

The Over-Educated, Under-Utilized Public Professionals: Evidences from Oman and Saudi Arabia

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Abstract

Integrating multiple perspectives, this comparative study examines public administrators' perceptions of organizational human capital utilization (and underutilization) and its relationship to organizational policies and practices in Saudi Arabia and Oman (N=540). The study findings expose a widespread under-utilization problem. Skills and abilities of civil employees, although relatively and increasingly abundant, are invariably underutilized. It is found that competence utilization is closely associated with factors related to HR policies and practices and organization design, namely power-influence sharing in decision making, utilization and empowerment of work teams, matching jobs to people, and use of competence as a basis for advancement and authority. The study suggests that without effective utilization mechanisms, additional skill development might prove ineffective and largely irrelevant to performance and overall effectiveness of governance system.

Keywords: Public Professionals, Human Capital Utilization, Effectiveness of Governance

Introduction

Building and strengthening human capital resources through education and training programs has been a major goal of work organizations in developing countries. These activities are consistent with organization development and economic modernization models that emphasize the role of the competent workforce in organization success in particular and economic development of a society in general (Esman, 1991; Becker, 1993, 1975; Barney, 1991; Lado and Wilson, 1994; Kuruvilla, 1996; Karasek and Theorell, 1990; Kiggundu, 1989).

While organization-wide adoption of various skill-knowledge building schemes is quite widespread in both public and private sectors, research on the problem of human capital resources underutilization and underemployment and its correlates has been relatively scant. There is an abundance of research on almost all employment policies and work attributes but little that is relevant to the assessment of competence activation and utilization and their effect on work-related outcomes. For example, skill level and type or the number of skills required for a job is often included in defined employment policies and HR practices, but this is not the same as the utilization and retention of talent and the opportunity to use existing skills and capabilities in work roles (O'Brien, 1980). There is a general tendency among some economists and management development specialists to naively assume that all good things go together; that improvements in performance will automatically ensue as investment in human capital resources and adoption of technical innovations increase.

This study builds on critical research by Al-Yahya (2004; 2009) suggesting that most development policies and activities applied in work organizations, particularly in developing nations, have focused extensively and often solely on 'technical improvement' and 'investment in and accumulation of human capital resources' as a strategy to enhance effectiveness, efficiency, and overall performance, as suggested by classical human capital and economic development theorists and planners.

As the review of the existent human and organization development conditions below reveals, these applied approaches have done little to produce desired improvements in performance. As a first attempt to diagnose this problem, this study uses data collected from not frequently researched Arab public organizations (Saudi Arabia and Oman) to address the following questions: *Are human capital*

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resources underutilized in work organizations? If this is the case, what is the extent of underutilization? What are the factors that affect utilization?

This study draws attention to the importance of linking HR practices and organization design to competence utilization as integral part of organization strategy and development. More specifically, it proposes a human capital utilization model that captures the influences of five factors on utilization: power-influence sharing (IPC) in decision making (participation); use and empowerment of work teams, compatibility between area of expertise and job content; qualification-job requirements matching; and reliance on competence, not only seniority as a basis for advancement and involvement opportunities.

Although empirical research on competence utilization is limited, a few studies suggest that opportunity to use important skills and abilities is a significant determinant of important employee attitudes and work-related outcomes. Some studies suggested that competence utilization can improve job dissatisfaction and mental strain in the U.S. (Kornhauser, 1965) and in Australia (O'Brien, 1980; Humphreys and O'Brien, 1986), employee turnover (Hakim, 1989; Al-Meth'heb, 1998; Al-Yahya, 2009). On the other hand, utilization was found to improve as a result of adoption of participative decision making in Europe (IDE, 1977, 1987, 1993; Heller and Wilpert, 1981) and China (Wang, 1994), and the clarity of managers' mission and the amount of authority and responsibility (Bolino and Feldman, 2000).

To advance our understanding of human capital utilization (and underutilization) and address these questions, the study proposes a model that captures some factors related to HR practices and organization design that enhance or impede human capital utilization in work organizations. Our research suggests that the problem in many work organizations is not necessarily the lack of 'competent and motivated people' as generally believed. Rather it is that they are caught in positions or more generally organizational systems that fail to recognize, empower, and effectively utilize their skills and abilities, generating inequality in occupational placement and empowerment schemes.

Human Capital Development and Utilization

Human capital refers to the aggregate skills, abilities and knowledge, and other competencies of an organization's workforce (Ployhart, Weekley, and Bauchman, 2006; Becker, 1993; Flamholtz and Lacey, 1981). Davenport (1999) refined the definition by breaking it into elements: ability, behavior, and effort. According to him, "ability comprises *knowledge*—command of a body of facts required to do a job, *skill*—facility with the means and methods of accomplishing a particular task, and *talent*—inborn faculty for performing a specific task" (Davenport, 1999:19-20). In the management literature, the term "*competence*" or "*competency*" is often used instead of human capital which consists of "skilled, educated people" (Crawford, 1991:5). In this article, we use both terms "human capital resource" and "competence" interchangeably.

The predominant theoretical approaches to examining the importance of skills and abilities are human capital and labor economics in economics, occupational psychology, human resource development in management, and capacity development in international development administration. Neoclassical development economists make the argument that human capital and technological advances are necessary prerequisites for the growth and prosperity of societies. Organizations and management researchers are also consistent in maintaining that organizational performance or productivity and efficiency is determined by the accumulation of skills and adoption of technological innovations (Kuruvilla, 1996; Barney, 1991; Dess and Shaw, 2001; Davenport, 1999; Karasek and Theorell, 1990; Aoki, 1984). In recent decades, investment in human capital development emerged as a major

component of modern organizations' "intended" and "deliberate" strategies, using Henry Mintzberg's strategy typology (Mintzberg, 1994: 23-4). "Human capital" has become the top priority and slogan of both governments and companies around the world.

Human Capital Resource Under-Utilization

Underutilization and underemployment have been generally conceptualized and examined by two groups of researchers. Economists generally focus on the "*objective underemployment*" in domestic arenas. They define it in term of returns to schooling and whether skilled and knowledgeable individuals are fully absorbed by employment markets and focus on situations when workers work in jobs where they have education or skills which exceed normal job requirements. In recent decades, the preoccupation with accumulating human capital resources and mechanizing the workplace has led some researchers in the U.S. and a number of European countries to be concerned about the potential problem of "overqualification" or "overeducation". In the U.S., for instance, the rate of managers completing 13 or more years of schooling rose from 40% in 1970 to 56% by 1980 (Clogg and Shockey, 1984; Smith, 1986). These concerns were brought about by several publications including Richard Freeman's *The Overeducated American* (1976), Lester Thurow's *Generating Inequality* (1975), Russel Rumberger's *Overeducation in U.S. Labor Market* (1981) and more recently '*Over- and Undereducation in the UK Graduate Labor Market*' (Alpin, Shackleton and Walsh, 1998), and '*The Overeducated Worker*' (Borghans and de Grip, 2000).

Sociologists and organizational behavior researchers, on the other hand, commonly focus on "*subjective or perceived underemployment*" and use self-report data to examine situations where individuals feel that their abilities are not fully utilized in their work roles. This group of researchers also draws attention to underemployment's negative impact on job attitudes and work-related outcomes such as job satisfaction, motivation organizational commitment, and citizenship behavior (O'Brien, 1983; Smith, 1986; Feldman and Turnley, 1995; Feldman and Bolino, 2000; Lee, 2005; Khan and Morrow, 1991; Kornhauser, 1965).

There is a pressing need for research and policy practice in the area of human capital underutilization. The extent of under-utilization can represent a serious challenge to modern organizations. This is because if human capital resources are not activated and used or not used properly, the desired effects of their accumulation are "lost." In cases of underutilization, organizations experience considerable losses due to reductions in effectiveness, productivity, satisfaction, and worker alienation (Kornhauser, 1965; O'Brien, 1980; Humphreys and O'Brien, 1986; Heller & Wilpert, 1981; Al-Yahya, 2004; Karasek and Theorell, 1990). The greater the level of under-utilization, the lower the return from investment in human capital and the lower the benefits accruing to the organization's stakeholders, including the public, which ultimately pays for such investments and benefits immensely from the nurturing of a knowledgeable and engaged workforce. Furthermore, motivational energy is likely transformed into adverse reaction—stress, passivity, frustration.

Human Capital Development and Performance: The Case of Arab Organizations

In the early days of administrative state building, there was a general consensus among policy makers in the Arab world and international agencies' economic and management consultants regarding the importance of human capital resources in the development process. This was due to the shortage of a skilled domestic workforce "national skill deficit" which presented a major challenge to the modernizing Arab states and led to their dependence on foreign experts and labor. For example,

Consequently and since the 1970s, both public and private organizations in the Gulf States including Oman and Saudi Arabia have invested generously in management development activities aimed at strengthening their administrative and organizational capabilities. Governments and their private sector partners incrementally allocate resources for education and technical and vocational training for public sector employees. For example, in the Saudi first development plan (1965-1970), allocations to human resources development stood at \$ 2 billion. This pattern continues through the Seventh Plan (2000-2004) with allocations standing at \$74 billion, or 56.7 percent of the total expenditures. This is done through an extensive network of national educational and training institutions and international human resource development programs. For example, enrollments in technical and vocational colleges (with special commercial, industrial, computer science, and managerial programs) have jumped from 840 in 1971 to over 50,000 student trainees in 2003. For the same period, the number of higher education graduates also increased from 1909 to over 40,000 per year (from local universities) and from 202 to more than 5,000 graduates (per year) from universities abroad mostly in the U.S. and Europe (Saudi Arabia Ministry of Planning, 2004; SA Ministry of Higher Education, 2005; Alsahlawi, 2004).

In the area of special management and human resources development, the public sector in both countries has experienced considerable quantitative improvements in terms of additional qualifications and increase in skill accumulation, as a result of extensive management development programs. In the period between 2000 and 2003, more than 27,000 administrators attended the in-service management programs in one management development school—the Institute of Public Administration (IPA, 2004). Moreover, many public organizations arrange for their employees to go abroad for training and other skill-knowledge exchange activities with universities and governmental agencies in the U.S. and Europe.

These policies and programs have fostered burgeoning professional middle classes and relatively high growth in per worker human capital (certainly not eliminating the shortage of highly skilled workforce completely in some specializations). However, research on development and growth rates in the region continues to report that this considerable expansion in human capital does not seem to have had effect on both economic output and organization-level performance (Pritchett, 1999a, 1999b; Ali, 2002, Benhabib and Spiegel, 1994; Thomas et al. 2000; UNDP, 2002; Makdisi et al, 2000; Psacharopoulos, 1994; Alsahlawi, 2004). For example, Ali (2002) reviewed studies that examined the relationship between the accumulation of human capital and the rate of growth in Arab countries during 1960-1998 and concluded that in spite of the apparent surplus human capital in the region, the desired rate of return of human capital stock on performance was very minimal if not negative noting the lack of association between the two (Ali, 2002). At the organizational level, a large number of studies have reported similar persistent patterns of unaffected performance and development in work organizations (Al-Abdullatif, 1995; Hakim, 1989; Al-Yahya, 2004; Al-Meth'heb, 1998; Alkahtani, 2000; Ali, 1996; Kassim, 1994; Abualjadail, 1990). This *gap* between the considerable expansion in the stock of human capital and performance outcomes emerged as a *puzzle* in the empirical literature.

Some studies conducted in limited sectors alluded indirectly to the problem of underutilization and retention of competent human resources. For instance, research on Arab universities observed a new

employment elsewhere, a phenomenon known in management as employee turnover. As a result of an increasing rate of turnover, the government accrued great losses because the majority of faculty members had received their graduate degrees (mostly from the United States and Europe) through scholarships awarded by the government. To gauge the satisfaction level among faculty members, for instance, Hakim (1989) conducted a study on 378 members at King Abdul Aziz University, the second largest university in Saudi Arabia. He found rigid administrative procedures (including stick reliance on seniority) and inadequate opportunities for research and advancement.

In another study on faculty turnover, Al-Meth'heb (1998) found that 78 percent of faculty think of leaving the university temporarily (short-term leave to work for another organization) while 20 percent prefer to quit their job permanently. The majority (67 percent) indicated that they prefer to work for the private sector because of their belief that it provides greater opportunities for recognition, self-actualization, and advancement.¹ Respondents also indicated their dissatisfaction was due to the lack of effective use of their capabilities and to centralized decision making regarding resources for research and academic conferences. As a result of an increasing rate of turnover, the government accrued great losses because the majority of faculty members had received their graduate degrees (mostly from the United States and Europe) through scholarships awarded by the government.

In spite of these studies, the extent, causes, and effects of underutilization is still largely ignored in serious policy considerations. A review of recent publications (Looney, 2004; Alsahlawi, 2004; Al-Lamki, 2002; UNDP, 2003, 2004; SAMP, 2005) shows that the issue of human resources *development* and *technology transfer* is still the main emphasis, if not an obsession, of management practitioners and researchers alike. One of the few available international studies on competence utilization was conducted by Heller and Wilpert (1981). In their study of business organizations in Europe, Heller and Wilpert found that under-utilization of skills among managers averaged 28 percent in Spain, 22 percent in Sweden, 19.5 percent in Germany, 17.7 percent in France, and 17.7 percent in Netherlands.

In this study, I attempt to examine the nature and patterns of human capital resource under-utilization within the context of Arab work organizations. Due the limitations of the current analytical approaches to organization development and the apparent omission of under-utilization and its effects on performance, I suggest that the problem in many modern organizations may not be the lack of skills and knowledge embedded in individuals and groups. Rather it might be the absence of appropriate mechanisms to empower, utilize, and integrate them in the process of decision making and organization change and performance. Based on these views, and as a first step to diagnose the potential 'under-utilization' in Arab work organizations, we predict that

H1. Human capital resources (employees' skills and capabilities) in Saudi and Omani public organizations are invariably underutilized.

Determinants of Human Capital Utilization

¹ In other parts of the Middle East, underutilization and frustration lead many high-skilled professionals and

The activation and utilization of human capital entails understanding motivational needs for achievement, empowerment, and self-actualization and thus considering organizational adjustments (not only additional development of human and technical capabilities) aiming at increasing influence-sharing in decision making and competence-authority matching. Purcell and his colleagues (2003) provided evidence that organizational success and employee performance was dependent on having the right mix of human resources (HR) and organization development (OD) policies in place. Their model— ability, motivation and opportunity (AMO) posits that performance is based on the capacity of organizations: (a) to recruit people with the right ability, (b) to motivate them, and (3) to provide them with the opportunities to use their skills in well-designed jobs. Furthermore, the resource-based view of management (Barney, 1991; 1992) and the subsequent theoretical and empirical activities springing from it provide insights on constructing arguments for the potential of human resource systems to enhance or impede the development and utilization of organizational competences (Lado and Wilson, 1994; Reed and DeFillippi, 1990; Snell, 1991). These competences, according to the resource-based view, are presumed to result in organization's sustained success and competitive advantage.

Notwithstanding the importance of previous research efforts to study organizational competencies, few provided explicit and comprehensive treatment of the potential of under-utilization, why it occurs, and what management can do about it. A general weakness of most previous research efforts is the fact that they did not define competence utilization separately; neither did they measure it in a systematic and comprehensive manner as multidimensional phenomena. For instance, Turner and Lawrence (1965) and Hackman and Lawler (1971) examined job attributes such as job variety, autonomy, and skill and knowledge and their effect on job satisfaction. Although all of these attributes are positively correlated with job outcomes, competence utilization was not directly tested. The two studies often confused job variety and skill/knowledge level or skill variety with competence-utilization and skill-match. Variety refers to the range of skills required to perform a job, and it does not guarantee high utilization (Humphrys and O'Brien, 1986). In addition, studies concerning skill utilization and job content are often descriptive and concentrate on jobs held by skilled manual and clerical workers, with little attention paid to professional or managerial jobs.

In the case of Gulf states, I argue that human resource practices and organizational design (e.g., strict bureaucratic control and decision mechanisms) that were in place to mitigate the general 'historical' human capital deficit problem are no longer effective in managing a new generation of increasingly capable workers and channeling their efforts and motivations toward greater accomplishment and performance. These conditions may have contributed to what we perceive a growing "human capital utilization deficit" in work organizations. This can hamper organization's ability to integrate new competencies and adapt to new work demands, particularly during transitional periods as suggested by research on job performance and organization change (Murphy, 1989; Hofmann, Jacobs, and Baratta, 1993; Barney, 1991).

Competence utilization and power-influence sharing

Bolino and Feldman (2000) investigated the issue of utilization among expatriate managers working in over 30 countries. They examined the impact of skill utilization (specifically, eight skills critical to expatriate success) on job attitudes. Unlike previous studies, Bolino and Feldman attempted to answer "Why skill utilization problems occur?" and found that high levels of utilization were positively

expatriate managers in industrialized countries, who often deal with a different set of situations and arrangements than those in regular work environments, makes the findings of such study of limited general applicability.

One of the few available comprehensive cross-national studies of decision making and competence utilization was conducted by Heller and Wilpert (1981). The study employed a sample drawn from business organizations in six countries—Netherlands, Germany, France, Sweden, Israel, and Spain. Their main instrument, the Power-Influence Continuum (IPC), has five alternative decision methods ranging from (1) decision without prior explanation or information, (2) fairly detailed information about the decision being made, (3) explaining the problem and giving employees opportunity to give advice then the superior makes the final decision (consultative), (4) participative—decisions are made jointly by superiors and subordinates (participative), (5) authority to make decision is given to the employee or work group (delegative). Their study found that skill utilization was associated with participative decision-making. I intend to empirically test this presumption in Arab work organizations.

H2. There is a positive relationship between utilization and power-influence sharing (IPC). Employees who identify decision making in their work units as more participative are more likely to exhibit higher levels of utilization.

Utilization and empowerment of teams

Another factor often cited within the context of power-influence sharing is the reliance on empowered teams in professional and increasingly knowledge-based organizations. Work teams can provide opportunities for the integration and utilization of human resource assets and thus improved commitment of workers, especially the new comers, and their performance (Anderson and Thomas, 1996; Klimoski and Zukin, 1999; Feldman, 2002; Chen, 2005). In the last 15 years, the number of new graduates and young professionals entering the workforce has almost double in the Gulf states (Al-Yahya, 2004). Therefore, the use and empowerment of teams ensure that knowledge workers remain motivated and acquire and use new knowledge and skills that will help them progress in their careers (Chen, 2005; Katz, 1997). Maintaining this motivating and empowering team environment permit workers to initiate and direct greater effort toward improving organizational performance (Spreitzer, 1995; Thomas and Velthouse, 1990). Therefore, the following hypothesis is suggested:

H3. The use of work teams in organizations has a positive effect on competence utilization. Employees who have the opportunity to work in teams are likely to exhibit higher levels of utilization.

Over-education and matching people to jobs

The compatibility between skills/capabilities a worker possesses and the job and responsibilities she can play a major role in competence utilization and organization development. Although the publication of Richard Freeman's *The Overeducated American* (1976) and Lester Thurow's *Generating Inequality* (1975) popularized the mismatching problem and drew the attention of economists and organization and management specialists to it, this phenomenon remained relatively understudied in empirical research. Some researchers point out that although intermittent overeducation might not represent a major problem in the short run, its frequency and persistence can discourage individuals (especially students and low-skilled workers) from pursuing "additional

1267). This also has unsettling implications for the longstanding assumption in neoclassical economic theory that posits that compensation schemes should be tied to the skills workers possess, not the jobs they hold. However, as pointed by Thurow (1975), compensation increasingly is tied to jobs, not workers; generating inequalities in compensation and access.

Here I am interested in depicting potential interaction between underutilization and the poor matching between people and jobs. The gap between qualification level and job requirement demonstrates the “the extent to which some workers are employed in jobs which they may have more education than the job requires” (Rumberger, 2002). Hence, if job content is not properly matched with area of expertise or skill level, underutilization is likely to occur and persist. As discussed earlier, this problem is most-often referred to as “overqualification”, or “over-education” (Borghans and de Grip, 2000; Freeman, 1975) especially among recent graduates and newly hired managers who have gone through extensive skill development and training programs. Therefore, I intended to test empirically the following:

H4. There is a positive relationship between utilization and the matching of employee’s area of expertise with his/her job content. Employees who perceive their job content to match their area of expertise are more likely to experience higher levels of utilization.

H5. There is a positive relationship between utilization and the fit between qualifications and job requirements. Employees who perceive their job requires most of their qualifications are more likely to report higher levels of utilization.

Reliance on seniority or competence

Finally, a widely prevalent practice in many organizations that may affect motivating and utilizing human resources is the strict reliance on seniority, rather than competence, as a basis for advancement and involvement opportunities. Public sector organizations traditionally are characterized by high degree of and adherence to formal hierarchy and bureaucratization that may hinder organization ability to identify existing stocks of skills and abilities and utilize them in the decision process. Hakim (1989) attributed low levels of satisfaction and productivity to rigid administrative procedures (including stick reliance on seniority) in education agencies. This pattern, however, was not examined beyond educational settings, and thus, we will test the following hypothesis in general employment organizations:

H6. There is a positive relationship between utilization and the use of competence, rather than seniority, as a basis for advancement and involvement opportunities. Employees who perceive their work units are less reliant on seniority are likely to report higher levels of utilization.

Methodology

Sample and data collection

Data for this study come from a standardized instrument distributed to a random sample of 540 employees from 10 public organizations in Saudi Arabia (n=390) and 7 organizations in Oman (n=150). The difference in the two samples’ size is a function of proportional sampling reflecting the relative larger size of the Saudi bureaucracy and its workforce. Participating organizations include agencies like departments of Finance, National Economy Affairs, Education, Information and

national workforces in both countries (Looney, 2004). As a whole, the sample represents three hierarchical groups-- *top managers/directors* who account for 25 percent, *middle managers* for 39 percent, and *subordinates* for 36 percent. The sample includes employees from various occupational functions including general management, office administration, personnel, finance and accounting, legal, technical, and research and development. The average respondent is a 37 year old male, university graduate with 14 years of work experience, and has completed at least two extensive (4 months or more) on-the-job training programs in their respective field of expertise.

The original questionnaire was designed in the English language then translated into Arabic by the researcher with the help of two faculty members at the Institute of Public Administration (IPA) in Saudi Arabia and the Institute of Public Administration in Oman. A standard back-to-back translation was subsequently used to further guarantee authenticity and accuracy of translation. The results were compared and a few minor errors in translation and wording problems were discovered and corrected accordingly. Before the beginning of the fieldwork and before sending the questionnaire to the actual subjects, a pilot test of the questionnaire was conducted with a selected sample of twenty-eight participants in the in-the-service seminars held at the IPA. This was important to ensure that the survey respondents understood the questions and issues raised in the questionnaire, and to account for any vague questions, ambiguous concepts, and items sensitive to the local culture. After addressing most of the questionnaire's problems raised during the translation and pre-testing period, the questionnaire instrument was ready for distribution to the actual subjects.

The researchers distributed the questionnaire to 700 employees in Omani and Saudi public organizations. Five hundred eighty one (581) responses were successfully completed and collected with a response rate of 83%. The questionnaires were screened for non-response, validity and completeness. Forty one questionnaires were omitted because of errors in the way they were filled out or because of extensive missing data. Therefore, only 540 surveys were used for the analysis.

Measures

Competence utilization is measured in two ways. First, a comprehensive competence utilization scale consisting of 18 items which refer to a number of human capacities or skills identified in the literature particularly the works of Heller and his colleagues in Europe (1981, 1988, 1998). To ensure the reliability of this multi-item scale, we conducted the Cronbach's Alpha test. The index was highly reliable (Alpha score was .947 in Saudi Arabia and .921 in Oman). The index assesses the extent to which the relevant capacities and experiences of the competent persons or groups had been recognized and utilized in their work, leading to a rating scored as Low, Medium, or High utilization. Employee responses were solicited using a five-point scale (*1=never, 2=seldom, 3=sometimes, 4=almost invariably, 5=all the time-always*) to 18 items such as:

- "Initiative (ability to initiate changes or recommendations about work design, policies and procedures)";
- "Verbal ability to freely articulate ideas and opinions"; "Being decisive";
- "Ability to organize and conduct work on one's own in the way they think best"; "Capacity to look ahead";
- "Being creative and innovative at work and in problem-solving";
- "Capacity to develop new ideas and skills";
- "Being adaptable" ;

The second measure of competence utilization uses a single-item scale of 0 to 100 to assess the degree of utilization in percentages. The questionnaire asked respondents to indicate to what extent in percentages they feel their skills are utilized.

Power-influence sharing in decision making was assessed by using the Power-Influence Continuum's (IPC) (Heller *et al.*, 1988, 1981). The IPC helps extend the analysis of decision-making and participation and further understand the dynamic interactions between decision styles and important outcome variables. The IPC has five alternative decision methods ranging from (1) authoritative—decision without prior explanation or information, (2) benevolent authoritative—fairly detailed information about the decision being made, (3) consultative—explaining the problem and giving employees opportunity to give advice then the superior makes the final decision, (4) participative—decisions are made jointly by superiors and subordinates, (5) delegative—authority to make decision is given to the employee or work group. In order to measure power-influence sharing in decision process, 19 items (common administrative decisions and functions related to personnel, planning, coordinating, organizing, and cooperation and so on) are used. The 19 items are drawn from instruments used by Heller *et al* (1981, 1988) and Al-Yahya (2004). Respondents are asked to indicate (1) the actual decision making method across all decision types and how much power or influence they have over them, and (2) the ideal or preferred decision making style pertaining to the different decisions. To ensure the reliability of IPC, we conducted a reliability analysis for and found that the index was highly reliable (Cronbach's Alpha was .862 in Saudi Arabia and .850 in Oman).

To measure the effect of using *work teams* as a basis for sharing information and authority within organizations, I used Glaser, Zamanou, and Hacker (1987) measures of organizational culture and climate which are grounded in both management and communication research. Employee responses were solicited using a Likert five-point scale (*Strongly disagree, Disagree, Undecided, Agree, Strongly agree*) to several questions such as “In general there is not enough information about the state of affairs in the organization”, “Everyone in the group knows what the other people do”, “in this unit, most problem-solving decisions are made by a team” , “There is strong interest among employees in this organization to function as teams”, “People in this organization are provided with clear vision about the future”. The reliability of the scale was again conducted indicating a good reliability (Cronbach's Alpha is .742 in Saudi Arabia and .720 in Oman).

The questionnaire instrument also examines *job content-area of expertise match*. It estimates the extent to which assigned work is related to the job-holder's skill and area of expertise. In the survey instrument, respondents were asked to indicate whether employees are assigned to jobs that match their expertise and skills gained through either formal education before employment or developed during service. Furthermore, another aspect of the underutilization problem examined in this study is the *gap between qualification level and job requirement*. It demonstrates the “the extent to which some workers are employed in jobs which they may have more education than the job requires” (Rumberger, 2002). We used a single-item scale soliciting responses about the extent to worker's current job content requires using his skills and abilities (Heller *et al*, 1988).

Results and Analysis

Patterns of Competence Utilization

consisted of 18 items covering a wide range of human capacities or skills. It assesses the extent to which the relevant capacities and experiences had been recognized and utilized in one's work, leading to a rating scored as Low, Medium, or High. After aggregating the data, results show that about 56 percent of civil servants in Saudi Arabia reported medium utilization (compared to 65 percent in Oman), 32 percent low (21 percent in Oman), 12 percent high (14 percent in Oman). The mean and standard deviation scores are reported in Table 2.

The second measure of perceived skill underutilization uses a single scale of 0 to 100 to assess competence utilization in percentages. The analysis shows the extent of perceived skill underutilization (in percentages) in Saudi Arabia and Oman is high. Overall competence underutilization averages 46 percent in Saudi Arabia and 40 percent in Oman compared to an average of 20 percent in Europe. Dutch and Israeli administrators report the low level of skill underutilization, while Saudi, Omani, and Spanish respondents report the high levels of skill underutilization. Based on these results, Hypothesis 1, which posits that human capital resources in Saudi and Omani public organizations are invariably underutilized, is supported.

Factors Influencing Utilization

The previous section examined the extent of competence underutilization in Saudi and Omani public organizations. In this section, we test a set of factors that influence utilization. Five factors are found to be correlated with utilization: *Power-influence sharing, work-teams, information-flow, job task-area of expertise matching, reliance on seniority-competence as a basis for promotion*. Table 1 presents the means, standard deviations, and correlations. We investigated the relationship between utilization and these factors by way of hierarchical ordinary least square analyses (OLS) in order to determine which predictor, or combinations of predictors, account for variations in human capital resource utilization (results are shown in Table 2). The first, and strongest, predictor is participation in organizational decision making (influence-power sharing). The regression analysis procedure indicates a significant linear relationship between power-influence sharing and skill utilization; an increase in IPC leads to higher skill utilization ($\beta = .36, p < .001$) in Saudi Arabia, and ($.33, p < .001$) in Oman). Consistently with past research in Europe (Heller et al, 1981; 1988) and in China (Wang, 1994), this provides additional evidence from the Arab region that participative management reduces the extensive underutilization of knowledge and skills, as suggested in Hypothesis 2. With regard to the form of participation, the results show that collective (joint) decision making rather than individual autonomy and delegation is the widely preferred decision making style.

Hypothesis 3 suggests a positive relationship between utilization and use of work-teams in work organizations. Results show that employees who work in teams reported higher levels of utilization ($\beta = .28, p < .001$ in Saudi Arabia and $.16, p < .01$ in Oman), providing support to Hypothesis 3. The attitudes toward team-work may also reflect general attitudes of collective orientation, prevention of conflict, informal exchanges of information, and maintenance of good social relationships in Arab organizations.

Hypotheses 4 and 5 concern the matching between area of expertise and job on one hand, and between qualification level and job on the other. As expected in Hypothesis 4, a better matching between one's area of expertise and job content was found an important predictor of competence utilization ($\beta = .19, p < .001$ in Saudi Arabia and $.21, p < .001$ in Oman). In the question of "To what extent it is true that

education compared to 52 and 64 percent who agreed it is related. Although it is not unusual that some employees end up taking on jobs whose contents don't adequately relate to their field of formal education, unexpectedly the findings show similar patterns with regard to the congruence between special on-the-job training and current jobs. About 20 percent of Saudi respondents and 28 percent of Omanis indicate that the special training they received on the job is not related to their current jobs.

The analysis also supports hypothesis 5 regarding the disconnect between qualification level and job held by employees. This is examined by looking at "the extent to which some workers are employed in jobs in which they may have more education than the job requires" (Rumberger, 2002). In this study, the extent to which workers perceive their job requirement is matched with their level of qualification is found to influence the perception of competence utilization. The better the matching between competence level and job, the higher the competence utilization ($\beta = .18, p < .01$) in Saudi Arabia and much stronger in Oman ($.30, p < .001$).

Table 3 provides additional detailed comparison of the responses across managerial levels in both countries. 11 percent of respondents in Saudi Arabia compared to 5 percent in Oman reported that their current jobs require little or none of their available skills and capabilities. About 20 percent of respondents in SA and 25 percent in Oman reported only one-half of their capabilities are required, compared to 47 in SA and 33 percent in Oman who said their jobs require most of their skills. Only 21 percent in SA and 36 in Oman reported that they use all their skills on the job (Table 3).

Finally, for Hypothesis 6, which suggests that the perceived competence underutilization is influenced by the strict reliance on seniority rather than consideration of competence in advancement and empowerment opportunities was supported. The regression coefficient shows a significant positive relationship between competence underutilization and reliance on seniority in Saudi Arabia ($\beta = .16, p < .01$) and stronger in Oman ($.18, p < .001$). This finding depicts a degree of adherence to formal hierarchy and bureaucratization that may hinder identifying existing stocks of skills and abilities and their utilization in the decision process.

Discussion and Implications

The results of this study unveil a major, albeit often understudied, problem in capacity development and performance improvement activities, particularly in public sector organizations. It exposes a troubling deficit in human capital resource utilization. Administrators reported significantly low levels of competence utilization. This was found correlated with five factors related to HR practices and organization design—power-influence sharing in decision making, the use of work teams, area of expertise-job content compatibility, qualification-job requirements matching, and use of competence, not only seniority, as a basis for advancement and involvement opportunities.

The study has several implications for management and organization development. Although it amplifies the importance of improvements in human capabilities, the factors identified above seem to influence the application of skills and knowledge. In particular, the findings support the frequently made claim that greater power-influence sharing in decision making and matching people to jobs affect desired organizational effectiveness. Leaders of contemporary organizations should be aware of the challenges facing their organizations as society becomes more and more integrated in the global environment that puts new pressure on organizations to be more "knowledge-intensive, radically

Keeping and cultivating highly competent and motivated individuals may become a top priority as the country opens to international firms and networks that are looking exactly for the same individuals. A replication of the study in the next few years can confirm the nature, rate and direction of change.

An important issue emerging from the study is the apparent disconnect between human resource development and the larger process of organizational development and change. Capacity development has focused on the development of physical capabilities and accumulating and upgrading personal skills and technical aspects of the process; naively assuming automatic and direct effects on performance will ensue. There seemed to be no adequate attention to the possible mediating mechanisms necessary for facilitating the utilization of generated capabilities. They are overshadowed by the limits of narrow skill-management development approaches that are often divorced from the broader enabling “administrative” environment within which strengthened capabilities and empowered individuals must operate. This potential imbalance between the level of individual development and organizational/institutional development (including measures to increase participation and representation in decision making) represents a serious challenge to sustainable development and effective organizations.

While management development ends once the individual trainee leaves the training institution, organization development and change programs entail continuous efforts to make sure that the accumulated knowledge and skills are utilized in an effective way to enhance individual and ultimately organizational performance. Hence, institutional development can be conceptualized as a system that integrates human resource development and structural changes/adjustments to utilize them and link them to performance. Increased empowerment, matching competence to authority, and effective incentive structures that reward competence are central goals and fundamental values of such an integrated system (French and Bell, 1999; Quinn and Spreitzer, 1997; Peters, 1992; Kouzes and Barry, 1990). Ultimately, these adjustments can help in creating the ‘missing’ link between human capital and performance.

Limitations and Future Research

The implications of this study must be considered in light of its limitations. First, the competence utilization model constructed and tested in the present study showed considerable robustness and usefulness. However, other factors that facilitate or impede integration and utilization of human capital resources should be considered in future research to increase the generalization and reliability of the model proposed in the study. Researchers may want to examine interaction between the factors identified above and new ones at the organizational, sector, and societal levels across countries with an understanding and treatment of these complexities and paradoxes in contemporary organizations. Empirical research may also focus on including and comparing both public and private sector organizations in the study and increasing the sample size to improve the case-to-variable ratio for statistical analysis.

Second, although the study findings highlight the potential positive impact of enacting certain programs and avenues for participation and relaxing of control structures, their specific applications should not be treated uncritically. Heller *et al.* (1998) surveyed cases of power-influence sharing schemes in diverse national milieus and concluded that participation works, given appropriate conditions. One difficulty obscuring the centrality of the concept of organizational participation is the

organizational and national settings. The varied and often confused meanings and applications of participatory management and of organizational governance have led to limiting their appeal and thus adoption on the basis that they may be incompatible with other principle values of management especially in the public sector that puts great emphasis on accountability and control (Perry and Rainey, 1988; Bozeman, 1987; Bozeman and Straussman, 1990; Nutt, 2006).²

Finally, with respect to operational measurements, the survey was based mostly on respondents' perceptions and attitudes towards issues being raised. Some analysts may have some reservations regarding the use of self-report measures because of the concern that respondents may give the socially expected answers or because people can adapt to or tolerate certain unfavorable situations (O'Brien, 1980; Taylor and Wright, 2004). Moreover, this is sometimes associated with a respondent's desire for consistency or social desirability.

Conclusion

The present research takes a significant step forward and sheds some interesting comparative light on the concept of human capital utilization and its relationships with organization design and HR practices. The study concludes that one of the major weaknesses in the design, management, and implementation of human capacity development programs is a due consideration of how knowledge and skills are managed, activated, and shared to serve organizational and social goals. Therefore the problem in many organizations, particularly in the developing world, may not be the lack of skills and capabilities, but the absence of appropriate mechanisms to activate, motivate and utilize them.

In addition to increasing skill utilization through flexible and inclusive practices—which are not advocated here as the sole everlasting remedies for underutilization, other methods can be helpful to improve the matching of qualifications with job content and knowledge-authority. Job reform and job selection processes can be done on the basis of an objective analysis of the skill-requirements of various jobs. As a long-term strategy, there should be an emphasis on organizational design and improving the match between educational training and organizational requirements. This strategy emphasizes that individual learning is no longer adequate. Without effective utilization schemes, investments in human resource development programs will do little to improve organizational performance and increase the legitimacy of the governance system.

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² Within public management literature, the limited research on these issues correspond to widely discussed views of most classical studies of public sector administration and development that either stress bureaucratic control measures or portray public sector culture as well as the orientations of public bureaucrats as less receptive to the need for change and less comfortable, for instance, with power and responsibility sharing. Even if leadership and participative decision making are studied, most studies fall short of identifying the organizational conditions that facilitate power and knowledge sharing and how managers can utilize strategic

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Table 1 Descriptive Statistics and Correlations

Variable	Mean	s.d.	1	2	3	4	5
Utilization	3.67 (3.90)	.800 (.550)					
IPC	3.0 (2.84)	.970 (.907)	.534** (.380**)				
Expertise-Job	3.9 (4.0)	1.08 (1.01)	.523** (.545**)	.030 (.500**)			
Qualification-Job	3.76 (3.97)	.976 (.971)	.425** (.188*)	.215** (.163)	.020 (.143)		
Seniority	3.96 (3.95)	1.14 (1.12)	.285** (.581**)	.046 (.034)	.09 (.195*)	.050 (.099)	
T	2.5	1.05	.257**	.250**	.145*	.022	.070

Oman Scores in Parentheses

** Correlation significant at the 0.01 level (2-tailed)

** Correlation significant at the 0.05 level (2-tailed)

Table 2: Regression Analyses with Competence Utilization as Dependent Variable

	Saudi Arabia				Oman			
	Standardized Beta	Estimate (B)	SE	SIG	Standardized Beta	Estimate (B)	SE	SIG
IPC	0.36	3.508	0.249	***	0.334	2.871	0.249	***
Teams	0.281	2.881	0.259	***	0.156	1.585	0.259	**
Expertise-Job	0.198	1.885	0.224	***	0.212	1.948	0.224	***
Qualification-Job	0.188	1.683	0.204	***	0.305	2.457	0.204	***
Seniority	.160	1.503	.213	**	0.180	1.405	.276	***
Constant		10.744	1.436	***		15.131	1.961	***
Adjusted R ²	0.690				0.728			

** $p < .01$

*** $p < .001$

All two-tailed tests.

Table 3: To what extent you think your current job content require using your skills and abilities?

	Requires none	Requires little	Requires half	Requires most	Requires All	Total
Saudi Arabia						
Top Managers	0 .0%	4 4.5%	20 22.5%	47 52.8%	18 20.2%	89 100.0%
Middle Managers	4 2.7%	10 6.7%	20 13.3%	78 52.0%	38 25.3%	150 100.0%
Subordinates	6 5.0%	17 14.3%	31 26.1%	45 37.8%	20 16.8%	119 100.0%
All Saudi Employees	10 2.8%	31 8.7%	71 19.8%	170 47.5%	76 21.2%	358 100.0%

Oman

	.0%	.0%	25.8%	38.7%	35.5%	100.0%
Middle Managers	2	0	9	15	23	49
	4.1%	.0%	18.4%	30.6%	46.9%	100.0%
Subordinates	2	3	19	20	17	61
	3.3%	4.9%	31.1%	32.8%	27.9%	100.0%
All Omani	4	3	36	47	51	141
Employees	2.8%	2.1%	25.5%	33.3%	36.2%	100.0%

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