

Is the Problem Only Ours? A Question of Relevance in Management Research

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Academics do not turn to managers for inspiration for their research and managers do not consult academics on theories to develop models and strategies. The resulting issue of the non-relevance of research in this field is so controversial that it could limit the development of management studies. The problem, however, cannot be eliminated by simply calling for research on more relevant topics or hoping for greater collaboration between researchers and managers. The absence of a solution to this problem is not due to the unwillingness or lack of intelligence of researchers, but because science must be closed to external demands and therefore also to the managerial world. In this paper, I argue that the solution is not in opposing this closure, but incorporating it within a research and practice eco-system that sets out from the fact that non-relevance is not only a problem of the scientific community, but also of the managerial world: they have a problem too.

Keywords: rigour and relevance; management research; theory and practice; knowledge production; research knowledge

We have a problem

It was stated in 1982 that managerial disciplines have a limited effect on the functioning of organizations (Beyer, 1982). In 2001, the president of the Academy of Management, the most prestigious international academic institution, in a speech at the annual meeting used this expression, ‘we have a problem’, indicating that ‘the gulf between the science and practice of management is widening. There is growing criticism that findings from academic and consulting studies are not useful for practitioners’. Thirty years after Beyer’s article, the issue has essentially been repeated in the same terms (Mesny and Mailhot, 2012) but the situation appears even more serious, to the point that in 2007 the *Academy of Management Journal* devoted a special issue to the matter.

How is it possible that in 30 years the problem has neither been fully defined nor resolved? Although there are examples of both rigorous and relevant research from a management perspective, these were exceptions and remain such. The stark reality is that academics do not turn to managers for inspiration for their research and managers do not consult academics on theories to develop models and strategies. *The Economist* (2007), for example, in an article evocatively entitled ‘Practically irrelevant?’ asked why we should invest enormous

sums (\$320m in the US alone) in scientific management research when these studies are not relevant and ‘highly quantitative, hypothesis-driven and esoteric’.

The question of non-relevance is so controversial that it could limit the development of management studies, also due to the growing belief that it is unnecessary to commit to supporting research that is deemed unnecessary. Ghoshal (2005) sustains with very convincing arguments that academic management research, under scientific pretense, actually diffuses theories that are not only irrelevant but also have a negative effect on good management practices and on society. In 1996, 23 out of 135 authors who had been published in the *Academy of Management Journal* had also written articles for practitioner-targeted journals (Kelemen and Bansal, 2002) and while the activity of writing is more the preserve of the academic than the operational world, publishing in a non-academic journal is not evidence of effective utility for management. In any case, the percentage of managers and consultants who regularly read academic literature is somewhat limited (Rynes *et al.*, 2002; Rousseau, 2006). This is a gloomy picture for those who believe that management science has meaning only if it is able to contribute to knowledge that is relevant for companies.

If the idea were to take root that universities and business schools produce non-relevant research and therefore teach completely useless theories, the management discipline would sooner or later suffer considerable

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and long-term damage. Evidently, the problem cannot be eliminated by simply appealing for a writing style that is more consistent with the needs of managers or calling for research on more relevant topics or hoping for greater collaboration between researchers and managers.

The thesis that I intend to argue here is that the question of relevance has not been resolved, not due to the unwillingness or lack of intelligence of researchers who carry out rigorous research, but because science has to be closed to external demands and thus also to the managerial world, beyond the will of individual researchers or academic institutions. Indeed, being closed to external needs is an essential characteristic of scientific activities, in whatever field. Nevertheless, some disciplines, although maintaining a rigorous scientific status, manage to be relevant to practitioners and to society as a whole (for example, medicine and engineering). Furthermore, management research has its *raison d'être* only in its contribution to improving the performance of firms and the quality of work. Without relevance, the question posed by Fortune becomes legitimate: for what purpose is management research undertaken?

In this paper, I argue that to solve the problem, we must start by acknowledging the inevitability of the 'closure' of the academic system and its mechanisms. The solution is not in opposing closure, but incorporating it within a research and practice eco-system that sets out from the fact that non-relevance is not only a problem of the scientific community, but also of the managerial world: *they have a problem too*.

The birth of the gap between relevance and rigour

It is worth noting that, at the beginning, management study was undoubtedly linked to managerial practices. The reason for the origin of overseas business schools and economics and management universities in Europe can be sought in the need to disseminate the best management practices deriving from larger firms to organizations that grew and became overly complex due to the economies of scale generated by the technological evolution. However, the very birth of managerial disciplines, dictated by operational requirements, produced in scholars a sense of inferiority with respect to scientists dealing with disciplines endowed with an order of methodological rigour built over decades and at times centuries.

This sense of inferiority was clearly manifested after the Second World War and in particular in the 1950s and 1960s, with criticism from some quarters – especially in the US, for example, the Carnegie Foundation and Ford Foundation – that invested considerable sums to remedy the problem. The critics emphasized that management research did not have adequate scientific character. This

idea and the search for legitimacy in academic circles, along with the aspiration for a position of greater prestige within universities, led researchers to desire more rigorous management research. As often happens when the need arises to recover a disadvantageous position, the frantic search for greater scientific rigour over time led management studies to become completely abstract and no longer relevant to the business world.

Professionals today have the perception that management science produces very thorough knowledge of irrelevant issues and that the type of concepts generated are fragmented to such an extent as to be of no use, as demonstrated by many studies indicating that academia is not the basis of key management techniques (Pfeffer and Fong, 2004; Birkenshaw and Mol, 2009). Added to this overall irrelevance, according to managers, is the considerable arrogance of researchers (Roux *et al.*, 2006), accompanied by an inability to communicate the few results of some interest to companies beyond the inner circle of scientists.

It should be emphasized that methodological rigour is not the cause of scarce relevance. Some researchers (Tushman and O'Reilly, 2007; Hodgkinson and Rousseau, 2009) argue that science and practice are not on a continuum, but can be in an orthogonal type relationship and therefore a merger is possible that combines rigour and relevance, although, as stated at the beginning, this has not been achieved in over 30 years, if not in a small minority of cases.

The problem must therefore be dealt with, if only to remove in management researchers the sense of futility that has pervaded the world of universities for over 30 years. Prior to hypothesizing a solution, the causes of the growth of the gap between science and practice must be clearly identified to enable intervening with appropriate actions.

Relevance and usefulness of knowledge: the 'closure' of science

A first answer to the question of whether research that is closed to the demands of the business world makes sense is that research, although devoid of practical issues, does indeed make sense and is useful.

Generally, scientific research in any field is never directly relevant in the absence of appropriate corrective measures, it can only be useful: relevance and utility are two different concepts. When it is argued that research is irrelevant, we should always remember that it may not be relevant, but it is always useful. If relevance refers to the applicability of results in the short term and utility to the ability to render a service to someone (individual or collective), we should recall that an increase in knowledge always has validity, and even if not always immediately evident can manifest in time. The binary number

system was invented in the seventeenth century by Juan Caramuel and for centuries was a theoretical game without practical relevance. Nevertheless, its usefulness became apparent when other knowledge led to the development of the computer and the use of binary code for programming, which drew on knowledge that until then had no relevance. The binary system when invented was undoubtedly irrelevant, but knowledge is never useless and this became clear only a few centuries later. Knowledge is always useful in itself, even if not applied to any tangible and immediate problem.

Many disciplines are not of direct practical relevance: consider for example philosophy, history, astronomy or quantum physics, although they are all without doubt useful. From other branches of knowledge, we expect a significant operational effect in the short term on individuals, organizations or companies and among these are certainly the economic and management sciences. In these fields, when all or most research appear to have no practical benefit, namely is not relevant, a big problem arises.

Before addressing this issue in more detail, a further point needs to be clarified that is often overlooked by those seeking greater relevance: the 'need' for the 'closure'¹ of any scientific system.

The production of scientific knowledge in any discipline, be it social, humanistic or scientific in the strict sense, requires that the researcher's sole objective is precisely knowledge and nothing else. The reason, as we have known since Aristotle's time, is that knowledge develops from the intellectual curiosity of the individual who wants to go beyond the limits of what is already known. This 'going beyond' can only be driven by intellectual freedom and the inquisitiveness of individual researchers. The starting point for the development of knowledge is not in how it is to be used, but in the ability to abstract, to 'play' intellectually. The reason why universities and the scientific community are separate from other social institutions is precisely to ensure this possibility and this freedom, without which true knowledge would not be produced (Polany, 1951). This is the reason why scientists interrelate with other scientists, and not with technicians, politicians, journalists, managers or the commonality, who for various reasons could expect science subjugated to some other interest. Science instead is such when it is liberated, free from biased interests (Grey, 2001). Therein lies the 'closure' of science, which as mentioned, is essential for the production of knowledge. Hence, it is good and right that at least part of scientific research is free from practical problems and proceeds only on the basis of the need for knowledge itself.

¹Some use the word 'closedness', but in the literature on social systems that I refer to, the term used is 'closure'.

I think almost all researchers agree that the scientific world must have autonomy rules and mechanisms, which should prevent that stakeholders outside of academia judge and reward the excellence of research results, 'it is academics who are rigour's guardians' (Hodgkinson *et al.*, 2001: S45). Theories and methods are fundamental elements of the scientific system: only knowledge that has been processed through these two elements is recognized as appropriate. This is the reason why researchers are primarily interested in the rigour (in a methodological sense) of the scientific evidence, as opposed to relevance to business and entrepreneurial realities.

The self-preservation of the academic system also requires the ability to discriminate between those who belong to it (researchers) and those who are part of other worlds. The mechanism that enables selecting the academic faculty is a scientific method, which is approved by the community itself, and this is the only discriminating factor, evaluated through procedures such as peer reviews, evaluation systems based on publications recognized by the scientific community, academic prestige determined by the explicit recognition of colleagues.

In the management field, the academic system is also closed, dominated by the mechanism of publishing in high prestige journals demanding theory and facts, which necessarily have a conservative approach, mechanisms of promotion and remuneration based on publishing in high-ranking journals and on the number and quality of citations (Hambrick, 2007; Pfeffer, 2009).

Most of these mechanisms are essential to the proper functioning of each scientific community since research results can only be evaluated through competencies that allow making a judgment on the sophistication of the methods used and the theoretical soundness. If other research evaluation methods were used, for example the practicality of results, the judgment of this aspect would clearly no longer be entrusted to scientists but to those who can judge its practical use: in managerial disciplines, judgment could only be entrusted to managers, who would immediately introduce criteria that are unacceptable to the scientific community: the two worlds are different and must inevitably be thus for the proper functioning of both.

All this is very well known by scholars involved in social systems – particularly Luhmann (1995) in the social systems theory perspective – who precisely know that for these systems to function properly they must necessarily be self-referential, namely, closed from an operational point of view, but not isolated since they are open from the perspective of essential resources, as we shall see later. This means that they must develop an internal language of their own, based on rules, methods and specific mechanisms, with little influence from other areas, which would otherwise render the system scarcely functional. This is exactly what happens in the managerial disciplines.

Closure is therefore necessary for the functioning of the scientific system, also in the management field. The solution to the issue of relevance therefore cannot be found in abandoning the closure of the system.

An unbridgeable gap?

Starting from the difference in meanings, specialized forms of discourse and the inevitable self-referencing of social systems (known as closure in systems theory), which I agree with, some authors (Astley and Zammato, 1992; Kieser and Leiner, 2009) believe that any attempt to eliminate the gap in managerial disciplines is bound to fail or generate false hopes that cannot be achieved, otherwise implying the malfunctioning of the academic world. This argument is well supported by that stated at the beginning of this paper, namely, the fact that despite the efforts of the last 30 years 'we still have a problem'.

In my opinion, however, the gap can be bridged, the scientific system in the management field can be 'disrupted', exactly as happened in medicine. This is conceivable if setting out from the awareness of the closure of science and understanding that knowledge in the academic and managerial worlds is profoundly different and is produced in a different way. Without acknowledging the autonomy of the two areas, the solutions proposed are doomed to failure, as is evident from what has occurred to date.

We know from the theory of social systems that despite being closed they can be externally disrupted, that is, they can be induced to behave differently, without however being contingent on eradicating closure (Luhmann, 1995). The two worlds can therefore only communicate from a need, a disruption, which is not necessarily inherent and must therefore be intentionally created. The argument that I sustain here is that the closure of the scientific system, which is essential to its proper functioning, can however be positively 'disrupted' in the language of systems, namely, towards greater relevance. Every closed social system can be influenced by external factors and change can generate positive development, provided it does not affect closure since this is essential to its proper functioning.

This change in academic systems has already come about in some areas. In the field of medicine, in 1847, when Ignaz Semmelweis discovered that childhood infections could be the cause of fever, medical practice was the source of inspiration for scientific research (Rousseau, 2006). Similarly, physicians and surgeons today cannot be separated in any way from the results of science, to the point that many medical discoveries are immediately transformed into new therapeutic practices. Another example is engineering, which has found its own way to reconcile theory and practice, entirely independent of other disciplines such as physics and chem-

istry. Thus, the question of bridging the gap has been successfully addressed, without challenging the closure of the academic system.

The issue therefore is discerning the reasons why what happens in other branches, such as engineering or medicine, has not happened in the management field, a discipline that should be deeply rooted in practice. The question is thus whether a particular ineliminable problem exists due to lack of communication between science and practice in the management disciplines. Let us begin by understanding the nature of the gap and the mechanisms of the closure of the scientific world with respect to managerial practice.

The creation of management knowledge: the hypothesis of the cognitive process

Of the numerous explanations for this increasing non-relevance one dominates, although not always explicitly put forward, which underlies many of the solutions proposed and in my opinion is unacceptable. Let us consider it.

The fundamental idea, at the base of many of the remedies proposed, is that the process linking science and practice is very similar to that of the application of knowledge in R&D processes, assuming that research is an antecedent of operational management. The assumption is that managerial methods derive in part from scientific research (Beyer & Trice, 1982; Lawler *et al.*, 1985; Backer, 1991), according to what is defined as an *academic push* process.

R&D has a procedure of applying theory to practice, according to a sequential process of this type:

basic research → applied research → product

Using this idea, the transfer of the results of scientific research to the end result, that is, to decision-making practices, would come about according to a cognitive push type process:

scientific research → applied research → decision-making practices

A type of 'knowledge chain' according to which knowledge is generated, verified in universities and business schools, taught to students, transferred to consultants and then applied by managers.

The inferred problem would therefore be the transfer of knowledge, which would have no particular obstacles especially if there were no language problems. If this were the case, the solution could be found in the most appropriate translation, and there would be a 'simple' solution: the use of knowledge brokers. The problems of language, as many researchers seem to think (pursuant to field research conducted by Shapiro *et al.*, 2007), are

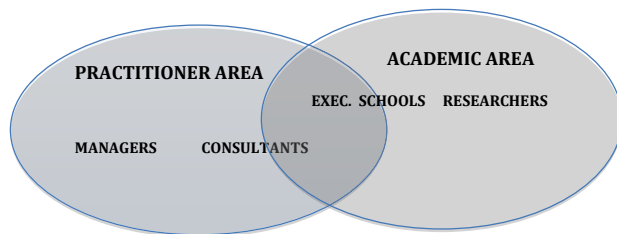


Figure 1 Knowledge brokering between science and practice

more complex than simply a question of translation: they could be solved by including in the relationship between science and practice some knowledge broker, whose task would be to give life to a research result transfer market, similarly to what has been identified for research in the technology field (Arora *et al.*, 2001). The framework is shown in Figure 1.

In this perspective, consultants and executive education schools, from universities to private training institutions, would have the task of ‘translating’ and transferring the research content into managerial practices (see, for example, Starkey *et al.*, 2009).

In reality, these consultants and executive schools exist, but the issue is that they have not to date solved the problem of the gap between science and practice since they do not act as knowledge brokers but deal with an entirely different process, which is the dissemination of the ‘best practices’. The task of consultants and managerial training is not in fact to spread scientific knowledge, it is instead very often to collect best practices, generalize these through models that conceptualize the specific situations in which they are elaborated and then disseminate them. The role of consultants and trainers as knowledge brokers is thus not in the sense of *academic push* but rather in the sense of *management pull*: the demand for new practices is met using routines drawn from the most innovative companies in the managerial field and then appropriately modified.

The reason is that the management knowledge formation process is not a one-way cognitive process as it is in technological research, but a completely different process, which I will illustrate in the following section.

Where does managers’ knowledge come from?

Researchers, even those who claim the existence of academic push, recognize that managers are able to produce knowledge (Boyer, 1990; Starkey and Madan, 2001) and therefore the idea of a one-way process of creating and using knowledge is not the only possibility (Van de Ven and Johnson, 2006).

The fundamental idea of this paper is that the mode of knowledge formation in the scientific world and in the

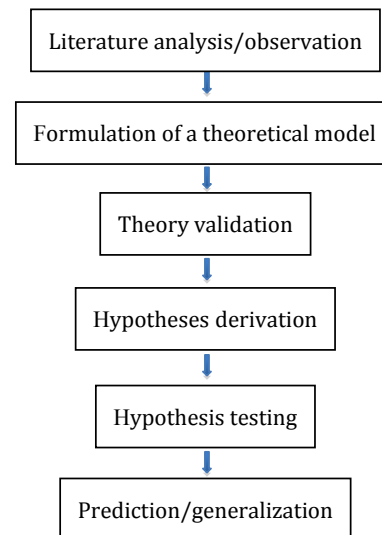


Figure 2 The formation of new knowledge in academia

management world are entirely different, and that in the management field, the scientific world and the professional world are not linked but are two quite different systems. In academia, in most cases (as described by Snow and Thomas, 1994), the formation of new knowledge occurs as a sequential process, which can be depicted as in Figure 2.

As can be seen, this constitutes a deductive method, with many variations, but essentially foresees that hypothesis testing is undertaken in the real world or through laboratory simulations. Clearly, the process can be recursive, in the sense that in the event of non-confirmation of the hypothesis – which rarely occurs in management disciplines for reasons well illustrated by Gambardella (2012) – the process can start again with a new theoretical model and continue with the usual sequence. It should be noted that there are also inductive approaches in managerial disciplines, where the sequence differs but the substance of relations with the world of management remains unchanged.

My idea is that knowledge in the management field, in line with Nelson and Winter’s (1982) thinking, is produced in a completely different way: managers constantly face new problems, caused by evolving environments, competition and markets, and to resolve them are forced to modify existing routines, constantly producing new practices, some of which prove to be appropriate while others have to be abandoned because they are no longer useful. In other words, when managers obtain disappointing results from their approaches, they need to correct them or find new methods (Hutchins, 1983; Wallace, 1983; Lave, 1986; Van de Ven and Johnson, 2006). This process, which can have several variations with many loop and feedback levels, is illustrated in stylized form in Figure 3.

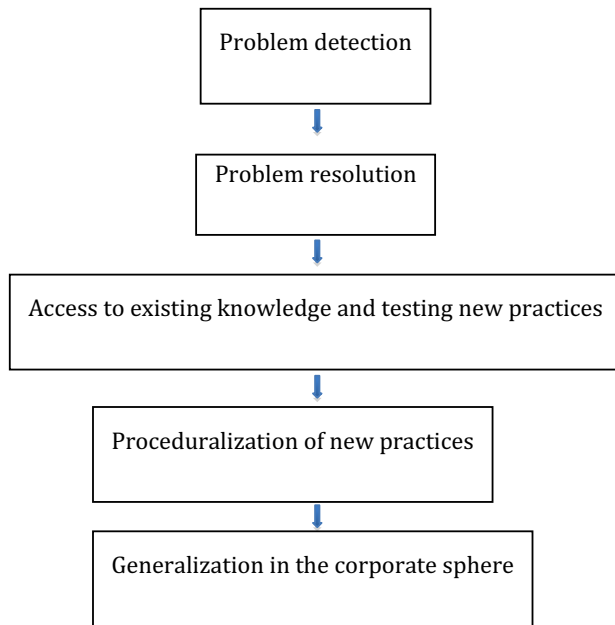


Figure 3 The knowledge accumulation processes of managers

The knowledge accumulation processes are therefore different in the two worlds and correspond to different objectives, using incompatible language and types of logic, and especially employ quite different validation criteria of new knowledge: in academic research the criterion is verified/not verified, while in management the criterion is useful/not useful to the solution.

A possible collaboration between science and management

The question then becomes: how can a closed system such as the managerial disciplines be opened to business interests? It should first be made clear that social systems work together and influence each other only when this collaboration is functional to the respective rules of proper functioning. Each system can enter into a relationship with another, but only through the ability to influence from the outside (or, in the language of systems theory, they ‘perturb’ each other).

This means that two conditions have to be met for there to be positive collaboration, which must:

1. be induced by a need, by an external ‘perturbation’; and
2. improve the functioning of both academic and business systems.

The thesis that I intend to argue here is that collaboration is only possible on condition that scientists are ‘forced’ to produce relevant research, also incorporating

relevance among the criteria for judging good research. I use the word ‘force’ because the solution will not be born from appeals for cooperation, but from a need. What could this need be? Why would universities and business schools incorporate relevance among the criteria for judging research and researchers?

We know from the theory of closed systems – in cognitive terms self-referential – that they are forced to enter into an exchange relation with another system, especially when they need to import resources (energy, in the language of systems). The situation today is precisely this: the absolute need for new sources of funding. The fact is that universities have a compelling need to access funding from individuals and businesses due to the increasing scarcity of public resources designated for research. Academic institutions in Europe can no longer rely on high public spending or in the US on substantial revenue from tuition fees, and have to increasingly turn to private funds. Industry funding is a particularly important source of financial support for faculties and business schools (Mesny and Mailhot, 2012), which will only be available at higher disbursement rates if research has some relevance as in the field of medicine or other disciplines that today have access to industry funds.

On the other hand, companies face a competitive environment that generates the need for constant change in product technology, production processes and management practices. Innovation has become a constant in the search for competitiveness. Management must continually seek innovative solutions everywhere and academia could become an important source of new solutions. In addition, the trend towards a reduction of corporate staff implies turning to the outside for many activities that were previously carried out internally. Thus, companies are looking for new management practices not only from within but increasingly from outside. In addition, it is clear that in the management field, the best methods increasingly require more empirical evidence to support them, according to evidence-based management (EBM). The academic world could become an important element in the production of data, theories and methods in support of more effective management practices.

In other words, if funding for scientific research were linked to the issue of the relevance of results, the research/relevance gap would be on the way to a solution. To render research more relevant, it is not so much researchers that have to change, as commonly believed, but the world of management must change its relationship with economic science, demanding relevant theories, facts and evidence in exchange for funding and data. In essence, the financiers of universities of economics and business schools should require that academic research is relevant as well as rigorous in exchange for cooperation in research and financial resources.

We all have a problem

The problem is that adjudicating the publishability of scientific articles cannot be left to companies alone, or worse still, to a single company, since this would compromise the independence of academic research (Beyer & Trice, 1982; Grey, 2001). The solution therefore involves creating an environment where academics can do research without sacrificing autonomy and the business world can claim relevance. This context has been well described by biologists with the term ecosystem. An ecosystem is a group of organisms that live in the same environment, mutually exchanging food and energy resources. This is exactly what management scholars and businesses should create to exchange knowledge and resources.

It has been rightly observed that in order for research to be really relevant, new ideas must emanate from an arena in which different actors operate (Abrahamson, 1996; Sahlin-Andersson and Engwall, 2002): scientists, successful managers, consultants, training schools, each capable of different and complementary contributions, and where relevance is the constituent factor and not an ancillary activity (Hodgkinson *et al.*, 2001; Pettigrew, 2001; Van de Ven and Johnson, 2006; Fincham and Clark, 2009). When this ecosystem has been established, the conditions will also be created whereby academics seek out anomalies in managerial practices, organize learning communities alongside managers, activate dynamic knowledge-sharing processes (see Van de Ven, 2002; Roux *et al.*, 2006), pose research questions and formulate hypotheses, essentially structuring research so as to make a significant contribution to the life of enterprises (Van de Ven and Johnson, 2006).

When companies finance research expecting an operational return, not only is the issue of relevance placed in the foreground but mechanisms are activated such as firms providing data, forming mixed researcher/professional teams, the willingness to serve as a laboratory and the production of joint research. Businesses would thus become discerning stakeholders of scientific research (Mesny and Mailhot, 2012). A strong economic incentive of collaboration is the condition of establishing an ecosystem for the creation of new ideas endowed with high utility and great rigour.

Moreover, it has been demonstrated in other fields that companies that have a strong network with university researchers and a greater internal capacity to identify and evaluate scientific research are in the best position to solve the problems that limit their development. In IT or pharmaceutical research, in biotechnology, in medical solutions, companies that are able to continuously innovate have a strong link with the academic world, within ecosystems that function efficiently. Furthermore, these ecosystems often compete with one another.

Research activities with the collaboration of businesses are also possible in the management domain, for instance conducting experiments similarly to the medical field, where doctors agree to use new drugs in clinical trials (Gambardella, 2012) or developing evidence-based management methods (Pfeffer and Sutton, 2006; Rousseau, 2006; Rousseau and McCarthy, 2007; Rynes, Giluk and Brown, 2007), which require a scientific approach to the production of robust data to support the most effective management practices. For this to happen, businesses and managers must perceive the same urgency in solving the problem of relevance and collaboration.

After all, these ecosystems, fuelled by the economic resources of enterprises, are achieved – at least partially also in the managerial disciplines – as shown by Harvard in the US or Insead in Europe – which have had, and still have, a great deal of influence on the management world. It is no coincidence that HBS, Harvard University's business school, has chosen to publish a magazine and not a journal, being more attentive to the relationships with its ecosystem than only with the scientific system (Cohen, 2007). This is because through the relevance of its research and its management training activities it receives substantial financial resources from enterprises, maintaining links with the consulting world, attracting successful managers as trainers and placing their students with greater ease.

If universities and business schools, along with businesses in their own environment, were able to produce as many ecosystems, they could trigger virtuous circles characterized by high scientific productivity, fuelled by the economic resources of companies and by the exchange of experience data, with the possibility of field-testing, with very relevant results. This, without sacrificing 'closure' in the production and evaluation of research and the highest-ranking scientific journals could not but respond to this motion.

This paper begins with the expression 'we have a problem'. Actually, I should have said 'only we have a problem, they don't seem to have any problem'. This issue has thus far been raised only by researchers to researchers while managers have not considered it a problem up to now, they have lived happily without perceiving this gap as important.

The issue is addressed and resolved to the extent that it becomes a problem of relevance also for the business world. And, fortunately, increasingly the conviction is spreading in the business world of the futility of financing universities and schools that produce completely irrelevant research. They no longer want to employ, and highly reward, young management graduates and MBAs who, from the relevance perspective, have an education not unlike that of other graduates in political science or philosophy, and who therefore have to be trained within companies. The management issue and the

unwillingness to finance business schools that produce inapplicable research will possibly create the need for a new approach to managerial disciplines for many business schools. So if ‘we all have a problem’ and consequently create research ecosystems, perhaps we will finally find the solution to the problem of relevance.

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