

Competency Models and Approaches in Management

***Prof B. Venkat Rathnam**

****A. Suresh**

*****K. Sathish**

INTRODUCTION

In a continuously changing environment, it has become impossible to manage successfully without sustained personal development. The managers of organizations face the globalization of business, rapid technological change, continual reorganizing and competence-based competition. These developments challenge the skills, competencies and capabilities of managers in organizations. In light of these dynamic changes, managers' competencies also need to be renewed on a regular basis. The concepts of skills, competencies and capabilities are all applied when discussing management development. Their definitions, however, seemingly remain unclear. "Skills" have been defined, for example, as specific expertise which can be taught and which is applied in operational work activity. They are linked to requirements of particular work roles. "Capability" has been defined, for example, as an ability to apply both skills and competencies in a particular context in such a way that it is perceived to add value. The most common concepts used in recent literature on management development are competency and competence, which are often used interchangeably. The terms are attributed multiple meanings depending on the context and perspective and they can be classified as work-oriented definitions and multidimensional definitions.

In its broadest sense, "competency" refers to the sum of experiences and knowledge, skills, traits, aspects of self-image or social role, values and attitudes a manager has acquired during his/her lifetime. There is some agreement that there are more and less observable elements of competence.

In general, however, the dominant view is that managerial competencies can be developed through training and exercise. According to the more humanistic views, people can only be supported and motivated to use their capacities.

EMERGENCE OF COMPETENCIES

The idea of testing competence rather than intelligence was first proposed in the early 1970s by David McClelland, a former Harvard psychologist. McClelland was asked by the US Foreign service to find a new research method that could predict human performance and reduce the bias of traditional intelligence and aptitude testing, hence notion of measuring competencies was born. Their emergence is qualified by a recent Irish Management Institute report, which states *"the strong need for organizations-to be able to identify excellence in management has led to the development of the competency approach to human resource management. The competency approach enables organizations to identify skills and behaviors which result in superior performance"*.

DEFINITIONS

Despite of its increase in use, there is disagreement in the definitions of the term "competency". Gale and Pol (1975, p. 20) say that, *"Competency is a molar concept similar to the concept of intelligence. Both terms imply that they are composed of a complex of important interrelated elements."* They go on to argue that *"it will be conceptually unsound to speak of competency as a plural term unless two or more different roles or positions are intended"*. Boyatzis (1982, p. 21) in his seminal work defines job competency as *"an underlying characteristic of a person which results in effective and/or superior performance in a job."* Albanese (1989) describes managerial competency as a skill and/or personal characteristic. Following the above definitions, Birdir and Pearson (2000) define competency as skills, ability, knowledge and other attributes that make one successful in his job. Spencer and Spencer (1993, p. 9) share a similar meaning with Boyatzis by defining competency as *"an underlying characteristic of an individual that is casually related to criterion-referenced effective and/or superior performance"*.

* Professor, Chairman of Board of Studies, Department of Commerce and Business Management, Kakatiya University, Warangal. A.P.

** Lecturer, Vaniniketan Institute of Management Studies, Karimnagar, A.P. Email : suresh.amberi@yahoo.com.

***Lecturer, Vaniniketan Institute of Management Studies, Karimnagar, A.P.

in a job or situation". Bratton (1998, p. 17) suggests that, "A core competency is defined as any knowledge, skill, trait, motive, attitude, value, or other personal characteristic essential to perform a job". From the above, it can be seen that the term includes a range of the characteristics, behaviors and traits necessary for successful job performance. Abraham et al. (2001) thus concluded that one of the advantages to use the word competency is that one does not have to distinguish among these three areas. On the other hand, Nordhaug and Gronhaug (1994, cited Currie and Darby 1995, p. 11) define competency as "work related knowledge, skills and abilities". Woodruffs (1991) have the same output-oriented view by defining competencies in terms of the sets of behaviors that a person must display in order to be competent. The result of such a diverged definition in literature is reflected in the implementation of competency-based management in organizations. Antonacopoulou and FitzGerald. (1996, p. 36) carried out a case study on the implementation of competency-based management in three banks. The definition of the term competency for bank A was related to "a relatively stable set of behaviors". In bank B, it referred to "the performance standards identified for a particular job role presently... and the competencies needed to achieve superior performance". In bank C, competency was "a description of the application of managerial skills, job-related knowledge and attitudes which result in effective actions and can lead to the achievement of objectives". A review of literature by Hoffmann (1999) shows three main positions taken towards a definition of the term. Competencies were defined as:

1. Observable performance (Boam and Sparrow, 1992: Bowden and Masters1993).
2. The standard or quality of the outcome of the person's performance (Rutherford 1995 and Hager:*et al.*, 1994).
3. The underlying attributes of a person (Boyatzis, 1982: Sternberg and Colligian 1990). Haffmann (1999) developed atypology of the meanings of competency as illustrated in figure 1, to show that the term has several meanings depending on the purpose for which it is used

Figure 1

Typologies of meaning and purpose of the term "competency"

	Individual	Corporate
Output	Performance Standards	Bench Marks
Input	Knowledge, Skills and abilities	Distinctive strengths

DIFFERENT APPROACHES IN COMPETENCY MODEL

A variety of approaches have been used to identify the competencies associated with effective performance. These include observing managers at work, observing them performing simulated work activities (for example in assessment centers), asking them about their response to critical incidents, as well as about their beliefs in the competencies that are necessary for them to perform their roles effectively. In particular, structured and unstructured interviews and questionnaires have been used to elicit such beliefs.

Differences in definition of competency may also arise from adoption of different approaches. 3 out of 4 approaches in competency models are essentially based on the scientific principles of the rationalistic research tradition. They can be classified as worker-oriented, work-oriented, Interpretative and multimethod-oriented.

1. Worker-oriented Approach: Within the worker-oriented approach, competency is primarily seen as constituted by attributes possessed by workers, typically represented as knowledge, skills, abilities (KSAs) and personal traits required for effective work performance (Veres et al. 1990, p. 87). A commonly used example is the job element method (Veres et al.) where the relevant attributes are captured through the use of a group of job incumbents and supervisors. The attributes identified are organized into predefined categories, such as KSAs. The attributes are then rated to allow quantitative measurement of the correlation between success in accomplishing the work and possession of the designated attributes.

Researchers have used the term competency to further stress the importance of attending to worker attributes that are strictly work-related (Sandberg 2000). The seminal work by Boyatzis (1982) has been introduced and he generally subscribes to a worker-oriented approach (Garavan and McGuire 2001) by defining competency as "an underlying characteristic of a person, which results in effective and/or superior performance in a job". Drawing on Boyatzis approach, Spencer and Spencer (1993) provide another worker-oriented definition of "an underlying characteristic of an individual that is casually related to criterion-referenced effective and/or superior performance in a job or situation". The notion of causation differentiates both definitions. Spencer and Spencer require a higher

standard of causation. They required a link to be established between a particular competency and superior performance (Garavan and McGuire 2001). From the history, we knew that these definitions are the products of the US. Dale and Iles (1992 cited Garavan and McGuire 2001, p. 151) summaries the outcomes of the US approach as being primarily behavioral, specifying the skills or qualities that a person will use to do a job. Also, they are often generic, trying to describe as succinctly as possible the behaviors that high performers may display, though in different proportions according to level, function or context.

2. Work-oriented approach: In the work-oriented approach, competency is, as worker-oriented approach, also regarded as a specific set of attributes (Sandberg 2000). However, advocates of the work-oriented approach take the work as the point of departure rather than on the worker themselves. They argue that competency notions should be output-based or work-oriented and considers the outputs associated with effective performance (Martin and Staines 1994). They first identify activities that are central for accomplishing specific work and then transform those activities into personal attributes. In this way, they are able to generate more concrete and detailed descriptions of what constitutes competency and therefore largely overcome the problem of having competency description that are too general (Sandberg 2000). For example, the MCI takes work as its point of departure and focuses on occupational areas or activities (Garavan and McGuire 2001). One criticism of the work-oriented approach is that a list of work activities does not sufficiently indicate the attributes required to accomplish those activities efficiently (Raven 1994 cited Sandberg 2000, p. 10; Garavan and McGuire 2001). As observed by Garavan and McGuire (2001) European researchers such as Nordhaug and Gronhaug (1994) and Tolley (1987) generally advocate a work-oriented approach. Stuart and Lindsay (1997) summaries that the UK approach is focused more on the organizations and performance requirements of job positions rather than on the job holders themselves.

3. Multimethod-oriented Approach: Multimethod-oriented approach or multidimensional approach also regards competency as a specific set of attributes. The only difference it has from the other two is their more comprehensive approach to competency (Sandberg 2000). Their advocates attempt to avoid the criticisms raised against the worker- and work-oriented approaches by drawing ideas from both approaches. Veres et al. (1990) adopted a multimethod-oriented approach to identify competency in the work of police lieutenants. Their description consisted of 46 personal attributes and it was expressed in the form of statements of KSAs that corresponded to 23 police attributes. The work activities and the personal attributes were then quantified in percentage terms as they related to police work (Garavan and McGuire 2001). In summary, all rationalistic approaches regard competency as an attribute-based phenomenon (Sandberg 2000). Human competency is described as constituted by a specific set of attributes that workers used to accomplish their work. Hence, those who perform their particular work more competently than others are regarded as possessing a superior set of attributes (Sandberg 2000).

4. Interpretative Approach: Some researchers criticize rationalistic approach as problematic for identifying and describing competency at work. They criticize that the rationalistic operationalizations of attributes into quantitative measures often result in abstract, overly narrow and simplified descriptions that may not adequately represent the complexity of competency in work performance (Attewell 1990; Norris 1991; Sandberg 1991, 1994). Moreover, the use of KSAs and other general models of competency within the rationalistic approaches tend to predefine what constitutes competency. Sandberg (1994) argued such predefinitions of competency may confirm a researcher's own model of competency, rather than capture workers' competency. Another concern is that the descriptions of competency produced by the rationalistic approaches are indirect. Sandberg (2000) explains that the set of KSAs or competencies do not illuminate what constitutes competency in accomplishing work. Rather, it is just an identified set of attributes specifies central prerequisites for performing particular work competently. Such descriptions, as Sandberg (2000) claim, demonstrate neither whether the workers use these attributes, nor how they use them in accomplishing their work. Researchers tried to find out why direct descriptions of human competency are not forthcoming in the rationalistic theories and methods. In a general sense, it is because the rationalistic researchers invoke a dualistic ontology, assuming that person and world are distinct entities, and an objectivistic epistemology, assuming the existence of an objective reality independent of and beyond the human mind (Bernstein 1983; Searle 1992; Shotter 1992). Sandberg (2000) explains that the dualistic ontology underlies division of the phenomenon of competency into

two separate entities, namely worker and work. On the other hand, the objectivistic epistemology implies objective, knowable work that is beyond workers and leads to descriptions of work activities that are independent of the workers who accomplish them. The combined effect of these two perspectives turned competency into two independent entities, prerequisite worker attributes and work activities (Sandberg 2000). Sandberg (2000) views the interpretative research tradition as an alternative to the rationalistic approaches to competency. The main feature of the interpretative research tradition is its phenomenological base, the stipulation that person and world are inextricably related through persons' lived experience of the world. Thus, competency is not seen as consisting of two separate entities. Instead, worker and work form one entity through the lived experience of work. Competency is thus seen as constituted by the meaning the work takes on for the worker in his or her experience of it (Sandberg 2000). Although it seems very promising, this approach is not widely used at the present moment. Field observations and interview with workers to take the conceptions of their works are the main methods of data collection in this approach. Highly trained researchers are required for this process. The method used during the process of data analysis is by reading the interview scripts over and over again in order to "grasp the key issues". This method is by no means reliable since different researchers may have different interpretation of any statement made by the worker during the interview.

COMPETENCY AND PERFORMANCE

Another major issue identified from competency literature is the assessment of competency. Antonacopoulou and FitzGerald (1996) argue that the tendency to adopt a positivistic approach has led to a misconception that competency is an observable characteristic which becomes evident by the application of some assessment methods. Causal link between competency and performance is unlikely to hold as there may be multiple causalities also warning against accepting a tight relationship between competency and performance. He questions the assumption that it is possible to reduce the whole into its constituent parts and that the whole is merely an aggregation of the parts.

Hayes et al. (2000) view that even if managers are able to master all elements of a bespoke list of competencies, this mastery will not guarantee overall competency and the ability to perform effectively. The misleading belief of linking competency and performance casually creates a competency model which is narrow and rigid, forgetting that the development of effective managers is essentially an open-ended activity. Although some competencies might contribute to effective managerial performance, there will surely be other factors, observable or unobservable, controllable or uncontrollable, that also contribute to effective management. One example would be motivation, which is difficult to measure but greatly affect the performance of a, say, project manager. Two project managers may have the same competencies such as leadership, decision making and strategic planning. Still, one may outperform the other as one may be more motivated to do the job. Changes in a person's self-image as well as changes in a person's perception of his or her abilities can also explain changes in his or her performance. CEOs and management development directors who had participated in an earlier study were unable to offer a full account of what they required of effective managers even though they felt that they would "know" a good manager if they saw one. The missing elements in a competency list may be critical to effective performance "Just because we can identify and measure some competencies, it does not follow that these competencies cause effective performance wherever they may be found." Notice that competency assessment tends to fall into the familiar trap of selecting only those competencies observable and hence can be easily measured. The question would then be to what extents does behavior, in terms of demonstrable performance, becomes the sole or appropriate means of identifying management competency (Antonacopoulou and FitzGerald 1996). Competency defined and assessed in such a way is only a "first order measure", i.e. the top level of the iceberg model (Bergenhengouwen et al. 1996), which fails to recognize "second order measure" (Wolf 1990) and these are the knowledge, skills and understanding which underpin performance output, i.e. the bottom level of the iceberg model. In Hyland's (1993) word, many competency based strategies are concerned more with measurement, assessment and accreditation and less with learning and education. As a result, Antonacopoulou and FitzGerald (1996) point out those assessments of what managers are capable of doing may bear limited resemblance to what they are actually willing and able to do. They suggest that instead of providing managers with a narrow set of "competencies" suitable for a narrow set of tasks, it may be more sensible to grow the natural talents and strengths of individuals.

This paper focuses on managers' own intentions towards management development. To facilitate this, the research set out to achieve three goals:

- (1) To discover the most important management development areas as specified by managers;
- (2) To discover the intentions of managers towards management development on both a personal level and with the support of the organization; and
- (3) To compare those management development areas mentioned above with the competency models presented in the literature.

A detailed review of current thinking on executive development, as reflected in the literature, was the starting point for the research and forms the framework for this study. The data for the study were obtained primarily from an internet-survey conducted in 2003.

TOWARDS AN INTEGRATED COMPETENCY MODEL

According to Lucia and Lepsinger (1999), a competency model is a descriptive tool that identifies the knowledge, skills, abilities, and behaviour needed to perform effectively in an organization. The noted benefits are many. These identified competencies form a basis for the planning and development of all the human resource management (HRM) activities. Furthermore, they help in the communication of a company's strategic intentions and needs, and give organizations a "common language" that can be used to discuss performance, selection, development, advancement and succession planning.

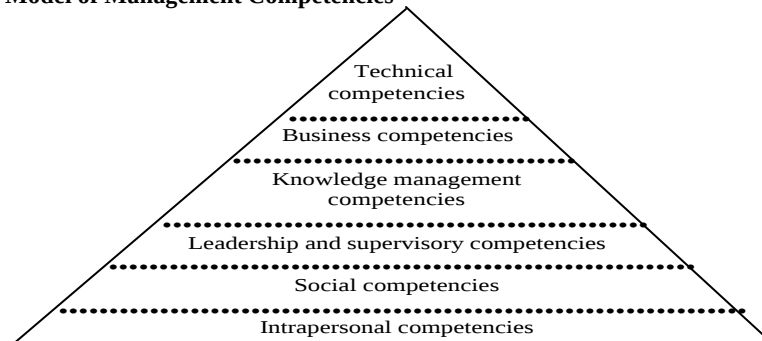
Competency models have been organized in a variety of ways. They have been categorized, for example, in terms of two broad skill categories (Klagge, 1998), three types of skills (Mumford, 2000), four competency domains (Katz, 1974; Pavett and Lau 1983; Hogan and Warrenfeltz, 2003), six competencies (Conger, 2001) and ten skill categories (Carrington, 1994). In the relevant literature, it is even evident that the terms competence and skills are used interchangeably. Nevertheless, there exists considerable doubt surrounding whether competencies can be extensively categorized and labeled as they often overlap, and thus commonly suffer from over ambiguity. On the other hand, even more confusion and mystification may arise in any further discussion about managers' capabilities and performance, if there is no agreement as to the elements that support them.

In this paper, the categorizations of managerial competencies mentioned above are analyzed in more detail. To this end, additional relevant literature has been referred to in the reasoning process (for example Garavan and McGuire, 2001). After conducting the iterative classification process, six clusters of managerial competencies could be established when integrating elements from different competency models were introduced in the literature. They are:

- (1) Technical competencies; (2) Business competencies; (3) Knowledge management competencies;
- (4) Leadership competencies; (5) Social competencies; and (6) Intra-personal competencies.

The pyramid form was selected as the most appropriate visualization with regard to the structure of these competencies. Accordingly, the categories of skills are displayed through a hierarchical model, which follows the idea of the qualification model developed originally in German industrial sociology (Figure 1). Indeed, the structure closely corresponds with the iceberg model of Garavan and McGuire (2001) where skills and knowledge form the tip and the less visible elements exist at the bottom, beneath the surface. Rifkin et al. (1999) also produced a hierarchical model visualized as a pyramid through empirical research among technical managers. The model presented in this paper differs from theirs in that they do not specify the generic competencies, but focus on the function of different types of competencies and their interrelations.

Figure 2. : Hierarchical Model of Management Competencies



The model presented in this paper exhibits the main competence categories that are generally regarded as important in managers' job roles. The competences can be seen as a continuum from personal-related competencies to work-role related competencies (Rifkin et al., 1999). The closer to the top a competence is, the more it is connected to education and specific work experience. The closer to the bottom the competence is, the more it is connected to a manager's personal traits and personal growth as a human being. In this sense, whilst the upper level competencies are easier to develop, those on the bottom are more difficult (Garavan and McGuire, 2001). It is argued here, in line with Garavan and McGuire (2001) that "competence is a holistic concept, which consists of technical, management, people, attitude, value and mental skill components". It is the combination of all these, which forms the basis for a manager's subsequent behavior and performance. In other words, the closer to the foundation of the pyramid the competence is, the more fundamental it is to a manager's potential performance. Technical competencies are those a manager needs in handling the contents of the processes or functions that s/he is responsible for (see for example Katz, 1974; Pavett and Lau, 1983). They refer to the ability to use tools, procedures, and techniques in a specialized field. They usually represent skills and knowledge in which the manager has specialized, for example as part of his/her education. Typical examples include finance and accounting, computing, engineering and chemistry.

Business competencies are needed in management-related work in any business with many of them being generic in nature. They typically represent areas of management training/education found in such programs as the MBA. These competencies include, for example, strategic perception, decision making and board management - the ability to think in terms of systems and knowing how to lead systems, as well as giving vision, meaning, direction and focus to the organization. The leveraging of internal and external resources to respond to customer needs would also fall into this category along with planning, monitoring budgets, forecasting costs and revenues, cutting costs, mapping strategies, evaluating performance, and organizing necessary reports. Because of their close connection to general business knowledge and tasks, they have been referred to as crucial meta-cognitive skills for managers. These skills are needed in management, which are in turn distinctive from those needed in leadership. In short, they make a manager capable of managing things.

From the competencies mentioned above, knowledge management competencies can be distinguished as a separate cluster, which reflects the special current and future demands of managers. It would seem that this area seemingly overlaps with both business and leadership competencies. However, according to the knowledge management literature, it is arguably justifiable in the current business climate to separate this area from the more traditional aspects of management and leadership. Indeed, it is suggested that managers should not only be proficient in information handling on a personal level, but also capable in the management of information processing, learning and development at the group and organizational level (Ekvalland Arvonen, 1991; Ellinger and Bostrom, 1999; Viitala, 2002). Knowledge management competencies includes, for example, information search, concept formation and conceptual flexibility (Katz, 1974; Pavett and Lau, 1983; Cockerhill et al., 1995), analytical understanding (Institute of Directors, 1995), complex problem solving skills and solution construction skills (Mumford, Zaccaro, Connelly and Marks, 2000), an understanding of learning, development and improvement (Scholtes, 1999) as well as facilitating and tutoring the learning of others (Luthans and Lockwood, 1984; Yukl, 1994; Senge, 2000). These competencies form a sort of bridge between cognitive-based skills and social skills.

Leadership and supervisory competencies refer to leading people. They concern the exercise of power to some degree. They refer to a manager's capability to direct people, support people, involve people, facilitate people and empower people. They also comprise the competencies needed in creating a common purpose with subordinates, managing diversity, supporting creativity and creating community. These competencies overlap with knowledge management and social competencies. Compared to social competencies, they are more tightly connected to relationships between a manager and his/her subordinates in an organization. Compared to knowledge management, the focus is more on people issues. These competencies are generic and transferable.

Social competencies or interpersonal competencies refer to coping in the manager's social relations. They include a manager's ability to build and maintain relationships with different stakeholders. This means, for example, understanding people and their behavior, social judgment skills, communication and interacting with others, motivating people and handling conflicts. These competencies also refer to core areas of leadership, insofar as it is conceptualized as influencing other people towards the attainment of group or organizational goal.

In slightly more depth, interpersonal skills have been categorized into four components: a disposition to put oneself in the place of another person, a skill to get it right when one tries to anticipate another person's expectations, a skill to incorporate the information about the other person's expectations into one's subsequent behavior, and self-control to stay focused on the other person's expectations. These competencies overlap with leadership skills and intrapersonal competencies.

Intra-personal competencies lie deep in the managers' personality. They are closely associated with the trait approach to leadership. Along with traits, the social role, self-image, motives and values have all been included in this area of competency. The important capabilities are self-confidence, proactive orientation and achievement orientation, social judgment skills as well as conflict resolution, tolerating and mastering uncertainty. According to Hogan and Warrenfeltz (2003), intrapersonal competencies generally contain three main components: core self-esteem, attitudes toward authority, and self-control.

People are often poor judges of their own performance as leaders. While they can often evaluate business skills rather effectively, leadership skills on the other hand are much more difficult to evaluate. Nevertheless, whether the perceived development needs are accurate or not, they do impact the choices managers make concerning their own development. Thus, a number of academics and scholars in the field of management development have suggested that improving self-knowledge must be the basis for all true management development. Competency models could thus serve as one potential tool for helping managers in self-reflection and development. They could also serve as a tool for building collective comprehension concerning management in an organization. Management, after all, is also a collective and cultural phenomenon. In the next section, those competencies that managers themselves intend to develop in the near future are reported. They reflect their perceptions on important managerial competencies and their personal development needs. The concept of intention is grounded in cognitive psychology that attempts to explain or predict human behavior. Intentions can largely be said to refer to motives. In management development, for example, managers who are committed to a programme of action are said to be motivated. Indeed, it is viewed that behavioral intention is derived from attitudes, and becomes an immediate determinant of behavior.

DISCUSSION AND CONCLUSION

In accordance with the regrouping principle, the previous categories of "leadership and supervisory skills" and "team management" are, for example, now included in the same category, namely "leadership and supervisory skills". The managers claimed that leadership and supervisory activities are the most urgent development areas among managers in general. Interestingly, it also appeared that most of them think that this does not concern her/himself. The distinctively most popular competency category cited in personal development is that of general business skills, which refers to, according to the responses, very traditional knowledge areas such as strategic management, marketing, accounting, logistics, developing processes and functions.

Intellectual capital has become a crucial factor for gaining competitive advantage. Counter-intuitively, despite the popularized discussion on the importance of knowledge management, only few managers aimed to develop their competencies in this area. It would therefore, appear that knowledge management has not yet been internalized as a core feature of a manager's work or as a theme in management development.

Social competencies represented only a minor development area in terms of managers' intentions to develop themselves. They have been argued to be crucial to a manager's performance, as well as for any employee in modern business life. Despite the widespread belief that social competencies can be developed, the managers in this research did not aim to do it personally. Intra-personal competencies were even more neglected.

Competency models have been criticized for their attempt to formulate universal models for varying contexts, and for viewing competencies as work-role characteristics without interpreting the overall situation. However, competency models produced by researchers or organizations could serve as tools when managers formulate their own perceptions about his/her development needs. They should thus be adopted as a starting point when formulating individual and organization specific development needs, rather than as complete lists to be followed. It can be stated that the managers' consciousness and interpretation of their development needs should be supported in organizations. Their personal beliefs surrounding development needs will obviously lead to action. Those beliefs are therefore crucial. The concept of competency is, however, not an easy one to capture.

This study has revealed that a managers' own managerial competency is often understood narrowly and content-specifically. This leads to the idea that managers in organizations should first be educated in management competencies, management development and learning issues, before they can become thoroughly conscious about their own competencies and development needs. Those who can provide help in these matters are human resource professionals, researchers and consultants. All these requirements also necessitate the involvement of top managers.

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