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Evaluation of the value of experts to a business: proposal of a theoretical model

Abstract

Resource-based theory informs us that a company's performance can be measured in terms of its ability to attract, develop and retain its internal resources. More than ever before, the most vital strategic assets are assets which are intangible and related to knowledge. Knowledge is becoming a rare resource in an increasingly complex environment. Competition boils down to the differential in knowledge between business competitors. So, experts constitute a key resource in any business. Being able to identify talent and keeping this talent in-house is a crucial management skill in terms of human resource function. What actually constitutes an expert? How can the intrinsic and contingent qualities of an expert be recognized? How to measure the contribution of an expert in terms of creation of market value?

In order to answer these questions, this article aims firstly to examine the notion of the expert within the organizational setting in order to come up with some typical characteristics. Then it proposes to provide an overview of the contribution of social accounting in terms of human capital valuation. Finally, the authors will produce a model for human resource valuation of experts within an organization.

Keywords: expert, human capital, evaluation.

JEL Classification: M12.

Introduction

Resource-based theory reliably informs us that a company's performance can be measured in terms of its ability to attract, develop and retain its internal resources (Penrose, 1959; Wernerfelt, 1984; Grant, 1997; Barney, 2001; Acedo et al., 2006; Sirmon et al., 2007; Teece, 2007). Proponents of this approach, such as ourselves, have witnessed a truly 'intellectual revolution' in this area over the past few years. The main manifestations of this are as follows: technical progress in the way data is stored and transmitted; the democratization of access to information; and the exponential growth of all systems of information exchange worldwide. The most vital strategic assets are increasingly becoming assets which are intangible in nature and are both directly and indirectly related to knowledge (Grant, 1996; Grant, 1997). Paradoxically though, knowledge is becoming a rare resource in an increasingly complex environment – complex from an economic point of view because of the increasingly wide variety of technological systems available, and complex from a political point of view as a result of the number of stakeholders involved in an enterprise these days and the need to satisfy their individual business needs and meet their expectations. More than ever before, competition throughout the business world boils down to the differential in knowledge between business competitors (Prahalad and Hamel, 1990).

Viewed from this angle, experts constitute a key resource in any business. As is similarly the case for employees in other sectors of a business, the more

experts are considered to be part of the human capital and directly involved in the performance of an organization, the greater the market differential achieved as a result (Becker et al., 1997). Crucially, there is a great risk that this resource is in danger of being lost. Experts as a body are a particularly volatile resource: they are courted for a price and actively pursued by "head-hunters". Being able to identify talent and keeping this talent in-house is a crucial management skill in terms of human resource function (HRF) for companies. An expert whose talent is either not formally recognized by the company or whose talent is under appreciated, can attract interest from and be lured away by a market competitor. This can result in the loss of a key resource and cause recruitment difficulties in finding a replacement for the particular resource skill-set of the departing expert. Getting this policy wrong has two important negative consequences for a business – firstly the impact it has upon market position and secondly the impact it has upon the reputation of a company in the employment market.

However, the task of identifying an expert is not an easy one. What actually constitutes an expert? How can the intrinsic and contingent qualities of an expert be recognized and assessed in relation to a business or a particular role? How to measure the contribution of an expert in terms of creation of market value? In order to answer questions such as these, our study aims firstly to examine the notion of the expert within the organizational setting in order to come up with some typical characteristics. Then we propose to provide an overview of the contribution of social accounting in terms of human capital valuation. Finally, using the characteristic traits of an expert identified (1) and the contribution of me-

thods of social accounting (2), we will produce our model for human resource valuation of experts within an organization.

1. Notion of an expert: characterization and value

In the history of management science there is no easily identifiable or clearly defined description of the term 'expert' – so often used in the professional setting. The objective of the first part of this study is to come up with a definition of an expert and to show which factors distinguish an expert from other high performing executives (Bournois and Roussillon, 1998) and others in the knowledge industry sector. The aim is to be able to identify – in the most precise manner possible – this particular set of people within an organization. This is a vital preliminary to any attempt at measuring their value.

The academic background literature leads us to characterize an expert in four main ways which we will analyze, one by one, in detail below. In the first instance suffice to say that an expert must have knowledge over and above the norm. Then he must hold a special position vis-à-vis the decision-making process within the firm. Next, he must have the requisite background, education and training to have achieved this position. Finally, using these criteria as a basis, and highlighting the most salient factors we propose to add conditional values into the mix in order to measure the value of an expert to an organization.

1.1. An expert is no ordinary individual in the knowledge industry sector. According to Bouchez (2006), an expert doesn't just apply knowledge – he (or she)¹ is first and foremost a creator of knowledge. He doesn't just deal with information but has a genuine ability to manipulate ideas and concepts. In this respect, an expert possesses a level of competence over and above the norm. In the majority of large companies, competence (knowledge, know-how and life skills) is measured by specially adapted criteria (employment and competency reference systems) on scales of several levels (3 or 5) the highest of which generally carries the term expertise (or a equivalent). An expert is, therefore, at the very top of this scale of measurement.

In addition, being a creator of knowledge, the term expert carries with it a certain reputation and element of prestige. Indeed an expert is consulted on the basis of this – to give an expert opinion, in such areas as finance, economics or in the field of medicine. Then there is the issue of prestige. On the prestige scale an

individual can be specifically sought out on the basis of his ability, have his ability recognized by others, enjoy a reputation because of his ability and be revered as a result. At the very least an expert must be highly regarded and may even be revered.

Finally, the notion of an expert consists of an explicit level of knowledge on the one hand, but also of validation and status conferred by way of peer or trademark recognition on the other. The value of an expert depends equally therefore upon position on both competency and prestige scales.

1.2. An expert must occupy a special position vis-à-vis the decision-making process. In order to appreciate this particular dimension of the subject, an expert within a business, has to be viewed as a scientific expert (Roquepio, 1997); although status and function are not the same. The scientific expert is consulted during the decision-making process in order to bring the full weight of his knowledge (recognized and accepted as being scientifically sound) to assist the decision-making process. His role in this instance is to provide knowledge not make decisions. He helps create an 'informed view and balanced judgment' on various aspects of a given problem. He takes scientific knowledge and transforms it into scientific expertise, and in doing so, he mobilizes his knowledge and uses it to help those in the decision-making position. So, from the moment expert opinion is given, the decision-taker can rest safe in the knowledge that this part of his decision is based on scientifically sound information. Generally the person taking the decision is faced with a particular situation and decision to make whereas the scientific expert doesn't necessarily have an answer for everything and is not in the decision-making position.

Experts within an organization are paid to provide advice, based on scientifically proven evidence or failing that an opinion based on personal conviction, in turn based on the particular competence and experience of the individual. So, if the term expert is used as a qualifier, e.g., "the best in his field", this relates to the actual function of giving expert assistance, the provision of guidance in the decision-making process and the demonstration of convictions responsibly held – all based on recognized competence. Having said this however, it is often the case that internal experts, employees of the business, are often expected to take on this role, sometimes without the requisite knowledge.

1.3. The particular career trajectory of an expert. As Trépos (1996) indicates, the latin origin of the term expert suggests experience, in other words a certain testing or endurance. An expert is therefore someone who has experienced (expertis) in the sense that he has confronted the dual dangers (experiti) of

¹ The denomination 'he' is used all along this work for convenience purposes.

ignorance and error. As a result he is supposedly capable of objectivity and not someone swayed by passion or ideology. In trying to describe the factors which shape the career path of an expert, the following are good markers: a career path distinguished by problems which have been successfully overcome and which have resulted in the acquisition of experience as a result. It is a career probably defined by one particular example in which the expert will have deployed his know-how and brought his considerable problem-solving skills to bear. As a result, reputation is acquired and there is an expectation of further success in the future.

In addition to the above, an expert is someone who has the ability to get to grips with a given situation, resolve a problem others can't quite get to the bottom of, meet the challenges of a problem never previously encountered, in other words deal with a situation outside expectational norms in the successful exercise of a particular function.

1.4. The value of an expert: nature and contingency. Using characteristics which constitute the make-up of an expert as a base line, we now suggest that value is dependent upon two variables. The first one relates to status and we refer to this as intrinsic value and the second relates to contribution to an organization which we call contributive value.

The intrinsic value of an expert is made up of two parts. The first part is directly linked to the fact that an expert is the person who is imbued with competence at the highest level of the scale of intellectual knowledge within a business, which is itself a reflection of his or her capacity to adapt knowledge to any given situation which is new, complex and unexpected. Secondly, intrinsic value is also linked to the fact that an expert is someone who, in addition, has particular legitimacy and carries particular weight, both within the organization and outside it in terms of either peer or trademark recognition. As a result, he often has a large social network and a well-earned reputation.

Contributive value is made up of one main factor – the central role an expert plays in the decision-making process either as an advisor or as a decision-maker. Past successes and failures play an important role in this respect.

However, contributive value is never absolute. It depends on circumstances/events the expert has to deal with. The value of this factor is therefore contingent upon the business, the work environment and personal management style. It is in fact future events – whether internal or external to the business, which will ultimately determine the value of the expert. Similarly, this particular value also depends

on the way the expert is dealt with by the company which brings us back to the style of management and HR policies of any given organization (remuneration and career development).

Nurturing and identification problems of experts have already been explored in the management science literature. According to authors, managing talents, and more generally human resources cannot be limited to the determination of possible imbalances (qualitative and quantitative) between individuals and their positions. It implies also to proceed to inner skills' inventory (Cappelli, 2008). These inventories will then offer the opportunity to establish a relevant management of reliefs on pivotal jobs, which is inherent to any strategic success of an organization (Boudreau and Ramstad, 2007). But it is also a tool to detect, among high potential individuals, the ones that are qualified for such positions (Collings and Mellahi, 2009). This helps as well to develop a talents' tank. Besides, for the HR manager, this hunt for experts must be scored on the base of a model of shopping for talents (Cappelli, 2008).

Authors are defining taproot positions (A positions) as the ones that influence strategically and directly the success of an organization (Huselid, Beatty and Becker, 2005; Becker et al., 2009). Talents are graded in categories A-B-C (Michaels, Handfield-Jones, Axelrod, 2001; Huselid and al., 2005; Becker and al., Beatty, 2009). A – players are talented individuals, with high potential. They are intended for positions A. B – players are talented, and it is by their rigorous processing that they will be able to reach A positions.

Finally the value of an expert is conditional and dependent upon the level of this involvement in and with the business, e.g., his sense of belonging or his psychological link with the business. This value is therefore subject to various risks – physical departure, whether accidental (death in service) or voluntary (poached by a competitor), and psychological disengagement.

In summary, the value of an expert, both for and in an organization, depends upon:

- ◆ intrinsic value (competence, network of contacts and reputation);
- ◆ contributive value (past success, future potential and decision-making influence);
- ◆ organizational contingencies (opportunities offered or risks posed in the workplace; and strengths and weaknesses of management);
- ◆ psychological contingencies (risk of losing employee or employee giving notice).

The value of an expert is a combination of intrinsic and contributive values and what we describe as contingent values. The latter depend as much upon

the management of the business as upon the psychology of the expert himself. We propose to examine the value of an expert using a quadripartite logistical method set out in the table below.

Table 1. Factors involved in the value of an expert

Intrinsic value	Intrinsic qualities of the expert: his ability, reputation, network of contacts.
Contributive value	Contributive capacity of the expert: performance, success, influence in decision-taking.
Organizational contingencies	The capacity of the business to develop the expert's abilities and to anticipate risks connected to him leaving the firm for whatever reason.
Psychological contingencies	The personal desire of the expert to be involved with and remain loyal to the organization.

This quadripartite logistical model, providing a breakdown of the expert in terms of value, will be referred to again later in Table 4 as part of the outline model we have developed and put forward. However, the variables to be taken into consideration are yet to be finalized – as too the relevant measurement factors and indicators for each variable. We now move on to illustrate different methodologies used in the evaluation of human capital.

2. Methods for the performance evaluation of human capital: challenges and limits

In order to produce a model for measuring the value of experts we propose to present a summary of the different academic approaches to the measurement of human capital. The aim of this second part of our study is to define the notion of human capital and to provide an overview of the different performance evaluation methods developed in the field. Academics writing in the 1960s/70s suggested economic and accounting models which turned out not to be of great practical use. Researchers in Accounting have not proposed anything significantly innovative or operational since then. However, the notion of social and human resource accounting as a theory developed massively over the period of 1990-2000 to the extent that human capital has now become a significant part of any model for business integration. However, despite these huge advances in acceptance, unfortunately, lack of recognition of the true importance of human capital to a business, is still widespread.

2.1. The need to define and measure human capital yet the difficulty of doing so. Not only is it difficult to find a definition for human capital, but deciding how best to measure it also a very delicate matter. According to Hoarau & Teller (2001) “human capital represents the sum total of the combination of knowledge, skills, innovative spirit and the ability of each individual to see a task through to completion. The notion of human capacity also in-

cludes the wider values of a particular society, its culture and its philosophy”. According to Simonnet (2002) “human capital represents the sum total of competences, qualifications and other capacities an individual may possess and put to productive use. Human capital may be innate or acquired throughout the educational process – at school and university or through professional experience, via the transmission of knowledge and acquisition of qualifications”. Whereas according to Lynn (1998) human capital is a constituent part of intellectual capital, along with relationship capital (business relations and contact with clientele) and organizational capital (intellectual property and infrastructure capital).

With these different attempts at definition set out above, we now move on to examination of the different attempts to actually measure human capital – research studies which have been many and varied. The results do not appear to have been particularly fruitful however and are characterized by problems encountered in the following categories: methodology, role and position of the HRF within an organization and instability of the social matter which is the subject of the measure (Bello, 2009). Moreover, social information is often only considered *ex post*, e.g., retrospectively; and the results are volatile and difficult to interpret. Tremblay & Audebrand (2003) also suggest that managers are too focused upon short-term goals which make measurement of human capital, its usage costs and development, impossible to quantify. Finally, Martory (1999) suggests that the notion of human capital is plurivocal. Different observers/users will have a different take on what constitutes value. For some, value will be assessed from the perspective of the costs involved whereas others will see human capital as a resource full of potential.

We believe that a positive vision of HR should be adopted in addressing the whole question of evaluation. To consider HR in terms of a cost which cannot be avoided is not a view we hold or share. How else can human capital be considered except in terms of the contribution it makes to the overall performance of a business? In order to prove this, we now proceed to offer a historical overview of the different approaches used in the measurement of human capital.

2.2. Development of different approaches to the performance measurement of human capital. Estimating the value in accounting terms of human resources boils down to considering them as part of the assets of a business, in the same way and to the same degree as material and financial resources. As will be seen below, things have moved on since the days when measurement was purely focused on itemized listing in the budget and concern uniquely for the end of term results (Trébucq, 2006). Over the

years there has been a move away from such original basic practices, towards greater social and human resource accounting and integrationist models.

2.3. Original approach. Different academics used one or other of the following models as the basis for their performance evaluation: the cost of personnel (cost of losing staff, cost of replacement or reconstitution, historical cost analysis) or the discounted cash flows. The precursors of this view are Liker (1967), Haitian & Jones (1967), Lev & Schwartz (1971), Flamholtz (1971, 1972) and it would appear that nothing more innovative has been produced since this period.

Liker (1967) sets out a socio-psychological evaluation model which confirms the hypothesis that a “participative” system of management engenders improved relations amongst the workforce. According to him, co-operative working relations between all ranks of employee, decision-making based on a highly structured system of consultation with staff and high expectations of performance, constitute the basis of a system guaranteed to keep absenteeism, staff turnover rates and production costs to a minimum whilst maintaining high rates of productivity. Applying this approach (in the RG Barry Corporation, in Ohio, USA), Brummet, Flamholtz & Pyle (1968) came up with an accounting model based on original HR costs. According to them, the cost of things which might more traditionally have been considered as investments (the cost of recruitment, apprenticeship and training) were quickly recouped. This school of thought was heavily criticized particularly by proponents of the historical cost accounting approach.

Flamholtz (1972) take an approach based more on the economic value of an individual to an organization. His model involves three categories of variable:

- ◆ Causal variables: individual attributes (personal capacity, competences, motivation, attitudes) and organizational factors (structure, management style).
- ◆ Intermediary variables: the conditional value of an individual (promotion prospects, productivity, transferability) and the probability of keeping an individual within the business.
- ◆ Results variable (the expected value of an individual in terms of mathematical probability).

According to Belcher (1974), quoted by Rousseau (1983), this analysis “is linked to two aspects of the concept of human capital: the individual and his aptitude. It includes “know-how” and “life skills” as well as “procedural knowledge””. In our opinion, this analytical approach describes the relationship between the individual and the organization from many angles including from an economic, socio-psychological, political and organizational point of view.

The traditional academic models set out two major positions. The first deals with the cost of producing and maintaining the expertise of a given individual; and the second deals with the future discounted cash flows. If we look at human capital as a source of future revenue, as Flamholtz (1972) urges us to do, we need to be constantly aware of the risk of an employee departure from the company, his levels of job satisfaction, motivation (a factor which promotes loyalty) and management style to which he responds best. In addition to financial indicators, non-financial performance indicators exist which can be just as important in the measurement of human capital. However, Bontis et al. (1999) highlight the drawbacks of the social and human resource accounting approach, noting the latent subjectivity of this approach and the weakness of numerous hypotheses put forward. It is difficult for instance to determine precisely how long an employee will stay with a company, to give accurate projections for annual salary increases or the future discounted cash flow rate. What’s more the financial markets value knowledge and experience of decision-makers very highly but how exactly can growth and accumulation of knowledge with time be measured in any objective manner?

2.4. The development of social and human resource accounting as a concept. Despite the lukewarm reception given to the notion of social and human resource accounting at the time, the last 25 years have seen a real sea-change in how this concept is now received. Methodological practices and the implementation of accounting tools (analysis of costs and hidden performance, socio-economic research, social audits, social assessment ratings, quality certification and social certification) have helped effect change in certain key areas: dialogue between stakeholders, situational diagnostics and internal decision-making processes (Capron, 2000).

It was the Swedish company Scandia that pioneered the introduction of internal and external social business reporting (Edison, 1997). In their own company system, human capital was measured by means of indicators against such factors as the cost of training and the value-added of human capital and other factors favorable mostly to the general workforce. These days social reporting, corporate and social responsibility reporting and social assessments, all take human capital into account, applying both qualitative and quantitative methodological approaches in the process all of which helps generate dissemination of information on the subject. Other companies followed Scandia’s lead (for example Banque CIBC, Banque Royale, Hewlett-Packard, Dow Chemical, IBM). However, according to Tremblay & Audebrand (2003), research results published are subjective and presentation methods used are not consistent.

At the same time as work in this area was being conducted, there was a similar increase in research work on the topic of measuring company performance. Human capital has increasingly come to be considered as an integral part of company performance.

2.5. Integrationist models. Since human capital is considered to be a creator of value, it has increasingly been integrated into multi-dimensional models of global performance measurement.

The pyramid model set out by Lynch & Cross (1991) integrates both strategic and operational performance measurement indicators. The strategic vision of the company is gauged by market indicators (such as customer satisfaction), and financial indicators (such as productivity). Operational performance indicators relate to criteria such as quality, delivery, timescales and cost of transformation. This particular model ranks performance measurement indicators and includes both financial and non-financial indicators at the same time. The main criticism of this particular model is that it is operationally weak in practice.

Those who formulated the famous “Balanced Scorecard” model (Kaplan and Norton, 1992), were similarly keen to link strategy to performance indicators and also to other business processes. Rejecting the more traditional evaluation tools, the authors attempted to develop a model which incorporated both financial and non-financial perspectives grouped into four categories of criteria (financial, customer satisfaction, links with internal business processes and links with learning & growth). Even though this model sets out to offer a balanced view of performance, in reality the four criteria are very tightly linked to and oriented towards financial performance, and what’s more, employees don’t appear to be explicit stakeholders.

More recently, in his survey of intangible assets, Sveiby (1997, 1998) has highlighted three particular performance factors: individual competence, and a company’s internal and external structures. Each factor is measured against three performance categories: growth and innovation, efficiency and stability. The author highlights the importance of an individual’s practical knowledge or their ability to create tangible and intangible assets. The following extract illustrates performance measurement criteria relevant to the workforce.

Table 2. Survey of intangible assets (extract)

Measures	Individual competence
Growth and innovation	<ul style="list-style-type: none"> ◆ Number of years in the company ◆ Educational level of professionals
Efficiency	<ul style="list-style-type: none"> ◆ Number of professionals/employees ◆ Ability of professionals to generate supplementary revenue
Stability	<ul style="list-style-type: none"> ◆ Average number of years in post ◆ Staff turnover rate

Source: Sveiby (1998).

Finally, the model proposed by Morin & Savoie (2002) deals with four performance factors (using 12 criteria and a host of indicators):

- ◆ Durability of the business: quality of its products and services, competitiveness, stakeholder satisfaction (clients, suppliers, shareholders, financiers).
- ◆ Economic efficiency: resources, productivity and profitability.
- ◆ Value of personnel: commitment of employees, workplace atmosphere, productivity of workforce, competence of workforce.
- ◆ Organizational legitimacy: respect for rules and regulations, social responsibility, environmental liability.

This particular model also takes into account the role of actors (in the political arena) who can influence company policy. In times of social crisis for example, one would expect human resources to be prioritized. The value of personnel to a business is assessed in accordance with four criteria and numerous indicators as illustrated in Table 3 below.

Table 3. The Morin & Savoie performance measurement model – 2002 (extract)

Criteria used to measure value of personnel	Indicators
Commitment of workforce	<ul style="list-style-type: none"> ◆ Staff turnover rate ◆ Levels of absenteeism ◆ Level of initiative demonstrated ◆ Participation in emergency situations ◆ Punctuality and diligence ◆ Questionnaires to elicit levels of staff motivation and commitment to the company and posts
Workplace climate	<ul style="list-style-type: none"> ◆ Behavioral indicators (absenteeism, level of staff complaints, staff turnover rates, days lost due to strike action, reasons for giving notice, anti-social behavior) ◆ Psychological measures
Productivity of workforce	<ul style="list-style-type: none"> ◆ Economic value of work produced (quantity and value of output) ◆ Quality of output
Competence of workforce	<ul style="list-style-type: none"> ◆ % of personnel classified as having positions of responsibility ◆ % of personnel you can rely on ◆ Number of successfully completed apprenticeships ◆ Transfer out rate of apprentices ◆ Rate of promotion or internal movement within company ◆ Number of referrals to internal working parties ◆ Use of mentoring programs ◆ % of workforce able to take on other responsibilities

2.3. Lack of recognition of social and human accounting. As the overview above demonstrates, human capital is an essential component of the value of a business. As such it is a non-financial asset. In fact human capital – the basis of all innovation, is not even officially recognized by the ISAB as a business asset. Although this particular value in terms of input may not be officially recognized as an asset, this is

not the case in relation to recognized output (in the form of patents or brands developed by its research staff). It would appear that only visible assets – things which produce a tangible economic product – are recognized in accounting terms. According to Bessieux-Ollier et al. (2006) a mismatch exists between the perception of intangible assets capable of flows which generate resources (inputs) and the tangible manifestation of these flows (outputs) which hold the potential for future wealth acquisition. They go on to say that “if the accounting model for human capital is so complex, this is because the very essence of intangible wealth – competence and knowledge – is internalized: and the generating fact (flow or future potential) goes unnoticed and therefore unappreciated in the market”. They go on to break this down further by suggesting that there are both internalized intangible assets (e.g., individual and collective potential which is not readily visible) and externalized intangible assets (visible and distinct). Along the same lines, Sullivan (2000), makes the distinction between human capital on the one hand and “extractable” values of this same human capital in the form of intangible assets, for instance the difference between intellectual assets on the one hand (programs, inventions, procedures, data bases, methodologies, documents, designs) and intellectual property on the other (models, patents, brands, industrial secrets).

In summary, proponents of various models which have attempted to measure the creation of value or performance, all consider that data about the workforce is an integral part of their methodology. If measurement of the value of human capital, based on cost alone (as per the traditional method) may no longer seem particularly relevant today, an approach based more on future economic potential may be what is required. What is true in general terms for human capital is similarly relevant in relation to the role and value of experts.

Conclusion: proposal of a performance measurement model to assess the value of experts

Examination of the background academic literature on what constitutes an expert, has enabled us in the first instance to put forward four main factors which, when taken together, constitute an expert's value. Secondly, our summary of the various methodologies used to measure human capital, has highlighted the difficulties involved in the measurement process, for example, the difficulty in deciding which criteria to include. Using both these sets of academic literature as a basis, we now set out our own performance measurement model for the assessment of the value of experts (Table 4).

Our model takes factors relevant to the value of an expert and applies analytical criteria and performance measurement indicators (set out in the table below) to them. As will be seen below, the intrinsic qualities of the expert are directly linked to reputation and competence whereas contributive capacity is more connected to the status of the organization, how collective and organizational competence is handled and finally business performance. However, we conclude that the value of an expert depends on two types of contingency. Firstly, expert value is particularly linked to management style, workplace climate and finally to the career development opportunities which exist in the business (organizational contingencies). Secondly, value depends upon the expert's sense of attachment and loyalty to the organization which employs him (psychological contingencies).

Our performance measurement model to evaluate expert value is based solely on academic literature and in this regard it is entirely theoretical. It remains to be seen whether the model is relevant or “operational”. A pilot study to test the theory is currently in the process of being set up in a business in the Center region of France operating in the high tech industry sector.

Table 4. Proposal of an operational performance measurement model to evaluate the value of experts to a business

Dimensions/factors	Criteria	Indicators
Intrinsic qualities	Reputation / Status / Prestige	Intensity: publications Sphere of influence (membership of professional networks) Number of qualifications (internal, external) Level of responsibility (head of section...)
	Competence	Educational level of expert Level of competence (human resource reference system) Degree of expertise commanded in the market
Contributive capacity	Reputation of the organization	PR, conferences hosted, articles and reviews published in professional press Development of partnerships Awards and recognition
	Involvement in the development of collective and organizational competence (expert as creator of knowledge, catalyst for growth)	Intellectual property: patents, brands and products developed over a set number of years Intellectual assets: processes, programs, data bases introduced over a set number of years Assistance given to management or strategic development committees (risk analysis in the medium and long term)
	Contribution to the performance of the company	Turnover/expert, gross operating profit/expert Ability to generate profit or additional income Cost of upkeep (salary and training in terms of career development) Specific gross operating profit (added value minus costs incurred) R&D investment

Table 4 (cont.). Proposal of an operational performance measurement model to evaluate the value of experts to a business

Dimensions/factors	Criteria	Indicators
Organizational contingencies	Management style	Collaborative management (relations with subordinates, involvement in decision-making process)
	Workplace climate	Indicators of social climate
	Working conditions	Pay awards/scales Internal recognition (appraisals) Workplace environment and intellectual environment (financing of conferences, purchase of materials)
	Management of career development for expert	Existence of formalized structures and system of information (scorecard)
Psychological contingencies	Feeling of belonging	Opinion scales (workplace motivation questionnaire) Number of proposals turned down Number of applications for other posts
	Loyalty	Length of service

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