserite

b. Variabile dipendente: COOP\_COM

**Riepilogo del modello**

Modello	R	R-quadrato	R-quadrato corretto	Errore std. della stima
1	,355 <sup>a</sup>	,126	,075	,1875

a. Stimatori: (Costante), N\_V\_C, B\_P\_I, B\_P\_C, V\_V\_I, N\_H\_I, V\_H\_C

**ANOVA<sup>b</sup>**

Modello		Somma dei quadrati	df	Media dei quadrati	F	Sig.
1	Regressione	,524	6	8,727E-02	2,483	,028 <sup>a</sup>
	Residuo	3,620	103	3,515E-02		
	Totale	4,144	109			

a. Stimatori: (Costante), N\_V\_C, B\_P\_I, B\_P\_C, V\_V\_I, N\_H\_I, V\_H\_C

b. Variabile dipendente: COOP\_COM

**Coefficienti<sup>f</sup>**

Modello		Coefficienti non standardizzati		Coefficienti standardizzati	t	Sig.
		B	Errore std.	Beta		
1	(Costante)	5,173E-02	,170		,304	,762
	B_P_I	-1,72E-02	,021	-,079	-,814	,418
	B_P_C	-5,13E-03	,023	-,025	-,221	,826
	V_V_I	-4,15E-02	,020	-,219	-2,121	,036
	V_H_C	5,434E-02	,028	,234	1,952	,054
	N_H_I	2,206E-02	,023	,110	,961	,339
	N_V_C	1,675E-02	,038	,047	,445	,657

a. Variabile dipendente: COOP\_COM

## **Discussion, research limitations and implications**

Much of the available work linking individualism-collectivism to specific behavioural processes has been theoretical (e.g. Chen et al, 1998; Tiessen, 1997), and most empirical research on this topic has been conducted in the laboratory, using college students as the subjects of study (e.g., Wagner, 1995; Gomez et al, 2000). While such methodology provides control that is difficult to achieve in the field, questions of generalizability of results to actual entrepreneurs remain. Very little research has been done using practitioners and business owners. The present study has instead sampled and interviewed actual entrepreneurs that manage their own firms. Thus, the study seeks to advance knowledge about the effects of individualism-collectivism on the decision making behaviours of economic agents, particularly of those most responsible for wealth creation and economic development.

However, this study advances knowledge of the construct equivalence of popular measures of individualism-collectivism. As it was expected, the study found support for a conceptualisation of individualism-collectivism as a multi-dimensional construct, and that the more complex six-factor model proposed best describes it.

In addition, we expected to find that the dimensions of individualism-collectivism would differentially predict criterion variables. For the most part, this assumption found empirical support.

This is the main contribution of the proposed study – the linking of different attributes of individualism-collectivism to different decision-making behaviours. The proposed study advances understanding of how individualism-collectivism influences strategic behaviours, in terms of entrepreneurship and between-firms cooperation.

In relation to cooperation, the lack of support that comes from empirical findings may be explained considering that inter-firm cooperation is a too complex phenomenon that has more rational than cultural determinants, and that the role of culture can better be outlined in terms of its direct effect on motivational and cognitive prerequisites of cooperation, and only indirectly on interorganizational cooperative behaviours.

Limitations are especially intense in the empirical part of the study. Of greatest concern is the failure of any of the measurement models of individualism-collectivism tested here to provide an adequate fit to the data. Although the six-factor model came

closest to providing good fit, the fit indices were below what is typically considered acceptable. Our small sample size relative to the number of observed variables precluded the use of more extensive theory trimming and cross-validation efforts. We made no revisions to the theoretical models to avoid capitalization on chance. Thus, future research to revise and validate our six-factor model is necessary.

Thus, the study's findings and their generalizability are negatively effected by small sample. It is our intension, however, to increase the sample size through additional administration of the questionnaire to small-business owners/managers of firms in other industries in the same geographical area and also in different cultural environments.

Final considerations can be made on what the present study may suggest for future research, teaching, and management practice.

We think our results can particularly stimulate further developments of the individualism-collectivism field, and the search for better understandings of the consequences different aspects of the construct can have on entrepreneurial decision-making and behaviours, particularly in cooperation between firms.

Following theoretical arguments and some empirical evidence about the relation between individualism-collectivism and forming alliances involving equity ties (e.g. Tiessen, 1997; Steensma, Marino, Weaver, and Dickson, 2000), future studies should investigate the relation between individualism-collectivism and cooperation in different relationships, and how the relation between individualism-collectivism and cooperation can vary depending on the coordination mechanisms that are in use. Also, it could be investigated if there is a relationship between individualism-collectivism and a preference for mechanisms such as equity sharing that tie parties more intensely.

Also needed is a deeper investigation of the effect of individualism-collectivism on the dynamic of cooperation (Zajac, and Olsen, 1993; Ring, and Van de Ven, 1994) and on the shifts from informal to more formal types of cooperation (and from formal to informal), or as from vertically linked parties to more horizontal relationships (and from horizontal to vertical).

Further scrutiny about the effects of intervening mechanisms, such as trust and accountability (as proposed by Chen, Chen, & Meindl, 1998) on the relation between individualism-collectivism and cooperation is also needed.

Finally, studies may consider the full process that involves cooperation as a consequence and an antecedent: coordination is necessary for innovation and competitive success, cooperation is a prerequisite for coordination and motivational and cognitive factors are in turn prerequisite for cooperation (Beer, Eisenstat, and Spector, 1990; Smith, Carroll, and Ashford, 1995). Thus, future studies should explore the effects individualism-collectivism has on the outlined process.

It would also be interesting to explore more complex relationships among individualism-collectivism, entrepreneurship and cooperation, and between the later, in a single model. Theoretical arguments, as well as significant results of some exploratory ANOVA tests between entrepreneurship and cooperation we conducted but did not include in the present study, suggest the existence of a more complex and structural model of relationships among the three constructs.

In conclusion, an important general implication is that both academic and practitioners should give more attention to the hypotheses we all implicitly make about the effect of cultural dimensions, such as individualism-collectivism, on behaviours. Contrary to commonly shared beliefs, certain aspects of collectivism are positively related to entrepreneurship, and some individualistic tendencies help intensifying cooperation. Also, values, more than norms, seem to mostly affect behaviours. As scholars, we should reflect about these findings and consider how to use this counterfactual thinking when we teach culture, entrepreneurship and inter-firms cooperation. In relation to management practice, decision makers can use these findings' implications for improving the selection process and training of their team members and successors. More generally, entrepreneurs can use this knowledge for increasing the effectiveness of inter-firms relationships and for better understand the effects of cultural determinants on others', as well as on their own behaviours.

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