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Newly appointed directors in the boardroom: How do women and men differ?

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Summary
This paper investigates the human capital profile of new appointees to corporate boards, exploring gender differences in education, profile and career experiences. Findings from a study of UK boards reveal that women are significantly more likely to bring international diversity to their boards and to possess an MBA degree. New male directors are significantly more likely to have corporate board experience, including CEO/COO roles, while new female appointees are significantly more likely to have experience as directors on boards of smaller firms. Our evidence contradicts the view reported by some chairmen that women lack adequate human capital for boardroom positions.

Keywords
Careers; Corporate boards; Corporate governance; Diversity; Female directors; FTSE 100; Gender; Glass ceiling; Human capital; Top management teams

Introduction

Recent major corporate scandals such as Enron have turned public attention to the composition of corporate boards of directors who are responsible for firm governance. One key issue in corporate governance is the gender composition of corporate boards, highlighting the scant representation of women, despite women making up half of the potential employee, customer and other stakeholder bases (Catalyst, 2004; Daily et al., 1999; Singh et al., 2007). New governance guidelines following the Cadbury Report (Cadbury, 1999) and the Higgs Review (Higgs, 2003) in the UK called attention to the importance of diversity, including gender diversity, and the need to select directors from a wider talent pool.

Surveys of chief executives and chairmen in several countries in the 1990s reveal that women are generally perceived to lack the qualifications and experience required from directors (Ragins et al., 1998; Catalyst/Opportunity Now, 2000). Women often report anecdotally that they have to be twice as good as the men (e.g. American Novelist Fannie Hurst's famous quote, "A woman has to be twice as good as a man to go half as far" (Quotedb, 2006), and unpublished quotes from our own studies; a female divisional board director of a FTSE 100 telecommunications firms commented: "If I had been a man, I would be on the main board now", and a female engineering director shared, "I've always had a feeling that you have to be much better and more committed to be there as a woman."). Females aspiring to corporate boards therefore may be driven to acquire more extensive human capital than their male counterparts in order to overcome 'glass ceiling' barriers and to attract the attention of director selectors. However, the interrupted nature of women's careers disadvantages women's human capital acquisition in terms of fewer chances to gain new job skills, management and work experience (Van Velsor and Hughes, 1990).

The contribution of this paper is to examine the human capital of newly appointed directors in the UK and to establish that women directors do bring considerable and diverse human capital to their boards. We examine board human capital in an extreme gendered context, the UK's FTSE 100[2] firms, where the long-standing privilege of the old boy's network of directors stands in range of the new calls for diversity in corporate governance. This paper argues that just as human capital theory is useful in describing why women have historically been absent from the boardroom, given the views traditionally held by chief executives and chairmen (whether or not the women lacked human capital in reality), this theory is relevant in explaining recent appointments of new female as well as new male directors. Furthermore, as previous studies examined the human capital of entire boards or of existing directors and as turnover of directors is a fairly slow process, we have little knowledge about the human capital introduced by new appointments.

This paper uses human capital theory to evaluate the profiles of 144 new men and women appointees to FTSE 100 corporate boards from 2001–4, and explores gender differences (here referring to biological sex). In contrast to earlier studies (e.g. Hillman et al., 2002), we provide a recent profile of new directors and in a unique country environment, the UK. This paper proceeds as follows. First, we highlight the increasing interest in director diversity, and review the extant literature on human capital of directors of corporate boards. Based on human capital theory we suggest five hypotheses to be examined, drawing on previous work that indicates where gender differences are likely. We then describe our sample and methods, and present our empirical results. We conclude with a discussion of the contribution of the paper, some limitations, suggestions for further research and implications for practice.

Diversity on corporate boards

Large corporate boards in the US, UK and elsewhere have traditionally been composed almost entirely of males from similar backgrounds, forming an "old boys club" in and across the boardrooms of the private sector (Howe and McRae, 1991; Fondas and Sassalos, 2000). However, following a wave of scandals, new governance codes (in the US, the Sarbanes-Oxley Act and in the UK, the Combined Code) emerged, concerning the structures and processes of company boards and the roles and responsibilities of independent directors (Aguilera, 2005). In the UK, there is strong concern about the continuing strength and privilege of the 'old boys club' across FTSE 100 firms, in relation to director appointments. The vast majority of non-executive director (NED) appointments were made without formal advertisement, application or interviews. Hence the Higgs Review (2003) into the role of non-executive directors (NEDs; also referred to as 'outside directors') and the subsequent Tyson Report (Tyson, 2003) called for greater transparency in director appointments and strongly recommended increased diversity in the pools of talent from which directors are recruited.

Diversity can take any number of forms, including personal demographics such as gender, race, ethnicity and nationality (Erhardt et al., 2003). Diversity brings a number of benefits to boards, including new ideas and better communication (Milliken and Martins, 1996), debate (Fondas and Sassalos, 2000; Pearce and Zahra, 1991) and corporate governance processes. Women display transformational leadership styles (Rosener, 1990) and female board directors bring knowledge of female market segmentation (Daily et al., 1999). Female board members also serve as role models for younger women and symbolise career possibilities to prospective recruits (Bilimoria, 2000). Roberts et al. (2005) report that non-executive directors value the openness and the interplay of different perspectives and skills that diversity brought to the board. This business case leads us to expect that more diverse candidates would be welcomed onto corporate boards.

However, women possess few insider director seats. As Table 1 indicates, the number of female directors on FTSE 100 boards has increased considerably over the past six years, other than as 'insider' executive directors, where women hold just 3.4% of seats. Women accounted for 10.4% of all directors and 13% of all new appointments in 2006 (Authors, 2006).

Human capital of directors

Human capital theory (Becker, 1964) provides a convenient basis for understanding inequalities, and we apply it here to explain the continued exclusion of women from corporate boardrooms. Human capital can be linked with resource dependency theory (Pfeffer and Salancik, 1978) which suggests that, given an increasingly uncertain business environment, boards should be composed of individuals who can provide access to a breadth of resources. Human capital theory is concerned with how an individual's investments in education, knowledge, skills and experiences enhance cognitive and productive capabilities for the benefit of the individual and the firm (Becker, 1964; Westphal and Zajac, 1995). Just as with financial capital, investments in human capital produce rents for the individual, often in the form of higher and sustained pay levels and promotion (Tharenou et al., 1994). The rents are cumulative, so that by the time an individual seeks a boardroom appointment, he or she will usually have acquired substantial human capital over a number of years.

Table 1 FTSE 100 Directorships and New Appointments

FTSE 100 Directorships	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**
Number of Female-Held Directorships	117	121	110	101	84	75
% of all Directorships	10.4%	10.5%	9.7%	8.6%	7.2%	6.4%
Number of Female Executive Directors	15	14	17	17	15	10
% of all Executive Directorship	3.8%	3.4%	4.1%	3.7%	3.0%	2.0%
Female held Non Executive Directorships	102	107	93	84	69	65
% of all Non-Executive Directorship	13.7%	14.5%	13.1%	11.8%	10.0%	9.6%
Total New Appointments	181	179	141	149	124	128
New Female Appointments	23	30	24	20	13	15
New Male Appointments	158	149	117	129	111	113
Female % of New Appointments	12.7%	16.8%	17.0%	13.4%	10.5%	11.7%

As each director brings a unique set of human capital resources to the board (Kesner, 1988), those who select new board members may be interested in attracting individuals with particular human capital resources to complement the board's existing capabilities. Characteristics of boards of directors receive increased scholarly attention (Johnson et al., 1996), but hitherto, research on directors and those in the upper echelons has focused on functional, age and educational diversity, usually ignoring gender (e.g. Hambrick and Mason, 1984; Jensen and Zajac, 2004). In an increasingly globalised world, international experience provides firms with competitive advantage (Carpenter et al., 2001). Other extant research on human capital of board members is limited to a small number of demographic variables (e.g. Burke, 1997) or to female-only studies (e.g. Burgess and Tharenou, 2000). A notable exception is Hillman et al. (2002) who draw on resource dependency theory and Hillman et al. (2000) taxonomy of director roles (insiders, business experts, support specialists and community influentials) as human capital resources, thereby expanding the usual binary view of inside and outside director roles. They examine patterns of occupational and educational differences amongst white and African-American men and women directors on Fortune 500 boards. Their study highlights the human capital of the whole complement of directors. Our study examines the human capital of the most recent cohort of newly appointed directors, to identify the human capital currently being sought and acquired by FTSE 100 firms. The UK is an extreme and persistent gendered context. From the literature, a number of hypotheses are suggested that will allow us to consider how the human capital of the new cohort of women and men directors may differ.

Director Education and Experience

A consistent finding in previous research is that female directors have high levels of education (Burgess and Tharenou, 2002). Human capital investment in education, and particularly advanced education, is a starting point for development of independent thinking, a key facet of role requirements for non-executive directors, according to Roberts et al. (2005). Hillman et al. (2002) comment that minority groups can gain public and objective credentials through education, particularly postgraduate qualifications, thereby levelling the playing field and compensating for the effects of any discrimination and subjective bias in selection and promotion. Educational qualifications are valued by the public and employers can then benefit from the expertise and credibility of the educational human capital of their staff and directors. An increasing number of women obtain higher degrees, with female graduates now outnumbering their male counterparts in the US, UK and elsewhere (HESA, 2003). Becker (1962) suggests that individuals who are more able tend to invest more in human capital such as education. Given that new women directors have successfully broken through the glass ceiling, they could be said to visibly represent the more able of their female peers by dint of their top company director appointments. Furthermore, given that investment in advanced education can compensate for the effects of discrimination, we expect new women directors to report more educational capital than will men.

<u>Hypothesis 1: New women directors will be more likely to have higher educational qualifications than will new men directors.</u>

Reputation is associated with human capital derived from investments in education and other visible individual attributes that stand as proxies for the actual capabilities of the person (Hall et al., 2004). Individuals gaining directorships are likely to have acquired reputational capital that signals competence and reduced risk to the beholders who use their social networks to select and appoint new directors. A noticeable factor in the profile of female directors in the FTSE 100 since the 1980s is that significantly more women than men have titles, whether academic (Dr. or Professor), aristocratic (Lady, Honourable), civic (Dame, Baroness), or political (Dame or Baroness), or Lady as consort title of an honoured man (Howe and McRae, 1991; Hypothesis 1: New women directors will be more likely to have higher educational qualifications than will new men directors. Authors, 2007). Mattis (2000) also describes a preference in the US for "branded women" directors, including those with a degree from Ivy League universities, which signals upper-class status to senior managers (Zweigenhaft and Domhoff, 1998). The same could be said for the reputational capital value of degrees from Oxford and Cambridge universities in the UK, which are well represented in the higher echelons of business and government.

Another facet of reputational capital is the extent to which directors appear in the press, and in directories of well-known people. As role models, these high profile women often make speeches or are featured in the press, so their names are likely to be picked up by internet search engines such as Google. We would suggest that the scarcity of such women may lead to higher levels of opportunities to engage in role modelling activities and more publicity than their male peers.

<u>Hypothesis 2: New women directors will be more likely to have higher levels of reputational capital than will new men directors.</u>

Becker (1962) emphasises the importance of on-the-job experience and training that raise the future productivity of the individual and his Nobel lecture (Becker, 1993) describes how earlier inequalities in the workplace can be explained by human capital theory. Previously, women were more likely to work part-time or to settle for lower paid but convenient jobs, and hence would be less likely to participate in on-the-job training for more senior roles, as neither they nor their employers would gain a reasonable return on the investment in training. But in recent times, women have invested in education, and adopted a lifetime work pattern more similar to that of men. So today's female labour force are acquiring more senior level experience than did previous generations, and inequalities such as the gender pay gap are reducing, albeit slowly. However, very few women have reached corporate board level positions in the UK's FTSE 100 firms.

Research into chief executives' views on the lack of women directors has, for many years, shown that CEOs believe that there are not enough women with appropriate business experience (Burke, 1997). This 'experience-based-bias' argument (see Bilimoria and Piderit, 1994) describes women's under-representation in leadership roles as based on a perceived lack of experience. Catalyst's 1995 survey of CEOs of US firms reports that the most frequently cited reasons for women's low representation on boards are the small number of women with appropriate business experience (stated by 87% of manufacturing CEOs and 78% of services CEOs) and the view that women have not been in the pipeline long enough (Mattis, 2000). A UK study identifies similar arguments, reporting 40% of CEOs believe that women had not been in the pipeline long enough, compared to only 28% of senior women; a fifth of CEOs identify women's lack of significant general management experience to be a major barrier (Catalyst/Opportunity Now, 2000). If board experience is an essential requirement for appointment, then the pool of talent with that particular human capital is very small, and hence we expect that women in this cohort would have less experience than their male peers.

<u>Hypothesis 3a: New women directors will be less likely to have previous board experience than will new men directors.</u>

It is not just human capital acquisition of board experience that is valued, but board interlock research shows that executive experience is most sought in new director appointments, with the expectation of rents for the hiring board in terms of competitive information and advantage deriving from those executive roles (Pearce and Zahra, 1992). Such knowledge and experience contribute to the board's strategic role, enhancing the firm's competitiveness and returning value to the shareholders. Given that there are so few women in executive director roles such as chief executive, chief finance officer and chief operating officer, with a rise from 2.0% in 2000 to almost 3.4% in 2006 in the proportion of women of all executive directors in FTSE 100 firms, and as women directors tend to be younger on average than their male peers by about three years (Authors, 2006), we anticipate that the new women directors have not yet acquired as much executive experience as the new men directors.

<u>Hypothesis 3b: New women directors will be less likely to have top management team experience than will new men directors.</u>

Boards of publicly-traded firms have a stewardship duty to appoint candidates who are well qualified for their director roles in order to secure the desired resources for the future of the company and its stakeholders, and to protect and develop firm assets (Aguilera, 2005). Hence all new directors are expected to have successful and relevant career experiences in their sectors and professions before their appointment. However, given that women are often more attracted to public and not-for-profit sector careers, we expect that women directors' work experience human capital would be biased in favour of those sectors, in contrast to their male peers. We also expect women directors to have human capital which is different from their male peers in terms of professional background, with more male directors with career experience in traditional "masculine-typed sectors" where men comprise the majority of those employed, such as engineering and science.

<u>Hypothesis 4a: New women directors will be more likely to have previous career experience in the public and not-for-profit sectors than will new men directors.</u>

<u>Hypothesis 4b: New women directors will be less likely to have previous career experience in the masculine-typed professions than will new men directors.</u>

Given recent trends in globalisation and the increasing numbers of cross-national mergers and acquisitions of many large corporations, we expect that international experience will play an increasingly important role as directors are being asked to monitor, govern and advise on corporate activities and opportunities across a range of countries and different national and business cultures. International experience is regarded as highly developmental as it builds on and integrates other related human capital management experience acquired in the home environment. Indeed, Carpenter et al. (2001) suggest that whilst this kind of human capital is rare even among chief executives, it is particularly valuable for multinational firms where that experience is bundled with other potential resources (such as expanded personal and work social networks) to contribute to the firm's competitive advantage. Most FTSE 100 companies have value-added activities in several countries and are classified as multinationals. Daily et al. (2000) suggest that having international experience in one's career portfolio may enhance the likelihood of achieving top executive positions in other companies, given that there is a positive relationship between outside CEO successors with international experience and performance. Interviews with forty FTSE 100 chairmen by Russell Reynolds (2002) reveal that chairmen value international experience over gender and ethnic diversity. However, it may be more difficult or less attractive for women to acquire this form of human capital. As Traditionally males are more internationally geographically mobile than females (Lyness and Thompson, 1997). Females are often the secondary earners in dual career relationships. Furthermore, international career experience represents a risk with uncertain returns on considerable personal investment (Bolino, 2007). Based on the above reasoning, we expect that the new men directors would have acquired more human capital in the form of international experience than will their female peers.

Hypothesis 5: New women directors will be less likely to have international work experience than will new men directors.

Methodology

Data gathering

We downloaded the names of FTSE 100[3] directors from the FAME and Hemscott databases on 1st October 2001, 2002, 2003 and 2004. This data was verified using past surveys of boards of directors and information available from the firms' investor relations' websites. This resulted in a list of 72 new female board appointees over the four-year period. A random sample of 72 new male appointees out of 470 from the same time period was identified using an excel spreadsheet and random number generation. We tested to ensure there were no significant differences between this sample and the rest of the population. Using publicly available biographical information from annual reports, Who's Who, Debrett's People of Today and internet searches, we categorised the experience that the new directors brought to their boards. Individuals across the four years were treated as one group as there were no significant between-year differences.

Variables

Demographics

We collected the Age, Gender and Ethnicity data for all respondents. Ethnicity (White or Non-White) was recorded on the basis of biographical details and photographs indicating a non-white background, with careful checking from press cuttings archives and other organisational websites, e.g. where individuals were directors or trustees or had made speeches at events identifying themselves as having a non-white background.

Director Type

We recorded whether directors were inside/executive or outside/non-executive.

Education

Biographies were examined for evidence of educational qualifications, including PhD, MBA, other degrees and accounting qualifications. Note was also taken of degrees from elite institutions.

Nationality

The nationality of the new directors was recorded in the following categories: British, US/Canadian, Other European, and Other. Nationality information is not always provided in biographical data, but again further efforts were made to identify nationality from other sources than the official biographies.

Reputation and Status

We captured the following variables: Title, Honour, Listing in Who's Who and Debrett's People of Today, Google hits by 'name' and 'director' (three distinct categories emerged: under 50 = low; 50–100 = medium, 100 + = high) and Oxbridge/Ivy connections (not just degrees). This required checking for erroneous items, most of which were excluded by the introduction of "director" or "board" into the search string. We have not seen other academic research apply Google hits before, but the major executive search consultancies in the UK increasingly use the number of search engine references as an indicator of reputation. We sought advice from expert search consultants about the breakpoints for high, medium and low categories.

Board Experience

We recorded experience on other FTSE 100 boards, FTSE 101–350 and Minor boards. We also recorded experience on international boards outside the UK.

Top Management Team Experience

The following five variables captured concurrent or past top management team experience: CEO, CFO, Chief Operating Officer (COO) or General Manager (GM) or Managing Director (MD) experience, Chair experience and Partner experience in consulting, law or accounting firms.

Career Experience
Sectoral experience was categorised as International, Financial Institutions, Management Consultancy, Public Sector, Voluntary/Charity Sector, Other Government (membership on a government advisory board, executive of a professional/arts organisation). Professional experience categories were Accounting, Law, Politics, Engineering, and Academia. We consider masculine-typed career experience to be in industries where the majority of those employed are male, e.g. engineering institutions. Feminine-typed career experience is classified as experience in those industries where there is a large female employment base, e.g. public sector.

Director Expertise Profiles
We drew on the categorisation of directors' human capital roles applied in earlier research by Hillman et al. (2000, 2002) as the basis for human capital work experience variables. Two of the authors placed each director into one of the four Hillman et al. (2000) categories (Insiders, Business Experts, Business Support Specialists and Community Influentials), and adjusted any disagreements in discussion with the third author. It became clear that the business experts category masked some valuable public sector experience found in that group, particularly of the women. We therefore split that group into two. A fifth category, Business Experts AND Community Influentials, was created to capture business experts with a 'portfolio' career of both business and public experience.

We examined the differences between male and female directors. Findings are reported in cross-tabulation tables, and with t-tests and chi-square tests for significance.

Results
Table 1 reveals that in 2004 and 2005, women take around 17% of all new appointments, much higher than the 10.5% female representation across all FTSE 100 directorships. However in 2006, women took only 13% of new appointments. The sample for this study includes all the new women and a random sample of the new men appointees from 2001 to 2004.

Table 2 reports levels of education as revealed in the biographies. This group of recently appointed directors is very highly qualified, with a fifth of the men and a sixth of the women achieving doctoral qualifications. Interestingly, a fifth of the women have MBA degrees. Around a third of the sample holds accounting qualifications, often not reporting a degree. A fifth of the women possess elite degrees compared to only a tenth of the men. Our Hypothesis 1 that new women appointees would hold higher educational qualifications than men is supported on one important dimension – the MBA. In our sample, females are significantly more likely to hold a MBA degree ($p < .03$).

Table 2 also shows that the new male directors are slightly more likely to hold a title. However, the new women are more likely than the new men to be mentioned in Who's Who or Debrett's People of Today. There are no significant differences in Google reputations. Results indicate that female directors are no more likely than their male peers to have connections to Oxford or Cambridge or to an Ivy League university in the US. The similarities in the reputational capital of the new men and women entail that Hypothesis 2 is not supported.

We expected women to have less previous board experience than their male counterparts. Table 3 reveals that almost half of the men have previous FTSE 100 director experience, but so did nearly a quarter of the women, and slightly more women than men have FTSE 101–350 experience. However, women have significantly more minor board experience than the men, and somewhat more experience on international boards. As so many of the new women appointees have previous board experience, including on FTSE 100 boards, Hypothesis 3a is not supported except for FTSE 100 experience, which is significant at the $p = .006$ level.

Turning to previous top management team experience, results indicate that men are somewhat more likely to have experience as a CEO ($p = .08$) and COO or GM or MD ($p = .013$). Hypothesis 3b is therefore weakly supported. In addition, new male directors are significantly more likely than females to have experience as chair of a board ($p = .01 3$).

Table 2 New Director Appointments: Demographics, Education and Reputation

	Male (n = 72)	Female (n = 72)	Chi-square *p*	Value
Ethnicity	98.6% white	9 5.8% white	0.620	1.029
Nationality	72% UK	61% UK	0.001	17.238
	7% USA/Canada	32% USA/Canada		
	17% Other European	6% Other European		
	4% Other	1% Other		
Education				
PhD	21%	16%	0.522	0.410
MBA	7%	19%	0.027	4.911
Other degree	30%	16%	0.074	3.184
Accounting qualifications	30%	35%	0.475	0.511
Elite university degree	12%	21%	0.111	2.535
No information	40%	40%		
Reputation				
Title	23.6%	18.1%	0.539	0.674
Civic Honour	16.7%	15.3%	1.000	0.052
Who's Who/Debrett	20.8%	31.9%	0.130	2.288
Google UK mentions	25.0% Low	29.2% Low	0.134	4.027
	29.2% Medium	15.3% Medium		
	45.8% High	55.6% High		
Oxbridge/Ivy League connections	20.8%	22.2%	0.839	0.041

Table 3 New Director Appointments: Previous Board Experience

Previous Board Experience	Male (n = 72)	Female (n = 72)	Chi-square test of sig *p*	Value
FTSE 100	45.8%	22.2%	0.006	10.303
FTSE 101–350	12.5%	16.7%	0.639	0.895
Minor Board	38.9%	62.5%	0.005	8.029
International Board	36.1%	43.1%	0.444	1.625
Previous Executive Director Experience				
Past CEO	41.7%	27.8%	0.080	3.064
Past CFO	26.4%	25.0%	0.849	0.036
Past COO/GM/MD	52.8%	37.5%	0.065	3.393
Past Chair Experience	43.1%	23.6%	0.013	6.125
Partner Experience	6.9%	12.5%	0.261	1.266

Table 4 shows a number of significant results regarding previous career experiences. There are sectoral differences, with females significantly more likely to have a background in management consultancy and the public and voluntary sectors, supporting Hypothesis 4a. There are also professional differences, with males significantly more likely to report a background in engineering, and females somewhat more likely to have been in financial institutions and the legal profession. These findings also support Hypothesis 4b. About one in five new directors are accountants. Norburn (1984) reports that accountants are three times more likely to be promoted to a board than are production or manufacturing managers. Women in this sample with accounting qualifications find their way onto the top corporate boards in a similar proportion to their male peers. Overall, these findings indicate that women are rather more likely to have a portfolio of experiences in their career.

Hypothesis 5 predicted that women would have less international experience than women. Table 4 reveals that this was only marginally the case, with 67% of male directors having this career capital in their portfolio compared to 57% of their female peers. Only one new male director comes from a non-white background (a black South African), compared to three females (one UK Asian and two African-Americans). We find that new male directors are more likely than female directors to hold British or other European citizenship, and new female directors are more likely to be US or Canadian citizens. New female directors are significantly more likely than new males to have non-UK citizenship.

Directors' human capital profiles

We next reviewed the above findings to examine human capital profiles and explore gender differences. For our analytical framework, we drew on the categories developed by Hillman et al. (2000, 2002) to group the directors by their human capital work experience. We find that the expertise profile of the males and females was significantly different. Consistent with prior research, females were significantly less likely to be Executive Directors, but were no less likely than males to be business experts. Women were, however, more likely to be business support specialists. More women than men fell into the community influential category, and over a quarter of the women in the business expert category were additionally community influentials. See Table 5.

Table 4 New Director Appointment: Previous Career Experience

Previous Career Experience (multiple responses allowed)	**Male (n = 72)**	**Female (n = 72)**	**Chi-square test of sig *p***	**Value**
Sectors				
International	66.7%	56.9%	0.230	1.441
Financial Institutions	31.9%	44.4%	0.123	2.383
Public Sector	18.1%	31.9%	0.054	3.704
Voluntary & Charity	13.9%	22.2%	0.194	1.690
Other Government	13.9%	23.6%	0.135	2.234
Management Consultancy	13.9%	27.8%	0.040	4.211
Profession				
Accountant	20.8%	19.4%	0.586	1.070
Lawyer	6.9%	15.3%	0.112	2.531
Politician	4.2%	11.1%	0.117	2.461
Engineer	22.2%	2.9%	0.001	12.44
Scientist	11.1%	7.1%	0.245	1.351
Academia	5.6%	12.5%	0.244	2.114
Portfolio Career	27.8	41.7	0.080	3.064

Discussion

Human capital theory leads us to expect that directors' appointments are based, in part, on the human capital (knowledge, skills, experience) they can provide to the firms. Women have been present in the full-time workforce for many years. So why are women absent from a quarter of FTSE 100 boardrooms and in token numbers in most of the others? Have women failed to accumulate sufficient relevant human capital? What role does human capital play in selection an appointment? Previous research reports that chief executives and chairmen want women board members with prior board experience (Mattis, 2000), but there is still a perception that women with the 'right' experience are hard to find (Russell Reynolds, 2002).

Our findings belie some of the myths about female directors not having sufficient experience, although female directors appear to have spent time on a wider variety of boards than have their male peers. A somewhat unexpected finding is that almost a quarter of new female directors appointed between 2001 and 2004 already have FTSE 100 board experience. These women served on top boards before retiring and then gaining appointments to different FTSE 100 boards, or acquiring concurrent directorships, as do five women (but only one man) in this sample. As the Higgs Review (2003) recommended that directors should not serve for more than two terms, there may be increased director turnover. Hence, it is likely that the 'recycling' of a small group of experienced directors will become a regular feature of female directorships as is the case for men. As women are more likely than men to have experience on FTSE 101–350 and minor boards, smaller boards constitute an incubator talent pool for female FTSE 100 directors. Almost half of the women have previous experience in financial institutions, a third have experience of senior positions in the public sector, and nearly a quarter have voluntary and charity organisations leadership experience. Many sat on government advisory bodies, and boards of arts and other organisations. These profiles follow Higgs' recommendation that boards extend the talent pool for board appointments beyond directors with FTSE 100 experience.

Table 5 New Director Appointments: Expertise Profiles

Expertise Profiles	**Male (n = 72)**	**Female (n = 72)**	**Chi-square test of sig p**	**Value**
Business Experts	54.2%	48.6%	.738	.251
Comprised of:				
Business Experts with Community Influential Expertise	18.1%	26.4%	.316	1.446
Business Experts, no Community Expertise Listed	36.1%	22.2%	.281	1.584
Business Support Specialists	8.3%	20.8%	.057	4.516
Community Influentials	4.2%	11.1%	.208	.117
Executive (Inside) Directors	33.3%	19.4%	.088	3.575

It is interesting that two thirds of males and well over half of the females in this study report international experience, and many women and men sat on boards in other countries. In 1984, Norburn reported that 65% of British executive directors had never worked outside the UK, and only half of them thought that an overseas posting would be useful to further their career. Our cohort of directors represents diversity in terms of nationality, international work experience and board experience, supporting the comments made by chairmen in the Russell Reynolds (2002) study that international diversity is very important in adding value to the board. Indeed, the women bring considerably different international diversity to their male peers. Women directors' human capital symbolises an outward-looking and international capability of FTSE 100 boards.

We found the Hillman et al. (2000) taxonomy of four categories of directors (business experts, business support specialists, community influentials and insiders) to be a useful way of examining director's biographies for evidence of human capital, but the category of business experts masks the additional diversity that some female directors bring to the boardroom in terms of significant experience from more than one major domain. We find that female business experts are more likely than their male counterparts to have both business and community expertise. If we had kept the four category taxonomy, our business experts group would contain 54% of the males (compared to 89% found by Hillman et al., 2002), and 49% of the females (compared to 35% found by Hillman et al., 2002). The women in the FTSE 100 study have more large corporate business expertise than the Fortune 1000 women in the Hillman et al. (2002) study. This evidence refutes the view that women lack the 'right' human capital for directorships – women directors' balance of human capital assets may be different from the traditional male accumulation of knowledge, skills and experience, but that is the added value of diversity on corporate boards.

Another interesting finding is that female inside directors may also play a part in public sector bodies, as is the case of the HR director of Whitbread sitting on the UK government's Low Pay Commission. It would be useful to explore, in a larger sample, whether the Insider category might be split into two: Insiders and Insiders with Public Sector Experience. Directors falling into this second category should be very attractive to those seeking future outside directors. If there are gender differences, is it the result of women managing their career portfolios, or are women inside directors offered more opportunities by government agencies as scarce resources for public service?

We acknowledge several limitations of our study. First, we gathered data only from publicly available information. Self-reports of directors' experience would be more revealing, but are difficult to obtain from a complete set of 144 individuals. Hence we opted for public biographies that varied in information quality, supplementing our data from other public sources. Second, there is researcher-induced bias from coding structures and decisions. Our categorization of the director roles masks large differences in experience, for example, in the business expert category, where some directors have been chairman and/or chief executives of similar large firms, whilst others have sat as non-executive directors in a more advisory role, and sometimes only on one corporate board rather than on several boards. Third, our study uses new directors as the base unit of analysis, but one man and five women were appointed to multiple boards, resulting in an over-sampling of those individuals. Fourth, there may be bias due to the random sampling of the male cohort studied; however we did not identify any significant differences between our sample and the rest of the population of new male directors. Fifth, our study is limited to directors and human capital in large, publicly-traded firms listed on the London Stock Exchange. Finally, in revealing the human capital of these directors, we have not identified the value of the various aspects of that capital to the board.

Conclusion

Drawing on human capital theory, this paper explores whether the human capital of new directors differs by gender, in the context of the frequently reported view that women do not have the right kind of skills and experience for directorships of large companies. Evidence from this study suggests otherwise: in general, new women directors have fairly similar and sometimes additional human capital to their male peers.

The contribution of this study is fivefold. First, it examines the human capital of newly appointed directors, rather than of existing directors with a variety of tenure. Second, it provides empirical evidence that human capital theory has credence in explaining why this particular cohort of women has been appointed. We find that new board appointees in the top 100 UK companies from 2001–2004 possess a rich diversity of previous experience. Third, we identify that, compared to men directors, women directors bring a very different international profile to their boards. Fourth, we show that the Hillman et al. (2000, 2002) taxonomy can mask the added value of human capital from women who have experience as business experts both in large for-profit firms and the public sector, and hence we suggest a five category taxonomy to capture this important element. Finally, this paper provides a new UK perspective on this issue, important because of the strength and privilege of the 'old boys culture' and the current pressures for diversity. Challenging the myth that women do not have the right kinds of experiences is difficult, as such gendered mindsets are resistant to change, and are reinforced by the present masculine profile of FTSE 100 directors, resulting in gendered selection and assessment processes (Acker, 1990).

This study shows that this new cohort of women directors has accumulated human capital fairly similar to their male peers in terms of education, reputation, board experience and career experience, albeit at a slightly younger age to the men. Importantly, in capturing the return on their investments by gaining their directorships, these women are then in a position to contribute the benefits of their higher levels of international diversity, public sector, government board and major management consulting firm experience. Hence if this female cohort's human capital is typical of new directors for the next decade, then increasing the number and proportion of women in the boardroom will provide the potential for a more diverse set of human capital experiences to be utilised by top firms.

A number of avenues are suggested for further research. An investigation into the director appointment process could reveal what type of human capital is most likely to result in an invitation to board membership. Such information would be useful in preparing senior executives for future board positions. Other directions could include an examination of the legitimizing processes of access to boards. Future researchers might also consider a broader study examining differences in human capital profiles between new appointees and the existing board, to identify more specifically how the new director's human capital complements that of the whole board. A qualitative study of newly appointed directors could reveal how directors draw on previous experience in the various sectors to make a contribution to board performance during the first term of directorship. In addition, it would be interesting to obtain the views of chairmen and other board members about the relative usefulness of the various human capital resources of incoming directors once they have been integrated into the board. A study exploring the links between diversity (or change in diversity) and performance in different environments would enable a better understanding of the institutions of corporate governance. As this study provides a baseline with the human capital of the cohort from 2001-4, future studies could monitor changes over time with new cohorts of directors. Finally, our results could be replicated in other country environments.

Our findings suggest that individuals seeking board positions need to identify what human capital resources they require in order to be considered for director appointments, and to manage their careers so as to build an appropriate portfolio of experiences, knowledge and skills. Those who mentor aspiring directors can also benefit from these findings. There are also implications for board nomination committees and search consultants tasked with identifying appropriate talent for new directorships, recognising the variety of backgrounds that other boards have found attractive. If the Higgs Review recommendations for increased diversity are taken into account, then the fact that the women directors in this study have such a wealth of experiences should augur well for women's future access to the boardroom.

[1] Tel: +44(0)1234 751122. Fax: +44(0)1234 751806

[2] Financial Times/London Stock Exchange listing of the largest 100 firms by market capitalisation.

[3] The FTSE index is a 'moving target' based on market capitalization. On average, 12–15% of FTSE 100 firms turnover per year.

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