HOW OVERCONFIDENCE INFLUENCES INTERNATIONAL PERFORMANCE: THE MEDIATING ROLE OF INTUITION

ABSTRACT

The principal aim of this study was to investigate two important strategic decision-making processes (SDMP), such as International Market and Entry Mode Selection, within international small businesses. In particular, the influence of the decision-makers' overconfidence on a specific SDMP dimension, namely intuition, as well as on the international performance has been analysed. In addition, the study tests the possible mediating effect of the intuition construct on the relationship between overconfidence and international performance. In order to reach these objectives, a hierarchical regression analysis, based on a sample of Italian small and medium-sized firms (n=165), has been adopted. Findings identify a negative relationship between intuition and international performance and a positive one between overconfidence and international performance. Moreover, a negative relation between overconfidence and intuition has been detected. Results also underline the mediating role of intuition in the relationship between overconfidence and international performance. Theoretically, the study enriches the existing literature by examining the roles of overconfidence and intuition in the international SDMP of small and medium-sized enterprises. From a managerial perspective, the paper provides an insight into the influence of a key character of the decision-maker, namely overconfidence, and the influence of intuition as a feature of the decision-making methodology.

Keywords: *strategic decision-making process; SMEs; intuition; overconfidence; international performance.*

1. INTRODUCTION

During the last four decades, research on strategic decision-making has exponentially increased (Elbanna, 2006; Papadakis et al., 2010; Elbanna et al., 2014; Shepherd and Rudd, 2014). However, although several studies have focused their attention on large firms (Driouchi and Bennett, 2011; Nielsen and Nielsen, 2011), much less researches have analysed the decision-making process within small and medium-sized enterprises (SMEs) (Camuffo et al., 2006; Quintens et al., 2006; Dimitratos et al., 2011; Musso and Francioni, 2013; Ahi et al., 2017). Moreover, even less attention has been dedicated to SMEs engaged in international/global strategies (Francioni et al., 2015). As a matter of fact, the number of SMEs involved in international market development is today constantly raising (Abebe and Angriawan, 2011). For this reason, the analysis of their internationalization activities requires greater attention (Francioni et al., 2015). Notably, SMEs still show high failure rates and unsatisfactory performances in the international context, often due to inadequate strategic decisions (Jocumsen, 2004). In addition, recent literature also emphasizes the key role played by decision-makers in SMEs, as well as the influence of their characteristics in the strategic decisions' formulation, also in the international context (Child and Hsieh, 2014). On this respect, to the best of our knowledge,

there is a lack of studies examining the role of decision-maker overconfidence in the international strategic decision-making process (SDMP).

Starting from these assumptions, the aim of this study is to examine the SDMP within international small businesses, by analysing (i) the influence of the decision-makers' overconfidence on a specific SDMP dimension, namely intuition, as well as on the international performance; (ii) the possible mediating effect of the intuition construct on the relationship between overconfidence and international performance.

Structurally, the remainder of the paper is organized into the following sections: we start with the theoretical background and hypotheses development. The following sections deal with the methodology and the discussion of the results. Finally, we present our conclusions, implications and avenues for future research.

2. CONCEPTUAL BACKGROUND

2.1. International strategic decisions

The prominent role played by SMEs in the economic growth of countries constitutes one of the main factors leading recent literature to increasingly focus its attention on the SMEs' internationalization (Kuivalainen et al., 2012; Lee et al., 2012; Child and Hsieh, 2014; Colapinto et al., 2015; Francioni et al., 2015). Notably, in the international context, the SDMP represents one of the most relevant themes of strategy research analysed by contemporary studies (Dimitratos et al., 2011; Child and Hsieh, 2014).

From a conceptual perspective, Elbanna (2006, p. 2) defined the SDMP as a process "by which a strategic decision is made and implemented". According to Harrison (1996), the SDMP is composed by a series of specific functions logically connected, namely definition of managerial objectives; searching for alternatives; comparing and evaluating alternatives; the act of choice; implementing decisions; follow-up and control.

Further authors also analysed and corroborated the relationship between the SDMP, the quality of decisions, and performance (Harrison and Pelletier, 1995; Dean and Sharfman, 1996; Jocumsen, 2004; Nemkova et al., 2015).

Moreover, although several studies have examined the SDMP with specific reference to either small firms (Brouthers et al., 1998; Jocumsen, 2004; Gibcus et al., 2009; Huang, 2009) or internationalization activities (Aharoni et al., 2011; Nielsen and Nielsen, 2011), during the last years some contributions (Dimitratos, 2010; Dimitratos, et al., 2011; Musso and Francioni, 2013; Francioni et al., 2015; Francioni et al., 2017) have examined the SDMP in both perspectives. In particular, some of them (Musso and Francioni, 2013; Francioni et al., 2015; Francioni et al., 2017) focused their attention on small businesses by adapting the sequence of decision-making functions to the international context, and by examining some specific SDMP's phases, such as International Market Selection and Entry Mode Selection processes. However, even if different SDMP dimensions and decision maker's characteristics have been analysed, the role of intuition and overconfidence have received no attention. Similarly, although just one study (Dimitratos, 2010) has concentrated on the relationship between both SDMP dimensions and decision maker's characteristics and international

performance, no researches have investigated these relationships by specifically focusing on intuition and overconfidence.

2.2. Intuition and international performance

Several studies (Papadakis et al., 1998; Miller and Ireland, 2005; Woiceshyn, 2009; Dimitratos et al., 2011; Kawakami et al., 2012; Francioni et al., 2015) focused their attention on a set of dimensions characterizing the SDMP, such as rationality, formalization, hierarchical decentralization, intuition, lateral communication, and political behaviour.

In this study, intuition has been chosen to be analysed since although it can be considered as "the seed of any entrepreneurial action" (Dutta and Crossan 2005, p. 436), no attention has been dedicated to examining its role in the international SDMP context. This could be explained in the light of the non-conscious nature of intuition, that makes it difficult for entrepreneurs to trustworthily report their intuitive practices (Blume and Covin, 2011). However, despite its elusive features, intuition has conquered the attention of a growing number of researchers, especially in the last years (Elbanna and Naguib, 2009; Child and Hsieh, 2014; Nemkova et al., 2015). Notably, through the adoption of a systematic literature review, Baldacchino and colleagues (2015) identified 25 studies focused on the entrepreneurs' use of intuition, half of which have been published after 2008. This result allowed to corroborate the promising and emerging nature of this research area.

Conceptually, the intuition dimension has been investigated from several perspectives, such as psychology, philosophy, behavioural sciences, and management. Consequently, multiple definitions of intuition have emerged from literature (Epstein, 2010). Despite this proliferation of definitions, one of the most adopted conceptualizations of intuition is that proposed by Dane and Pratt (2007, p. 40), who described it as "affectively charged judgments that arise through rapid, non-conscious, and holistic associations".

This definition is consistent with the one proposed by Kahneman in his work (Kahneman, 2011). According to the author, human beings are intuitive thinkers, but their intuition is imperfect with the result that judgments and choices often deviate substantially from the predictions of normative statistical and economic models (Shleifer, 2012). Intuition can be associated with fast thinking, that is influenced by experiences, emotions, and memories, while slow thinking is influenced by facts, logic, and evidence (Kahneman, 2011). Fast judgments, based on intuition, can be overridden by slow judgments based on examination. This often happens when fast thinking fails to form a logical/acceptable conclusion or produces significant errors (biases).

By analysing the many existing conceptualizations of intuition, Baldacchino et al. (2015) detected four specific characteristics identifying it.

Notably, the first feature refers to the limited presence (or even absence) of conscious deliberation since, as claimed by Hogarth (2001, p. 14), "the essence of intuition or intuitive responses is that they are reached with little apparent effort, and typically without conscious awareness".

The holistic dimension represents the second characteristic since intuitive processes are associative, with respect to the analytical ones which are rule-based.

Thirdly, feelings and emotions assume a key role in intuitive practices, to such an extent that several authors clearly identified a link between intuition and affect (Sinclair and Ashkanasy, 2005; Betsch, 2008; Epstein, 2010; Sinclair, 2010).

Finally, the last feature characterizing the intuition dimension regards the leading task played by experience and expertise, which assume a vital role in intuitive processes (Simon, 1987; Epstein, 2010; Salas et al., 2010).

At once, the fragmentize nature of intuition has also led researchers to the necessity of categorizing its antecedents and outcomes (Mitchell et al., 2005).

In particular, for what concerns the antecedents, Baldacchino et al. (2015) identified two sets: (i) experience and expertise (Baron and Ensley, 2006; Gustafsson, 2006; Dew et al., 2009; Baldacchino, 2013); and (ii) the level of uncertainty associated with the task (Gustafsson, 2006; Baldacchino, 2013).

From the outcomes' perspective, literature has associated intuition to several results, such as creativity and innovation (Issack, 1978; Olson, 1985); the discerning of necessary entrepreneurial inputs (Conner, 1991; Mosakowski, 1998); the improvement of competitiveness (Behling and Eckel, 1991; Lank and Lank, 1995); opportunity identification and recognition (Crossan et al., 1999; Allinson et al., 2000; Dutta and Crossan, 2005; Ravasi and Turati, 2005; Dimov, 2007a; Dimov, 2007b; Vaghely and Julien, 2010; Baldacchino, 2013); improved organizational (Khatri and Ng, 2000; Covin et al., 2001) and financial performance (Sadler-Smith, 2004); a rapid or more efficient decision making

(Simon, 1987; Bennett, 1998; Burke and Miller, 1999; Allinson et al., 2000); job satisfaction (Brigham et al., 2007); growth intentions (Dutta and Thornhill, 2008), and self-efficacy (Kickul et al., 2009).

By focusing on the performance dimension, Sadler-Smith (2004) examined the effects of cognitive style on the performance of small businesses, thus identifying a significant positive relationship between intuitive decision style and financial and non-financial performance, which did not appear to be moderated by the environmental instability.

Conversely, Khatri and Ng (2000) found a positive relationship between intuition and organizational performance under unstable environmental conditions, and a negative one when the environment results stable, since intuition increases decision disturbance (Elbanna et al., 2013).

In addition, further studies suggested that the adoption of intuitive practices may favour idiosyncrasies in decision-making, thus leading to a decrease in performance (Liberman-Yaconi et al., 2010; Phillips et al., 2016).

Starting from these assumptions and considering that SMEs usually do not have enough resources to carry out systematic analyses during international market and entry mode decision processes, we argue that the more the decision-makers adopt intuitive processes, the lower the international performance will be. Thus:

H1: *The greater the decision-maker's intuition, the lower the international performance.*

2.3. Overconfidence

Several studies, with a focus on disciplines such as economics, finance, and management, detected the relevance of one particular individual bias, namely overconfidence, which represents a key feature of individual decisions in environments characterized by high levels of complexity and uncertainty (Camerer and Lovallo, 1999; Malmendier and Tate, 2005; Hayward et al., 2006; Li and Tang, 2010; Shipman and Mumford, 2011).

In particular, uncertainty can foster overconfidence since decision-makers misinterpret the risks they face or because it offers more space for discretion (Kahneman and Lovallo, 1993; Li and Tang, 2010; Park and Santos-Pinto, 2010). Generally, decision-makers are overconfident when they strongly believe that their information/estimates are more accurate with respect to reality, or that they own greater skills and capabilities than average (Moore and Healy, 2008).

Conceptually, overconfidence has been described in several ways. Notably, one of the first definition has been proposed by Busenitz and Barney (1997), who conceptualized it as the act of overestimating the probability of being right.

Subsequently, Carter et al. (2007) defined overconfidence as the tendency of overestimating the probability of success.

In an attempt to synthetize the multiple definitions proposed by the literature, Moore and Healy (2008) defined overconfidence as an umbrella composed by three different psychological conditions, namely overprecision, overplacement, and overestimation (Moore and Healy, 2008). In detail, overprecision is related to the "systematic underestimation of the variance of a relevant measure affecting

performance (demand, costs, etc.)" (Ancarani et al., 2016, p. 172). Conversely, overplacement occurs when decision-makers consider themselves to be better than others (Alicke and Govorun, 2005; Larrick et al., 2007; Moore and Healy, 2008). Overestimation takes place when decision-makers show unreasonable optimism about their performance or probabilities of success (Griffin and Tversky, 1992), and ability to control (Presson and Benassi, 1996; Thompson et al., 1998).

According to Kahneman (2011), overconfidence is an undue confidence in what the mind believes it knows. He suggests that people often overestimate how much they understand about the world and underestimate the role of chance in particular. Overconfidence is almost always accompanied by the so-called "self-attribution bias" which, according to Shefrin (2002, p. 101), "occurs when people attribute successful outcomes to their own skill but blame unsuccessful outcomes on bad luck". This is related to the excessive certainty of hindsight, when an event appears to be understood after it has occurred. Moreover, overconfidence reinforces the tendency to give more relevance to new data confirming prior beliefs, than those against them (confirmation bias).

Notwithstanding this proliferation of definitions and the importance of analysing the effects of overconfidence in the decision-making process, a surprising paucity of empirical studies emerges (Ancanari et al., 2016).

Therefore, starting from these assumptions, the aim of this study is to empirically enrich the analysis of the overconfidence construct by examining its influence on both intuition and international performance.

2.3.1 Overconfidence and performance

To date, the majority of studies focused on the overconfidence construct have examined its negative effects. In particular, literature has corroborated how overconfidence can lead to several negative outcomes, such as a less attentive management of inventories; more costs; poor performances (Ancanari et al., 2016); poor judgment and decision making of managers (Aspinwall et al., 2005; Åstebro et al., 2007; Shipman and Mumford, 2011); over-trading behaviour in the stock market (Odean, 1998); use of more long-term debt (Ben-David et al., 2007); imprecision of forecasts (Hribar and Yang, 2011); excessive risk taking (Simon and Houghton, 2003; Li and Tang, 2010); risk underestimation; inappropriate procedures in the selection, evaluation and monitoring of external sources (Ren and Croson, 2013); corporate investment distortions (Chen et al., 2014); excessive business entry (Camerer and Lovallo, 1999).

Conversely, very few researches have attempted to examine the potentially positive effects of overconfidence. Notably, there may be some contexts in which this decision-makers' feature could be adaptive. For instance, when entrepreneurs operate in a context characterized by high risks and obstacles, the overconfident feeling could help them in order to move on without surrendering (Fast et al., 2012).

Moreover, while Trevelyan (2008) identified the potentially positive effect of overconfidence and optimism in the phase of launching a venture, Kotlyar and Karakowsky (2007) claimed that overconfidence can lead to better decision-making processes in the case of negatively-framed situations. More in detail, the

main reasons leading to this result are at least three. First, overconfidence could counterbalance the negative effects of perceived threats on decision making. Indeed, given that threats on decision making are mediated by emotional states of stress and anxiety, overconfidence can promptly offer managers a stronger sense of control, thus reducing these feelings and consequently improving their skills to engage in high quality decision-making processes (Staw et al., 1981).

Second, overconfidence can distract from focusing on upcoming losses, thus allowing to concentrate on strategies for preventing potential threats.

Third, overconfidence can enhance motivations to engage in more systematic decision-making processes by improving "the expectancy that effort will result in a desired outcome" (Kotlyar and Karakowsky, 2007, p. 970).

Moreover, by focusing on the decision-maker's narcissism, that is strictly connected to overconfidence, Oesterle et al. (2016) found a positive relationship between this personality characteristic and the growth of a firm's degree of internationalization.

Overall, despite its importance in the decision-making process, to the best of our knowledge, no studies have examined the role of overconfidence during the international market selection and entry mode decision processes.

However, starting from the assumption that overconfidence can result in better decision-making processes (Kotlyar and Karakowsky, 2007), and that superior decision-making processes can lead to positive outcomes (Hameed et al., 2017), it could be hypothesized that overconfidence can also have a positive effect on international performance. Therefore, the second hypothesis is postulated:

H2: *The higher the overconfidence, the better the international performance*.

2.3.2 Overconfidence and intuition

Given that the analysis of the intuitive processes' antecedents is still in its infancy, thus underlying the necessity to examine further possible predictors, in this study we focused our attention on overconfidence as a possible antecedent of intuition.

In particular, as stated above, the adoption of intuitive practices requires a feeling of certitude (Shirley and Langan-Fox, 1996) and the confidence that intuitions are correct, especially in the absence of rational analyses (Dane and Pratt 2007). This suggests a direct relationship between overconfidence and intuition. Therefore, if intuition is supposed to have a negative effect on performance, similarly overconfidence may contribute to this kind of effect.

In this respect, it could be hypothesized that the higher the decision-maker's sense of confidence, the higher the adoption of intuitive practices. Thus, the third hypothesis is formulated:

H3: *The higher the overconfidence, the higher the level of intuition.*

Nevertheless, the three proposed hypotheses appear to be contradictory: overconfidence and intuition are positively correlated, but the former has a positive effect on international performance, and the latter a negative one.

In our research, if H3 is rejected, while H1 and H2 are confirmed by data, the negative relationship between overconfidence and intuition will require to be better investigated. A hypothesis could be that intuition is a mediator between overconfidence and international performance. For this reason, we will discuss it in the next paragraph.

2.3.3 Intuition as a mediator

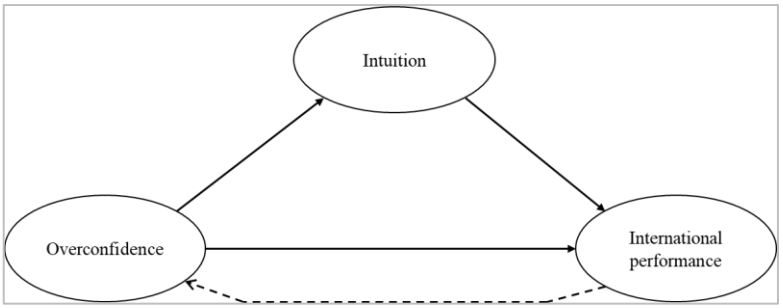
As previously highlighted, overconfidence directly influences international performance (Oesterle et al. 2016). However, overconfidence could also have an indirect influence on international performance through its effect on intuition. This assumption arises from previous studies demonstrating that intuition could be an antecedent of international performance (Liberman-Yaconi et al., 2010; Elbanna et al., 2013; Phillips et al., 2016), but it could also potentially be an outcome of overconfidence (Tiedens and Linton, 2001; Dane and Pratt, 2007). Therefore, an indirect influence of overconfidence on international performance can be hypothesized since this direct relationship could be mediated by intuition. This could mean that being overconfident, per se, is not a sufficient condition for achieving higher international performance, since the adoption of intuition during international market and entry mode decision processes have influence on performances.

Consequently, the last research's hypothesis is posited as follows:

H4: *Decision-making intuition will mediate the direct effects of decision-maker's overconfidence upon international performance such that the significance is reduced when the indirect effects of overconfidence through decision-making intuition are included in a total effects model.*

The following research model is proposed (Figure 1).

Figure 1. Research model



3. RESEARCH METHOD

3.1. Data collection

For testing our hypotheses, the data have been collected from a sample of Italian mechanical SMEs. The choice of selecting a specific industry allowed to moderate firms' heterogeneity depending on structures/processes which are sector-related. In addition, the Italian mechanical sector has been selected since it is characterized by a relevant presence of SMEs.

For what concerns the firms' identification, the AIDA - Bureau van Dijk database was used. From a total of 25,037 firms, we selected those having the following features: (i) headquarters in Italy; (ii) no more than 250 employees and an annual turnover below € 50 million or a balance sheet total below € 43 million, according to the European Union's SMEs definition (Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs) (2017); (iii) manufacturing mechanical products; (iv) with available contact information (i.e., e-mail address and telephone number).

Through the adoption of these criteria, a total of 3,678 firms have been identified, which have been contacted by e-mail with the final aim of organizing a questionnaire-supported telephone interview with the main decision-maker for international strategic activities.

A semi-structured questionnaire has been then submitted to the selected sample of firms. Notably, it has been divided into four sections: structural features and management; international strategic activities; dimensions of the SDMP; and decision-maker characteristics.

Before the interview, the questionnaire has been preventively sent in order to give the interviewees the opportunity to read the questionnaire content before the telephone call.

Overall, a total of 165 decision-makers responded and completed the interview. Finally, in order to verify the representativeness of our sample, a comparison with the reference population has been realized, which showed a substantial correspondence.

3.2. Construct measurement

About intuition (Cronbach's $\alpha = 0.613$), we examined the element with reference to the extent of intuition during two specific international strategic decisions, such as foreign market selection and entry mode choice.

As regards the measurement, we used a reduced and adapted version of Khatri and Ng (2000) five-point Likert-scale, where questions asked about how decision-maker (during these two key process strategic decisions) relies on his/her own personal judgment, and how during these decisions focuses the attention on an intuitive and instinctive rather than analytical decision-making process.

About overconfidence (Cronbach's $\alpha = 0.755$), we opted for a set of indirect indicators based on some features that are typical of overconfident people. Given that overconfidence reveals itself in the form of "self-attribution bias" (Shefrin, 2002), we asked interviewees if they think that negative events of their lives were mostly caused by bad luck. A positive answer was what we expected from an overconfident person. Moreover, it is also well known that high self-esteem is one of the main causes of overconfidence (Kramer et al. 1993), therefore we also asked decision makers if they consider themselves dominant and equipped with leadership skills. One more signal of overconfidence is the underestimation of the risks associated to the adopted plans (Kahneman and Lovallo, 1993). For this reason, we asked respondents if they are sure that their plans are going to work when they adopt them. In other words, even if a direct measure of overconfidence is hardly obtainable from a survey, we tried to detect it from its most typical

symptoms. By combining the answers to these questions, we obtained a picture of how overconfident the decision maker was.

With regard to international performance, (Cronbach's $\alpha = 0.785$), we focused the attention on the subjective performance (Dimitratos et al., 2011) by asking interviewees to evaluate the degree of their perceived performance in international markets compared with that of their direct competitors, in terms of sales level, market share, return on investment, profitability, and overall satisfaction regarding specific objectives set. Notably, we decided to adopt subjective measures of performance, instead of objective ones, for two main reasons. First, subjective measures allow to better capture the multidimensional nature of performance (Dimitratos et al., 2011; Thanos et al., 2017; Deligianni et al., 2016). Second, in the SME context, the access to objective financial data, related to the international performance, is particularly difficult since few firms report their international results separately with respect to the overall performance (Zahra and Garvis, 2000). Therefore, subjective measures tend to be more suitable (Morgan and Strong, 2003; Dimitratos et al., 2011). Finally, previous studies found that subjective data are directly correlated to objective ones (Venkatraman and Ramanujam, 1987).

In order to remove the influence of other variables on the international SDMP, we adopted different control variables. Firstly, we decided to control in terms of firm size (number of employees), and firm age (years), which could indicate variations in both environmental and organizational characteristics experienced by firms (Wiklund and Shepherd, 2005; Oliveira et al., 2018). Secondly, we controlled for decision-makers' age and international experience (years), which

could imply differences in their risk attitudes and orientations (Oliveira et al., 2018). Thirdly, for controlling international complexity, we used the environmental hostility variable, for which we adopted the scale proposed by Francioni et al., (2015), which were inspired by the Khandwalla's (1977) scale.

3.3 Examination of potential biases

Based on the number of employees and revenue, a comparison between the responding and non-responding firms has been made, and no significant differences emerged. This finding permitted us to confirm that non-response bias should not be an issue.

Furthermore, different tactics (Podsakoff et al., 2003) have been adopted in order to prevent potential biases. Notably, in order to minimize distortion and memory failure problems, it has been asked to the interviewees to focus on recent international strategic decisions (such as those related to international market and entry mode selection) (Mintzberg et al., 1976), thus interviewing only the major participants in the decisions.

Second, respondents have been completely assured about (i) the responses anonymity and confidentiality and (ii) the fact that each item had no "right" or "wrong" answer (Miller, 2008), thus ensuring that they would not respond in a "socially desirable" manner (Podsakoff et al., 2003; Elbanna et al., 2014).

Finally, the Harman's single-factor test has been performed. A principal-components factor analysis on the items identified 7 factors with eigenvalues greater than 1.0. These factors together accounted for 68.1 per cent of the total

variance. The first (largest) factor did not account for the majority of the variance (19.1 per cent). Thus, our results suggest that common method bias is not of great concern in our study.

4. RESULTS AND DISCUSSION

4.1 Results

Table 1 provides the means, standard deviations, and correlations of the variables evaluated in this study. In particular, even if some strong correlations patterns between the variables emerged, no correlation coefficients were higher than 0.50, except the relationship between the decision-maker's years of international experience and age.

Table 1

In addition, collinearity diagnostics have been performed in order to verify possible multicollinearity problems, such as tolerance and variance inflation factor (VIF). In particular, the tolerance values for the regression variables were significantly higher than 0.10, while VIF values were between 1 and 2, thus giving a further motivation for eliminating the multicollinearity possibility (Field, 2005).

4.2 Discussion of results

Table 2 shows the results of the hierarchical regression analyses.

Table 2

During the first step, we inserted the control variables (Model 1a). We didn't find any relationship except between firm size and international performance (β=0.166, $p < 0.05$), which is consistent with the ability of larger forms to involve greater amount of resources (human, financial, organizational) for a more effective approach to the development of foreign markets.

In strong support of our Hypothesis 1, Model 1c of Table 2 indicates that intuition is negatively related to international performance (H1: β=-0.193, $p < 0.05$). Moreover, our hypothesis 2, which is related to overconfidence and international performance (Model 1b), was verified, since a direct and positive relationship was found between overconfidence and international performance (H2: β=0.247, $p < 0.01$). In addition, results from Model 2a to Model 2b display the relationship between overconfidence and intuition. More in detail, Model 2b shows a negative relationship with intuition, thus disconfirming our hypothesis (H3: β=-0.198, $p < 0.05$).

Lastly, for testing the possible role of mediator of intuition in the relationships between decision-maker overconfidence and international performance, we followed the Baron and Kenny's (1986) three-step procedure. In particular, for testing the mediation there must be three pre-conditions. According to the first

condition, the independent variable must influence the mediator, and in our case overconfidence affects intuition (model 2b). Additionally, the second condition is related to the fact that the independent variable must influence the dependent variable, and Table 2 (Model 1b) shows that overconfidence affects international performance. Finally, according to the third, the mediator must influence the dependent variable, and in our case, intuition affects international performance (model 1c).

After confirming these three conditions, Baron and Kenny (1986) stated that "*perfect mediation holds if the independent variable has no effect when the mediator is controlled*". Therefore, in the median test for international performance, the effect of overconfidence is reduced when intuition is introduced (Model 1d). This result permitted us to support our hypothesis 4 according to which intuition mediates the relationship between overconfidence and international performance.

5. CONCLUSIONS AND LIMITATIONS

This study allowed to combine the analysis of SDMP with that of international strategy, by specifically focusing on the SMEs context. In particular, the paper enriched the extant literature by examining the roles of overconfidence and intuition in the international strategic decision-making process.

The first result, concerning the relationship between intuition and international performance (H1), allowed to corroborate how a more intuitive SDMP leads to poorer international performance, thus confirming previous studies (Liberman-

Yaconi et al., 2010; Phillips et al., 2016). It can be deduced that the use of decisional heuristics and fast thinking (Kahneman, 2011) are hardly compatible with the requirements of complex decisions, such as those related to internationalization, that require well established and rational decisional methods. Consequently, decisions can be based on a non-complete evaluation of the key factors influencing international strategies, thus driving to poorer performances.

The second finding regards the positive relationship between overconfidence and international performance, thus allowing to confirm H2. Being overconfident does not necessarily mean that decision makers are naïve or subject to any kind of cognitive bias. The decisions about internationalization are risky and sometimes good opportunities are missed because of an excessive fear of a bad result (loss aversion). An overconfident decision maker is more prone to better performances, being less frightened to adopt a risky decision with a positive expected result.

The most interesting result, in contrast with previous studies (Tiedens and Linton, 2001; Dane and Pratt, 2007) and our hypothesis (H3), is that a higher overconfidence attitude brings decision-maker to follow a less intuitive approach during the international market and entry mode decision making processes. This apparently puzzling result can be interpreted in the light that more rational decisional procedures bring in general to better performances, feeding the self-esteem of overconfident decision makers, convincing them to limit the adoption of intuitive decisions. Indeed, overconfidence is a characteristic of the decision maker, who processes information and factors in terms of self-representation, by

identifying them with his/her personality traits, emotional states, and affective states. Therefore, within overconfidence, decisions are driven by a search for confirmation of the decision-maker's self-representation.

On the other hand, intuition provides a fast elaboration of cognitive elements related to the decision that must be taken, independently from the characters of the decision maker.

Finally, the study offers an element of novelty by analysing the possible role of intuition as a mediator in the relationship between overconfidence and international performance. In particular, the result partially supports our hypothesis (H4) by demonstrating the relevance of intuition. Of course, overconfidence and intuition do not act separately. In this sense, it is true that intuition mediates between overconfidence and the decision to be taken, calming emotional drivers thanks to the rapid processing of cognitive data. Overconfidence provides the emotional thrust, and intuition contextualizes it with a quick processing of external information, making the overall process flexible and not easily codifiable.

Anyhow, the way in which intuition can affect international performance should be deepened. Therefore, additional analysis of this relationship represents a promising future research area.

Implications for management are relevant, firstly by providing an insight on the influence of a key character of the decision maker, namely overconfidence, and the influence of intuition as a feature of the decision-making methodology. The way in which they influence each other is of great importance to be considered, providing precious indications when facing complex strategic decisions, like

those related to international market development are. Depending on the objective and perceived environmental hostility of foreign markets, the balance between overconfidence and intuition may be managed by decision makers, being aware of their direct and indirect influence on performance.

Moreover, having clearer these dynamics, it is possible to support a better attribution of tasks to managers, depending on their personal characters as regards their level of confidence and self-esteem, and their attitude to adopt intuitive or rational decision-making processes.

This study presents some limitations. The first one is connected to the adopted sample, composed by small firms belonging to the Italian mechanical sector. Therefore, the results are specifically related to this sector and country. For this reason, future research could analyse other industries and/or geographical areas.

A second limitation concerns the selected SDMP dimension. In particular, even if intuition represents an under-investigated concept requiring more attention (Baldacchino et al., 2015), future research could investigate further dimensions in combination with it, such as formalization (Kawakami et al., 2012), hierarchical decentralization, and lateral communication (Dimitratos et al., 2011).

Finally, future studies could also focus on additional decision-maker's features, thus combining the analysis of overconfidence with other personality characteristics (e.g., creativity, associative predisposition).

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Table 1

Mean, standard deviations, collinearity statistics and correlation.

Variable	1	2	3	4	5	6	7	8
1. International performance	1							
2. Overconfidence	.252**	1						
3. Environment hostility	.012	.170*	1					
4.Firm age	.004	-.136	-.125	1				
5.Firm size	.152	.029	-.013	.355**	1			
6.Decision-maker-experience	.127	-.022	-.039	.189*	.072	1		
7. Decision-maker - age	.020	-.144	-.146	.035	-.072	.570**	1	
8. Intuition	-.199*	-.223*	-.256**	-.051	-.163*	.036	.036	1

*p<0.05; **p<0.01.

Table 2

Results of regression analysis

	Model 1a	Model 1b	Model 1c	Model 1d	Model 2a	Model 2b
		International performance			**Intuition**	
Control variable						
ENV_HOST	0.001 (0.993)	-0.031 (0.687)	-0.047 (0.561)	-0.065 (0.410)	0.153 (0.052)	0.101 (0.205)
FIRM_AGE	-0.084 (0.324)	-0.045 (0.590)	-0.090 (0.285)	-0.054 (0.517)	-0.148 (0.082)	-0.155 (0.065)
FIRM SIZE	**0.166* (0.049)**	0.150 (0.068)	0.138 (0.099)	0.129(0.115)	0.083 (0.318)	0.052 (0.530)
INT_EXP_DEC	0.168 (0.086)	0.141 (0.139)	0.163 (0.090)	0.140 (0.138)	-0.148 (0.082)	-0.155 (0.065)
AGE_DEC	-0.061 (0.530)	-0.017 (0.857)	-0.038 (0.690)	-0.004 (0.965)	0.153 (0.052)	0.101 (0.205)
Independent variable						
OVERCONFIDENCE		**0.247**(0.002)**		**0.220**(0.006)**		**-0.198*(0.014)**
Mediating variables						
INTUITION			**-0.193*(0.018)**	0.153(0.059)		
R2	0.045	0.102	0.079	0.122	0.105	0.134
Adj. R2	0.015	0.068	0.044	0.083	0.077	0.101
Model F	1.512	3.000	2.253	3.129	3.722	0.029
ΔR2	0.045	0.057	0.033	3.609	0.105	5.352
ΔF	1.512	10.013	5.735	3.609	3.722	4.079

Notes: Values displayed in the table are the standardized regression coefficient. n=202. *p<0.05; **p<0.01; ***p<0.001