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**Predictors of Hierarchical
Success for Male and Female
Canadian Managers**

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Predictors of Hierarchical Success for Male and Female Canadian Managers*

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Résumé / Abstract

Le but de cette recherche est d'identifier les déterminants du succès hiérarchique chez 3 067 cadres masculins et féminins. Les variables ont été puisées au sein de cinq cadres théoriques fréquemment utilisés pour expliquer l'avancement dans une carrière : la théorie du capital humain, l'origine socio-économique, le contexte familial, les valeurs sociales et du travail ainsi que les facteurs structurels. Les résultats de cette étude suggèrent que le succès de carrière des hommes et des femmes est déterminé par des variables différentes.

The purpose of this research is to identify the predictors of hierarchical success for 3,067 male and female managers. Variables were drawn from five bodies of research perspectives that are frequently used to explain career advancement: human capital theory, socioeconomic origin, family context, work/life values, and structural factors. Results of this study suggest that the career success of men and women is predicted by different variables.

Mots Clés : Carrière, succès, hiérarchie, femmes

Keywords : Career, success, hierarchy, women

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Introduction

An increasing number of women are rising to managerial positions, and like men, they aspire to advance in their careers. However, a number of studies have demonstrated that women are at a greater disadvantage with respect to their chances of career advancement despite possessing qualifications that are similar or superior to that of their male counterparts (Stroh, Brett & Reilly, 1992). Why then, are women not attaining the same hierarchical levels as men? Contemporary theories concerning careers have been developed through the utilisation of male models. Justifiably or not, they compare the development of women's careers as a function of the existent male models. These models take for granted that the development of women's careers are nothing more than a logical extrapolation of the masculine experience and that any deviation from the dominant male career models represents a risk for all who wish to advance in their careers. Since there is evidence that women do not advance in their careers in the same way as their male colleagues, it can be assumed that the current knowledge on career success offers little to explain male-female differences.

The purpose of this article is to identify what predicts career success for male and female managers. More specifically, we wish to measure to what degree career success is influenced by variables drawn from five bodies of research or theoretical perspectives: human capital theory, socioeconomic origin, family context, work/life values, and structural factors. The results of this study will clarify our understanding of the differences in male/female career advancement and will offer direction in terms of human resource and career management.

Theoretical Perspective

The Human Capital Theory

Human capital is one of the most pervasive theories in career research. According to human capital theory, individuals make rational choices about the investments they make in their human capital (Becker, 1975). For instance, education is an investment in human capital. Better educated individuals have more options available to them because of their decisions to invest in human capital. Studies have demonstrated that investments in human capital explain up to 30% of the variance in career advancement (Johnsrud, 1991). A study by Stewart & Gudykunst (1982) suggests that investment in human capital provides greater returns to men than women, however.

Work experience, seniority, education, and the number of employers during the course of a career represent the most important measures of investments in one's human capital. Experience and seniority appear to be potent determinants of male career advancement, while education, on the contrary, seems to have a more considerable effect on women's careers (Featherman & Hauser, 1976; Stewart & Gudykunst, 1982; Chapman, 1990). Moreover, women must possess a level of education superior (i.e., a larger investment in human capital) to that of their male counterparts in order to benefit from the same opportunities for advancement (Roman, 1990). Therefore, a greater association between education and hierarchical levels is observed for women. The relationship between the number of employers during the course of one's career and career success is not clear. According to some, changing employers could be perceived as the acquisition of more general and diversified experience (Stroh & al., 1992). The frequent change from one organization to another can permit more rapid hierarchical advancement due to the greater amplitude of the promotions achieved as a result of this change. On the other hand, the changing of employers might reduce human capital due to the limited experience obtained within one specific organization (Neumark & McLennan, 1994). Ellis & Heneman (1990) have suggested that the frequent change of employers results in a reduction of the impact of influential sources (i.e. mentors, networks and visibility) necessary to attain greater hierarchical status. Women who change their employers more frequently in order to resolve discrimination problems will be judged as possessing human capital which is not sufficiently specific, thereby limiting their chances for advancement. Males and females who change organizations frequently may do so for different reasons.

Hypothesis 1 : Human capital theory predicts a wider variation for men in hierarchical levels than for women.

Family Context

Family context (i.e, marital status; spouse's role; number of dependents) has been argued to play an important role in career success, especially for women. A study by Gattiker & Larwood (1990) reveals that the variables of *family context* can account for a variance of almost 7% in hierarchical level. Some argue that marital status, spouse's role and number of dependents have a positive influence on the careers of men and a negative influence on the careers of women (Pfeffer & Ross, 1982; Chapman, 1989, 1990; Tharenou et al., 1994). Married women who are inactive or minimally active in the labour force are perceived as supplementary resources for their male spouses and consequently, are prone to invest in their

spouses's careers (Pfeffer & Ross, 1982). The inverse would not appear to be true given that men rarely take charge of the majority of domestic responsibilities (Rogan, 1984). Further, women with children frequently choose to devote time to childcare instead of their careers (Crompton & Sanderson, 1990). There is at present no consensus concerning the influence of dual-career couples on the career progressions of men and women. This advent has been found by some to have a detrimental effect on the career advancement of women (Deitch & Sanderson, 1987; Markham, 1987), while other researchers, such as Rosin (1988), allege that dual-career are disadvantageous to men. According to Markham (1987), since women are more likely to earn less income than men and have less interesting careers than their spouses, they are more likely to sacrifice their own careers, at least momentarily, in order to promote the careers of their spouses. For instance, Rosin (1988) argues that in dual-career situations men are less mobile and work fewer overtime hours (to assist in childcare and domestic duties) and that this can be perceived by employers as a weaker level of organizational and career commitment than men with wives who are full time mothers.

Hypothesis 2 : Family context explains larger part of variation of hierarchical level for women than for men.

Socioeconomic Origin

Socioeconomic origin can also have an effect on the career success of male and female managers. A study by Featherman & Hauser (1976) demonstrates that socioeconomic origin can explain a variance of up to 15% in men's hierarchical levels and approximately 12% in that of women. Previous research has demonstrated that children who come from higher status (in terms of social class) have a greater probability of occupying positions of equal or superior importance to those of their parents (Chapman, 1990). Fathers shape the personalities of their children by teaching them the rules and mechanisms of getting ahead (Pfeffer & Ross, 1982; Whitley & al., 1991). However, since boys are more likely than girls to view their fathers as role models, and since the social class of a family is largely a function of the father's occupation, the father's occupation has a much greater influence on men's careers than on women's careers (Chapman, 1990).

Hypothesis 3 : Socioeconomic origin explain a larger amount of hierarchical level for men than for women.

Values and motivations

Some argue that **values and motivations** exert an influence on career progression (Gattiker & Larwood, 1986). Moreover, women's careers seem to be more influenced by these variables than those of men. For example, Stewart & Gudykunst (1982) found that values and motivations accounted for a variance of 6% for men and a variance of more than 46% for women. Several studies have indicated that men and women have different value systems. Women have stronger family values (Ackerman, 1990; Feltey & Poloma, 1991), attach greater importance to the intrinsic aspects of work (Bigoness, 1988; Beutell & Brenner, 1986), make more external attributions (see Frieze & al., 1982; Travis & al., 1988), have fewer career goals (Danziger, 1983) and have weaker organizational attachments (Larkin, 1990) than men. This profile has been argued to be negatively correlated to career success.

Hypothesis 4 : Values and motivations explain a larger amount of hierarchical level for men than for women.

Structural Factors

Few studies have examined the influence of **structural factors** on career success and hierarchical levels. Structural factors are defined by the organizational and sector characteristics. Nevertheless, certain career decisions can have a delaying effect on hierarchical progression (Markham, 1987; Stroh & al., 1992). Amongst these decisions are the individual's choice of industrial sector and career path (line or staff). For instance, the public sector has less secretive rules regarding promotion, a less discriminatory environment, and stricter collective agreements which help women succeed in their careers (Blum & al., 1994; Almquist, 1987). Moreover, certain career paths are considered preferable to others, either by reason of tradition or due to their centrality. Individuals employed in line positions have more administrative and budgetary responsibilities than individuals employed in staff positions, and consequently will be more likely to advance in their careers (Cannings; 1988a; Hersch, 1991). According to Schwartz (1989) female managers are often considered as an additional expense for the organization (i.e. for reasons of absenteeism and turnover, etc.). Consequently, there is a tendency to place women on career paths that offer little promise for advancement and prevent them from gaining the experience required to advance in their careers (Carr-Ruffino, 1991).

Hypothesis 5 : Structural factors explain a larger amount of hierarchical level for women than for men

Methodology

Sample

The sample consists of 2,569 male and 498 female (N=3067) managers employed in 41 Canadian organizations spanning three sectors (pulp and paper, food, and public). The descriptive statistics of the sample characteristics reveal that on average male respondents were older (42.4 vs. 39.3, $t= 6.6$, $p< .001$), were more likely to be married (90.9% vs. 57.8%, $\chi^2= 369.5$, $p<.001$), had more dependents (1.69 vs. 0.40, $t=21.73$, $p<.001$), received a higher salary (\$37,000 vs. \$32,000, $t=11.44$, $p<.001$), had more seniority (13.6 vs. 11.2, $t=5.01$, $p<.001$) and work experience (21,09 vs 16,72, $t=10,1$, $p<.001$), had fewer complete college level education (12,2% vs 26,1%, $\chi^2=65,43$, $p<.001$), and occupied higher level positions (2.03 vs. 1.74, $t=7.46$, $p< .001$) than the female respondents.

Procedure

Questionnaires were distributed via internal mail to all managers of all organizations. Respondents were instructed that their responses were confidential and that the completed questionnaire should be forwarded directly to the research team using the enclosed pre-stamped and addressed envelope. The response rate was 32%.

Independent Variables

Human capital was measured through six distinct variables: 1) age (number of years); 2) last completed diploma (elementary and high school level, junior college level, undergraduate level, graduate level or doctorate level, 1=yes, 0=no); 3) area of studies (pure sciences, management, social sciences or health sciences, 1=yes, 0=no); 4) organizational seniority (number of years); 5) seniority in current position (number of years); 6) number of previous employers. The **family context**: Variables were created to represent: 1) marital status (single, married (1=yes, 0=no); and 2) the number of dependent persons (children and spouse).

The **socioeconomic origin**: Variables were created to represent: (1) father's occupation (farmer, unskilled and skilled worker, office worker; professional and manager or businessman, 1=yes, 0=no). The **Work/life Values**: Variables were

created to represent: (1) performance-reward link. Example: If you have a good performance you will receive a bonus or a wage increase ? (4 items, $\alpha = 0.63$, 1= not arrive, 4= will arrive); (2) extrinsic motivation. Example: is it important for you to have a high chance of promotion ? (2 items, $\alpha = 0.72$, 1= not important, 5= the most important thing); (3) organizational commitment (number of work hours in a typical week). **Structural variables:** Variables were created to represent: (1) sector (1= private, 2= public); administrative head (1=yes, 0=no); (3) budgetary responsibilities of the respondent (dollars); (4) number of persons supervised; (5) and, occupation type (1= line, 0= staff).

Dependent Variable

Career success was measured by the hierarchical level the respondent had obtained. The objective perspective of career success see hierarchical level like an important factor of manager social success (Gattiker and Larwood, 1990). Using respondent supplied information, the respondent's hierarchical level was coded as 1= lower management, 2= middle management, 3= upper management.

Results

Hierarchical and Stepwise multiple regressions were used to identify the variables that predicted the hierarchical level of male and female managers. The variance accounted for by each block of variables is presented in table 1. In total, more variance is explained for men than for women (27.3% vs 15.5%). The human capital block and the socioeconomic origin block accounted for noticeably more variance in the hierarchical level of male managers than female managers (16.0% vs 8.1%) ; (1.3% vs 0.0%), while the opposite was true for the Family Context block (0.1% vs 1.4%). Therefore, the results provide moderate support for our first, second and third hypothesis. Finally, the Attitudes and Motivations factors block explained more variance for men than for women (3.3% vs 0.3%) and the Structural factors block explained a significant but similar amount of variance for both men and women (6.6% vs 5.7%). Therefore, the fourth and the fifth hypothesis are not supported by the data.

Within each block, different variables predicted hierarchical level for male and female managers (see table 2).

Human capital: Male managers achieved higher hierarchical levels when they had more work experience ($\beta = .209$, $p < .001$), when they completed more than a elementary/intermediary level ($\beta = -.205$, $p < .001$) and collegial education level

($\beta = -.082$, $p < .001$), and when they obtained undergraduate or graduate degrees in management ($\beta = .056$, $p < .01$). Female managers achieved higher hierarchical levels when they completed graduate ($\beta = -.145$, $p < .01$) and doctoral level education ($\beta = -.121$, $p < .05$), and when they obtained undergraduate or graduate degrees in management ($\beta = .16$, $p < .01$). These results suggest that men obtain a higher return on their investments in human capital than do women. In other words, organizations reward men more for investments that they make in their human capital, whereas similar investments made by women will receive more modest returns. Contrary to findings of several studies (Chiplin and Sloane, 1976; Stewart and Gudykunst, 1982; Ellis and Heneman, 1990; Jackson and Hirsh, 1991), no significant relationship between organizational seniority, number of employers and hierarchical level was found. Men and women were not rewarded or penalized with promotions for their loyalty towards an organization. On the other hand, organizations are ready to reward work experience for men but not for women. Male work experience seems to provide greater returns than female work experience probably because women are likely to quit the workforce temporarily for family responsibilities. Those interruptions influence organizational perceptions of the value of female work experience. Finally, managers' career success is influenced by the specialization they have. For them, it is better to complete a degree in the area of administration if they want to advance up the organizational hierarchy.

Family Context : Only one variable of this block predicted hierarchical level of managers and it was only for women. Married female managers tend to achieve higher hierarchical levels ($\beta = .125$, $p < .001$). These results are contrary to the Pfeffer and Ross (1982) study. Perhaps, female managers have the financial resources to find outside support for family demands (i.e., daycare) and that gives them the flexibility to invest in their career (Kirchmeyer, 1993).

Socioeconomic Origin : Male managers achieved higher hierarchical levels when their fathers were not farmers ($\beta = -.051$, $p < .001$) and when their fathers were managers or professionals ($\beta = .088$, $p < .001$). For female managers, socioeconomic origin has no significant influence on their hierarchical level. The results suggest that children with fathers who occupy a position of higher social standing have better chances of succeeding in their careers. This was especially true for the male subjects, confirming the results of previous research that demonstrate that fathers have a stronger influence on the careers of their sons than on the careers of their daughters.

Values et motivations : Male and female managers achieved higher hierarchical levels when they perceived that performance was linked to rewards ($\beta=.101$, $p<.001$; $\beta=.165$, $p<.01$). However, organizational commitment, represented by hours work per week, influence only male hierarchical level ($\beta=.167$, $p<.001$). These results suggest that managers who believe that their performance or effort will lead to organizational rewards (such as promotions) will in fact be more likely to succeed. However, male managers achieved higher hierarchical level when more deeply committed to the organization, but this relationship did not apply to female managers.

Structural Factors : Male managers achieved higher hierarchical levels when they worked in public institutions ($\beta=.229$, $p<.001$), were administrative heads ($\beta=-.150$, $p<.001$), managed larger budgets ($\beta=.150$, $p<.05$) and held line positions ($\beta=-.087$, $p<.001$). Female managers achieved higher hierarchical levels when they worked in public institutions and held line positions too ($\beta=-.118$, $p<.05$). These results indicate that both men and women will be more likely to be promoted in the public sector. Men are more likely to be promoted to higher level positions when they manage more resources. Women, on the other hand, are rewarded with higher level positions only when they hold line positions. This suggests that women face greater uncertainty to receiving promotions than their male colleagues, even when they perform similar duties.

Conclusion

The results of this study indicate that different variables predict the career success of male and female managers. This suggests that different career models are required to explain the career progression of each sex. In other words, because male and female managers are treated differently, it is important that distinct models be developed to explain their career advancement. Distinct models would enable organizations to adopt human resource management programs that are targeted at each sex. Investing in one's human capital is an important activity for employees. Less is know about what women should do to advance in their careers, however. Future research should identify other determinants of career success and also examine why organizations treat men and women differently with respect to advancement and promotion.

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Table 1: Variance by block from Hierarchical Regression

Block	Men (R ²)	Women (R ²)
Human Capital	16.0	8.1
Family Context	0.1	1.4
Socioeconomic Origin	1.3	0.0
Work/Life Values	3.3	0.3
Structural Factors	6.6	5.7
Total R ² Adjusted	27.3	15.5

Table 2: Predicting hierarchical level of male and female managers from Stepwise Regression

Block of Variables	Men (β)	Women (β)
HUMAN CAPITAL		
Elementary and Intermediary Level	-0.205***	
College Level	-0.082***	
Undergraduated Level		
Graduated Level		0.145**
Doctoral Level		0.121*
Pure Sciences		
Management	0.056**	0.147**
Social Sciences		
Health Sciences		
Work Experience	0.209***	
Organizational Seniority		
Position Seniority		
Previous Employers		
FAMILY CONTEXT		
Single		
Married		0.125**
Number of Dependent Persons		
SOCIOECONOMIC ORIGIN		
Farming	-0.051*	
Unskilled and Skilled Labour		
Office work		
Manager and Professional	0.088***	
Business		
Continued ...	*** p < .001, ** p < .01, * p < .05	

Table 2: Predicting hierarchical level of male and female managers from Stepwise Regression (cont'd)

Block of Variables	Men (β)	Women (β)
ATTITUDES AND MOTIVATION		
Performance/Reward Link	0.101***	0.165**
Extrinsic Motivation		
Organizational Commitment	0.167***	
STRUCTURAL FACTORS		
Sector	0.229***	0.319***
Administrative Head	-0.150***	
Budget Managed	0.150***	
Employees Supervised		
Occupation Type	-0.087***	-0.118*
Adjusted R ²	26.87 %	15.12%
F=	46.076***	8.531***

*** p < 0.001, ** p < 0.01, * p < 0.05

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