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ABSTRACT
                Creating competence has become a major issue in
organizations. Various authors contend that competency management has the
potential of integrating organizational strategy, human-resource instruments,
and human-resource development; that competency development can lead to
performance improvement; and that it can help Human Resource Development
(HRD) professionals in aligning their practices to the needs of the changing
organization. A study was designed with four objectives. The first objective
was to analyze the concept of competence, seeing what definitions are brought
forward and how the concept is perceived in practice. The second objective
was to evaluate the dissemination of the concept. The third objective was to
evaluate the potential of competency development for vertical integration,
and for HRD programs and practices. The fourth objective was to analyze the
contribution of the concept of competency development for the HRD profession.
Data collection for the study involved telephone interviews with 80
for-profit and nonprofit organizations, 35 telephone interviews with
directors of Human Resource Management (HRM) in large organizations, and
questionnaire responses from 130 HRD managers. Finally, an analysis was
undertaken of the critical views of organizations that have introduced
competency development systems. Based on the findings, recommendations are
given for other organizations that want to introduce competency development
systems. (Contains 38 references.) (MLF)

Creating Competence:
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Creating Competence: Perspectives and Practices in Organizations [1]

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Creating competence has become a major issue in organizations. Focusing on core competence is even seen as an essential condition for economic success. Prahalad & Hamel (1990) have argued that organizations should carefully articulate their core competence, which enables them to combine technologies that result in competitive advantage. They point at various examples in business and industry of organizations that have done so with great economic success. Core competencies, according to Prahalad & Hamel are the collective learning in the organization, specifically with regard to the way in which diverse production skills are integrated and multiple bundles of technologies are coordinated. Examples of these core competencies are the miniaturizing of Sony, and ultra thin packaging of Casio. The learning that is indicated by Prahalad & Hamel is a kind of organizational learning.
The concept of the learning organization has been introduced in the same period. The most influential author in this field has probably been Senge (1990). His work entered many board rooms of large organizations.
In Europe, many organizations that are learning oriented, and put Human Resource Development (HRD) high on the corporate agenda, have adopted competency development systems (Tjepkema, Ter Horst, Mulder & Scheerens, 1999). Competency development systems are being perceived as instrumental tools to make the concept of the learning organization practical. Various authors (e.g. Prahalad & Hamel, 1990; Dubois, 1993; 1998) contend that competency management has the potential of integrating organizational strategy, human resource instruments, and human resource development, and that competency development can lead to performance improvement and that it can help HRD professionals in aligning their practices to the needs of the changing organization. Not many critical studies have been carried out, however, to evaluate the value added of competence development for the organization. Does competency development indeed result in vertical integration, horizontal integration integration of HRD instruments, and flexibilization of employee development? And does it serve as an effective HRD tool?

1 Objectives of the study

This study is based on a project for the Foundation of Management Studies (Mulder, 2000). The first objective of this study is to analyze the concept of competence, to see what definitions are brought forward, and how the concept in perceived in practice. The impression is that there are lots of differences in perspectives and practices.

The second objective of this study is to evaluate the dissemination of the concept. Considering the number of conferences and professionals publications on competency development (see for instance the Competency journal), one might get the impression that all organizations work with competency frameworks. In reality, however, is appears that much that is written about or presented from practice comes from large

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[1] The study on which the paper is based, is conducted for the Foundation of Management Studies in the Netherlands.

organizations. Small and medium-sized companies seem to utilize other, mainly network-based, learning and development strategies.

The third objective is to evaluate the potential of competency development for vertical integration, horizontal alignment of HRM-instruments, making of employee development more flexible, and for HRD programs and practices.

HRD can be conceived of as the facilities that support the learning of employees in organizations, and competence development is clearly related to HRD. As competence development practices tend to emphasize other HRD-stategies than traditional training, it is interesting to see what other kind of HRD-strategies are stressed. So the fourth objective is to analyze the contribution of the concept of competency development for the HRD profession.
Finally, this study is completed by a critical analysis, an analysis of the critical views organizations that have introduced competency development systems on these systems. Based on this, recommendations are given for other organizations who want to introduce competency development systems.

2 Theoretical framework

The theoretical framework consists of literature on the learning organization (Senge, 1990; Watkins & Marsick, 1993), core competence (Prahalad & Hamel, 1990; Hamel & Prahalad, 1994; Hamel & Heene, 1994), competence development (Klemp, 1980; Boyatzis, 1982; Dubois, 1993; 1998; Eraut, 1994; Parry, 1998; and many others), and on performance improvement (Stolovitch & Keeps, 1992; Swanson, 1994).

Considering the present attention for everything that is related to competencies, ignorant HRD professionals could easily assume that 'competence' is a new concept. It is surprising to learn that 'competence' as a concept goes back to the French word 'compétent' and that its first use in Dutch (in the present language area) is from the year 1504. The French 'compétent' goes back to the Latins 'competens'. The meaning of that is able and en leagally qualified. 'Competence' goes back to the Latin 'competentia' and means skillfulness and qualified.

In is also interesting to note that the concept 'competency' in English is also used in the sixteenth century. Webster's signifies to the first use in 1596. The use of the concept 'competence' is of a later date, it was used in 1632. Both concepts were still synonyms at that time. They meant the possession of a sufficient level of means to support ones life, and the quality or state of being competent. Competent meant the possession of required of appropriate abilities of qualities (in de sense of a competent laborer, the ability to deliver a competent piece of work), legally qualified (in the sense that a person could perform activities that required legal recognition, like being a competent witness) and the possession of the capacity to function or to develop in a certain way. In short, all present associated meanings of the concepts of 'competence' and 'competency' were already there in the 16th century. The use of the concepts in the context of business administration, and Human Resource Management and Development are from the last decades however.

In this contribution, we conceive of competence as the capability of organizations and individuals to perform tasks or to solve problems that are essential for success. This working definition is based on the following principles.

1. Competencies are capabilities and they can be seen as performance requirements of persons, teams, working units or organizations that enable them to deliver the desired performance; an example of a competence of the Royal Dutch Airline (KLM) is the ability of turning a carrier: the capability of realizing a minimum turning time (between arrival and departure), that is of essential importance, and that has much value added and that directs the coordination and integration of various disciplines, departments and technologies.
2. Competencies are related to results areas and the performance of organizations, or of working units, or individual jobs (e.g. in the field of purchasing management, marketing management, supply chain management or account management);
3. Competencies are mastered to a certain level of proficiency, and can be developed further in many cases; mastery levels that can be distinguished are beginning, advanced, competent, proficient en expert (Dreyfus & Dreyfus, 1986);
4. Competencies consist of related and meaningful clusters of knowledge, skills and attitudes (like entrepreneurship, results orientation, flexibility);
5. Competencies are portable to a certain extent (flexibility can be used in negotiation situations and during information transfer);
6. Competencies can be present in persons and systems (the abilities of persons, for instance, and the knowledge that is stored in computer files);
7. Competencies form a necessary condition for the ability to perform (possessing leadership skills and using them in daily practice are two different things);
8. Competencies are not directly an overtly observable; they are abilities that are represented in a certain performance; so the level to which persons possesses certain competencies is measurable only by analyzing performance (initiative, decisiveness and customer orientation are not observable without letting the person apply the competencies mentioned in practice of in a simulated situation.

In this study we focused on individual competence.

A competency is an underlying characteristic of competence, an element of competence, and consists of clusters of knowledge, skills and attitude that are necessary conditions for effective performance. Competence management is the process of business administration by which the right competence is present at the right moment in the right place. It consists of competency profiling, competency assessment (and sometimes competency based reward), and competency development (see Figure 1).

Competency development consists of the development of personal development plans and the implementation of these plans. Personal development plans can consist of participation in training, participation in coaching, management of learning projects, learning from colleagues, learning in professional networks, and other forms of learning.
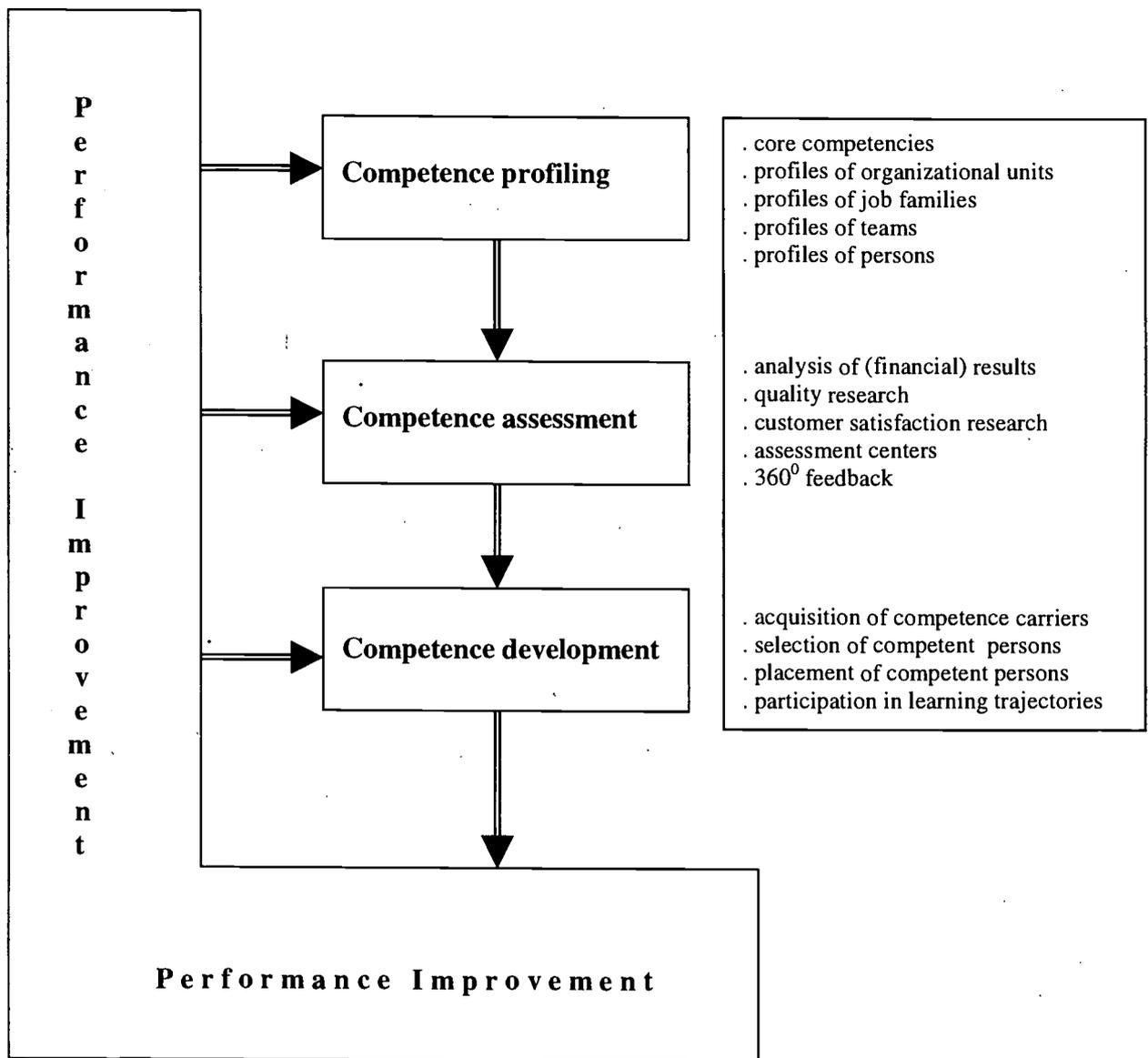
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│ r                         ┌──────────────────────┐   . core competencies
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│ o                         └──────────────────────┘   . profiles of job families
│ r                                    │                . profiles of teams
│ m                                    ▼                . profiles of persons
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│ n                         ┌──────────────────────┐   . analysis of (financial) results
│ c        ═══════════►     │ Competence assessment│   . quality research
│ e                         └──────────────────────┘   . customer satisfaction research
│                                      │                . assessment centers
│ I                                    ▼                . 360⁰ feedback
│ m
│ p                         ┌──────────────────────┐   . acquisition of competence carriers
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│ o                         └──────────────────────┘   . placement of competent persons
│ v                                    │                . participation in learning trajectories
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│            Performance Improvement
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Figure 1   The core processes in competence management

3 Methods and techniques

The design of this study can be characterized as descriptive and exploratory. Multiple data collection methods are used for the different parts of the study. Content analysis has been used for the literature study and case studies (competency frameworks, policy documents), open orientation interviews are held with ten representatives of organizations that work with competence systems, a orientation survey is held in eighty organizations, in-depth semi-structured interviews are held with directors of HRD of large organizations, another survey is held with 130 HRD managers, follow-up telephone interviews are held with a selection of the respondents of these

organizations, and finally case studies are conducted with various organizations that are active in the field of competence development.

The data are of qualitative and quantitative nature, and are analyzed by using interpretations of qualitative data (such as interview transcriptions and reports, and competency models), and descriptive statistics.

4 Data sources

For the first survey a random sample of 80 profit and non profit organizations is drawn. A telephone interview is held based on a closed questionnaire with eleven questions on the implementation of competency development. All organizations responded to the questions.

The thirty five semi-structured telephone interviews with directors of HRM in large organizations were conducted with sponsors of the Foundation of Management Studies. Most of these sponsors are corporate directors of HRM in their organizations. The questions are aimed at finding out whether the organizations worked with competencies, and if so, in which way. Four application areas were distinguished: selection, management development, behavioral change, and job oriented training. Furthermore questions were asked about the new elements of working with competencies, the reasons why other concepts were insufficient, the value added of competency development, and critical remarks.

The survey for HRD managers were conducted using a address data base of the 2,500 HRD managers. A random selection of 1,000 managers received the pre-structured questionnaire, which consisted of the same questions as the questionnaire of the HRM directors. More in depth questions are added on the implementation of the concept, and on a specific competency-based HRD project. The respondents had to select an HRD project that was most heavily based on the perspective of competency development. Of this project, respondents were asked to rate the specific objectives of these projects, and their results. Of the sample, 130 HRD managers responded, which is considered quite good, as many of the addresses that were used were not accurate anymore. Furthermore, the questionnaire was quite long. There are no indications of response bias. To validate the answers on the questions of the applications of competence development, all respondents who reported positive use we contacted by telephone, to double-check their answers.

5 Results and conclusions

The literature review

The literature review showed that the concepts of core competence, competence, competency, and competency development are defined very differently. In fact it is a mer à boire of definitions. Over forty definitions were found. They can be clustered into the following categories:

> *Core competencies* (Prahalad & Hamel, 1990, 82; Cobbenhagen, Den Hertog & Pennings, 1994, 14; Hamel & Prahalad, 1994; Den Hertog & Huizenga, 1998);

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Competencie(s) of the organization (Lado & Wilson, 1994, 702; Volz & Aalbers, 1998; Weggeman, 1997, 64);

Competencie(s) of the person (Boyatzis, 1982; Brugman, 1994, 9; Bergenhenegouwen, Mooijman & Tillema, 1998; Bergshoeff, 1998; McClelland, 1993; Dubois, 1993, 9; Dollevoet & Van der Wind, 1998; Hoekstra & Van Sluijs, 1999, 30; Van den Heuvel & Kuipers, 1999; Klemp, 1980; Lap, 1998; Olafson, 1973, 177; Pals & Mulder, 1998; Twisk, Singerling & Steenhorst, 1997);

Work related competencies (Klarus, 1998, 40; Nordhaug, 1993, 50; Nordhaug & Grønhaug, 1994, 91; Roos & Von Krogh, 1992; Thijssen, 1998; Visser, Mulder & Geelen, 1998);

Competency as integrated clusters of knowledge, skills, and attitude elements (Dewulf, 1998; Van den Heuvel & Kuipers, 1999; McClelland, 1973; Parry, 1998, 60).

The definitions within and between the clusters vary considerably; over twenty dimensions were found on which the concepts differed. The same amount of variation is found in the field.

As mentioned above, the concept of competence development has become a major issue in organizations. This is related to the fact that many organizations have to cope with fast and profound changes in their environment, and that they have to anticipate on or to adjust to these changes. Learning has become a crucial condition for survival and success of the organization, and the employability of employees. Organizations select learning oriented strategies to improve their performance, and competence development is such a strategy. Major dimensions on which these definitions differed, are:

Ability:	Do knowledge, skills, attitudes, and competencies stand on the same level, or is competence an overarching ability that comprises knowledge, skills and attitudes?
Capacity:	Is a competency an ability, or a more common characteristic of a person or organization, amongst which traits?
Centrality:	Does a competency always belong to the core of the ability of a persons of an organization, or can a competency also have a more specific character?
Goal orientation:	Does a competency always have to be related to intended performance or a desired result?
Individuality:	Is the carrier of a competency a person or a collective?
Knowledge orientation:	How broad is knowledge conceived of? Does it comprise skills and attitudes? How are these integrated with tasks? Are competencies skills to perform tasks?
Learnability:	Is a competency always learnable?
Human aspect:	Are competencies always abilities of human beings, and can they not be embedded in other sources and artifacts?
Motives:	Do motives also belong to competencies, or is are they deeper anchored personality characteristics?

Observability:	Does behavior based on competence always be observable or can competence be asserted based on the results of job performance?
Role:	Are competencies always part of a role, or can a job also consist of competencies?
Situation specificity:	Is a competency situational bound, or on the contrary situational independent and is the performance situational bound?
Specificity:	Are competencies always specific abilities or rather general abilities?

The definitions given earlier in this proposal are working definitions that are based on the analysis of the other definitions.

Survey results

The survey shows that about a third of the organizations in the sample (n = 80) work with competencies, and that profit organizations use the concept four times more than not-for-profit organizations. Organizations that did not work with competencies said that they did not know the concept, found that the concept did not fit their organization, or thought their organization was not ready to introduce the concept.
The history of working with competencies in the organizations is still short. Most organizations that work with competencies do that since 1996. In other words, the competency concept is still young in organizations, and experience with the concept is still limited.
Most organizations perceive competencies as task specific knowledge, skills and attitudes. Some organizations include basic capacities and personality traits in their concept of competence.
Competence management is mainly applied in the field of employee development. But also selection and assessment, as well as training are important application fields. Competency-based remuneration is rated as less important, but in fact, all HR areas are rated as (very) important application fields for competence management.

HRM-directors interview results

The in depth interviews with HRM Directors showed how organizations work with competency development in the field of selection, management development, job related training and behavioral change. Competence management can enhance the vertical integration of the various policy levels in organizations, the horizontal integration of HRM instruments, the activation of employee development, and strategically aligned HRD. Earlier research showed that these issues caused great concern. In the eighties we concluded that in most organizations we studied at that time system levels were incompatible. What went on in HRD was not strategically anchored in corporate policy making nor in Human Resource Management strategy and practice. It was as if these issues co-existed without effective interaction. The majority of HRM-directors in this study stated that competence management has the potential of overcoming the barriers that exist between horizontal units and vertical levels in the organization. Many of the examples of competency-based management

and development practices, however, showed the isolated use of competencies. There appeared not to be any integration. This is related to the fact that many organizations tend to introduce competency-based management and development in projects in parts of the organizations. Organizations that use the concept in an integrated way report that it is quite feasible to employ competency profiles as the basis for comprehensive HRM and HRD that is aligned with corporate strategy. Experience of organizations still is too limited to conclude whether these organizations are exceptional, or that many organizations who tried to introduce competence management will also accomplish comprehensive and aligned HRM and HRD policies and practices. One thing can be concluded though: competence development implies a development imperative. Organizations that implement competence development introduce a systematic way of HRD policy making. It is because of competence management that organizations more consciously conceive of HRD policies and practices; HRD becomes less accidental, and more intentional. This clearly is an advantage, as systemic and strategic HRD is an important condition for sustained profitability and growth. It is instrumental in implementing the concept of the learning organization, and a learning organization adapts itself more effectively to changing conditions in its environment.

Survey and interview results with HRD managers

The survey and follow-up interviews with HRD managers showed comparable results, and valued added of competence development for the acquisition of new clusters of knowledge, skills, and attitudes, the transfer of these competencies to the work situation, and the outputs of job performance.
Competency-based HRD implies a stronger strategic anchorage of HRD activities within the organization, which will lead to more effectiveness of HRD-efforts.
The collective concentration on competence development results in a positive learning and development climate. Competence development namely implies that conditions for HRD activities have to be created. It signifies the positive attitude of the organization's executive management towards the importance of learning and development as necessary conditions for economic success of the organization.
Competency profiling and assessment results in better needs assessment prior to training and development programs, which leads to better validity of the content of those programs.
Competency profiles generated a better basis for purchasing training and development services. They deliver the specifications for these services, and both client and vendor can use the specifications to make more relevant HRD programs.
Competency profiles also provide more transparency as to the usefulness of HRD programs in the framework of career development. If a competency profile is linked to a certain job, candidate participants get a clearer picture of what is expected from them when they want to prepare for that job.
Because of the continuous assessment practice, direct supervisors and reports have contact about HRD programs more often, which leads to more and better transfer of competencies acquired during training and development,
Competency profiles also provide a better ground for results measurement.

Case study results

The case studies showed ways in which organizations implemented vertical integration of policy processes, horizontal alignment of HRM instruments and more flexibility (individualization, broader strategies, and performance orientation) of HRD.

Overall conclusions

The conclusions of the study were:

1   Competency development is being used in about one third of the organizations studied; utilization of the concept is dys-proportionally distributed over organizations of different size and economic sector.
2   Competency development contributes to the vertical integration of policy processes: HRD can be aligned better to HRM and organizational strategy because by competency profiles expectations are articulated clearly.
3   Competency development contributes to horizontal alignment of HRM instruments. Competency profiles serve as an instrumental foundation for selection, assessment, payment, training and development.
4   Competency development results in better differentiation and customization of HRD strategies, and broadens the perspective of HRD as to direct performance improvement.
5   Competency development poses an interesting challenge for HRD professionals; their roles change towards performance consulting.

This study informs deliberations of organizations that want to introduce competence development. It shows that competency development can result in performance improvement, and it helps HRD professionals in focusing their services for the organization. It gives learning a higher position in the organization, but HRD professionals need to develop themselves in this direction.
The success of the concept depends largely on management, that is not selected, trained, and rewarded (hence maybe not motivated) for this new task. This needs attention.
The final conclusion of the study is positive. Organizations are recommended to implement competency development, although there are many critical remarks that need to be taken into account. These critical remarks (and the results of the study) will be elaborated in the paper.

Critical remarks

There are some critical remarks, however, that urge organizations that want to use the competence concept in organizational strategy, HRM and HRD:

1. They are many definitions of the concept competency. The meaning of the concept is not agreed upon by various researchers and authors. Also in practice, many organizations have different descriptions of the concept. This serves as an

alibi to define competency as one likes, which does not contribute to the trustworthiness of the concept.

2. The costs of developing and maintaining competency profiles, competency assessment and competency development are high. On the other hand, many of the costs are being made as a consequence of competence management. Furthermore, the costs of not implementing competency-based strategy development, HR management and HR development are not known.

3. Competency-based management implies an open culture and cooperation. If these conditions are not met, competence management will probably be a failure. Management itself has to walk the talk, or else people at lower levels of the organizations will perceive it as one of the ordinary management tools that they will have to survive in stead of that they will appreciate it as an organizationally supported strategy to develop the organization and the individual.

4. Attention for competence management can result in too less attention for performance. The conceptual framework presented in Figure 1 is not prevalent in most organizations: they tend to use competency frameworks without a focus on performance improvement.

5. Competency profiles are not always reliable and valid, and many organizations do not seem to care. They use the profiles as normative instruments, as models that persons have to master. An essential problem with competencies is that they are representations of performance requirements that seem to exist regardless of a specific context, whereas competencies can only be interpreted in a given context. Decontextualization is conditional for transfer to different task or problem situations, but that is something different. Assessments and 360-degree feedback do not solve this problem, as the problem is embedded in the contextually bound meaning of competencies.

6. Competence management can lead to bureaucracy. Organizations that have introduced competency profiles, have instructed supervisors and employees how to use them annually, require that forms are completed in which competency proficiency is expressed, are probably on the wrong track. The value of the collective process of generating competency profiles, collective decision making as to the value of certain competencies, and the learning culture that is created by this process in which individuals and teams find challenges to improve the quality of their work is far more valuable that the mechanistic use of competence management instruments that resemble the old-fashioned personnel administration approaches that were counter-productive for the development of persons in organizations.

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