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Managerial Overconfidence

Abstract This chapter presents an overview of the overconfidence construct. Stemming from the behavioral finance literature, the overview discusses overconfidence as a result of several cognitive biases. In particular, there is a detailed discussion on the self-serving bias, the valence effect, the wishful thinking bias, and the anchoring effect. These biases have a detrimental effect in business and financial decisions. The chapter then presents the Big Five Model, as a model of interpretation for human personality. This model encompasses extroversion, friendliness, conscientiousness, emotional stability, and open-mindedness. All these elements are salient when determining overconfidence. After a discussion on the implications of an overconfident attitude in the stock market, there is a clear discussion on the behavior of the overconfident manager. The chapter concludes with the impact of overconfidence for small and medium enterprises. The ideas developed here are a base for the in-depth contextual analysis of the subsequent chapters.

Keywords Overconfidence · Cognitive bias · Behavioral finance

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1.1 Behavioral Finance and Cognitive *Bias*

The term "behavioral finance" refers to an area of business which sets aside the financial aspects and embraces the cognitive psychology aspects. Together with Vernon Smith and Hersh Shefrin, Daniel Kahneman, the Israelian psychologist who won the 2002 Economics Nobel prize, explained why the branch of behavioral finance shapes business decisions. The findings of Kahneman informed the scientific community in the area of management decision-making by implementing notions of cognitive psychology to economical decisions.

The main areas of cognitive finance are the following:

1. The framing: The way a problem or a decision to take is presented and how different ways of presenting it have an impact on the subsequent actions of the decision maker;
2. Market Inefficiency: Contrary to rational (myopic investment evaluation, distorted decisional processes, biased returns, etc.);
3. Heuristics: Simple proposed rules which explain the process of how people make judgment, take decisions, and face complex problems or incomplete information. Through heuristics processes a problem is decomposed in its constituent elements so that decisions that are not completely rational might be considered fully satisfying.

Continuing the last point, we can say that if heuristics goes well in the daily life and in financial ambit through simplification and intuition, they can bring to mistakes and cognitive prejudices. This may even lead to the much costly, so-called *bias*. By the term *bias* it is indicated, in fact, a predisposition to a sort of cognitive mistake. Three examples are as follows:

- Excessive optimism: People start to overestimate the frequency of pro-results and to underestimate that one of against-results;
- Illusion of control: People begin to overvalue the grade of control they have about the results, forgetting that the outcome of a decision is a mix of fortune and personal abilities;

- *Overconfidence*: People excessively trust in their resources and overestimate them.

And it is about this last concept, *overconfidence*, that this work will be based. First of all, it is important to emphasize that *overconfidence* is a cognitive *bias's* definition, as can be considered a distortion in the perception reality. In fact, people show a certain tendency to overestimate the trustworthiness and the precision of acquired information and they strain to overestimate their ability to elaborate them.

Overconfidence can be decomposed in different cognitive *biases*, such as:

- *Self-serving bias*: People ascribe their success to interior or personal factors, but they ascribe their failures to external or situational factors. For example, if target sales have been reached, the seller has developed his mission in a good way. Instead, if they are not reached, the fault is the bad course of the economy. There is the tendency to emphasize own success and to minimize own failures. Having *bias self-serving* primes the *overconfidence*.
- *Valence effect*: The tendency to overestimate the probability to gain positive results instead of negative ones. Differently from *bias self-serving*, the manager sensitive to the *valence effect* simply believes in the high probability of the success compared to the failures, without connecting necessarily the positive results to his own management.
- *Wishful thinking*: People tend to attribute importance to desirable aspects rather than realistic aspects. In this way, then, there is a risk of giving preference to decisions that probably won't produce any benefit with, on the contrary, the possibility to produce a contradictory result compared to the expectations.
- *Anchoring*: People tend to rely on irrelevant or not completely known information. Since all the available information has not been considered, it is possible to reach wrong decisions. This is especially dire when very important information is omitted. Under some points of view, *anchoring* and *overconfidence* tend to prevail once over the other. In fact, some managers omit part of information.

1.2 The Approach of Big Five Model

In psychology, there are five factors that are used to describe the human personality. The theory at the base of these factors is called *Big Five Model*. There are two starting points for this theory. The first point identifies the dimensions which characterize the individual differences through statistical factorial analyses (factorial approach). The second point considers the vocabulary of the common language similar to a storage of elements which are able to describe the individual differences (theory of linguistic settling). Using factorial analysis, examination of relationships between the different personality descriptors has repeatedly highlighted the emergence of five great factors:

- Extroversion: The trait which reflects the wish to have power and influence on the others. An outgoing person expresses sympathy, stimulating feelings such as the enthusiasm and the euphoria. But when, in the same group there are two people with the same extroversion levels, there is the risk of a conflict;
- Friendliness: The trait that reflects the strong desire to be accepted to the others. Friendly people focus on getting along rather than being in the lead. Therefore, this factor is not suitable for managers who must reorganize the proper holding, but it is appropriate for positions in service enterprises;
- Conscientiousness: The trait that more influences the work's performance because of its effects on the motivation and on the stress. In fact, conscientious people tend to give priority to the effort for the results, which is reflected in the desire to reach the work's targets as a mean to express own personality;
- Emotional stability: Emotionally people think they do determine the events with their behavior;
- Open-mindedness: The trait which is more suitable for work which require high levels of creativity and is definable as capacities to create new and useful ideas and solutions.

Various researchers have demonstrated the significance of *Big Five Model* for its ability to identify personality's features in the

organizational environment context and finding a connection between these features and overconfidence.

Pallier et al. (2002) had highlighted how the lack of an association between *overconfidence* and extroversion would reflect a lack of power.

Schaefer et al. (2004) defined overconfidence as the difference between *confidence* and accuracy by pointing out that the extroversion of a subject is positively associated to the *overconfidence*. Since extroversion is connected to an optimistic attitude, it is reasonable to assume that the latter increases even more *overconfidence*. In addition, friendliness is negatively associated to *overconfidence*, given that it is more linked more to accuracy.

- Extroversion and conscientiousness are significantly connected with the open-mindedness and the *confidence*.
- Open-mindedness is positively connected to the confidence, but even with accuracy and not always to *overconfidence*.

The intrinsic variance to the *Big Five*'s factors should lead to a wrong connection between *overconfidence* and the five elements of the model. To solve this problem, Schaefer et al. (2004) utilized a series of partial correlations, have reached a similar result, examining the connection between every *Big Five*' s factor and verifying at the same time the influence of the other elements. They conclude that just the extroversion, but no *accuracy*, has a significant positive correlation with the *overconfidence*.

1.3 The Behavioral Business Finance

Relatively to business implications, behavioral finance plays a very important role. Business finance has the primary target to improve the company's value ensuring that the return on capital is higher than the cost of capital, without exposing to undue risks. A complete explanation about decisional models requires, however, a knowledge of the managers' convictions and preferences, because they are on the head of the company.

The study of business finance assumes that the company's managers have a full rationality, which is that, after analyzing and valuing information at their disposal, they act in such a way to maximize the business usefulness. Not always, though, this hypothesis is consistent with the reality: it is more plausible that people act with a limited rationality, because they often are not able to solve the function of maximization.

Behavioral business finance, based on the assumption that company managers are not fully rational, studies the effects that some psychological phenomenon can lead to any levels of prejudices and distortions in the business decision judgement.

According to the traditional theory, based on the essential assumption that all the actors of market act in a rational way, the investments undertaken by managers which have been revealed damaging for the company, are linked to the so-called conflict of interests. This is the situation that happens when a high decisional responsibility is handed by a subject who has personal or professional interests in conflict with the impartiality required by that responsibility. We can consider, for example, the establishment of corporate empires through numerous acquisitions of other corporates or the use of business assets for personal purposes. As claimed by Jensen and Meckling (1976), the higher the percentage of risk capital held by a corporate manager is, the lesser their noise behaviors for the company will be. So, a solution might be the utilization of incentives based on a variable remuneration based on the results gained or the utilization of actions assigned free of charge, with the intention of involving mostly the manager.

In 1986, if the company's management once sustained the necessary costs to complete the projects tends to dissipate the remaining cash flow through unproductive acquisitions, Jensen supports further his thesis. Less cautious behavior in companies with high available cash flows are expected. The debt, then, represents a benefit, since it limits the top management to dissipate their resources, forcing them to make fixed payments for the interests, that reduce the cash flow and limit their own interests. It is evident that, increasing the exposure of managers to the company's capital can limit the emerging of personal interests and opportunistic behavior.

Differently from the traditional theory, the behavioral business finance is not just interested in investments made because of conflict of interests, but also in those ones caused by behavioral mistakes and psychological traps in which the managers drop. In particular, these last ones, stemming from excessive optimism and adopting an *overconfidence* attitude, often lead to assuming that companies are undervalue and encourage overinvestments. Although *overconfidence* is often connected to excessive optimism, it should be noted that these two aspects are not the same thing. “Excessive optimism” can be seen as the tendency of managers to overestimate the frequency of the results to their favor and underestimate the ones against them: for this reason, a lot of people tend to believe that they are going to face probably more positive future events that negatives ones. *Overconfidence*, instead, can be associated to managers’ trust in their own abilities. This leads them to get overconfident, since they think that their point of view is the only one correct. A manager may be pessimist, but, however, confident. Furthermore, even if a manager is not confident at the beginning of his career, he (or she) might become over time, given that there is the tendency to take more credits and responsibilities for a project’s success rather than for a failure.

There are two macro factors that explain why managers tend to be *overconfident*.

1. The “above average” effect. When a manager must face a complex problem, the perception of his own competence is stimulated, and the grade of *overconfidence* showed is proportional to his conviction to be above average. Because the manager expects his behavior produces a success, he associates the results to his actions in the event of a success, and to external events in the event of a flop: if his decision is winning, he is predisposed to increase further the confidence in his own abilities. Camerer and Lovallo (1999) show that this effect is especially strong in subjects with higher abilities, because of the insufficient consistence of a comparable reference group. As claimed by Gervais (2010), very often who is optimistic by nature and place trust in own abilities, is more inclined to apply for a kind of managerial task.

2. The control perception. *Overconfident* managers believe that a project started by them is more verifiable and then, by their supervision, is less risky than how it is in reality. Sometimes, the increase in control perception leads to an excessive optimism and it can even lead to choices that involve higher business costs.

Furthermore, it is necessary to take into consideration that in most companies the most important business decisions are not much frequent and that the timeframe that elapses between the decision and the visible result might also be very long and often be superior to a mandate of a single manager. Consequently, it is not always easy learning by own mistakes, especially, if the manager tends to ignore the feedbacks resulting from previous decisions. This makes *overconfidence* persistent at company level.

As previously mentioned, the first behavior adopted by an *overconfident* manager is to overestimate the cash flows and to make investments that are above average. Different studies have shown that companies directed by *overconfident* managers finance own investments mostly through the cash flows and the internal resources. Furthermore, the companies that have to rely less on external investments and that have a greater availability of liquidity are those ones that make greater investments compared to the other ones. As already highlighted by the classic theory, though, just this is not enough to justify an *overconfident* attitude, because it could be interpreted as a behavior guided by conflicts of interests, in which the managers invest hoping to have personal interests. Another possible explanation is information asymmetry, in which, for example, the manager does not use the external funding to change the number of company's shares, preserving in that way also investors.

When a manager overestimates the cash flows, he often incurs in a series of other issues, such as the underestimation of the risk connected to a project and the incorrect assessment of the metrics of the project. Usually, one of the most important use of the metrics is that to measure the advancement of a project: a wrong assessment about the time necessary to the completion of a project. In fact, not only decreases automatically the value of the same project, but it also increases the management costs connected to it, such as the administration costs, the maintenance of facilities and instruments available, personnel costs, etc.

The key role of a manager is, definitively, to estimate in a correct way some unknown variables—such as the question, the cash flows, etc.—and to use these estimates as a starting point to outline the company policies. *Overconfidence* makes this task more difficult than it actually is, because the manager overestimates his own ability to predict the future or under value the precarity of casual events. Ben-David et al. (2007) have measured *overconfidence* of managers relying on distortion of the assessment about their self-confidence. Every three months, from March 2001 to June 2007, have interviewed hundreds of managers in charge of the financial asset management of their company, asking them to predict the stock market returns in a year and ten years from the interview and treating these data as they were the 10° and the 90° percentile of the distribution of stock returns. Their study discusses on *overconfident* manager versus an optimistic manager: the first one overestimates the average of the company cash flows, while the second one either undervalues the instability of the next company cash flows or he overestimates the next cash flows. The authors document that the waited stock market returns and the pauses of confidence depend on the more recent returns and on the company returns. It is interesting to note that people with inferior levels of confidence have been shown more sensible to past market returns than the ones with superior levels of confidence: consequently, more *confident* managers follow the high market returns periods and less *confident* managers follow the low market returns periods. Furthermore, the managers' *confidence* is a personal persistent characteristic that increases in a proportional way depending on the accuracy in forecasting.

Managers' *overconfidence* is connected to several company decisions. A list of the more frequent follows.

First, managers decide how many resources to invest: for an overconfident manager, the investment projects seem safer than they actually are, and he is going to value them with a low discount rate. Therefore, unlike the investment projects assessed by a less confident manager, a large number of investments is going to have a positive net present value and the overconfident manager is going to invest more.

Second, a manager decides in respect of the structure of his company's capital. An *overconfident* manager believes that investors underestimate

the value of the project, and consequently they don't value properly the company's shares. To remedy this, he or she will try to maximize the current profit of the investors extremizing market prices received: in that way, he must identify the "right" price of the share (that is, the price the investors are willing to pay to get the share), working backwards to determinate the effective company costs. So, applying the price based on the value, it can be shown a clear difference between the value perceived by the investor and that one of the received share.

Third, an *overconfident* manager is less likely to pay dividends to investors, given that he prefers to use the internal resources to finance investments.

In sum, it seems that an overconfident attitude doesn't give any benefit at company level. Team work is one of the key points of the company activity. Hiring an *overconfident* manager rather than a rational one, for example, can help to solve out the *free-riding* problem, when in a work group, a member decides to not contribute because he believes the group can produce irrespective of his or her work. To explain better the solution for this kind of problems, suppose that a project is assigned to two managers, independently from each other (the first one has no information about the other's project and vice versa). Obviously, the better results the project will obtain, the higher monetary incentives will be given to them: this produces a sort of competition between the two managers and, in turn, it increases each other their effort to gain the best possible results, making the company more productive.

Gervais and Goldstein (2007) explains how the marginal productivity of a work group member is increased thanks to the other group members' efforts. Given that each effort of the member is not observed by the others, the general performance of the group might be suffering from a *free-riding* problem and from a lack of coordination among the members. In a similar contest, an *overconfident* member who overestimates his marginal productivity will work harder, increasing consequently the marginal productivity of the remaining group members and those, in turn, would tend to work more. Consequently, not only the whole group's performance will be increased, but it will be created, at individual level, a Paretian improvement, according to whom the reallocation of the resources improves the condition of a least member of the team

without getting worse the one of others, thus having an improvement of the system's overall efficiency. Although the *overconfident* member works hard, he will also benefit from the positive results gained by the other members of the group.

It is interesting that, even in the long run, the *overconfident* member attributes the teamwork success to his own ability, and not to the contributions that the other members of the group have produced during the project.

Since the presence of an overconfident member within a group leads the other members to work more, it is necessary that the company motivates mainly the first one with respect to the others, with fees or higher incentives. Obviously, that doesn't mean that not *overconfident* managers do not need to have any incentive. If not, they will not be willing to collaborate.

Another interesting aspect connected to *overconfidence* has been studied by Englmaier (2004), who analyzed, with two different models, the strategic reasons that lead a company to hire an *overconfident* manager. Although in different contexts, the company wants to delegate certain tasks to an *overconfident* manager. In fact, in a competitive market, hiring a manager with these characteristics, might reflect the will to go against the flow of other competing companies, creating a competitive gap. An *overconfiden*t manager, for example, expects that a new product placed on the market by the company he works for, will bring more profits than its real value. Furthermore, given that an *overconfident* manager doesn't have risk aversion, the investments undertaken will be surely less cautious than those ones undertaken by a "normal" manager, creating a more dynamic company policy. In this regard, looking for a correct balance, a bit of *overconfidence* can be good: the important thing is to not exceed on over—investments.

1.4 The Beginning of *Overconfidence*: The Stock Markets

Overconfidence has been defined as the more pervasive and potentially catastrophic distortion of whom human beings are victims. It is on the basis of many lawsuits, strikes, and stock market falls.

If we consider the investors' behavior about their investment portfolio, *overconfidence* emerges from the asymmetry regarding the importance that investors give to the information available to them. Practically, when you have an idea of an investment, information supporting that thesis is considered more reliable than information going in the opposite direction, even if the thesis doesn't come true as time goes by.

In the period 1991–1996 two American academic researchers, Terrance Odean and Brad Barber, based on a study of over 66.000 investor subjects, investigated trading activities. The results gained by them proved that who has an intense trading activity, which resembles an excessive confidence in own judgement, tends on average to collect a lower performance, regardless of market development, or investment style.

Various authors have concluded that given that *overconfident* individuals tend to overestimate the results of their decisions and to underestimate the associated risks, overconfident investors simply underestimate the risk of an investment. To test that, Schiller, in 1999, defines the *overconfidence* as an attitude for what nothing can go wrong with the investment and investors, since there is nothing to worry about. Before him, Benos (1998) think that *overconfidence* derives from the fact that investors think they are better than they are in reality.

In 2005, Deaves, Luders and Schroder consider professional education and experience as moderators of *overconfidence*. Through a monthly survey of financial market agents in Germany, they show how the market forecasters are extremely *overconfident* and how overconfidence is increased by success resulting from correct forecast.

A similar result was already obtained by Griffin and Tversky (1992), who showed how *overconfidence* is more prevalent among experts compared to first-timers in difficult operations with a low predictability.

Finally, it should be noted how the studies carried out have shown that men tend to be more *overconfidence* than women, probably because such attitude is mostly present in typically male domains, such as precisely investment decisions.

1.5 *Overconfidence* in the Management Area

In the literature, there are different studies about the effect that *overconfidence* has on entrepreneurs, managers, and managing directors regarding the principal business aspects: investment policy, capital structure, financing contracts structure, *corporate governance*, merger/acquisition operations, degree of innovation of the company, and future forecasts of turnover and costs structure.

Overconfidence is very important in those actors who hold the company power, given that most of high impact decisions are based on the subject's knowledge. Power, in fact, produces a greater *overconfidence,* increasing the perceived level of subject knowledge with respect to those who hold less power. Subjects holding the power show an extreme confidence in their own knowledge, a behavior that is required by the chiefs.

A recent study carried out by Professor Nathanael Fast, with co-authors Niro Sivanathan and Adam Galinsky (2012), explains how the power can feed the excess of security and this influences adversely to the decisional process. The objective of this study was helping the managers to become aware of pitfalls that fall into the sensation of general control that supports the power and makes people too self-confident in their capacity to make good decisions.

In one of the experiments carried out by Fast and his research team, it was asked to subjects to bet money on the precision of their knowledges. Those who felt themselves superior and bet on their own knowledge wasted the money, while those who didn't feel powerful and took less risk, they didn't lose money. This result, together with the others gained by similar experiments, has led Fast to conclude that in power situations keepers feel themselves more powerful than vulnerable, being too self-confident on the decisional process.

The paradox is that the more powerful the managers become, the less they think they need help.

There are different reasons that lead the managers to overestimate their own capacities and to become too optimistic with regard to their decisional processes.

First, a manager is usually given the final say regarding great strategic decisions: this can induce him or her to believe he or she can control even the result, without considering the possibility of a failure.

Second, a huge part of managers' rewards depends on business performances: managers are naturally incentivized to increase the results connected to their own business decisions.

Finally, the more a manager goes up in the corporate hierarchy, the more he must be able to face decision-making processes.

The literature offers two great ways out in regard to the possibility for managers to be *overconfidence*:

1. Irrational managers are removed from their office naturally through acquisitions or other similar mechanisms. If the managerial irrationality was a systematic phenomenon, there wouldn't be any criticism to argue that the new manager will not suffer from *overconfidence*;
2. The managers, through experience, learn to be more rational, even if they rarely go back on the financial decisions already taken.

1.6 *Overconfidence* in Small and Medium Enterprises

The global crisis has pointed out the necessity, for companies, to develop some appropriate tools to be competitive on the market. In a similar context, the small and medium enterprises have had to seek out new markets not yet reached by big multinationals.

For structural reasons, small enterprises are characterized by growth and switching rates higher than the ones of big enterprises: precariousness becomes a constant of their life. From this follows that it is fundamental, especially in the small and medium enterprises, that the entrepreneur recognizes the symptoms of a crisis as soon as possible, by investing in competences and internal resources, orienting them on the new value generation. In this way, although it may seem a paradox, the crisis might represent a real opportunity for development.

However, in entrepreneur's mentality, the concept of crisis is not practically covered, because a lot of entrepreneurs, even when they are

involved in it, have a reluctant attitude until they don't find themselves at the point of failure. It is thus necessary, in all the small and medium enterprises to keep an economic measurement instrumentation adequate so to check the cost components and avoid any optimistic interpretations by the entrepreneur that can weaken the company further.

It is also fundamental that, before undertaking any intervention to face the crisis, there is a detailed knowledge about the reasons that are at the basis of such crisis, to make possible fighting them as soon as possible.

There are two opposed theses about the causes that can generate a crisis: on one side, the trigger of the degenerative process is given by managerial strategic mistakes, while, on the other side, external factors, such as the fiscal system and the high cost of labor might also be an alternative reason.

In reality, neither changes in managerial board nor environmental issues, can for themselves explain the crisis. In general, in fact, it can be argued that the beginning of the decline is the result of both the inadequacy of the entrepreneurial and managerial resources and the complexity of the problems to handle (Arcari 2004).

The refusal of the entrepreneur to contemplate a state of crisis can be explained through the need to justify the goodness of past decisions: consequently, this argument influences his or her own present strategic decisions.

In a study carried on by Koellinger et al. (2007), it has been pointed out that, although in general, an *overconfident* attitude is common to everyone (Hoffrage 2004; Weinstein 1980), it is more prominent for entrepreneurs. For example, Busenitz and Barney (1997) have shown that overconfidence among entrepreneurs is higher than *overconfidence* among managers.

Also, Cooper et al. (1988) have found a strong evidence of *overconfidence* among the entrepreneurs. They concluded that 81% of entrepreneurs believe that their possibilities of success are at least of 70% and that a third of entrepreneurs believe they are going to have a success surely. Therefore, they believe their chances of survival on the market is higher than the ones of their competitors.

Camerer and Lovallo (1999) has shown that an excess of trust in their own competences leads to exaggerated access in no stable market conditions and that new participants refuse to review their own expectations even after a first evidence. Therefore, the importance of perceptions, and the *bias* connected to it, when someone decides to start a new business, can explain some of the observable inconsistencies in the decision processes.

Why has the entrepreneurial behavior to be characterized by *overconfidence*? A possible reason is that entrepreneurs have a strong tendency to consider unique their condition. After all, for definition, the entrepreneurs are individuals who deviate from the rule. When they identify a profit opportunity, they isolate their current situation, i.e., the decision to start a new business, and they behave as the event is entirely original and unique. Consequently, they don't consider the available statistics about the similar past and future situations that might help them to formulate more accurate forecast about their probability of success but they base their judgment on heuristics.

Kahneman and Lovallo (1993) defines "internal point of view" a situation in which entrepreneurial forecast is based on the arguments at hand. In this perspective, the entrepreneur approaches a problem with the idea to have an exhaustive knowledge specifically regarding its peculiar characteristics. In opposition, Kahneman and Lovallo defines "external point of view" a situation in which entrepreneurial forecast is based on the statistics resulting from a set of cases similar to a current one. People, in general, and entrepreneurs in particular, tend to base their choices on forecasts generated by an internal point of view. This leads to the idea that entrepreneurs take their decisions based on the subjective perceptions.

Furthermore, also historical, cultural, institutional, and innovative changes have contributed to generate such an entrepreneurial behavior. In fact, they influence individual perceptions and incentives to turn the opportunities perceived by them into facts. Therefore, an institutional environment leading to a strong perception of control over its own domain can lead to a larger number of business activities.

Finally, it is relevant to investigate what kind of contribution *overconfidence* can bring in the entrepreneurial decisions. Hoffrage (2004)

claims that, at an individual level, there may be situations where the benefits to be overconfident have higher relevance compared to the drawbacks linked to this attitude. In entrepreneurial activities, some entrepreneurs might start their business with the wrong confidence to have the experience and the necessary competences to bring it forward. However, the commitment and the necessary actions to start might help them to gain the competences and the experience they need.

Busenitz and Barney (1997) claim that the use of bias and of heuristics may be an efficient aid for uncertain and complex decisions, such as starting a new business. Busenitz and Barney themselves claim that *overconfidence* can serve as a boost benefit to implement a specific decision and persuade others to be equally excited as the entrepreneur himself.

Overconfidence may also be seen positively at a global level. Without an optimistic attitude, we would see far less new businesses, although with a higher success rate. Is the excess of new entries desirable in terms of social gain? Entrepreneurial failure leads to serious negative consequences if the cost of failure is absorbed, at least in part, by other subjects. However, overconfidence and a potential failure of the entrepreneur may also generate important information that would have been unknown otherwise. Furthermore, the beginning of new enterprises, even if they don't have success, might stimulate the competition and lead the established enterprises toward a greater efficiency.

As mentioned previously, an important contribution to overconfidence in the context of the small and medium enterprises has been given by Busenitz and Barney (1997). According to them, the entrepreneurs and the managers of big enterprises have different approaches as regard to the business decisions. They start from the idea that *bias* and specific heuristics exist, and they wonder to what extent they can affect the decisional process. Among all *biases* and heuristics, they chose to consider the *overconfidence*, because it is somehow considered a characteristic of other biases and heuristics.

Overconfidence exists when those who are responsible for the decisional process are too overconfident in their initial assessments, but afterwards, they are reluctant to introduce additional information in their assessments. Most of the decision makers have an *overconfident* attitude in the estimates of their capacities and they do not consider

the uncertainty that exists (Bazerman 1990). Furthermore, the decision makers generally incorporate additional information slowly because of their confidence in the estimates already done (Phillips and Wright 1977; Russo et al. 1989).

Overconfidence seems to influence mainly the decisions taken by the entrepreneurs rather than those taken by the managers of big enterprises.

Overconfidence allows the entrepreneur to move on with his or her initial idea, before all the elements of the business initiative are revealed. Although in a similar decision situation it exists a huge uncertainty (for example, the presence or absence of a real economic opportunity, what is the consistence of this opportunity, in which way competitors can react to this opportunity), a high level of *confidence* encourages the businessman to act before having all the elements at hands.

Being more optimistic than the reality would suggest, might help to convince other potential *stakeholders* (such as investors, the providers, customers, staff employed) about the opportunity given to them if supporting the business.

Managers of big enterprises, however, must not decide based on their self-confidence. Rather they must learn on decisional programs and historical patterns and then convince top managers that their projects are more important than others.

These observations lead to the following hypothesis: businessmen must have more *overconfidence* than managers of big organizations. This argument has produced some empirical confirmation. For examples, Cooper et al. (1988) have noted that overconfident businessmen have better chances of success to their initiatives rather than to those of their competitors. This argument does not apply instead to managers of big enterprises.

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