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Work Alienation among IT Workers: A Cross-Cultural Gender Comparison

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Abstract
Information Technology (IT) has experienced a worrisome decline in female participation over two decades, much of which can be attributed to fewer women choosing IT careers. However, women IT professionals also demonstrate mid-career turnover for reasons such as work-life balance, work exhaustion, role ambiguity, role conflict, and growth needs. This study explores alienation among women IT professionals and examines factors that lead to work alienation and abandonment of IT careers. Such alienation appears to be less prevalent in Asian countries where women perceive IT careers to be more conducive to female participation. A comparison among women from American and Asian cultures is proposed.

Alienation is defined as a personal orientation involving negative feelings and cynical beliefs towards a specific social context. It occurs when an individual's personal characteristics such as selfimage, values, goals, and needs are incompatible with his social role [24]. Studies in alienation emerge from two schools: the Durkheinian perspective attributes alienation to individual, psychological states as opposed to the Marxian perspective that explains alienation as an outcome of group-specific social factors such as lower education, economic conditions, and income [18]. Much of this extant research in alienation has emerged from the 1960 post-industrialization period where mechanization of the factory floor resulted in work alienation. Since then, a small but growing number of studies have examined the effects of social and personal alienation on organizational alienation [15], work meaninglessness [4], and job dissatisfaction [15].

Work alienation, particularly of women, has been relatively unexplored in the IT profession, possibly because of the relative youthfulness of the profession and its emergence after the postindustrialization period. Although studies such as [9] have attributed alienation to social and organizational "malintegration" [18; pp 703], the psychological underpinnings of these perceptions among IT professionals have been inadequately understood. The IT profession represents a dynamism which, while motivating for some, may enhance perception of alienation for others. With global sourcing of IT jobs, rapid changes in workforce skill needs, challenges associated with delivery of technical solutions, and increasing complexity, perceptions of alienation may be higher among IT professionals as compared to their peers in other occupations. Furthermore, women IT professionals may feel greater alienation due to stereotypical perceptions from peer and user groups regarding their technical competence [1, 2, 22]. With increasing cultural diversity in the U.S. IT workforce, such feelings might continue to perpetuate. For instance, Asian women in the U.S. workforce benefit from positive stereotype of skilled, hardworking professionals [1]. These same individuals, however, deal with lower social integration and challenges of working in an alien culture. This complex interplay of situations can contribute to alienation manifested as increased turnover intentions [11, 17] and a desire to abandon IT careers altogether [1]. With such implications, the topic of IT career alienation is timely.

This study, then proposes to explore the following questions:

- Do women IT professionals perceive greater work alienation than those engaged in non-IT careers?
- Do American women IT professional perceive greater career alienation than Asian women working in the U.S. workforce and Asian women working in their own native cultures?
- What factors contribute to perceptions of career alienation among American and Asian women IT professionals?

Considering the dearth of alienation research in IT, significant groundwork is necessary for this study. First, our comprehension of factors contributing to career alienation is dispersed over several decades and across multiple disciplines. A critical early step will be to assimilate these diverse bodies of research and develop and validate measurement instruments that embrace these findings. These instruments must encompass cultural dimensions that were of less significance prior to global sourcing trends in IT. Second, there is little determination of the extent to which work alienation is must drill down to compare the prevalence of alienation across such cultural groups. Lessons learned from one culture may potentially be useful in creating work conditions more conducive for female participation in the American workplace. For this, data collection from multiple organizations in diverse cultures is necessary. The following sections describe the design of such a study in greater depth.

2. An Early Model Of Work Alienation

Data will be gathered using survey instruments administered to female IT and non-IT professionals in both American and Asian cultures. A preliminary model is presented in Figure 1 below and its constructs are discussed next. In this high level view of the research model, no directionality has been assigned since, at this point, the model indicates high level independent variables. In other words, specific constructs within each box below may have different directional relationships with the outcome variables.

2.1 Dependent Variable: Alienation

Work alienation perceived by the respondent is identified as the dependent variable of interest. Drawing on the work of Cummings and Manring in [5] five measures of powerlessness, meaninglessness, normalness, self-evaluative involvement, and work-orientation will be used to assess alienation. These measures and their variations have been tested and validated in various studies such as [14]. It must be pointed out here that turnover intentions should not be perceived as a surrogate measure of work alienation. Rather, work alienation will result in behaviors such as turnover intentions and career abandonment as illustrated in Figure 1.

2.2 Independent Variables

2.2.1 Job Stress:

Although much evidence exists with regard to impact of stress on turnover intentions (see for example [17]), little in the domain of business and management directly attributes stress to perceptions of alienation. This linkage is, however, more explicitly established in fields such as criminal justice and health care management. Ehlers, Maercker, and Boos find in [6], for instance, that prisoners who demonstrated stress disorder were found to have higher perceptions of alienation. Job stressors range from physical environment to organizational factors. For purposes of this study, physical environment such as noise, air, pollution etc. are not considered significant to alienation. The following stress factors, however, are expected to have an impact of work alienation:

2.2.1.1 Individual Stressors:

Role conflict, role ambiguity, work overload or under load, responsibility for people, and workplace harassment will be examined in this study as surrogate measures for individual stressors in the workplace. These measures have been examined in [17] as surrogate measures for work exhaustion which was found to result in greater turnover intentions.

2.2.1.2 Group Stressors:

This construct pertains to relationships in the workplace. Group stress can be the result of poor relationships with peers, subordinates, and supervisors, all of which will be explored in this study. Baroudi and Igbaria [3] for instance, found that women were perceived as tokens by their male peers, felt more isolated, and demonstrated greater tendency for turnover intentions.

2.2.1.3 Organizational Stressors:

Organizational processes, perceived organizational support, perceived formalization of organizational policies, and lack of participation in the work environment will be explored as two main contributors towards organizational stress.

2.2.1.4 External Stressors:

Work-life balance [19], parental care, and issues arising out of dual careers [7] have been attributed to reduced organizational commitment. These constructs will also be used in this study to define work alienation. For instance, women with greater familial needs may perceive greater work alienation due to the pressures of work-life balance.

2.2.2 Job Characteristics:

Studies have indicated that job characteristics relate directly to workplace motivation [20]. The job characteristics scale proposed in [23] evaluates a job on six characteristics – variety, autonomy, task identity, feedback, dealing with others, and friendship opportunities. While the last two constructs, are subsumed in the Job Stress factors described earlier, the remaining four job characteristics will be examined for their impact on perceptions of alienation.

2.2.3 Individual Characteristics/Demographics:

In a dynamic field like IT, demographics such as age, ethnic background, and education can play a significant role in workplace

integration. Older professionals may be perceived as having outdated skills. Positive stereotyping of individuals from certain ethnic backgrounds may reduce perceptions of alienation. Personal characteristics such as optimism, determination, resilience, self-esteem, and locus of control might moderate negative effects of other independent variables.

2.2.4 Long-term Career Commitment:

Highly committed employees demonstrate greater productivity and are less likely to leave the organization [16]. Such individuals not only identify with the work role but are also engaged in it [8]. They tend to have higher career commitment which may mitigate effects of other alienating factors.

The question then is what can organizations expect from individuals who evidence high work alienation? Several behaviors can emerge. While significant evidence exists regarding job stress on turnover intentions, little has been done to examine its effect on long-term career alienation i.e. a tendency to abandon IT careers altogether. This study will examine the relationship between work alienation and career alienation as well as turnover intentions [11, 21].

2.3 Experiment Design

2.3.1 Study Sample:

To study the impact of culture on perceptions of work and career alienation, this model will be implemented on women from four sub-groups: American women working in the U.S. IT and non-IT workforce, women of Asian origin working in the U.S. workforce, and women of Asian origin working in their native cultures. American women working in the U.S. IT and non-IT workforce must be Caucasian or African-American women born and raised in the U.S. such that their cultural, economic, and educational influences are predominantly American. Asian women working in the IT workforce must be born and raised primarily in their native countries. At some point in their careers, these women would have transitioned to the U.S. for personal or professional reasons. As such much of their social

and educational influences will be from their countries of birth but work experiences will pertain to the U.S. The final sample will be of Asian women working in their native countries who have obtained a significant part of their formative their education and work experience in their countries of birth.

2.3.2 Data Collection:

Data collection and survey design will be phased as follows:

Phase 1 –Survey Design for U.S. Sample:

During this phase, a survey reflecting the model elaborated in Figure 1 will be designed and pilot tested. This survey will focus on women IT professionals working in the U.S. workforce, whether American or Asian. Since language barriers are expected to be minimal for this group, this survey will be designed and administered in English. Pilot testing will be conducted with a group of women alumni representative of the IT workforce from the author's university.

Phase 2 – Survey Administration in the U.S.

The validated survey will be administered to a larger sample of American and Asian IT and non-IT professionals. For this, local and national corporations as well as professional organizations such as *Project Management Institute* (PMI) and *Society for Human Resource Management* (SHRM) will be approached for survey distribution to their members.

Phase 3 – Survey Design and Administration for Asian Countries

Depending upon the Asian country being examined, the survey may or may not be translated to the native language. For instance, Indian IT professionals are fluent in English and should have minimal issues with an English language instrument. At most, the U.S. instrument will be tested for cultural appropriateness. On the other hand, Chinese IT professionals might provide more representative responses to a Chinese instrument. In this regard, decisions for Phase

3 and beyond will be taken as countries of interest are identified. For early efforts in phase 3, India is the primary country of interest.

Phase 4 – Comparison of Male and Female IT Professionals:

While this phase is beyond the scope of this immediate study, a natural future extension would be to examine the prevalence of alienation among male IT and non-IT professionals. Although several studies such [10, 11, 13] have found no significant difference among male and female IT professional's perception of job satisfaction, occasional studies such as [12] have found some gender differences. Phase 4 studies will provide potentially useful insights into such cross-gender comparisons.

2.4 Study Hypotheses

The following early hypotheses pertaining to these groups are proposed.

> **H1:** Asian women IT professionals working in the U.S workforce will perceive lesser alienation than American women in the U.S. IT workforce because of positive stereotyping of Asian IT professionals in the U.S. workplace.
> **H2:** American women IT professionals working in the U.S. workforce will perceive greater alienation in their workplace than Asian women IT professionals in their native workplace because of American perceptions of IT careers as masculine.
> **H3:** American women IT professionals will perceive greater alienation in their workplace than American non-IT female professionals because of male perceptions of women as tokens in IT careers.
> **H4:** Asian women IT professionals will perceive alienation predominantly due to job stress as opposed to job characteristics or career commitment.
> **H5:** American women IT professionals will perceive alienation predominantly due to job characteristics and career commitment as opposed to job stress.
> **H6:** In all groups, women who perceive greater work alienation will also demonstrate greater turnover intentions.
> **H7:** In all groups, women who perceive greater work alienation will also perceive greater career alienation manifested as a desire to abandon IT careers altogether.

3. Implications and Significance of the Study

Existing research has provided deep comprehension of turnover intentions in the domain of IT careers. However, one must recognize that not all effects of work and workplace dissatisfaction manifest themselves as turnover. Instead, alienated professionals may continue to stay in their current jobs due to personal or professional constraints. For organizations, it is critical to distinguish between effects of turnover and alienation for effective policy making. While the former will result in skill shortages and gender disparity in the workplace, alienation can have deep-rooted effects that manifest themselves in the form of low motivation and productivity, rumor mongering, reduced organizational commitment, increased workplace hostility, and in extreme circumstances, workplace violence. Further, I suggest that organizations that focus on managing work alienation will, to a large extent, manage turnover intentions and its related antecedents. Outcomes from this study may potentially provide useful insights into effective management strategies. For instance, an American IT professional who feels alienated due to lack of organizational and work recognition may be better engaged in activities that recognize productivity and contribution more visibly. Alternatively, Asian women might identify social integration as a reason for alienation in which case, a more integrative work environment could be designed. To this extent, implications for diversity management are significant. With increasing ethnic and gender minority in the workplace, organizations must recognize factors that may potentially alienate certain minority subgroups, mitigate these factors, and leverage the potentially synergistic relationship between these subgroups.

4. Acknowledgments

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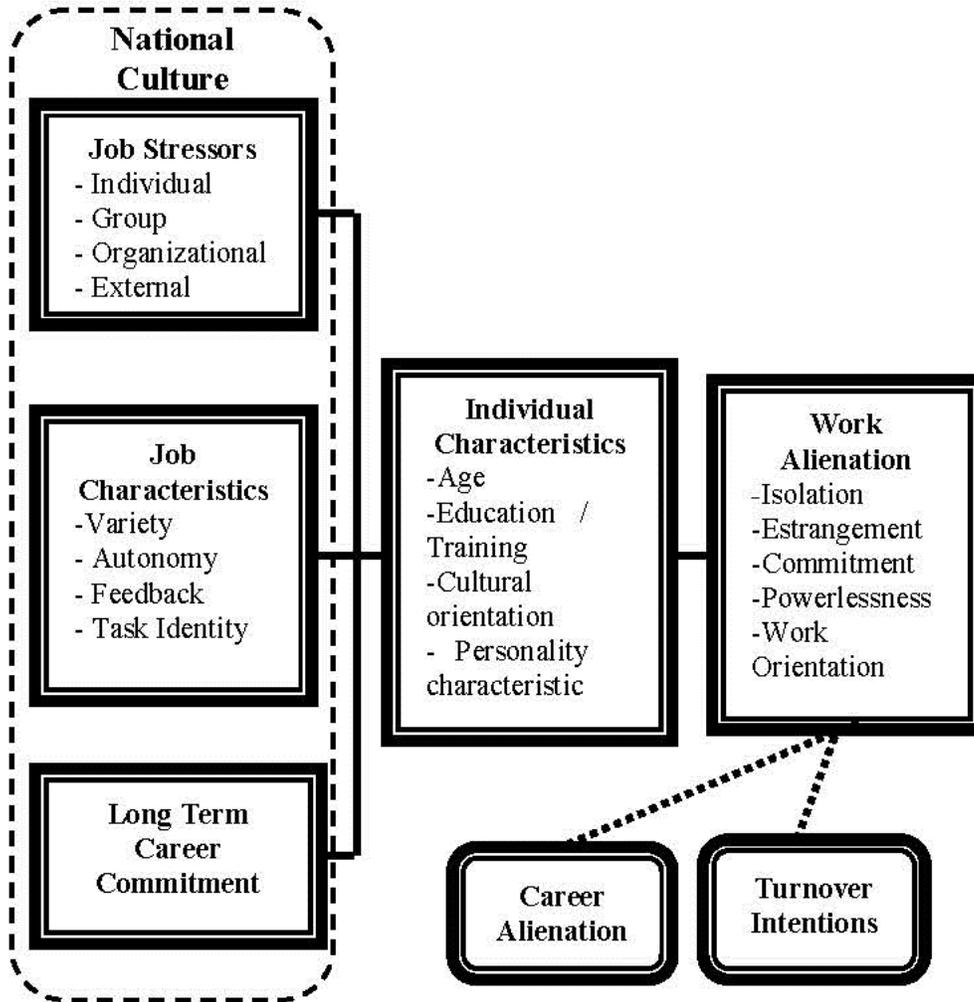[24] Wegner, E.L. (1975). The concept of alienation: A critique and some suggestions for context-specific approach. *Pacific Sociological Review*, 18(2), 171-193.

Figure 1: Early Model of Work Alienation