

# THE OVER-EDUCATED, UNDER-UTILIZED WORKER: WHY DOESN'T HUMAN CAPITAL DEVELOPMENT BRING DESIRED OUTCOMES?

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## ABSTRACT

This comparative study of human capital development policy and organizational and HR practices examines employees' perceptions of competence utilization (and underutilization) and its possible causes. More specifically, the study addresses the following specific questions: Are human capital resources underutilized in work organizations? If this is the case, what is the extent of underutilization? What are the factors that affect utilization? Using data set drawn from a survey of managers and subordinates in public organizations in Saudi Arabia and Oman (N=540), findings expose a significant, and largely ignored, problem in the development and management of contemporary organizations: "human capital resource underutilization", indicating that skills and abilities of public administrators, although relatively and increasingly abundant, are invariably underutilized. The results show that competence utilization is closely related to certain organizational practices, namely power-influence sharing in decision making, area of expertise-job content matching, qualification-job requirements matching, and the use of work-teams, and use of competence, not only seniority as a basis for advancement and involvement opportunities. Without addressing the utilization and empowerment deficit, additional skill development might prove ineffective and largely irrelevant to performance improvements and overall effectiveness of governance system.

## HUMAN CAPITAL DEVELOPMENT & UTILIZATION

Human capital refers to the aggregate skills, abilities and knowledge, and other competencies of an organization's workforce (Plouhart, Weekley, and Bauchman, 2006; Becker, 1993; Flamholtz and Lacey, 1981). Davenport (1991) 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, I 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, capacity development in development administration, and recently the resource-based view of management. 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; Dess and Shaw, 2001; Davenport, 1999; Karasek & 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: 23-24). "Human capital" has become the top priority and slogan of many governments pursuing economic and institutional development around the world.

This preoccupation with accumulating human capital resources and technical capacity have led some researchers in the U.S. and a number of European nations to be concerned about the potential problem of "overqualification", or "overeducation"; that is, when some workers acquire a qualification (skill and competence) then gain jobs that do not require that qualification for recruitment (Borghans and de Grip, 2000). The publication of Richard Freeman's *The Overeducated American* (1976) and Lester Thurow's *Generating Inequality* (1975) popularized the issue and drew the attention of economists and organization and management specialists to this phenomenon. 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 schooling when faced with the prospect of overeducation and reduced earnings" (Rumberger, 2002: 1267).

While organization-wide adoption of various skill-knowledge building schemes is quite widespread in both public and private sectors, research on the centrality of human capital resources utilization and its correlates has been relatively scant in the literature. There is an abundance of research on almost all work attributes and control institutions but little that is relevant to the assessment of competence activation and utilization and their effect on work-related outcomes. There is a general tendency among 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.

The term *utilization* can be defined as "the degree of match or congruence between an individual's skills and the opportunity to use these skills in that individual's work role" (O'Brien, 1980). 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. Previous cross-national research referred to the relationship of competence utilization to participative decision making in Europe (IDE, 1977, 1987, 1993; Heller and Wilbert, 1988), China (Zong-Ming, 1994), and Middle East (Al-Yahya, 2004), to job satisfaction, mental strain, and personal control in the U.S. (Kornhauser, 1965) and in Australia (O'Brien, 1980; Humphreys and O'Brien, 1986), and to the clarity of managers' mission and the amount of authority and responsibility (Bolino and Feldman, 2000) in the U.S.

In spite of this inadequate attention given to the complexity of underutilization and organizational practices and structures necessary to deal with it, it can be argued that 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; Al-Yahya, 2004; Karasek & Theorell, 1990).

## **Human Capital Development & Performance in Arab Countries: Problems & Analytical Framework**

In the early days of administrative state building, there was a general consensus among leaders and policy planners 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, foreign workers account for about 70

percent in Saudi Arabia and 80 percent in Oman of country total workforce (Looney, 2004; Al-Lamki, 2000).

Consequently and since the early 1970s, and with the increase in national wealth generated mostly from oil revenues, the gulf states including Oman and Saudi Arabia have invested generously in management development activities aimed at strengthening their administrative and organizational capabilities. This policy aims primarily at building a competent national workforce capable of planning and managing social and economic development programs. Governments incrementally allocate resources for education and technical and vocational training for public sector employees. This is done through an extensive network of national educational and training institutions and international human resource development programs.

Although 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), 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 (Ali-World Bank, 2002; Ali, 2002; Benhabib and Spiegel, 1994; Thomas et al, 2000; Makdissi, 2000; Psacharopoulos, 1994; Alsahlawi and Gardener, 2004; Thomas et al, 2000; UNDP, 2002). This *gap* between the considerable expansion in the stock of human capital and performance outcomes emerged as a *puzzle* in the empirical literature.

Surprisingly, none of these studies examined the subject of human capital underutilization, and structural and organizational factors that may influence it. A review of recent trends shows that the issue of human resources *development* and technology *transfer* is still the main emphasis, if not an obsession. In response to this gap in the current analytical approaches to development and growth and the apparent omission of underutilization and its correlates, I provide a different position. The view emphasized here is that *the problem in many modern organizations may not be the lack of skills and capable and motivated individuals. Rather it might be the absence of appropriate mechanisms to empower, utilize, and integrate them in the process of change and development.* The activation and utilization of human capital here entails understanding of motivational needs for achievement and self-actualization and thus considering institutional and organizational restructuring. Purcell and his colleagues (2003) provided evidence that shows that organizational success and employee performance is dependent on having the right mix of HR policies in place. Their model-- ability, motivation and opportunity (AMO) supports the theory 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; Right and Snell, 1991). These competences, according to the resource-based view, are presumed to result in organization's sustained success and competitiveness. These perspectives draw attention to the importance of linking HR practices to organization strategy and development. Hence, this study seeks to capture some factors (practices) that facilitate or inhibit the mobilization and utilization of human capital resources in work organizations. These factors include power-influence sharing in decision making (participatory practices); compatibility between area of expertise and job content; qualification-job requirements matching; and use of competence, not only seniority as a basis for advancement and involvement opportunities.

## METHODS

Data for this study come from a standardized instrument distributed to a random sample of 540 civil servants from 10 public organizations in Saudi Arabia ( $n=390$ ) and 7 organizations in Oman ( $n=150$ ) with response rate of 83 %. As a whole, the sample represents three hierarchal 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 survey instrument included several measures of (1) competence utilization, (2) power-influence sharing (participation in decision making), (3) the use of work teams, (4) area of expertise-job content compatibility, (5) qualification-job requirements matching, and (6) use of competence, not only seniority as a basis for advancement and involvement opportunities (MEASURES AVAILABLE FROM THE AUTHOR).

## RESULTS

***Patterns of Competence Utilization.*** Recall that one of the major objectives of this study is to examine the utilization of human capital resources in public sector organizations. 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 difference between the two countries was found marginally significant,  $F= 5.491$ ,  $p<.05$ . Omani respondents report relatively higher levels of utilization and satisfaction with their work. The second measure of perceived skill underutilization uses a single scale of 0 to 100 to assess competence utilization in percentages. It has been used in previous cross-national research in Europe (Heller and Wilbert, 1981). In their study of business organizations, underutilization 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. Lower-level managers reported higher underutilization levels (28 percent in France, 25 percent in Spain, 23 percent in Sweden, 17 percent in Germany, 15 percent in Netherlands, and 14.4 percent in Israel). Overall competence underutilization averaged 46 percent in Saudi Arabia and 40 percent in Oman compared to 20 percent in Europe. By looking at perceptions of underutilization across hierarchal levels, the Saudi sample showed significant differences,  $F(2,245) = 16.57$ ,  $p < .01$ . Top managers score the highest in skill utilization while lower-level administrators reported the lowest. Differences among managerial positions appear to me much smaller and less significant in Oman,  $F(2,140) = 3.93$ ,  $p=.01$ . This pattern seems to correspond to levels of power and influence sharing in both countries.

A similarly interesting pattern emerges when one looks at the effects of job function (general management, personnel, finance, etc.) on skill utilization (total scale of 18 items) in Saudi Arabia. The ANOVA shows significant differences among most functions; it is, however, of slightly smaller magnitude than the managerial level,  $F= 2.628$ ,  $p<.05$ . Those classified as technical and information, general management and legal reported the low levels of competence underutilization, while those who work in personnel and accounting reported the high levels of underutilization. There were no statistically significant differences in Oman. With regard to the influences of other personal and organizational variables such as age, gender, education, rank (managerial position), and length of experience on level of utilization, regression analysis indicates that only age, rank, and experience were significantly related. Utilization was found negatively associated with age (Beta=  $-.26$ ,  $p=.000$ ), and positively correlated with rank ( $.15$ ,  $p=.001$ ), and experience ( $.18$ ,  $p=.001$ ).

**Utilization as a Mediating Factor.** Aggregating the two country samples and using partial correlation, the findings supported the assumption that competence utilization can play an important link in the *participation-satisfaction* relations as often suggested by Human Resources model. Heller and his colleagues (1988) examined this relationship in their study of three European countries (the UK, Netherlands, and Yugoslavia) and could not conclude that skill utilization was a strong intervening factor in the participation-satisfaction relation (Heller et al, 1988: 94-96). In contrast to their study, the results here, using partial correlation (controlling for skill utilization) revealed that the relationship between participation and satisfaction was likely to run *via* utilization.

**Possible Causes of Underutilization.** The previous section provided evidence about the existence and extent of competence underutilization in Saudi and Omani public organizations. Here, multiple regression (OLS) was employed to determine which predictor, or combinations of predictors, account for variations in human capital resource utilization. The first, and strongest, predictor is power-influence sharing (participation in and access to decision making process). The regression procedure indicated a significant linear relationship between power-influence sharing and skill utilization; an increase in IPC led to higher skill utilization (Beta=.37,  $p=.000$  in Saudi Arabia, and .35,  $p=.000$  in Oman). Second, the analysis showed positive relationship between utilization and work-teams. Employees who worked in teams reported significantly higher levels of utilization (.28,  $p=.000$  in Saudi Arabia and .16,  $p=.000$  in Oman). A third factor that affected the perception of utilization was the strict reliance on seniority rather than consideration of competence in advancement and empowerment opportunities. The regression coefficient showed a significant positive relationship between competence underutilization and reliance on seniority (.18,  $p=.000$  in Saudi Arabia and .29,  $p=.000$  in Oman). This finding illustrated the high degree of and adherence to formal hierarchy and bureaucratization that may have hindered identifying existing stocks of skills and abilities and their utilization in the decision process. Fourth, a better matching between one's area of expertise and job content was also an important predictor of competence utilization (.20,  $p=.000$  in Saudi Arabia and .21,  $p=.000$  in Oman). In the question of "To what extent it is true that your current job is related to the field of formal education", about 31 percent of the respondents in Saudi Arabia and about 25 percent indicated that their current job is not related to the field of formal 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 showed 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 indicated that the special training they received on the job was not related to their current jobs. Finally, the over-qualification problem was 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). The extent to which workers perceive their job requirement is matched with their level of qualification was found to influence the perception of competence utilization. The better the matching between competence level and job, the higher the competence utilization (.18,  $p=.000$  in Saudi Arabia and .30,  $p=.000$  in Oman). Eleven 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 (COMPLETE STATISTICS & FIGURES AVAILABLE FROM THE AUTHOR).

## **DISCUSSION AND IMPLICATIONS**

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. This potential gap between the level of individual development and organizational/institutional development (particularly issues related to authority-knowledge dynamics and work design) and represents a serious challenge to sustainable development and effective organizations. While management development ends once the individual trainee leaves the training institution, organizational development 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.

Although the study findings highlight the potential positive impact of enacting certain programs and avenues of participation and relaxation of control structures, their specific applications should not be treated uncritically. There is a well-developed literature which deals with the complexities of the basic goals, forms, and effects of workplace participation. Stohl and Cheney (2001), for example, contended that the push for participation to replace or at least modify command and control structure can produce paradoxes related to issues of structure (the architecture of participation), agency (the efficiency of participation), identity (the character of participation), and/or power (the direction of participation). Heller et al (1998) also surveyed cases of power-influence sharing schemes in diverse national milieus and concluded that participation works, given appropriate conditions.

For future research, researcher may want to examine the relationships between the constructs identified and discussed above at the organizational, sector, and societal levels 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.

## **CONCLUSION**

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 institutions of the developing world may not be the lack of skills and capabilities, but the absence of appropriate mechanisms to utilize them. In addition to increasing skill utilization through flexible and inclusive practices—which are not advocated here as the sole and everlasting remedies for underutilization, other methods can be helpful to improve the matching of qualifications with job content and compensation. 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.

## **REFERENCES AVAILABLE FROM THE AUTHOR**

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