THE MANAGEMENT OF EXPERT REPUTATION - A LEVERAGE FOR MANAGING EXPERTS EFFECTIVELY

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Abstract

Experts of specific domains are the fast estincreasing workforce in OECD countries. Since this fact had been realised by management researchers, they have focussed on the question of how to measure and enhance the productivity of said workforce. According to our research, however, it is not an expert's productivity which is to be regarded as the leverage for rendering experts effective for business. It is rather an expert's reputation which can be seen as the leverage for transforming expert work into business value. From this perspective, the management of expert reputation becomes the crucial challenge in the management of experts. This paper summarises the key arguments for aforementioned perspective, based on empirical research, it defines the parameters that constitute expert reputation and delineates the implications of the perspective assumed by the author for the theory and practice of managing experts.

Key Words

expert, knowledge worker, management, specialist, performance, productivity, professional, reputation

Does knowledge worker productivity really matter?

One of the great achievements of Peter F. Drucker, who would have celebrated his 100th birthday on November 19, 2009, is said to have been his ability to anticipate key management challenges decades in advance (Byrne & Gerdes, 2005). In 1969, he defined one of such challenges as follows: "To make knowledge work productive will be the great management task of this century, just as to make manual work productive was the great management task of the last century." (Drucker, 1969, p.290). In one aspect, Drucker was unquestionably right: Nearly all surveys of past decades are pointing to a fundamental structural change in the labour markets of the OECD countries:

- There has been, from 1985 onwards, a 10 percentage-points increase in so-called 'derivative services', e.g. consulting, coaching, teaching, researching, developing and management work (Weidig et al.1999; Dostal & Reinberg 1999; Dostal 2001; Reinberg & Hummel 2002).
- The number of occupations of the categories 'manager', 'professional occupation' as well as 'associate professional and technical occupation' has increased by 10 percentagepoints over the last two decades (UK National Statistics 2000; Baldwin & Beckstead 2003; Beckstead & Gellatly 2004; UK National Statistics 2006; Davenport 2005; US Department of Labor 2006; Brinkley 2006).
- The demand for employees with academic education has increased by 190 percentagepoints between 1975 and 2004 whereas the demand for employees with a lower educational background is continually decreasing (Weidig et al. 1999; Kleinert et al. 2000; Dostal 2001; Reinberg & Hummel 2002; Reinberg & Hummel 2005; OECD 2006a; OECD 2006b).
- Levy & Murnane (2006) noted a disproportional increase in the demand for two skill requirements within the US labour force between 1979 and 1999: 'expert thinking' and 'complex communication'. In contrast to this development, they observed that the demand for manual and routine cognitive skills has been continually decreasing within the same time frame.

In regard to Drucker's other thesis, i.e. that the productivity of knowledge workers will be the crucial challenge for 21st century management, he initiated an abundance of research in the description, measurement and enhancement of knowledge workers' productivity (Ray & Sahu 1989; Sumanth, Omachonu & Beruvides 1990; Drucker 1991; Sveiby 1998; Drucker 1999; Horibe 1999; Pfiffner & Stadelmann 1999; North 1999; Amar 2002; Davenport et al. 2002; Hauber 2002; Newell et al. 2002; Paradi et al. 2002; Ahn & Chang 2004; Balazova 2004; Herman 2004; Ramirez & Nembhard 2004; Schmenner 2004; Davenport 2005; Suff & Reilly 2005; Malik 2006; Stam 2007; North & Gueldenberg 2008) – a stream of research that does not seem to come to an end in the near and not so near future.

When focussing not on knowledge workers in general, but on a specific proportion of knowledge workers, namely that of experts, one does not find much evidence in the daily work life of an organisation that the measurement and enhancement of it's experts' productivity – 'productivity' understood in its traditional meaning of 'relation between quantity of output in relation to amount of input' (Gutenberg 1958; Pedell 1985) – is regarded as a major challenge neither by said experts themselves nor by their managers. According to the empirical research undertaken by us, it is rather the expert's reputation which might provide a key for rendering an expert effective for an organisation's business.

In this paper, at first, the design of the empirical study in which these findings were generated is being briefly depicted (chapter 2). Secondly, different literature approaches to the question of who is to be regarded as an expert are lined out and are juxtaposed with findings from our empirical research (chapter 3). Thirdly, the reasons for an expert being labelled as such are being explicated (chapter 4). Finally, the implications of our findinigs for the management of experts are being delineated (chapter 5).

Design of the study

The research question of this study is: What are the crucial challenges in the management of experts and which strategies are employed in order to handle these challenges? The focus is, therefore, not on knowledge workers in the general and comprehensive meaning of the term, but on that

proportion of knowledge workers termed 'experts'. Hereby, two terms are introduced which will be differentiated in chapter 3.

The objects of the study were five different organisations that are commonly regarded as 'expert', 'professional' or 'knowledge-intensive' organisations in previous treatises (Grossmann, Pellert & Gotwald 1997; Sveiby 1998; Pfiffner & Stadelmann 1999; OECD 1999; Amar 2002; Alvesson 2004; Davenport 2005; Brinkley 2006): a software development company, a hardware development company, a consulting company, a hospital and a university. In these organisations, 42 semi-structured episodic face-to-face interviews with experts and their managers from three hierarchical levels were conducted (Flick 1996; Bortz & Döring 2003; Lamnek 2005).

Since the hospital and the university have management systems different to those of the other three organisations and since an exact comparison has turned out to be difficult to undertake in that respect, the focus in this paper is on the following three organisations:

- · The software development organisation,
- · the hardware development organisation,
- the consulting organisation.

The data gathered by means of the interviews have been coded and interpreted with Atlas.ti, Version 5.5.4.

Two topics of interest in this context posed in every one-hour interview with the managers as well as with the experts were: Who is being regarded as an expert and why? The results are here presented in an aggregated and concentrated manner without disclosure of the identity of the organisations involved.

Who is being regarded as an expert?

Literature review

In the literature on the subject, one can find three different definitions of the term 'expert'.

According to research on expert performance in cognitive psychology (Larkin et al. 1980; Chi et al. 1981; Sweller et al. 1983; Posner 1988; Patel & Groen 1991; Boshuizen et al. 1992; Bromme

1992; Krems 1994; Gruber & Ziegler 1996; Sonnentag 1996; Custers et al. 1998; Hron 2000; Bredl 2005; Chi 2006; Feltovich et al. 2006), experts are considered to be individuals who are able to continually and repeatably accomplish outstanding results in a specific domain, as compared to average performers. Taking this viewpoint, cognitive psychology tries to describe and explain this phenomenon, investigating experts and their performance in domains such as jurisdiction, physics, engineering, mathematics, education, finance and consulting. It was found that experts distinguish themselves from average performers by the way they represent domainspecific problems as well as by the strategies they apply to solve those problems: They solve domainspecific problems more effectively, more efficiently and more accurately. This cannot be attributed to general intelligence, but to the way in which they group, store and retrieve domain-specific information. This skill is regarded to be a result of 'deliberate practice' in the respective domain over a considerable period of time. However, an expert can only be designated as such in comparison to 'novices' in the respective field.

According to research on professions in the sociology of occupations (Parsons 1939; Millerson 1964; Larson 1977; Abbott 1988; Hitzler 1994; Hesse 1998; Huber 1999; Mieg 2001; Pfadenhauer 2003), an expert is regarded to hold a social role which implies a more or less exclusive authority over a specific domain. In that research context, it was observed that some occupations distinguish themselves from other occupations by the degree of authority over solving complex and socially important problems in specific domains, such as medicine or jurisdiction - occupations, which are termed 'professions' by sociologists. The sociological point of view, therefore, differs from the psychological one in regard to the attributes that render somebody an expert: not primarily outstanding performance, difficult to observe and measure in daily social interactions, but the attribution of expertise to a certain individual or group by another group is the key factor in the answer to the question of who is regarded to be an expert. In order to achieve, maintain and institutionalise the expert role, the respective expert as well as his respective profession as a

whole has to demonstrate 'professionalism' in appropriate ways.

According to research on knowledge workers in management science (Sumanth, Omachonu & Beruvides 1990; Drucker 1991; Pfiffner & Stadelmann 1999; Newell et al. 2002; Herman 2004; Davenport 2005; Hube 2005; Stam 2007; North & Gueldenberg 2008; Brinkley et al. 2009), knowledge workers are primarily regarded as a resource for the transformation of knowledge into business value. Donoghue and Harris (2005) as well as Davenport (2005) provide a useful classification in order to differentiate a specific class of experts from knowledge workers in general (Fig.1):

Following this approach, different types of knowledge workers differ in the way they transform knowledge into business value: by carrying out routine or complex tasks, by performing individual or collaborative work etc. (Davenport 2005; Suff & Reilly 2005). The specific contribution of experts to business value consist in their capability for professional discernment, i.e. applying general knowledge to individual and rather complex cases. This is the core feature in the work of engineers and consultants as well as researchers, teachers and physicians. It is not necessary, in this context, to differentiate the specific characteristics of the expert further, e.g. under the aspect of whether they perform their work individually or collaboratively. It is sufficient to characterise an expert by the tasks he or she performs as well as by the knowledge he or she applies in order to achieve their tasks.

Therefore, one can state three different definitions for the term of the expert, based on three different subjects' perspectives on the same subject matter:

- 1. experts as outstanding performers in a certain domain,
- 2. experts as holders of an expert role in a specific subject area and
- 3. experts as resources for creating business value by professional discernment.

It is, however, amazing that hardly any notice is taken by the distinct speciality fields of the research in one of the other disciplines (Mieg 2000; Mieg 2001).

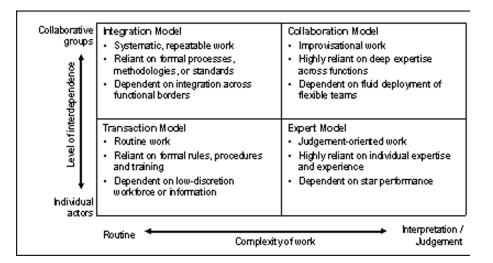


Fig.1: A classification structure for knowledge workers (Davenport, 1999, p.27)

Findings of the empirical study

In the organisations examined, only those employees are being labelled as 'experts' who work in a specific domain different to the domain of the person applying the label of expert, and who possess knowledge which is different, again, from the knowledge of the 'labeller'. Thus, the term 'expert' is neither used to designate outstanding performers, as researchers in cognitive psychology suggest, nor is it used to denominate employees who create business value by judgment-oriented work, as is proposed by scholars in management theory. It is the sociological meaning of the term 'expert' which is predominantly used in organisations in everyday business. Thus 'expert' designates someone who has an exclusive authority over a certain domain which is not one's own domain regardless of his or her performance or the business value he or she creates.

In the software development organisation, the unit head as well as the related department heads labelled every employee an expert, "who, after leaving university, works here for six months in a specific, confined domain, (...) like high availability, fail safe, backup systems, (...) GUI, (...) whatever". Not one of the experts interviewed labelled an associate employee of their own team an 'expert', but rather 'colleague'.

In the hardware development organisation, the department heads regard all their group managers, who are responsible for specific areas such as requirements management and hardware delivery for customers, module development and hardware tests, as experts. Again, no one working in said domains labelled associate employees in the same domain an expert; only associates in different domains did so.

This is equally true for the unit head of the IT consulting company and the department managers: They call 95% of their workforce 'experts' since their System Architects are able to provide solutions "on a large-scale product portfolio" to the customer and the IT Specialists can define "the last adapter or the last performance" within the given solution framework. Again, none of the System Architects and IT Specialists called one another 'experts'.

We, therefore, maintain that the term 'expert', as used in the day-to-day work life of an organisation, can be classified as a term to express a difference: a difference with respect to the work domain of an employee as well as to the domain-specific knowledge he or she applies in order to fulfil his or her tasks. Hence, managing experts always means, as Maruca (1996, p.3) puts it, "when you are not one of them".

This is not merely a matter of wording since the consequences can be seen in the general strategy of managing experts. The strategy is described by the management representatives as well as the experts as "Don't interfere", respectively "keep out of the other's sphere". That implies a strict division of labour between management functions and expert functions. Whereas the management fulfils the tasks of controlling of priorities, stakeholder management, resource allocation, people development and information brokerage across the department, it is up to the experts to plan, design and deliver the product or service to the customer. This is clearly observable in the software development, the hardware development and the consulting organisation when focussing on the relation between line management functions and experts.

It seems, however, a remarkable occurrence that the simple fact that somebody works in a domain and possesses a set of knowledge different to the set of knowledge of someone from a different domain is sufficient to call him an 'expert'. In common language, such an employee would rather be called 'specialist'. Following this argument, Hitzler (1994) suggests to differentiate between specialists and experts by their degree of autonomy: Whereas the former fulfil define- and controllable tasks, the latter possess a great deal of independence in what they do and how they do it within the limits of their domain. This perspective becomes relevant when asking for the reasons why a certain employee is being regarded as an expert.

Why is somebody being regarded as an expert?

From the interviews conducted with management representatives as well as with experts, it became very clear that both functional groups do not regard all experts as being on the same level. Some experts are regarded as being more expertlike than others. This cognitive representation of a person shall be called 'reputation' hereafter. The concept of reputation involves two sides: a sender, who wants to create a certain representation of him- or herself on the receiver's side, and the receiver, who, in turn, creates a specific image of the sender on the basis of the sender's appearance or behaviour (Langner 1957; Wilson 1985).

When focussing on the 'sender' of an image, i.e. on the expert, he or she has the task to display expertise respectively professionalism to four key stakeholders: to the customers, the fellow associates, the management representatives and, if applicable, the members of their project or work team (Fig.2). It is difficult to write a manual on 'how to represent expert-like behaviour' since different stakeholder groups as well as single persons holding stakeholder roles may have different ideas and expectations on what 'expert-like behaviour' is (Pfadenhauer 2003; Alvesson 2004; Goffman 2006).

On the basis of our empirical study we can, however, state with sufficient evidence, that it is not the fulfilment of technical tasks, but that of communication and management tasks which accounts for the 'expert-like' or 'professional' image perceived.

In the software development organisation, the management representatives mentioned 'the quality of the expert's argumentation in critical cases', 'the frequency they communicate and keep their management up to date' and the 'cooperation and communication within the team'. The software experts stressed the 'coordination with their counterparts', 'the definition and alignment of the development methods' and the 'definition and controlling of one's own priorities'.

In the hardware development organisation, management representatives focussed on 'development of a trusted relationship to the customer', 'feedback by internal and external customers', 'professional behaviour' and 'a structured working approach'. The hardware developers share this point of view to a large extend, but put a stronger focus on the 'good cooperation with the many interfaces', 'timely delivery of products and services' and 'management of priorities'.

In the consulting organisation, management representatives accentuated 'how the consultants present themselves internally and externally', 'how they broach the issue of something', 'how they are visible in the organisation' and 'how they sell what they do'. The consultants shared this perspective to a large extent. They underlined how important public relations activities and the presentation of oneself are and equally stressed that they are also 'engaged in important projects', 'work together with senior experts' and 'coming to terms with the customer efficiently'.

When summarising and systematising the statements of the interviewees, one can find three different sets of tasks which - when performed adequately - produce expert reputation (Fig.3):

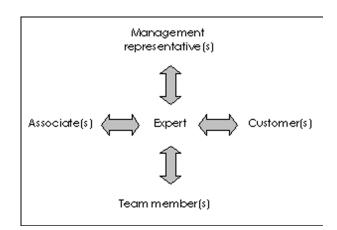
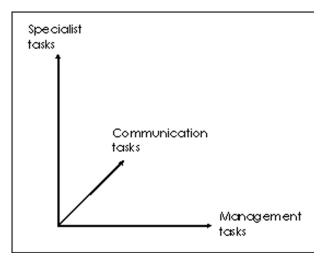


Fig.2: Relevant stakeholders for experts





1. Specialist tasks: Irrespective of whether the task consists in the development of a specific software function, a circuit board or in suggesting a specific IT infrastructure enhancement to a customer, every expert has to perform three basic activities in order to accomplish his or her tasks: He or she has to represent a customer need or a problem by collecting information and by classifying the information thus accumulated, he or she has to draw a conclusion on the basis of the information compiled and he or she has to suggest or perform a specific procedure in order to satisfy the customer need or to solve the problem. The cognitive processes herein involved have been explored by cognitive

psychologists, as already mentioned above, as well as by sociologists (Abbott, 1988) and support the statements provided in the interviews well.

2. Management tasks: Three management challenges have been named by the interviewees irrespectively of function, organisation or industry: the definition and controlling of work priorities within a defined period of time, the definition and control of the methods to be used and equally of the resources, i.e. time and headcount, allocated in order to meet the priorities. Drucker (1999) and his 'interpreters' (Pfiffner & Stadelmann 1999; Malik 2006) mentioned the first two challenges, but did not focus on the problem of resource allocation in expert work, which is regarded as one of the key challenges by the interviewees.

3. Communication tasks: According to the interviews carried out, the expectations of the management, the associates, customers and team members with respect to the communication behaviour of an expert can be summed up as follows: It is expected that an expert displays responsiveness to requests, which is very closely linked to and associated with management tasks since non-responsiveness is regarded as being a consequence of suboptimal self-management. Secondly, it is expected that an expert provides comprehensible consultation in his or her expert domain for all relevant stakeholders. This means that an expert is able to broach his or her subject matter in a comprehensible way. Thirdly, it is expected that he or she is able to offer guidance in his or her expert domain, which implies that he or she is able to persuade clients of preferred solutions as well as associate experts and management representatives of preferred priorities, methods and resources.

This paper undertakes to state, that the adequate, i.e. person-, organisation- and business-specific performance of aforementioned three tasks, i.e. specialist, management and communication tasks, generates expert reputation. The content of these tasks can be more precisely specified (Tab.1):

Specialist tasks	Management tasks	Communication tasks
Need or problem representation	Controlling of priorities	Responsiveness
Conclusion	Controlling of methods	Consultation
Processing	Controlling of resources	Guidance

Tab.1: Tasks and contents that account for expert reputation

These findings have definite benefits for the theory and the practice of the management of experts, benefits elaborated in the final chapter.

Implications for the management of experts

With respect to the theory of the management of experts it has already been mentioned above that an express amount of research in cognitive psychology, the sociology of professions and in knowledge work point in the same direction as do the findings presented in this paper. The results so far presented by expert theories, are, however, either too limited in scope since they are confined to expertperformance in solving well-defined problems or to the presentation and institutionalisation of professionalism. Another drawback of theoretical approaches so far presented consists in the fact that those approaches are too abstract and vague, as can be noticed from statements like, "the crucial question in knowledge worker productivity is the first one: WHAT IS THE TASK?" (Drucker,

1999, p.143) or "Leaders in successful knowledge organisations are high in both professional and organizational competence, not just in one or the other as are professionals or managers" (Sveiby, 2001, p.60).

In contrast to both limitations mentioned above, this paper comprises the relevant aspects of expert work in various business contexts and suggests a more specific and operational scheme for the factors relevant in being regarded as an expert. It is more specific and operational in the sense that all the tasks described in chapter 4 can be learned and trained:

- Specialist tasks are usually learned and trained via vocational training programs. Best practices can be found in the traditional professions of Medicine and Law, where graduates are trained by professionals in medical respectively legal practices for several years.
- Management tasks are presently not systematically trained in any profession.

However, the controlling of priorities, of working methods and of resources can be learned and trained. An adequate approach for rendering management tasks operable has been elaborated by Fredmund Malik (2006).

 Communication tasks are equally not systematically trained anywhere at the moment. Whereas responsiveness is, to a large extent, a matter of managing one's own work effectively, an abundance of methods for consulting and guidance can be taken from fully elaborated treatises on the practical art of classical rhetoric (Ueding, 1996).

In regard to the practice of the management of experts, this paper suggests not to define the productivity of experts as the crucial management challenge, but the management of an expert's reputation. If an organisation succeeds in defining and institutionalising a culture, i.e. a set of shared beliefs (Sackmann, 1991) with respect to expertlike behaviour and accomplishes the performance of specialist, management and communication tasks in relation to its key stakeholders, then experts will contribute to business value.

A good example for this management strategy can be observed in the consulting organisation examined. The basic performance indicators for a consultant whose mission is to support the pre-sales phase of a customer IT-infrastructure project are: number and revenue of projects, rate of demand for a specific consultant, sales and customer feedback as well as the number of public relations activities, such as lectures, presentations, interviews and publications. It is the responsibility of the consultant to assess and enhance the demand for his own person. This demand is, in turn, generated by the attention paid by him to his or her own reputation. And this, in turn, implies that a consultant has to carry out the specialist, the management and the communication tasks with a view to high stakeholder satisfaction in order to secure his or her employability in his or her organisation. In addition, every consultant can certify him- or herself within the company as a first-level IT architect, second-level IT architect, distinguished engineer or a fellow. Said role owners do not only work together in projects, but also form a professional community for information exchange, professional development and - a platform for reputation.

The management representatives in the consulting organisation are not very much engaged in traditional management activities, such as defining, controlling and supervising the work of the consultants, or in trying to motivate them, but can rather concentrate on overall priority management, stakeholder management, coordination of methods and resource controlling.

By taking this example as a Best-Practice-Example and by referring to the other cases of the research as secondary, but supportive instances, which do not possess such an elaborate management system, one can formulate the following guidelines for the effective management of experts:

- Take care that all experts have customers: Do not allow the existence of experts who do not have stakeholders in need of the expert's products or services.
- Define expert reputation: Define in close cooperation with your experts what is to be expected from an associate who wants to be regarded as an expert with respect to the relevant stakeholders as well as to specialist, management and communication tasks.
- Ensure common understanding and interpretation in the management team: Take care that all management representatives have the same understanding of what renders a specialist an expert. This is important because of the fact that in several organisations, every management representative has his or her own interpretation of expert-like behaviour.
- Implement the expectations towards experts into management systems: Make sure that defined expectations towards experts have been incorporated in the management systems in place, e.g. management by objectives. This is important due to the fact that in some organisations, management systems do not reflect the organisational informal rules adequately, which renders them very ineffective.
- Institutionalise a pull-principle for expert reputation: Ensure, that the responsibility for an associate's expert reputation rests with the associate.
- Support expert development: Take care that associates receive opportunities to develop expertise with respect to specialist,

management and communication tasks. This can be achieved by providing individual development programs or by institutionalising professional career paths.

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