Risk and uncertainty in business economics: towards a business concept

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doi: 10.51505/ijebmr.2022.6811 URL: http://dx.doi.org/10.51505/ijebmr.2022.6811

Abstract
In recent years, internationally, there has been considerable interest in the management and governance of corporate risks and the uncertainty in which the company operates. In this article we will first focus on the importance of risk in the company and then focus on two important elements in the life of the company: the risk and uncertainty. These two elements are fundamentally important for the stability of the company.

Keywords: risk, uncertainty, society

1. The importance of risk in the company

The influence that risks exert in the economic sphere of the company, and in particular in the measurement of performance, is complex and produces, at the same time, positive and negative effects. The risk, until a few years ago, was considered a negative concept and the objective of the management of the companies was to protect the business by minimizing or eliminating risks at all costs. In recent years, an unstoppable phenomenon is involving economic systems in an ever more profound way and upsetting the reference points of entrepreneurial action: globalization. Due to the combined effect of technological development, the fall of customs barriers, the processes of deregulation and privatization, the barriers between the different markets, the different countries, the different economic sectors are gradually emerging. Furthermore, recent technological innovations, the consolidation process of many sectors, the need to compete on the capital market to secure financial resources as well as other factors have made the environment, in which companies operate, much more complex and dynamic. This new scenario has increased the complexity and interrelation of risks, highlighting how insufficient risk consideration in situations of uncertainty can lead to: ineffective strategies, product launch failures, poor competitiveness of operational processes or legal disputes that , in turn, they can have a significant impact on the life of society. Bertini himself argues that not taking into account the risk explicitly renounces bridging any gap between the world of hypotheses and that of reality; ultimately, the idea of damage is accepted. If, on the other hand, when formulating hypotheses, risks are taken into account in a preventive manner, by adapting management policies to their presence and severity, the consequences of the occurrence of the event are considerably reduced; the risks may even compromise the achievement of company objectives, without the knowledge of the risk, in fact, there is no possibility to prepare or take corrective and improving actions. Obviously, the inclusion of risk in the hypotheses does not eliminate the possibility of damage; but it significantly reduces its effects. By studying the risk, the company actually tends to normalize abnormal situations. In fact, many companies today are facing a variety of new challenges in the race to maximize profit: globalization, e-business, new partnerships. These elements, together with the growing rapidity of change in operational and

ISSN: 2456-7760

environmental contexts, require continuous attention and ability to react in identifying and managing company risks. To transform threats into opportunities, a company must know, manage and have a deep understanding of the risks to which it is potentially exposed, identify their extent and connect the risk management plan to the corporate strategy. By means of its action, therefore, the consideration of risk as an inseparable element of the life of the company plays a decisive role: it ends up modifying, in the long run, the very structure of the company, which is forced to change over time. to cope with the dynamics of a constantly evolving market. The measures aimed at dealing with risks inevitably cause new phenomena, which end up giving the company an always different face. In addition to changing its prospects and strategic objectives, the risks also change the current positions of the company, leading to the emergence of real phenomena, which immediately affect the performance of the company. It should also be reiterated that the risk perspective and the inclusion of the various hypotheses in the company's projects tends to reduce the effect of the risk, but does not cancel the opposite event which, therefore, must be addressed. Of course, it is not certain that, in particular moments of its life, the company cannot make significant gains by virtue of particular risk situations. There is, in fact, an aspect of the risk issue that must be considered positive for performance purposes. From a general economic point of view, in all companies operating in the market, it is not certain that greater risks lead to a greater measure of performance, just as the opposite cannot be said. From the point of view of competitiveness, the opposite possibility can in fact also exert a positive influence on companies, which, in order to face the market risk, are sometimes pushed to give themselves a better, more rational and efficient organization by virtue of which they can achieve more satisfactory economic results. For the above considerations, it is believed that there can be no doubts about the way of understanding the phenomenon of risk: “brake and spring” of corporate performance. An increase in the extent of the risk in fact means, for the economic entity, the possibility of reducing the degree of performance; conversely, its reduction generally implies an increase of this degree; however, these two cases remain simple possibilities, since "the increase or reduction of the uncertainty of the external environment can change for or against the company in relation to management styles, resistance to change, the tools available for monitoring, the ability to identify weak signals, etc. ". The company must therefore be a flexible body, able to follow the dynamics of the risks it has to face during its life; understanding this dynamics is also important since, in some cases, the risks can lead to knowledge of other particular risks previously unknown. Efficient risk management must therefore aim at exploiting business opportunities by fostering future growth and at the same time protecting the value created up to now. We are therefore becoming aware that risks must not always be considered only threats to be avoided but, in many cases, if properly managed, they can turn into opportunities to be seized. This involves a clear identification and knowledge of the risks, the possibilities of occurrence and the impact on the company, all accompanied by continuous monitoring aimed at managing any development over time. In this way, risks can create opportunities, value and wealth for all corporate stakeholders. Business managers are increasingly aware of the importance of risk management oriented, on the one hand, towards an internal perspective of achieving company objectives, and on the other, towards an external one of safeguarding the value created for the company's shareholders and stakeholders. The risk must be considered an integral part in the measurement of performance and consequently in the generation of value, and its identification, through the evaluation of causes and the measurement of effects, becomes fundamental for the success of a company. Faced with increasingly aggressive and professional investors, the company must not only prove that it knows how to create value for its shareholders and stakeholders, but also that it is adequately attentive and sensitive towards this objective, and equipped to pursue it consistently and awareness through performance measures that allow the monitoring of company activities aimed at achieving the goal of creating value. Value-oriented measures accompany the strategic and operational orientation of many companies. The key aspect of this approach lies in the ability to create and govern value over time, integrating the control system into the company management system.

2. The business concept of risk and uncertainty

Chessa[1]thanks to his studies he has introduced the relationships between uncertainty and risk and the company. He states that risk is the main element that characterizes the company, and each of its activities bears risks of various kinds. Each economic entity has to deal with the risks deriving from the occurrence of events beyond their control, but each of its decisions is characterized by the fact that it determines the birth and assumption of risks. An economic subject generally arises in relation to risk when it evaluates the productive, commercial and distributive transformations that take place in space and time. Chessa defines the company as a set of economic acts and observes how every production process that consists of elementary economic acts can be disturbed by events that are not at all or only minimally predictable. Therefore, every economic action contains, in itself, a random and risky component. The uncertainty with which various events can occur, that is, uncertainty, is the element that most distinguishes the risk; in particular, the risk is a component of the uncertainty that arises in relation to the appearance of costs, losses or the realization of damage. More generally, the risk is defined as the uncertainty that is suffered from the moment in which one starts up to the moment in which any action is completed. In this regard, Chessa identifies over time the fundamental variable that generates uncertainty: every economic act produces, in the more or less near future, its consequences which are subject to the same rules of uncertainty and uncertainty, since the future will presents uncertain by definition. All future events are therefore uncertain and each economic act has, within it, more or less significant elements of uncertainty, depending on the knowledge and forecasts that one is able to make regarding the occurrence of the various facts. Therefore, the risk is closely related to the degree of uncertainty that a fact will occur at a future moment, however, - and this is the novelty - only if analyzed in relation to the forecasts made. Therefore, the transition between the observed uncertainty and the risk perceived by a person or by a company takes place through the reference to the forecasting process. According to this statement, it emerges that the risk depends on the failure or incorrect forecast of future events; this can also derive from incomplete or correct knowledge of past and / or present events. In this sense, it is possible to find the difficulty that is observed every time one wants to determine the risk through forecasts. Even with the advancement of both scientific and technical instrumentation, Chessa observed, the risk underlying the various economic activities can never be canceled and predictions can never be carried out systematically without incurring the possibility of error. Continuing with the

[1]Chessa Federico (1882-1960) was a professor of economics from 1927. he taught at the universities of Cagliari and Genoa. His works include: The economic theory of risk and insurance (1929), Economic activity and exchange (1945), Money (1946 and 1952), Principles of economics (1948), Human activity and economic theories (1956).

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ISSN: 2456-7760

reasoning, Chessa affirmed that uncertainty originates from the lack of knowledge because for ordinary people the hazard is caused by the knowledge they have of the occurrence of certain phenomena, therefore the degree of uncertainty varies according to the level of knowledge of environmental states. The definition of risk that Chessa gives is as follows: "the risk reflects the probability of the expected harmful event occurring" and the conception of probability to which the author refers appears to be subjective. Regarding this aspect, we observe a complete reversal with respect to the previous settings; in particular we think of those of knight, which characterized risk with a purely objective dimension, while it was uncertainty that was composed of eminently subjective factors. in this setting, the risk is related to uncertainty through the forecasting process. The risk is therefore seen by Chessa as the estimate of the occurrence of future events, therefore it always remains impregnated with subjective components: "although the estimate of one person may be better than another, due to the superiority of knowledge, intuition or experience, the best estimate is still an estimate, not a certainty ".In conclusion, from the studies of uncertainty and risk of Chessa, an evolution emerges that originated from positions linked to the search for causes and was directed towards other approaches aimed at identifying symptoms. In the main theoretical approaches that have been examined here, some ideas appear that will have a notable influence on the economic-corporate conception of uncertainty and risk. Chessa has formulated concepts of risk and uncertainty containing elements of novelty, later taken up by the Italian economic-business tradition. In particular, the vision of the company as a set of risks has been taken up, in some of its parts, by most of the business economists who have explicitly dealt with the concept of risk. In fact, we begin to consider the risk within a perspective aimed at its identification, measurement and treatment.

3. Risk and uncertainty in business administration

Within the Italian tradition of business economics, the links between the concepts of risk and uncertainty, business functions and risk analysis, assessment and management processes were investigated. Over time, more and more attention has been paid to how the corporate functions are made operational through a set of decisions which in turn translate into actions from which both costs and revenues, both opportunities and risks derive.

In his work, Corsani[2] defines risk as the difference that is created between what is obtained as a result of a forecasting process and what is empirically observed. The author deepens his own analysis by specifying how the various company functions must be studied in relation to the dimension of the risk that is closely related to them. In particular, it turns its attention to the identification, reduction and elimination of uncertainty and risk by means of the adoption of both management and organizational tools, methods and criteria. According to Corsani, uncertainty has an external nature to the company and is characterized by a predominantly subjective and individual value. It originates and acquires meaning with the inability that the subjects manifest in identifying the effects in relation to the observation of predetermined causes. The subjective nature of the uncertainty derives from the impossibility of resorting to past experiences due to the singularity with which the various phenomena present themselves. The risk, on the other hand, can be hypothesized on the basis of statistical extrapolations or conjectures that lead to the identification of a probability distribution of events. Also in this setting we see how the concepts

[2]Gaetano Corsani (1893 1962) was professor of industrial and commercial management at the University of Florence.

Vol. 6, No.08; 2022
ISSN: 2456-7760

of uncertainty and risk can be differentiated on the basis of two different interpretations of probability: the subjective one in the case of uncertainty and the frequentist one in reference to risk. Ferrero identifies the existence of subjective and objective conditions in the same uncertainty. The former relate to insufficient information that leads to the failure - or incorrect - hypothesis of referring to future events that will have their effects on the company. The latter are in turn differentiated into internal and external to the company. The internal ones refer to the presence of both economic and technical constraints that determine limits to the knowledge of individuals; the external ones are related to the environmental dynamism and to the consequent not knowing in an absolute sense of potential future events. According to this trend, the definition of uncertainty is characterized by subjectivity and non-measurability; not for this, however, the characterization of the concept of risk occurs by difference, that is, through the reference to the measurability of the phenomena; instead, attention is paid to the type of events with which uncertainty and risk must be related. The synthesis between the settings relating to economic risk and the contributions made by the economic-corporate setting is accommodated with the contribution of Bertini (1968). He takes up the methodological schemes and the debate on the concepts of risk and uncertainty within the tradition of economic studies, and tries to interpret this approach with the concept of risk and uncertainty that derives from the economic-corporate tradition. Referring to the definition of uncertainty and risk given by Chessa[3], Bertini defines the risk in relation to "the uncertainty that the company is forced to undergo at the possible occurrence of events that fall within its orbit". In particular, he observes how the life of the company is made up of a set of decisions, activities and acts, economic and otherwise, which manifest themselves in a continuous and systematic way, the company is seen as a set of ongoing coordinations: the economic plan is the one in which all the phenomena that gravitate in the orbit of the company necessarily meet, giving life to the relationships and bonds that form the basis of corporate coordination. Bertini identifies the inability of man to know in advance both the moment in which they happen and the entity with which future events occur as a significant factor for the generation of risk and uncertainty. The limited predictive abilities of man are associated with additional cognitive constraints that make subjects unable to identify and select the environmental phenomena most at risk and to evaluate the economic effects that these future events could cause. It should be noted that if man's forecasting abilities could increase to the point of allowing perfect knowledge of future events, it would also be extremely difficult to predict the effects of such events on the enterprise. This is in fact due to the complexity of the relationships that bind the company with its reference environment and therefore it can be deduced that the life of the company is dominated by largely unknown phenomena both at the time of their occurrence and, a fortiori, when forecasting and prospective evaluation. In this perspective, two phenomena are identified, the first objective and the second subjective: the changing manifestation of events and the human inability to foresee such changes. subject is subjected to the action of external agents whether he performs actions or remains inert: his behavior will in any case suffer consequences - positive or negative - depending on how close

[3]Chessa Federico (1882-1960) was a professor of economics from 1927. he taught at the universities of Cagliari and Genoa. His works include: The economic theory of risk and insurance (1929), Economic activity and exchange (1945), Money (1946 and 1952), Principles of economics (1948), Human activity and economic theories (1956).

Vol. 6, No.08; 2022

ISSN: 2456-7760

the forecast is to the actual occurrence of the facts or not. Therefore, according to Bertini, there is generally a double possibility: that a certain event occurs; and that, by manifesting itself, does not meet the requirements hypothesized at the time of the request. The definition of uncertainty and risk that is proposed is in agreement with a good part of the tradition of economic studies. In fact, the author places the individual component as central in the assessment of risk and uncertainty as it refers to future events that remain completely unknown. This means that the events are studied and evaluated by the subjects in the light of the reasons relating to the alleged occurrence and that uncertainty and risks will arise from the performance of the forecasting process. With these assumptions, uncertainty and risk can be considered as distinct aspects of the same reality. "The two phenomena, moreover, are inseparable: in fact, there is uncertainty as every phenomenal manifestation carries risks". However, uncertainty must be conceived in a radically different sense from the common notion of risk, from which it has never been adequately and conveniently separated. On the basis of the difference between risk and uncertainty, Bertini argues that uncertainty "insofar as it is independent of the relationship that is established with the outside world [...] is mainly related to the choices and problems of evaluation in general, while the risk informs in a pre-eminent measure the phenomena of management ". This means that the uncertainty is to be related to the numerical determinations that require estimates, conjectures and judgments, while the risk refers to the same phenomena of which the numbers are a representation. Therefore, in the business-economic context, uncertainty derives from the singularity with which most practical situations arise and generally makes attempts to quantify phenomena very problematic. Risk, on the contrary, even if it does not make it possible to measure them, it can always be appreciated, even in a qualitative way, through the formulation of rational expectations. In light of the foregoing, the risk therefore derives from an erroneous perception of reality and the limited investigative abilities of man. Therefore, it must not be confused with the phenomena from which it originates or with the effects that this can cause. The events from which the risks arise have, in fact, a concrete nature and, therefore, cannot be eliminated, while the risks would disappear when one was able to predict future events. In summary, it becomes necessary that corporate risk is not confused with its determinants such as environmental dynamism and imperfect knowledge of the subjects of the reference environment. These determinants, Bertini observes, cannot be eliminated through company decisions but the risks that derive from them can be reduced if it is possible to foresee the facts that cause them or if individuals are able to perceive the potential riskiness of the effects. According to the business-economic approach, the risk is therefore made up of objective and subjective elements; among the latter, the factor that enters most directly is the hypothesis formulated by the subjects on the effects resulting from decisions, behaviors and future environmental changes. The hypothesis therefore constitutes a parameter of the problem., The nature of which is substantially subjective. In fact, it strictly depends on the degree of knowledge and experience of the individual who formulates it: the greater the possibility of error in the hypothesis, the greater the presence of subjective elements in the risk. It follows that the risk can be characterized on the one hand by a subjective component, closely related to the ability and knowledge of the individual who formulates the forecast; on the other hand, for an objective dimension, that is, in relation to the uncertainty of the events that the company is forced to undergo and the ways in which these events occur. To the subjective elements connected with the interpretation are added, very often, the errors of assessment that make the risk take on the character of a decidedly subjective phenomenon; the latter, in fact, depend on the nature, character, sensations and state of mind of the subject who formulates the hypotheses. Therefore, the risk, on the one hand, is strictly connected with the process of formulating hypotheses and with the evaluation processes relating to uncertain events; on the other hand, it is characterized by such a subjective component that, even in the presence of comparable situations, it does not allow for a similar perception of risk and therefore does not automatically lead to the same decision. From what has been stated, it can be concluded that "while the element of knowledge is present in risk associated with experience, the latter is absent in uncertainty". It is precisely for this reason that risk is considered an objective and subjective phenomenon at the time. Uncertainty, on the other hand, is an eminently subjective fact since it is impossible to resort to experience in solving some practical situations, thus making any attempt to quantify the phenomenon useless. This is a further element of diversification from risk, which, even if it does not offer concrete measurement possibilities, can be rationally hypothesized. Based on these statements, we speak of risk in relation to business operations and uncertainty in relation to business decisions. The former relate to choices in which it is possible to take into account both the frequency with which certain events occurred in the past and their degree of future probability; the second, on the other hand, concern decisions made in order of future events that remain completely unknown. The word uncertainty therefore seems to be the best to distinguish the defects of administrative knowledge from the risks of commercial activity, which can conveniently be reduced through a study and grouping of cases. Therefore, the concept of risk in business administration is characterized by two fundamental elements. The first relates to the existence of eventual facts of which it is not possible to exactly establish the probable future manifestations and the possible effects on the company. The second element refers instead to the analysis of both the evaluation, perception and estimation processes of the company's future trends, also through the use of statistical forecasting techniques, and of the risks that originate from individual evaluation processes. Through this last dimension, the transition from the concept of economic risk to that of business risk takes place. In fact, the aspects related to the decision-making and management dimensions of the company have acquired importance in determining the uncertainty with which events relevant to a company occur. The concept of risk no longer presents itself as an abstract and hardly perceptible entity, but, as Bertini himself suggests, it can be measured and, in a certain sense, managed already in the formulation of hypotheses when a situation of uncertainty arises. Under these hypotheses, corporate risk is defined as the result of an analysis and evaluation process, originating from the finding of the existence of uncertainty and manifesting itself in the potential deviation existing between what is expected by a subject within an organization. and what has been empirically observed. In this regard, Bertini argues that "the eventuality that, if a certain hypothesis does not occur, there are unfavorable consequences for the person who formulated it, can be understood as a synonym for risk, in the broadest sense of the term. In practice, there is a risk whenever, of a certain event, a hypothesis of damage can be rationally formulated ". The author himself makes some clarifications on this definition. Although the idea of business risk expressly refers to the possibility of a gap between hypothesis and reality, the concept of risk cannot be understood simply as a gap for two reasons in particular. The first reason is highlighted by analyzing the meaning of the term deviation, which indicates a known quantity that is reached when the phenomenon from which the prospect of damage arises; the risk, on the other hand, is by definition unknown and cannot be determined a priori. Based on what has just been said, Bertini observes that the term risk expresses the possibility of an effect contrary to a hypothesized trend, while the damage is the certainty of that effect. Given the link between these two phenomena, the author indicates the risk as potential or dangerous damage, although this last hypothesis implicitly admits a deviation from reality as probable. The second reason why the deviation thesis cannot be acceptable derives from the fact that, although the damage is sometimes a consequence of the risk, it does not necessarily have to be present. Precisely because the risk represents an eventuality of damage, the latter may be absent, but this does not mean that it is possible to affirm the non-existence of the risk. It is only when the difference between hypothesis and reality can be determined that the risk no longer exists. Therefore, the risk appears to be independent of the spread and the values it can assume. A large gap, of course, will indicate a more serious risk, but this does not mean that the absence of variance between hypothesis and reality can prove the absence of risk. Then taking up the problem of the deviation, given that the real phenomenon can present, with respect to the predetermined hypotheses, a favorable or unfavorable result, many scholars have wondered whether the risk can be attributed only to the first of the two or to both cases considered. . Although the thesis of risk as an unfavorable eventuality has reached a greater number of consensus, there have been, especially in recent times, positions in favor of the other thesis. Borghesi argues that depending on the relative position of the interested party, an unfavorable event can turn into a favorable event and vice versa. In this sense, we fully quote the statement of W.D. Rowe for whom the "loss of one individual may be the gain of another". If this is evident in the case of gambling between two contenders, for which it is immediate that the gain of one corresponds to the loss of the other and vice versa, nevertheless this is also detectable in situations that involve several subjects, such as in the exercise of an entrepreneurial activity. Any unfavorable event (greater loss or lesser gain compared to the expected situation), will have as the downside an unfavorable event for some other person in relationship with the company and vice versa. This thesis seems to be the most acceptable, in fact, the attempt to make absolute concepts such as that of risk (or even of an unfavorable or favorable event) collides with the reality of a world in which "relativism is dominant, universally accepted and irreconcilable with a static view of phenomena, including economic ones ". In conclusion, we can certainly affirm that the problem of risk is still an open topic.

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