MANAGERIAL RESOURCEFULNESS: A
RECONCEPTUALIZATION OF MANAGEMENT SKILLS

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Abstract

Prevailing conceptualizations of skills required for successful managerial performance are partial and a jumble. This paper examines the limitations to our understanding of the nature of managerial skills based on the analysis of managerial jobs that are often non-routine, unprogrammed, and ill-structured. A fresh conceptualization that distinguishes between managerial "skills" and "competencies" along three dimensions -- specific-generic, task driven - person driven, and transferable - non-transferable is suggested. Competencies representing fundamental generic characteristics are viewed as managerial resourcefulness that seem to meet the requirements managerial work. Integrating research from the fields of cognitive, clinical, personality and social psychology, the paper identifies and explicates various components of resourcefulness which have implications for selection and training of managers. Developing appropriate operationalization, assessment, and training procedures with respect to various components of resourcefulness are suggested as areas for research.

Managerial Resourcefulness: A Reconceptualization
of Management Skills

Our knowledge of what makes a better manager and our ability to search for necessary managerial skills are limited primarily for three reasons. First, management practitioners responsible for recruitment, placement, and training have been complacent about the assessment of managerial talents. They pursue the soft option of relying heavily on one or another set of intelligence/ aptitude tests without seriously questioning their validity. And with little pressure from practitioners, researchers have been equally complacent in their search for alternatives. Second, researchers have not seriously attempted to look for skills suited for effective handling of non-routine, unprogrammed, loosely structured, and dynamic components of managerial jobs. Although there is awareness among researchers regarding specific routine and emergent task components of mangagerial jobs, the emphasis has always been on routine components, largely owing to the ease with which these can be identified on the job. However, the skills needed to handle the non-routine and dynamic components that characterize a large chunk of managerial work have been plainly neglected. Third,attempts at developing sound conceptual frameworks for understanding the nature of skills required in managerial jobs have been meagre. Indeed, the term `managerial skills' is perhaps the most freely used and poorly understood concept in management literature. The existing frameworks are too general and fudgy (e.g.., Katz 1974; Waters, 1980) for meaningful

operationalization and utilisation in recruitment and training of managers.

This paper analyzes the limitations to our understanding of what managerial skills entail, suggests ways to overcome them, and explicates the nature of skills demanded in managerial jobs. First, the paper discusses the basis on which managers as well as managers-to-be (MBA students) are selected and trained and probes the validity issue of prevailing practice criteria. The paper asserts that in exploring managerial talents, emphasis should be placed on skill requirements for non-specific, discretionary, and ill structured nature of tasks that predominantly characterize managerial jobs. The paper then analyzes the nature of managerial jobs and what managers do. Based on such job analyses, it identifies several managerial skills suggested by researchers. Against this backdrop, the paper finally provides a conceptual framework that distinguishes skills from competencies, and views the ability constructs along specific-generic, task driven-person driven, and nontransferable-transferable dimensions. In this framework, managerial abilities are stratified as those that are needed for specific routine tasks, (skills), and those needed for all non-routine tasks (competencies). The latter category represents fundamental generic characteristics of managers. These competencies are viewed as components of managerial resourcefulness or managerial potential for success. They seem to meet the requirements of complex and changeable nature of managerial jobs, and make

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managers potentially 'resourceful' in various managerial roles.

Prevailing Assessment of Managerial Abilities

Personal dispositions of employees are deemed important inputs for organizational effectiveness (Campbell, Dunnette, Lawler, & Weick, 1970; Chatman, 1989). The three major classes of dispositional characteristics are: a) abilities; b) values, interests, and motivational dispositions; and c) personality traits. The ability category represents potentialities inherent and developed in a person to handle specific task requirements successfully. The second category of variables includes stable individual preferences influencing choice and persistence in a given task. The third category includes stable personality related attributes such as internal-external locus of control, type A-B, etc. Among these categories of dispositional variables, the ability category has received attention from researchers for nearly a century primarily because of their relevance to recruitment and training of personnel in organizations.

Finding a person with fitting skills/abilities for a given job was first proposed by Taylor (1911) as a tenet of scientific management. Following Taylor, recruitment, placement, training, and development of employees are done primarily on the basis of analysis of job requirements. Depending on the requirements of various tasks in a given job, specific skills are sought from job applicants during recruitment and placement. Training programmes are designed to develop such skills among job incumbents in order to make them more effective. While such efforts have been fairly successful in the case of a wide variety of non-managerial

jobs, as would be evidenced from the use of a plethora of ability and aptitude test batteries (Ghiselli, 1966, Thornton & Byham 1982), the case of managerial jobs is a different story.

"Managing is seen to be a complicated, broad ranging job requiring a myriad of skills for planning and organizing work, for handling information, and for dealing in a coordinated, consistent, and graceful way with people" (Campbell, Dunnette, Lawler, & Weick, 1970, p.8). The task of identifying specific job requirements and associated skills of a manager has thus become extremely difficult. Recruitment and placement of managers are done on the basis of past education, job experience, aptitude and personality tests, interviews and assessment centers, all of which have poor predictive validity for future managerial success. McClelland (1973) points out that school and college grades are not "related to any other behavior of importance........ In other words, being a high school or college graduate gave one a credential that opened up certain higher level jobs, but the poorer students in high school or college did as well in life as the top students" (p.2). In fact, the low predictive validity of academic standing for job or vocational success has been noted by other researchers (e.g., Berg, 1970; Cox & Cooper, 1988; Taylor, Smith, & Ghiselin, 1963). Previous job experience is also a poor predictor of success in a managerial position. No two managerial jobs are identical in content. Therefore, transferability of specific job experience from one job to another can take place only to a limited extent and that too between organizations using very similar technology

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and operating in a similar environment. Interviews and assessment centers as predictors of managerial success again have only limited validity. Managers are assessed through these techniques generally for specific skills which are required to handle routine matters (Williamson & Schaalman, 1980). Finally, attempts to predict managerial success on the basis of prevalent intelligence and aptitude tests have yielded mixed results. Ghiselli's (1966) conclusion that general intelligence tests correlate .23 with proficiency across all types of jobs has been questioned by several researchers (McClelland, 1973; Klemp & McClelland, 1986; Thornton & Byham, 1982). For instance, MeClelland (1973) has argued that such correlation may be an artifact resulting from the contaminated association of a third variable, the social class background. Thornton and Byham (1982) have concluded that no firm statements can be made in support of the predictability of such tests for occupational success. The use of personality tests for selection and training of managers is not as popular as the use of general intelligence and ability tests. However, research indicates that some personality characteristics such as type A, internal locus of control, etc. are associated with success in managerial jobs (Anderson, Hellriegell, & Slocum, 1977; Cox & Cooper, 1988). Studies in this area are generally triggered by the existence of valid personality tests and therefore, have been largely exploratory. These studies do not have a systematic focus on discovering personality characteristics required for success in managerial jobs based on the job analysis approach.

Identification of specific "skills necessary to successfully implement managerial agendas, especially in organizational settings, are important for advanced managerial training" (Carroll & Gillen, 1987, p.48). And yet, lack of specification of skills required for successfully handling complex work agendas in different managerial tasks has often resulted in inadequate training programmes. Training for skill development in managerial jobs mainly pertain to either context specific skill requirements in routine tasks (as in the case of on-the-job training) or people skills in general as in the areas of communication and supervision (Anderson, 1984). On-the-job training develops task skills that are not transferable from one type of managerial job to another. People skills in general though transferable are largely limited to the domain of interpersonal communication. The current practices of identifying skill requirements in managerial jobs simply ignore the issue of transferable skills required to handle non-routine tasks. Inadequacy of the existing skill assessment programs for selection and training purposes suggest a need for developing a systematic approach to identifying transferable skills based on analyses of managerial jobs.

Nature of Managerial Jobs and Skills

What managers do in their jobs has been explored with three different research strategies. One line of investigation follows the lead of classical management theorists like Fayol (1949) and Urwick (1952). They advocated that all classical management functions such as planning, organizing, coordinating, directing,

and controlling, require technical, problem solving, decision making, and people handling skills. Pursuing this line of reasoning, Katz (1974) proposed three broad categories of managerial skills: technical, conceptual, and human. Technical skills are task specific (financial, accounting skills, etc). Conceptual skills refer to the ability to think strategically (planning, problem solving, etc.). Human skills are interpersonal in nature (influencing others for direction, coordination, and control). Some recent empirical studies support this proposition (Boyatzis, 1982; Carroll & Gillen, 1987).

The second line of research draws upon observation of what managers do. Researchers following this catchet often infer different skills managers require in their jobs from identifiable overt activities. Stewart (1967) has suggested that managers spend most of their time interacting with other people and would require people skills (interpersonal sensitivity, communication skills, etc.). Mintzberg (1973) identified ten managerial roles grouped under four categories: interpersonal, informational, negotiating, and decision making. He also listed eight managerial skills to perform those roles: peer, leadership, information processing, decision making, resource allocation, conflict resolution, interpersonal, and introspection.

From an international study of managers in negotiating role, Graham (1983) inferred the following skills to be important: planning, thinking under pressure, sound judgment (decision making), verbal expressiveness, listening, and interpersonal sensitivity. Graham noted that Japanese managers emphasized

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interpersonal skills whereas American and Brazilian managers emphasized the rational modes of operating as negotiators.

Copeman (1971), having observed the activities of chief executives, has identified five skill areas: numerical skills, business system skills, social skills, negotiating skills, and policy-making skills. These can be described differently as having a knowledge base of business systems and arithmetic operations, interpersonal sensitivity, communication, planning and decision making skills.

Kotter's (1982) study of job behavior of general managers revealed that managers spent a considerable amount of time interacting and relating to other people. Such networking ability enabled them to influence others to get the job done. Thus Kotter put premium on people skills, although he recognized the 'invisible process' of problem solving underlying managers' behavior. More recently,he (Kotter,1990) has characterized managerial functions as coping with complexity and coping with change. The former requires the performance of classical management functions and the latter demands people skills.

Based on a study of behavior of successful managing directors, Cox and Cooper (1988) suggested three main skill areas: problem solving and decision making, people or interpersonal skills, long-term planning and coping with change. Luthans, Rosenkrantz, and Hennessey (1985) observed that managers at all levels engage in networking and conflict management activities and "successful managers at the top levels do give relatively more attention to

activities   associated   with   decision   making   and
planning/coordinating" (p.269).

These studies suggest that critical managerial behaviors often
revolve around planning and coordination of resources, making
decisions on what and how to use resources, exchanging
information, managing conflict, managing change, and social
networking. Furthermore, if day-to-day mangerial work requires
task accomplishment through others, then the various overt
managerial behaviors identified in these studies enable the
manager to "influence others, get the job done, and become
successful" (Luthans et al, 1985 p.268).

In trying to integrate managerial roles and associated
activities with management functions, Carroll and Gillen (1987)
emphasize that management functions   are accomplished through
mental agendas of setting goals, and devising means or planning
and executing tasks to achieve the goals. In carrying out the
agendas managers engage in both covert mental activities (such as
thinking, feeling, making decisions, and planning for action,
etc.) and overt behaviors (such as communicating, signing
documents, attending meetings etc). Both covert and overt
activities underlying managerial roles are directed toward
achieving managerial functions (planning, coordinating, etc).
The overt managerial role behaviors are in fact based on covert
mental activities requiring a number of skills or competencies on
the part of managers. Managerial work agendas would be carried
out successfully when they have knowledge of both internal

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workings and external environment of the organization as well as
the skills suggested by Katz (1974).

It may be stated that a number of skills identified by recent
researchers involve cognitive and intellectual processes in
executing managerial work agendas. (Carroll & Gillen, 1984);
Boyatzis, 1982; Anderson, 1984 Bary, Campbell, & Grant, 1974)
Note may be made that a number of these skills overlap with
management functions advocated by the classical theorists
mentioned earlier.

The third line of research looks at the role of intelligence and
intelligent functioning in managerial jobs (McClelland, 1973;
Klemp & McClelland 1986). A study of outstanding senior managers
using job competence assessment procedure led Klemp and
McClelland (1986) to suggest that generic to all managerial jobs
is the task of coping with the demands of external and internal
environments of the organization for purposes of internal
integration and external adaptation. Such generic functioning
requires generic competencies such as self confidence, planning /
causal thinking, diagnostic information seeking, and
conceptualisation/synthetic thinking. These competencies are at
the root of directive influence strategies of supervisors,
collaborative influnce strategies of middle managers, and
symbolic influence strategies of senior managers.

Conceptual Knots in Managerial Skill Analyses

This brief review of past two decades of research (see Campbell,
Dunnette, Lawler, & Weick, 1970 for a review of earlier studies)

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on the nature of managerial jobs and what skills are required for these jobs has yielded much incoherent and inconclusive information. Whereas most of the studies tend to agree on the nature of managerial jobs they lack adequate conceptual development regarding skills required in these jobs. There has been no systematic attempt to meaningfully integrate all this information. A conceptual scheme to understand and identify core skills components is essential for recruiting and training managers. Commenting on this state of affairs, Carroll and Gillen (1987) have urged for more research "to resolve inconsistencies in both the findings obtained and the terminology employed in these studies" (p.48).

Past research poses three major problems for both theoretical understanding of the constructs referred to as managerial skills, and their operationalization for practical use. The first and the foremost problem stems from the indiscriminate use of the term 'skills' to explain multiple levels of managerial job descriptions. For instance, some have used skills to explain performance of macro management functions. Carroll and Gillen (1987) talk of planning skills, coordinating skills etc. Others have talked of skills to represent execution of management roles such as information processing and leadership skills (Mintzberg, 1973). Some have used the term skill to explain achievement of task functions such as goal-setting and decision making (Anderson, 1984). Several scholars have used the term to explain two or more levels at the same time. For instance, Mintzberg (1973 p.189) includes negotiation skill

representing a managerial role, and consulting skill, a task function, under the category of peer skills. Such maultiple level usage of the term creates conceptual inconsistency and confusion and makes 'skill'a very popular but slippery construct, hard to define.

The second major problem lies in using the term 'skill' in a tautological fashion. For instance, the performance appraisal function of the manager is explained by his/her appraising skills (Waters, 1980), and leadership role is explained by leadership skills (Mintzberg, 1973). When management scholars use the term in such a loose fashion, they often commit 'naming fallacy' and explain little about the nature of skills or how they can be detected and developed among managers. The "ability to manage an expert-client relationship" (Mintzberg 1973, p.189) explains very little of the 'consulting skill' of a manager.

The third problem has to do with the inclusiveness of the construct, "skills". The term has been made so general and inclusive of all predispositional characteristics that it tends to lose its meaning. Klemp and McClelland use the term 'competencies' as a substitute for 'skills' and (1986) define these "as attributes of an individual that are necessary for effective performance in a job or life role" (p.32). These attributes include general or specialized knowledge, physical and intellectual abilities, personality traits, motives, and self images. Equally general is Anderson's (1984) definition of skill as "the ability to accomplish some phase of management" (p.16). Given such inclusive definitions, scholars have developed very

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general classificatory schemes (Anderson 1984; Waters, 1980)
oblivious of the rationale as well as the internal consistency of
such schemes.. Anderson (1984), purportedly drawing upon Katz's
(1974) and Mintzberg's (1973) skill categories, has proposed a
three way classification: decision making, interpersonal
relations, and goal setting. It is not clear how these
categories are related to or derived from Katz's and Mintzberg's
schemes. Besides, neither Katz's nor Mintzberg's scheme provides
specific information on what and how of "skills" for the
benefit of recruitment and training of managers.

Waters (1980) has developed an interesting skill
classification scheme based on the dimensions of behavior
specificity and time required for training. He arrived at a 2x2
table with four skill categories: practice skills (behavior
specific and short-time required for training), context skills
(behavior specific, and long time required for training), insight
skills (behavior non-specific and short-time required for
training), and wisdom (behavior non-specific and long-time
required for training). Practice skills include appraising
performance and managing conflict; context skills include goal
setting and introducing change; insight skills include building
trust, bargaining, and negotiating; wisdom includes
entreprenuership and gaining power. The arbitrariness and
inconsistencies in such a classification scheme is at once
apparent. It is not clear why managing conflict should take less
time for training than goal setting. Equally unclear is why
managing conflict is more behavior specific than negotiating.

Furthermore, to talk of non-specificity of behavior in the context of identifying skills is a contradiction in terms. A skill can be identified only when there is a reference to specific behavioral (covert or overt) components. When one cannot identify the behavior, one cannot talk of the ability or skill to perform that behavior.

An Alternative Conceptual Framework

Managerial skills represent predispositional characteristics of individual managers. These characteristics are commonly understood as abilities or capabilities to engage in specific behavior that often result in meeting the demands of managerial jobs. Such specific behaviors constitute overt observable actions (such as verbal articulation of a mission statement and non-verbal expressions of one's enthusiasm through body movements in a leadership role) as well as covert cognitive activities (engaging in thinking, feeling, and intending to act in an appropriate manner). The capabilities to engage in these specific forms of bahavior are generally acquired through training and experience given the inherent potentialities of the physical and mental apparatus. Thus, we propose that skills be conceptualized (a) as capabilities to engage in specific forms of behavior, (b) to include both overt behavior and covert cognitive activities, and (c) as acquired predispositions. As capabilities, skills should not be described in terms of either managerial roles or functions or task accomplishments. Job demands to fulfil a function or role acts as an antecedent condition for triggering the quiescent capabilities to manifest as

behavioral or cognitive acts. Task accomplishments are the
consequences of the utilization one's capabilities. But skills
only represent the ability to act in specific ways. As
Boyatzis (1982) points out, "skill is the ability to demonstrate
a system and sequence of behavior.... It is important to
distinguish skills from tasks or functions... They are aspects
of the job and not aspects of the individual's capabilities or
competencies" (pp 33-34). Since managerial skills include both
overt and covert acts, it might be useful to categorize them
separately for clarity and better focus. The term skills should
be used to represent the ability to engage in identifiable
observed behavior and the term competencies should represent
the ability to engage in identifiable cognitive mediations in
managerial jobs.

Skills - Competencies Distinction

It is assumed that both skills and competencies are capabilities
that managers bring to their jobs. Depending on the job demands
or requirments,they draw on their capabilities to respond in an
appropriate manner (Boyatzis, 1982). What do managerial jobs
require? When do the jobs demand managers to demonstrate
necessary skills and when to demonstrate competencies?
Unfortunately various conceptualizations and analyses of the
managerial job reviewed earlier do not provide satisfactory
answers to these questions. They do not provide a unifying
framework that accommodates the skills vs competencies
distinction. Kiggundu (1990) has provided a framework of
managerial jobs that may be useful to describe here. Managerial
jobs, according to him, can be divided into two task subsystems:

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critical operating tasks (COTs) and strategic management tasks (SMATs). COTs are basic tasks of maintenance, acquiring necessary inputs, and transforming them to goods and services, distributing the products to clients, providing administrative and technical support for production and distribution, etc. SMATs on the other hand are the tasks of creating a mission and an image for the organization and dealing with external environmental demands. Integration of job activities within COTs are done through routine integrating mechanisms (RIMs). RIMs are programmed methods of handling COTs. They are simple, repetitive, and predictable task requirements such as established standard operating procedures. But besides RIMs, COTs and SMATs and their integration also require many complex integrative mechanisms (CIMs). "The more complex the organization's requirements are in terms of both its internal organizations and management and the complexity, uncertainity, or hostility of the external environment, the more the need for more integrative mechanisms" (Kiggundu, 1990, p.47). Viewing managerial jobs in this way, it becomes apparent that skills or abilities to perform specific overt behaviors are demanded only for RIMs and competencies or the abilities to engage in cognitive mediational functioning are required for all other tasks.

Managing an organization involves adaptive responses to both the stable and changing parts of the environment. Managerial activities related to RIMs are the adaptive reactions to the stable part of the envinronment. The more critical managerial activities responsible for organization's success and survival

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however are the adaptive discretionary responses to shifts in the socio-political, economic, and technological environment. In the face of global competition, organizational adaptation may involve both small "incremental" and major "revolutionary" changes. The manager plays a critical role in this "drama of organization on change" (Nadler & Tushman, 1990, p.77). Managers in this role are in charge of formulating goals for change directed efforts, planning courses of action, directing, coordinating, and managing organizational responses to rapid environmental changes. Besides managing organizational adaptation to environmental changes, managers also look after internal procurement, allocation, direction and coordination of human, and physical resources to meet organization objectives at both strategic and operational levels. This is the day-to-day maintanance role of the managers as contrasted with the change agent role (Kotter, 1990). Even in this role, managers are continually required to make decisions with regard to setting operational goals and planning and monitoring courses of action for achieving such goals under non-routine conditions. Understanding how managers behave when faced with non-routine and unprogrammed tasks and what competencies are required of them can have the potential of improving the growth and adaptive capabilities of organizations.

The principal ways in which skills and competencies can be distinguished are summarized in Table 1. First as mentioned earlier, skills refer to abilities to engage in overt behavioral system or sequence whereas competencies refer to intelligent functioning and abilities to engage in cognitive activities.

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Second, skills are required to handle routine and programmed tasks with set procedures whereas competencies are required for non-routine and unprogrammed tasks. Preparation of a balance sheet may require some standard technical procedures – a set of skills acquired by an accountant. Competencies in analytic thinking may be needed while setting objectives or goals or planning strategies for the organization. Third, skills are utilized to cope with the demands of the stable aspects of the environment managers face in their day-today organizational life. Use of competencies however, are necessary to cope with the complex and volatile aspects of the environment.

Insert Table 1 about here

Fourth, skills and competencies differ in terms of their transferability from one type of task or situation to another. Skills are more specific to tasks and situations, whereas competencies are more generalizable or transferable to a wider variety of tasks and situations. Skills to operate a personal computer or to maintain a ledger following established practice on the part of an accountant cannot be utilized in other managerial jobs in other departments. On the other hand, cognitive competencies such as the ability for analytic or synthetic thinking required for problem solving or decision making tasks would have greater transferability across managerial jobs.

Fifth, skills and competencies differ in terms of their locus o mainspring. Skills are capabilities to engage in behavior tha are controlled, elicited or triggered by demands of specific tasks. In the case of skills, a manager has few other options to behave differently other than what the task dictates. Thus accounting skills while preparing a balance sheet or an audit report are largely task determined. Competencies to handle non-routine tasks, on the other hand, are largely person-dependent. A manager has to decide where, when, and how to use them because the behavioral demands of tasks are non-specific.

Finally, as underlying characteristics of the manager, competencies are generic in nature (Boyatzis 1982), whereas skills are specific to the task. As generic characteristics of a manager, the underlying competencies can manifest in many forms of overt behavior or actions depending on the demands of specific jobs and situations. Different overt actions in different situations may stem from the same competency. For instance, analytic thinking, a competency, may lead to either proaction (a novel response) or reaction (a habitual response) on the part of a manager depending on the demands of the environment.

This distinction based on person generic vs task specific dimension suggests that a manager may acquire a number of tasl specific skills in his behavior reportoire, but appropriate utilization of such skills may have to depend on his or her mediational cognitive competencies. The above characterization of skills and competencies suggests that if we are to gain an understanding of what predispositional characteristics make an effective or successful manager, we must focus our effort on

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identifying the broad generic person-controlled managerial competencies. The reasons are obvious. The most significant elements of the managerial job have to do with non-routine tasks that demand utilization of cognitive competencies. Therefore, possession of task specific skills cannot predict overall managerial success. On the other hand, developing generalizable competencies for successful adaptation in the organizational and work contexts can lead to success in managerial roles.

Competencies as Managerial Resourcefulness

There is a rough parallel between the demands managers face in the organizational context and the demands they face in their personal life. In personal life, the major modes of adaptation has to do with the demands of the changing environment that pose difficulties and challenges in life. The adaptive responses to meet life challenges involve experiencing strong emotions, engaging in intelligent and cognitive processing of information (planning, decision making, problem solving etc), and making choices among alternative courses of action. Success in life depends on how one adapts to the environment by controlling one's emotional reactions, solving problems, making right choices from action alternatives, and carrying them out with tact and effort. In managerial roles, one engages in similar forms of behavior in order to cope with the environmental demands of the organization. Successful adaptation in the real-world context, be it in personal or organizational spheres of life, is the true reflection of 'intelligent' functioning. (Wagner & Sternberg, 1986). Competencies therefore refer to those mental capabilities that lead to such adaptation. These capabilities can be considered as inner

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resources that managers possess. When required by their jobs demonstrate specific adaptive actions, they draw from these in resources. Managers who possess these resources therefore, can considered as more resourceful than those who do not possess the resources.

Competencies therefore, are the basic components of managerial resourcefulness. Although technical and routine task related skills are necessary for success in managerial jobs, without mediational cognitive comptencies, such skills remain dormant and unfunctional. It is through these competencies that managers decide what, when, and how to utilize the skills. We have drawn upon the notion of 'resourcefulness' from the cognitive behavior therapy research (Meichenbaum, 1977; Rosenbaum, 1983) to emphasize the fact that the repertoire of acquired competencies are the abilities to engage in cognitive self-controlling adaptive responses. They regulate internal emotional reactions, cognitive beliefs and expectations, and behavioral intentions that may interfere with managerial activities aimed at serving organizational interest. Meichenbaum (1977) has used the concept of 'resourcefulness' to characterize a person who self-regulates and directs his/her behavior to successfully cope with difficult, stressful, and challenging situations. Such coping strategies result not only in successful adaptation to environmental demands, but also contribute to mental strength and tenacity of the person. Competencies as components of resourcefulness represent learned abilities of managers to employ self-regulating and self-controlling

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procedures on their jobs. Since managers differ in their learning histories or socialization experiences in life, there would be individual differences among managers with respect of their resourcefulness. or their ability and willingness to self-regulate internal emotions, thoughts, and behavioral tendencies that may interfere or facilitate smooth execution of managerial functions.

Components of Managerial Resourcefulness

The components of resourcefulness can be categorized under four types of generic competencies as listed in Table 2. These relate to self-management of affective arousal and expression (affective competence), of thought processes, beliefs, and expectations (intellectual competence), and of intentions and action orientations (action oriented competence). A resourceful manager is one who shows competence in self-regulating his/her emotions/feelings, thoughts, and actions while playing the managerial roles or executing managerial functions. Although resourcefulness involves self-control procedures to regulate ones emotions, thoughts, and action orientations at the deepest level, such self-control procedures represent a set of cognitions regarding one's own self that ultimately determines the emotion, thought, and behavior processes. A brief description of each of the components of managerial resourcefulness follows.

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Insert Table 2 about here
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1. <u>Affective</u> <u>competence.</u>This refers to the ability of a manager to use cognitions and self instructions to successfully regulate ones emotional reactions so that they may facilitate instead of interfering with the execution of managerial functions. Four types of affective competence can be identified. First, managers should develop the ability to control primitive terminal reactions (Dorner, 1978, 1982) in stressful situations that produce strong emotions. Under stress, people often resort to four kinds of primitive reactions that may interfere with their adaptive problem solving or decision making capabilities. They may exhibit aggressive tendencies (annoyance with goal blocking agencies), regressive tendencies (fear of consequences of goal directed efforts), withdrawal tendencies (sense of despair or hopelessness resulting from expectations of performance-reward noncontigency), or excitement over expected personal gains (anticipatory goal reaction under excessive attachment to personal payoffs). Each of these tendencies interferes with successful managerial performance. Hence managers need to develop competencies to self-regulate these primitive reactions.

Controlling such reactions needs to be supplemented by the second type of competency that is, developing a sense of equanimity and problem solving orientation when faced with environmental challenges. In order to assess the environmental opportunities and constraints, managers need to develop a more objective and dispassionate outlook enabling them to emit

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desirable adaptive responses. Such responses can only be generated when environmental demands are assessed with emotional calm and problem solving orientation.

The third type of affective competency refers to the ability to delay immediate gratification (Rosenbaum & Palmon, 1984). Social psychological literature (e.g., Jones & Gerard, 1967) suggests that through socialization we learn to control our momentary urges to engage in impulsive behavior that have dysfunctional consequences. Ability to appreciate long range or delayed consequences of action is indicative of developed conscience and psychological maturity. This long-range time perspective with respect to consequences of one's actions is important for managerial performance, particularly in the areas of planning, coordination, managing conflict and change. When managers are concerned with performance achievement, their success depends on delaying gratification and working long hours without immediate reinforcement from the external environment.

The fourth type of affective competency is the ability to demonstrate proactive involvement, enthusiasm, and interest in meeting challenges in both one's life and organizational contexts. Successful managers need to be proactive and should place a high value on being committed in various roles they choose to play in life. They should show readiness to take on available opportunities as they arise. As a successful manager expressed it "you don't catch fish without having your rod in the water, and I am sure that is true of life. You've got to be out taking an interest in what's going on. I've always tried to do that" (Cox & Cooper, 1988, p.85).

2. Intellectual competence. Two types of intellectual competence are needed for successful managerial performance. First is the ability to apply problem solving strategies and the second is the ability for self-reflection on how to enhace self-efficacy.

Intellectual competence to solve managerial problems involves goal analysis, information generation for dignostic purpose, and planning and evaluation of alternative courses of action. A manager must develop a clear idea of what he/she wants to achieve, must gather information to assess the situation in order to find ways to reach the goal.

The goal analysis phase of problem solving (or the problem finding phase) requires analytic thinking about various components of the goal and their interdependence. Dörner (1982) refers to these two aspects of goal analysis as component analysis and dependency analysis. Absence of goal analyses leads to lack of goal directedness and 'thematic vagabonding' (Dörner, 1980) or quick shifts in thinking about different goals and behavioral intentions resulting in wasted efforts and non-adaptive behaviors.

Once the goal is clearly formulated through goal analysis, the manager then has to look for information about the opportunities and constraints in the environment in order to find possible ways to reach the goal. Search for possible paths to reach the goal in a given situation requires both analytical and synthetic thinking. One form of such thinking is analogical reasoning.

Dreistadt (1968) has argued that it is an important means for generating missing information. This involves the extraction of the relational structure of a known situation and transfer it to a new situation. When faced with a new environmental challenge, the manager has to assess the environmental variables by transfering his/her knowledge or prior assessement of variables in other situations to the situation on hand.

In order to conduct analogy transfers, a manager should have differentiated and experience based knowledge in various life and organizational contexts. To gain a wide range of experience, he/she must exhibit high levels of readiness and curiosity to comprehend divergent circumstances (affective competence of proactive involvement discussed earlier). The manager should also develop a sensitivity for disharmony and dissonance. Retaining information on divergent situations in the memory structure and integrating them into a world view free of contradictions is the key to the manager's capability to cope with the uncertain and changing environment.

After goal analysis and diagnostic information generation for environmental assessment, a manager must plan alternate courses of action and evaluate them with respect to their feasibility and consequences. Here again both analytic (for analysis of each alternative) and synthetic (for comparison among alternatives and final choice, keeping the total situation in mind) thinking are necessary. Lack of competence in this area may lead to `short-cut reaction (first available, seemingly suitable course of

action is chosen), 'muddling through behavior', rigid 'overplanning' (Dorner, 1982 , Lindblom, 1964). Such planning deficiencies often result in uncoordinated efforts and negligent consideration of long-range effects of actions. Competence in handling managerial problems requires "helicopter quality" in thinking Co and Cooper (1988). A manager must have the urge and ability to look at problems from a higher plane or in a broader context.

Finally, the ability for self-reflection in order to enhance ones self-efficacy is an intellectual competence needed for success in managerial jobs. Managers must be able to reflect on their own

1982) and regulate their beliefs on personal efficacy in various tasks. Self-reflections often provide feedback on what to do and what not to do in the future based on past experiences. This in turn strengthens one's feeling of self-efficacy (Rosenbaum, 1980), Lack of self-reflective thinking leads to inability to use feedback and behavioral regidity or unwillingness to change behavior under changed circumstances. These are nonadaptive responses. Consequently, they lead to a lower sense of self-efficacy and stronger belief in external locus of control.

3. Action-oriented competence. Managerial resourcefulness include both task and people related action orientations. In personality field of research, these action orientations are referred to as action styles (Frese, Stewart & Hannover, 1987). These action styles or orientations are considered to be structural characteristics of an individual. They are

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cognitively represented as propensities to act in a certain manner across a number of situations and therefore can be considered a part of resourcefulness.

With reference to task related activities, successful managerial actions are determined and guided by goal formulation, information search for environmental assessment, planning and feedback. Action orientation in each of these areas has three components: attention to details, persistance of pursuit, and concern for a time frame (Frese Stewart & Hannover, 1987). Successful managerial performance depends on one's ability to attend to details, (thoroughness or comprehensive understanding) inclination to persist in one's efforts, and maintain time targets in the development of goals and plans and in the use of feedback.

Besides task related action orientation competency, managers must also possess people related action orientations. This would include the ability to empathize with others and to develop interpersonal sensitivity to understand others' needs, expectations, beliefs etc. To be successful in these areas, managers need to develop active listening and feedback competencies. Furthermore, in order to gain others' acceptance a manager has to develop an ability to be non-defensive and supportive. In executing leadership functions, a manager need to exert socialized and symbolic influence over others (Klemp & McClelland, 1986). This would require developing competency in using referent and expert power (French & Raven, 1959) and in verbal and non-verbal modes of communication.

Conclusion

In this paper, we have examined the nature of skills required for successful managerial performance. We have emphasized the fact that organizational adaptation to environment requires appropriate managerial responses to both the stable and shifting aspects of the environment. Therefore, managerial tasks often tend to be non-routine and unprogrammed over and above its routine and programmed components. We have explored the qualitatively different abilities needed for these domains of managerial work. A framework to study these differing abilities is suggested by classifying them into two categories: skills (overt behavior sequences specific to the task) and competencies (mediational cognitive self-regulation). Possession of competencies, several components of which are identified are conceptualized as managerial resourcefulness. Identification and assessment of various components of resourcefulness have practical implication for both selection and training of managers.

Future research should be directed to develop appropriate operationlization, assessment, and training procedures with respect to the various components of resourcefulness. In this effort, the work of McClelland and associates, Rosenbaum and associates, and Frese and associates may serve as useful starting points.

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Table 1

Distinction Between Skills and Competencies

	Skills	Competencies
Nature of manifestation	Overt Behavioral System or Sequence	Cognitive mediational activities
Nature of tasks	Routine or programmed	Non-routine or unprogrammed
Environmental characteristic	Handle stable environment	Handle complex, volatile environment
Generalizability to other tasks and situations	Limited to similar tasks and situations	Extended to a wide variety of tasks and situations
Locus/mainspring Generic potential	Task driven fixed	Person dependent unlimited

Table 2

Components of Managerial Resourcefulness

1. Affirmative competence

   a. Controlling primitive terminal reactions in situations that

      produces strong emotions

         i. Aggressive tendencies (Annoyance with goal
                                    blocking agencies)

        ii. Regressive tendencies (Fear of consequences
            of goal directed efforts)

       iii. Resignation or withdrawal (Hopelessness and
            depressions resulting from reward non-contingency)

        iv. Excitement (Anticipatory goal reaction
             under excessive goal attachment to personal
             success or gain)

   b. Developing equanimity and problem orientation

   c. Delay of gratification

   d. High proactive involvement, enthusiasm, interest and

      commitment to meeting challenges in life.

2. Intellectual competence

   a. Intellectual competence to solve problems

         i. Goal analyses through analytical thinking

            - component analyses

            - dependency analyses

        ii. Diagnostic information generation to assess
            the   situation and finding ways to   reach
            goals   through   analytical and   synthetic
            thinking,   and analogical reasoning.

       iii. Planning of alternate courses of action, and
            their evaluation using analytical and synthetic
            thinking.

   b. Self-reflection for strengthening self-efficacy belief.

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3. Action oriented competence

   a. Task related action orientation with regard to goal and

      plan development and use of feedback

            i. Attention to details

           ii. Persistance of pursuit

          iii. Concern for timeframe

   b. People related action orientation

            i. Interpersonal sensitivity and empathy through
               active listening & feedback.

           ii. Non-defensive and supportive posture to gain
               other acceptance.

          iii. Use of socialized and symbolic influence over
               others.

References

Anderson, C.R. (1984) <u>Management: Skills, functions, and organization performance</u>. Dubuque, IA: Wm.C. Brown

Anderson, C., Hellriegell, D., & Slocum, J. (1977) Managerial response to environmentally induced stress. <u>Academy of Management Journal</u>, 20, 260-272.

Barry, D.W., Campbell, R.J., & Grant, D.L. (1974)<u>Formative years in business: A long-term A.T. & T. study of managerial lives</u>: New York: Wiley.

Berg, I. (1970) <u>Education and jobs: The great training robbery.</u> New york: Praeger.

Boyatzis, R.E. (1982) <u>The competent manager: A model for effective performance</u>. New York: Wiley.

Campbell, J.P., Dunnette, M.D., Lawler, E.E., III, & Weick, K.E., Jr. (1970) <u>Managerial behavior, performance, and effectiveness</u>. New York: McGraw Hill.

Carroll, S.J., & Gillen, D.J. (1987) Are the classical management functions useful in describing managerial work? <u>Academy of Management Review</u>, 12, 38-51.

Chatman, J.A. (1989) Improving interactional organizational research: A model of person - organization fit. <u>Academy of Management Review</u>, 14, 333-349.

Copeman, G. (1971) <u>The Chief executive and business growth</u>, London: Leviathan House.

Cox, C.J., & Cooper, C.L. (1988) <u>High flyers: An anatomy of managerial success</u>. New York: Blackwell.

Dorner, D. (1978) Self-reflection and problem solving. In F.Klix (Ed.), <u>Human and artificial intelligence</u>. Berlin: Dentscher Verlag der Wissenschaften.

Dorner, D. (1980) On the difficulties people have in dealing with complexity. <u>Simulation and Games</u>, 11, 87-106.

Dorner, D. (1982) The ecological conditions of thinking. In D.R. Griffing (Ed.), <u>Animal mind-human mind: Dahlem Konferenzen</u>. Berlin: Springer.

Dreistadt, R. (1968) An analysis of the use of analogies and metaphors in science. Journal of Psychology, 68, 97-116.

Fayol, H. (1949) General and industrial management. (C. Storrs, Trans.). London, England: Pitman.

French, J.R.P. Jr. & Raven, B.H. (1959) The bases of social power. In D. Cartwright (Ed.), Studies in social power Ann Arbor: University of Michigan.

Frese, M., Stewart, J., & Hannover, B. (1987) Goal orientation and planfulness: Action styles as personality concepts. Journal of Personality and Social Psychology,52, 1182-1194.

Ghiselli, E.E. (1966) The validity of occupational aptitude tests., New York: Wiley.

Graham, J.L. (1983) Brazilian, Japanese, and American business negotiations. Journal of International Business Studies, XVI (1), 81-96.

Jones, E.E., & Gerard, H.B. (1967) Foundations of social psychology New York: Wiley.

Katz, R.L. (1974) Skills of an effective administrator. Harvard Business Review, 52(5), 90-102.

Kiggundu, M. (1990) Managing structural adjustment in developing countries: An organizational perspective. In A. Jaeger & R.N. Kanungo (Eds.), Management in developing countries. London: Routlege.

Klemp, G.O., Jr. & McClelland, D.C. (1986) What characterizes intelligent functioning among senior managers. In R.J. Sternberg & R.K. Wagner (Eds.), Practical intelligence: Nature and origin of competence in the every world. Cambridge: Cambridge University Press.

Kotter, J.P. (1982) The general manager. New York: The Free Press.

Kotter, J.P. (1990) What leaders really do. Harvard Business Review (May-June), 103-111.

Luthans, F., Rosenkrantz, S.A., & Hennessey, H.W. (1985) What do successful managers really do? The Journal of Applied Behavioural Science, 21, 225-270.

Lindblom, C.E (1964) The science of "muddling through". In H.T. Leavitt and L.R. Pondy (Eds.), Readings in managerial psychology, Chicago: Illinois University Press.

Mintzberg, H. (1973) The nature of managerial work. New York: Harper & Row.

McClelland, D.C. (1973) Testing for competence rather than for intelligence. American Psychologist, 28 1-14.

Meichenbaum, D. (1977) Cognitive behaviour modification: An integrative approach. New York: Plenum Press.

Nadler, D.A., & Tushman; M.L. (1990) Beyond the charismatic leader: Leadership and organizaional change. California Management Review, Winter, 77-97.

Rosenbaum, M.N. (1983) Learned resourcefulness as a behavioural reportoire for the self-regulation of internal events: Issues and speculations. In M. Rosenbaum, C.M. Franks, & Y. Jaffe (Eds.), Perspective in behaviour therapy in the eighties. New York: Springer.

Rosenbaum, M.N., & Palmon, N. (1984) Helplessnessa and resourcefulness in coping with epilepsy. Journal of Consulting and Clinical Psychology, 52, 244-252.

Stewart, R. (1967) Managers and their jobs: A study of the similarities and differences in the way managers spend their time. London: Macmillan.

Thornton, S.C., III,& Byham, W.C. (1982) Assessment centers and managerial performance. New York: Academic Press.

Taylor, F.W. (1911) The principles of scientific management, New York: Harper.

Taylor,C., Smith, W.R., & Ghiselin, B. (1963) The creative and other contributions of one sample of research scientists.

Urwick, L.F. (1952) Notes on the theory of organization. New York: American Management Association.

Waters, J.A. (1980) Managerial skill development. Academy of Management Review, 5, 449-553.

Wagner, R.K., & Sternberg, R.J. (1986) Tacit knowledge and intelligence in the everyday world. In R.J. Sternberg & R.K. Wagner (Eds.), Practical intelligence: Nature and origins of competence in the everyday world. Cambridge: Cambridge University Press.

Williamson, S.A., & Schaalman, M.L. (1980) Assessment centres: Theory, practice and implications for education. In G.O. Klemp, Jr., (Ed.), The assessment of occupational competence. Report to the National Institute of Education, Washington, DC.