Interfirm mobility of married women in the Indian IT sector: evidence from Delhi

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Abstract: Using retrospective work-family survey data and the event-history analysis technique, this paper explores the determinants of interfirm mobility- i.e., the factors influencing the firm changing decisions of women in their early careers. In particular, it explores the extent to which family events, such as marriage and first childbirth, affect women's working duration in firms and, consequently, their decision to change jobs. Based on a sample of 295 married women, drawn from Information Technology-Information Technology Enabled Services (IT-ITES) firms in New Delhi and the National Capital Region, the findings show that, amongst individual-level characteristics, children significantly decline women's interfirm mobility rates, but marriage does not. Amongst firm-level characteristics, lower levels of job position and promotion significantly increase interfirm mobility, whilst rotating shifts, the IT-ITES sector and good working conditions significantly decline interfirm mobility rates. The study does not find that women are less mobile. It however takes longer for mothers to change firms due to childcare responsibilities and the extensive searching required to finding a company with standard working hours. The paper concludes that women advance their careers by maximizing both status and income rewards through interfirm mobility. The data, however, cannot demonstrate the exact rewards-gain women receive upon changing employers.

Keywords: women; IT-ITES sector; India; interfirm mobility; career; event history analysis and survey

Introduction

The economic reforms of 1991 have induced the rapid growth of the Indian IT-ITES sector. Global changes in the structure of the IT industry, the availability of a highly skilled labor force

on low wages (D'Costa, 2003), the ideal time-zone location of the country (Ng & Mitter, 2005; Upadhya & Vasavi, 2006) and the offshoring from developed to developing countries (Basant & Rani, 2004; Tara & Ilavarasan, 2009) are attributed to its success. The sector provides decent white-collar skilled jobs with higher wages, opportunities of career advancement and better working conditions than other sectors. This has benefitted the English speaking urban middle class—particularly young women (Basant & Rani, 2004; Clark & Sekher, 2007; McMillin, 2006; Singh & Pandey, 2005).

In 2016-17, it was estimated that the sector employed 3.86 million people, of which 34 percent were women (Government of India, 2017; Raghuram, Herman, Ruiz-ben, & Sondhi, 2017) and women's participation in entry and middle level jobs reached 36 percent in 2008 (Raju, 2013). Although the female workforce in the IT-ITES sector largely consists of young single women (Raju, 2013), the continuation of work after marriage and childbirth has been a prominent phenomenon.

Growing women's participation in the IT-ITES has drawn the attention of researchers. Previous research, having taken women's employment as a central point of reference has examined changes in the traditional role of women along with corresponding changes in Indian society (see Clark & Sekher, 2007; Kelkar, Shrestha, & Veena, 2002; McMillin, 2006; Singh & Pandey, 2005). The continuity and change in social norms about women's work, women's physical mobility, family roles of wives and mothers and their effects on women's careers are some of the topics that have been at the center of the discussion.

Kelkar et al. (2002) and Shanker (2008) for example show that women's employment in the IT-ITES sector has brought little change in terms of altering the social norms which consider women the primary care-takers of household responsibilities. Women remain burdened with childcare and family responsibilities, which negatively affect their career prospects. Women

with children especially lag behind in terms of the frequency of job changes—a key to career advancement in the IT-ITES sector (Kelkar et al., 2002). They tend to stay longer in a firm, receive promotions late (Kelkar et al., 2002), or leave the firm by the time they are likely to receive a promotion (Singh & Pandey, 2005).

Interfirm mobility, a well-established labor market process of upward career mobility in terms of both status and income attainment - has been adequately studied for workers in industrialized countries. Researchers argue that job mobility indicates individual attainment, while the latter is defined in terms of job change (Carroll & Mayer, 1986; Hachen, 1990; Sørensen, 1975). In other words, if an individual does not attain the expected rewards in an expected time period, she or he is more likely to leave the current firm and move to the next employer (Farber, 1994; Hachen, 1990; Petersen & Spilerman, 1990; Sicherman & Galor, 1990).

Existing research in the Indian context has noted the growing importance of interfirm mobility in the last two decades (see Kelkar et al., 2002; Upadhya & Vasavi, 2006). While these studies contribute to a better understanding of women and men's careers in the IT-ITES sector, interfirm mobility as a central process of upward career mobility, of women in particular, has not been given adequate treatment. Relying upon a very small sample and a qualitative approach, they offer a descriptive account of the occurrence of interfirm mobility for men and women workers instead of engaging with the process itself in a causal manner. Thus, what determines this process and how long and short this could be for women workers remains unclear.

This article offers the first quantitative analysis of women's interfirm mobility at an early career-stage in conjunction with their family roles. By employing relatively bigger sample of 295 married women and applying event history analysis, it explores how long women stay in a firm, which factors facilitate or constrain the duration of their stay and to what extent family

events such as marriage and first childbirth affect their interfirm moves and whether or not job changes contribute to the career development of women. The fact that early career years' coincide with the family formation stage, it is important to understand how women's careers develop through interfirm mobility during this stage and how it is affected by the family processes.

Career development in early years is important to further understand to prevent women's drop out from the labor force in a long run and to eliminate gender gaps in managerial and more powerful positions in the organization by creating enabling environment for women and providing them adequate support for their career development. Existing research has shown that women tend to accept slower rate of career advancement as a price for balancing work and family life (Gupta, Koshal, & Koshal, 1998). Managing dual roles of workers and mothers and wives is a key challenge facing women workers in India (see Buddhapriya, 2009; Gupta et al., 1998)

The paper is organized in eight sections. The next section discusses existing research on women's employment in the IT-ITES sector. Section three outlines analytical framework. Section four describes both the data and method. Section five provides descriptive results. Regression findings are given in section six. Section seven discusses the findings, while section eight concludes the paper with recommendation for future research.

Women's employment in IT-ITES sector: A survey of literature

Growing women's participation in the IT-ITES sector has received a wide array of scholarly attention. Researchers have investigated the effects of women's employment on gender roles, gender relations at work and home, the changing nature of the patriarchy, women's freedom and agency (Clark & Sekher, 2007; Kelkar & Nathan, 2002; Kelkar et al., 2002; Raju, 2013; Shanker, 2008; Tara & Ilavarasan, 2009), women's bargaining power and their life experiences

(Mitter, 2000; Ng & Mitter, 2005; Singh & Pandey, 2005), identity and work in the global context and, the changing nature of work and workplace culture (Gothoskar, 2000; McMillin, 2006).

Based on interviews of 64 individuals (30 women and five men in Bangalore and, 25 women and four men in New Delhi), Kelkar et al. (2002) show that while the socio-economic position of women has improved as a result of employment opportunities, women continue to experience enormous family responsibilities. Consequently, women are often unable to fulfill additional or implicit responsibilities at work. Recognizing the significant changes in women's mobility, the authors suggest that women's employment in the IT-ITES sector has weakened restrictions on their physical movement. The large number of single women working in the cities, which was impossible few decades earlier, is posited as evidence of this positive social change.

Night shift work (often in rotating shifts) also indicates the enhanced physical mobility of young women (McMillin, 2006; Singh & Pandey, 2005). However, more often than married women, single women receive family support. For married women, uncertain working hours are often incompatible with family life, posing a conflict between work and family roles. Consequently, women's excessive family responsibilities produce disadvantages at work.

In particular, women with children lag behind in terms of exploiting career opportunities (Kelkar et al., 2002). The frequency of job changes (a key to career advancement in IT-ITES sector) is where women most notably lag behind men, the percentage of women who move from one company to another for better opportunities being very small. Women typically stay longer in each job as compared to men, which also delays their promotion (Kelkar et al., 2002, p77). The authors thus conclude that women's childcare and household responsibilities have

not reduced, despite the fact that the total time available for domestic commitments has declined due to the availability of paid work (see also Shanker, 2008).

Examining men's interfirm mobility in the Indian IT industry in Bangalore, Upadhya & Vasavi (2006) suggest that while job mobility- often linked with age- is higher in the beginning of career, it declines gradually. Sørensen (1979) suggests that job mobility declines with age because the opportunities for even better jobs fall as the level of attainment already achieved increases. Upadhya & Vasavi (2006) show that 39 percent of the men had worked in one firm, 33 percent had worked in two firms, and only 16 percent had worked in four or five firms. The average time the participants spent in their current firm was 3.5 years. The authors argue that in contrast to traditional employee-employer relations, which are often found in the public sector, the contemporary IT industry has developed a culture in which a job change every two to three years is considered necessary in order to climb the corporate ladder and to achieve personal growth.

Changing firms is highly common amongst workers located at the lower levels the organizations (Petersen & Spilerman, 1990). Previous studies have shown the concentration of women at entry level jobs in the IT-ITES sector (Gothoskar, 2000; Kelkar et al., 2002; McMillin, 2006; Ng & Mitter, 2005; Singh & Pandey, 2005; Tara & Ilavarasan, 2009). For example, Singh and Pandey (2005) show that the majority of the women in call-centers are concentrated at the lower and middle levels, primarily working as junior and senior customer care executives, while men often move upwards. The study noted that a large number of women employees had not attained any promotion, having quit their jobs due to marriage and household responsibilities by the time they were likely to be promoted (Singh & Pandey, 2005).

Kelkar et al. (2002) also show that, in the core IT segment, more women are working at the lower levels as technology managers than at the higher levels. However, entry level jobs are

seen as a stepping stone to a desirable career (Clark & Sekher, 2007; Gothoskar, 2000; McMillin, 2006; Ng & Mitter, 2005; Singh & Pandey, 2005; Tara & Ilavarasan, 2009). Women intend to change firms after gaining some initial work experience.

Gender differences in the promotion are briefly discussed in previous research (Kelkar et al., 2002; Singh & Pandey, 2005). However, the effect of promotion on interfirm mobility remains unexplored. Petersen & Spilerman (1990) suggest that promotion indicates the structure of opportunity in a firm, as the decision to promote, and the structuring of career ladder and advancement rules are made by the firm. Within such opportunity structure in a firm, employees can remain with the current employer, earn the salary and wait for future promotion prospects; otherwise, they can leave the company for employment somewhere else. Workers weigh the cost and benefits of leaving the current firm against the expected rewards. If they find promotion unachievable in the current firm, they are more likely to change the employer (Petersen & Spilerman, 1990). This paper explores the extent to which promotion is related to interfirm mobility rates.

Theoretical framework

Interfirm mobility is defined as moving from one job at one employer to another job at another employer (Farber, 1994; Hachen, 1990; Petersen & Spilerman, 1990; Sicherman & Galor, 1990). Previous research on both interfirm and intrafirm (moving from lower to higher position within the firm) mobility has been largely conducted for workers in industrialized countries (see Burchell, 1993; Farber, 1994, 1999; Hachen, 1990; Petersen & Spilerman, 1990; Rosenfeld, 1992; Sicherman & Galor, 1990).

Pioneering the field, Aage Bottger Sørensen suggests that job mobility is aimed at status and income attainment (Sørensen, 1975, 1977, 1979). Individuals seek to maximize status and income rewards through job mobility (Hachen, 1990; Petersen & Spilerman, 1990). The status

rewards include promotion or the attainment of a prestigious position and upward occupational mobility. The income rewards include higher wages and monetary benefits, such as a bonus, gift vouchers or performance related perks with monetary value.

Both status and income rewards depend upon the time individuals spend in a firm, their educational attainment level, age and on-the-job training (Sicherman & Galor, 1990). If an individual does not attain the expected rewards in an expected time period, she or he is more likely to leave the firm and move to the next employer (Farber, 1994; Hachen, 1990; Petersen & Spilerman, 1990; Sicherman & Galor, 1990). Sicherman and Galor (1990: p185) suggest that

'…When a career that an employee considers his or her best choice cannot be realized in one firm (and the loss of firm specific human capital is taken into account), quitting that firm will be part of the optimal career path. The choice of an optimal timing of leaving a firm is aimed at maximizing the expected lifetime earnings' as job rewards are more related to interfirm moves than intrafirm moves (see also Hachen, 1990).

Several models that include characteristics at the individual, firm and sectoral levels have emerged to explain both intrafirm and interfirm mobility (see Carroll & Mayer, 1986; Farber, 1994; Hachen, 1990; Horny, Mendes, & van den Berg, 2009; Petersen & Spilerman, 1990; Rosenfeld, 1992; Sicherman & Galor, 1990). Individual-level explanations suggest differences amongst workers in terms of the probability of their leaving a job—workers characteristics such as education, tenure and past labor force history up to the start of their current job being of influence (Farber, 1994).

Firm-level characteristics, such as working conditions (García-serrano, 2004), working time and sectoral differences also contribute to the explanation of job mobility. In this paper, the individual-level characteristics are the highest educational degree, age at entry into job, wages

and monetary benefits, migrant status, marriage and children. Firm level characteristics include rotating shifts, job position in the firm hierarchy, promotion and good working conditions. At the sector-level, the paper distinguishes between the IT-ITES sector and other sectors.

Data and methods

This paper employs retrospective work-family survey data. The survey was designed online using Unipark software, and was deployed both online and face-to-face (f2f) amongst married women in the IT-ITES firms in New Delhi and the National Capital Region (NCR) from November 2011 to February 2012. The National Capital Region includes places such as Gurgaon, Noida and Faridabad. Only a few firms agreed to deploy the online survey; due to this limitation, the majority of the women were recruited face-to-face. In total 302 responses were received, 96 of which were obtained online and 206 through the face-to-face survey.

The final sample size consisted of 295 married women. Using convenient and snowball sampling, women were approached individually at their workplace premises. Women from small, medium and large IT-ITES firms, as well as from domestic and multinational firms, were recruited. Due to non-probability sampling, the findings of this study are limited to the sampled women only. The paper does not claim the generalizability of the findings; however, important arguments can be drawn from the study which then could be used as hypotheses for the future research.

The survey included women's work history from their first (since finishing bachelor's degree) to their sixth job. The precise beginning and ending month and year of each job was recorded. The survey also recorded the main reason for leaving each job. Other firm related items included sector, rotating shifts, job position and several items on the working conditions. The respondents also provided demographic information, such as the year of their birth and

marriage, the number of children they had, the children's birthdates, the size of their household, and their migration status.

Despite several advantages, the survey data had two main limitations. First, it did not include single women, due to which the effect of marriage on women's interfirm mobility decision cannot be clearly ascertained. Second, the survey did not include firm-related items such as promotion, higher wages and working conditions for the first job. These questions were asked only from the second job onwards as a means of comparison with the previous job. Consequently, the analysis of the first interfirm mobility is limited.

The data contained missing values in a few variables, which were imputed using Multiple Imputation by Chained Equation (MICE)[1] method. The assumption of missing at random (MAR) was followed (Allison, 2002; Social Sciences Computing Cooperative Knowledge Base, 2014).

Statistical analysis technique, dependent and independent variables

First two job changes are analyzed due to the fact that the majority of women enter the labor market when they are unmarried. Even those who get married during their first job do not usually become mothers whilst in that job. Women enter into marriage and motherhood gradually, this time overlapping with time spent in the labor market. Thus, job changes and family processes are simultaneous, not sequential processes. In order to examine the effect of family events on firm changes, we needed to analyze the years women spent in the labor market during which job changes could have occurred. First two jobs supported this criterion. Whilst interfirm mobility declines from the third job onwards, fewer job change events and the skewed

[1] The idea behind multiple imputation is that it allows the use of information in observations containing missing values. It can lead to a smaller confidence interval, as well as greater ability to reject a null hypothesis.

distribution of independent variables did not facilitate a regression analysis of three or more interfirm mobility.

It should also be noted that while examining the effect of children on women's interfirm mobility decision, the study considers the motherhood status and takes into account the effect of first childbirth. This is because 88% of the mothers in the sample had one child. In addition, having second child does not eliminate the negative effect of first child in terms of their care responsibilities to the mothers. While all children were very young, the mean age of first child was 3.89 years at the time of interview.

All women were working at the time of the survey. Those women who might have spent a brief period without a job after marriage or childbirth eventually returned to work. The dependent variable is total duration spent in the first and second job. Those women who leave first firm move to the second and those women who leave second firm move to the third firm. Women change job twice. Women are right censored if they continued working in their first and second job at the time of survey (see Blossfeld, Golsch, & Rohwer, 2007).

The paper employs the Piecewise Constant Exponential (PCE) technique of event history analysis. The technique is the extension of the basic exponential transition rate model (Blossfeld et al., 2007). In PCE technique, the process under study is assumed to be time-dependent. In this paper, job change is a function of the time spent in that job, while time spent is the function of the covariates. Thus, the matter of interest is what factors determine how long women stay in a job. The basic idea of the PCE technique is to split the time axis into sub-time periods (time-intervals) and to assume that transition rates are constant *within* the intervals, but can change *between* the intervals (Blossfeld et al., 2007).

The transition rates are negatively related to the duration spent in that state (see Blossfeld et al., 2007; Petersen & Spilerman, 1990). In this paper, interfirm mobility rates are negatively

related to the duration spent in that particular job. In other words, the longer the stay in a job, the lower is the mobility rate indicated by negative sign; conversely, the shorter the stay in a job, the higher is the mobility rate indicated by positive sign (see Table 2 and Table 3). The independent variables and their coding schemes are provided in Table 1.

[Insert Table 1 here]

Descriptive results

The findings show that, in the early career period, the majority of the women surveyed, 80 percent (236) changed their first job and 58 percent (136) changed their second job, interfirm mobility declining from the third job onwards. Only 30 percent (41) of the women surveyed changed their third job. Women spend almost two and a half years in each job. Almost all the women changed their jobs voluntary. Only occasionally did women report the end of a contract or relocation and mergers as reasons for employer change. The women were asked to provide a reason of leaving a particular job. The descriptive findings show that 47% of the women surveyed reported better career opportunities as a reason of leaving their first job, while 45% of the women reported to leave their second employer for better career opportunities in the next firm.

Figure 1 shows the Kaplan-Meier survival estimate of first job change. It demonstrates that 50 percent of the women changed their first job within the first 25 months, whilst the remaining 50 percent remained at their first workplace. Whilst 75 percent of the women stayed in their first job for at least 18-19 months, 25 percent change within this time period. The Kaplan-Meier survival estimate for the second job change is shown in Figure 2. It shows that 50 percent of the women surveyed changed their second firm within the first 26-28 months of employment, the other 50 percent spending over 26-28 months in their second job. Only 25

percent stayed in their second job for approximately 100 months, the remaining 75 percent had changed by this time.

[Insert Figure 1 here]

[Insert Figure 2 here]

The demographic characteristics show that 95 percent of the women surveyed were below the age of 35, whilst the minimum age was 22 years at the time of survey. The findings show that 62 percent of the women belonged to Delhi-NCR, whilst 38 percent belonged to other States of India. Whilst all the women were married at the time of the survey, only 37 percent were mothers. Among the mothers, 88 percent had one child and 12 percent had two children. The mean age of women at marriage and at first childbirth was 25.65 years and 27.57 years.

All the women surveyed were at least university graduates. The findings show that 45 percent and 23 percent of the women had the highest degrees in technical/professional disciplines at master's and bachelor's levels[2], whilst 13 percent and 19 percent had attained the highest degrees in non-technical/professional disciplines at master's and bachelor's levels respectively. The findings reveal interesting patterns of higher educational attainment. They show that 59 percent of the women who had attained a technical/professional degree at the master's level had a non-technical/professional degree at the bachelor's level, whilst 36 percent possessed a technical/professional degree at both the bachelor's and master's level. Only 17 percent of the women possess purely non-technical/professional degrees at both the bachelor's and master's level.

[2] Since all women in the sample were at least university educated, a distinction is made between technical/professional and non-technical/professional educational qualifications at bachelor's and master's levels. The survey specified that technical/educational degrees/diploma consist of qualifications Information Technology, Technology only, Engineering, Computer Application and Business Administration, etc., attained at bachelor's and at master's level. Non-technical/professional degrees included degrees in the Arts, Commerce and Science, etc., at bachelor's and at master's level.

The job characteristics suggested that 80 percent of the women surveyed were employed in the IT-ITES sector and 20 percent in other sectors in their first job whilst, 84 percent of the women were employed in the IT-ITES sector and 16 percent in other sectors in their second job. The work timings suggest that 71 percent of women were working in a fixed shift and the remaining 29 percent in rotating shifts in their first firm. In their second firm, 75 percent reported working in a fixed shift and 25 percent in rotating shifts.

The study finds that the majority of women were working at entry level(s) in their first job, but job position improved with changes in employers. On average, the women were located at level 2.00 and 2.49 on a five point scale from low (1) to high (5) in their first and second jobs. However, the majority of the women eventually become concentrated at the middle level. The fact that very few reached a higher job level suggests a pattern of slow career progressions. Whilst the women benefited from job changes in terms of attaining higher income and status rewards, the actual gains received thereof could not be derived from the available data. The findings show that 87 percent of the women received higher wages, whilst 67 percent received a higher position in their second firm, while 78 percent received higher position and 87 percent received higher wages in third firm.

Regression results

The regression results of first and second interfirm mobility are given in Table 2 and Table 3. The findings suggest that education, regardless of both the type and level of qualification has negative effect on women's mobility rates from the first to second firm (Model 1-5 in Table 2), whilst it augments mobility from the second to the third firm (Model 1-6 in Table 3). The effects of education remain strongly negative and significant for women with technical/professional degrees at bachelor's level (Model 4 in Table 2). In contrast, the effect is strongly positive and significant for women with technical/professional degrees at master's

level and non-technical/professional degrees at bachelor's level (Model 1-5 in Table 3). Migrant status had no significant influence on the women's interfirm mobility decisions (Table 2 and 3).

[Insert Table 2]

[Insert Table 3]

The age at which women entered their first job did not significantly affect their decision to change employer (Table 2); whilst as long as organizational factors were not added in the model, it had a significant effect on second interfirm mobility rates. As soon as they are added, age loses its significance (Model 4 in Table 3). Higher wages and monetary benefits do not significantly affect women's second interfirm mobility rates (Table 3).

Entry into marriage and motherhood did not significantly affect the women's first job change decision (Table 2). However, children significantly declined mobility rates from the second firm (Table 3). The women stayed longer in their second job if they become mothers. The women also stayed significantly longer in the IT-ITES sector (Model 5 in Table 3), the good working conditions in this sector allowing them to spend more time in second firm (Model 6 in Table 3).

The lower levels of job position significantly increase women's interfirm mobility rates (Table 2 and Table 3). If women work at level one and level two (i.e., entry levels), they are more likely to change employers. Despite attaining promotions, the women were significantly more likely to move to the next firm. Rotating shifts did not significantly influence women's decision to change their first job. However, it significantly declined mobility rates from the second to third job (Model 5 in Table 3). Married women working in rotating shifts significantly stayed longer in their first job. However, rotating shifts did not significantly affect married women's mobility from their second to third job.

Discussion

This paper analyzed the determinants of interfirm mobility of young women in their early career period. It particularly focused on exploring the effects of marriage and first childbirth on women's interfirm mobility decision. The findings show that individual level factors such as education and children and the firm level factors such as rotating shifts, the IT-ITES sector, job position, promotion and good working conditions significantly influence the interfirm mobility decision of women surveyed.

The women surveyed stayed significantly longer in the IT-ITES sector than other sectors. Easy entry, higher wages, good working conditions, opportunities for career advancement and gaining foreign work experience contribute to its popularity amongst young workers. In the IT-ITES sector, women find significantly better career prospects, favorable working times, a less stressful job and cooperation between colleagues and seniors, all of which cumulatively makes for good working conditions. Moreover, both the shortage of decent white-collar jobs in the unorganized sector and the male-dominated, strongly competitive nature of public sector jobs also add to the popularity of the IT-ITES sector among young educated women.

The ability of the ITES sector to employ people with a non-technical educational background has been acknowledged as its most remarkable attribute (Basant & Rani, 2004). While supporting the previous research, this study finds that 13 percent of the women surveyed were educated in purely non-technical disciplines at master's level, 19 percent possessed non-technical degrees at bachelor's level and 17 percent had attained the highest degrees in purely non-technical/professional disciplines at both bachelor's and master's level. Moreover, the regression findings show following two unique trends.

First, women with technical/professional degrees at master's level and women with non-technical/professional degrees at bachelor's level were analogous in terms of their interfirm

mobility decisions. They stayed for a significantly shorter period in their second job and had higher mobility rates. Second, women with technical/professional degrees at bachelor's level demonstrated different interfirm mobility behavior. They stayed significantly longer in their first firm and had lower mobility rates. Two assumptions are made to explain these effects.

Firstly, women with technical/professional degrees at bachelor's level in the sample are expected to be trained in technology, IT or engineering related disciplines in order to work as technologists, IT professionals or software engineers in the IT sector. Secondly, the majority of women with technical/professional degrees at master's level are expected to possess either computer related degrees or professional degrees in management that enhances post bachelor's degree career prospects (see Chanana, 2007). A non-technical/professional degree at bachelor's level is insufficient to provide the expected level of rewards in the IT-ITES sector—a sector in which IT degrees and professional qualification such as Human Resource Management are highly valued.

The descriptive findings support this argument. They show that 59 percent of the women who possessed a master's degree in a technical/professional discipline had attained a non-technical/professional degree at bachelor's level, in comparison to the 36 percent of the women who possessed technical/professional degrees at both the bachelor's and master's level. Thus, there is a higher percentage (59 percent) of women went for technical/professional degrees at the postgraduate level despite their bachelor's degree being in a non-technical/professional discipline.

The differences in interfirm mobility behavior between the two groups of women could be attributed to the different career-growth trajectories and the levels of education-job (mis)match. Technologists possess technical skills gained through education and utilize them directly at work in the IT sector. Technologists are also highly valued in the IT sector as the industry is

primarily driven by the export of software services (Basant & Rani, 2004; Upadhya & Vasavi, 2006). In addition, IT professionals work on different projects that keep enhancing their skills and knowledge, consequently endowing them with a work-specific human capital.

In other words, IT jobs offer the opportunity to perform diversified tasks, support the enhancement of skills and provide the opportunity of gaining foreign work experience. Accumulating work-specific human capital, however, takes time, which in turns demands a longer stay in a firm. Individuals are expected to stay in a firm for a minimum of three to four years (see Upadhya & Vasavi, 2006). Moreover, technologists are paid much higher than non-technical workers. Thus, a better match between their job and educational level, as well as the higher attainment level in the beginning of the career of technical workers contributes to their longer duration in a firm.

In contrast, the career advancement of the non-technical workers in the sample (primarily those with non-technical/professional degrees at bachelor's level and professional/technical degrees at postgraduate level) who are most likely work in the ITES (see Clark & Sekher, 2007; Gothoskar, 2000; McMillin, 2006; Ramesh, 2004) does not depend on their earning a work-specific human capital. Rather, it is their general work experience that matters.

Non-technical workers neither perform specialized technical tasks, nor do they possess higher-level technical skills. Rather, they carry out routine tasks in the ITES, including back office operations, call center tasks, data entry, customer interaction, insurance claims processing, medical transcription, database management, digital content and online education related tasks (Kelkar et al., 2002; also see Gothoskar, 2000; McMillin, 2006; Ramesh, 2004; Upadhya & Vasavi, 2006). Excepting the use of English language skills, basic levels of computer skills, and mathematics, there is a lesser need for the direct application of their academic qualification when working in the ITES (see Clark & Sekher, 2007; Gothoskar, 2000; McMillin, 2006).

Moreover, work is largely repetitive and monotonous; it induces an education-job mismatch, i.e., a discrepancy between employees' level of education and the work performed in the ITES and, thus, leads to faster job change.

At the same time, initial job(s) do not offer the expected level of rewards. Non-technical workers surveyed therefore are more likely to switch employers in order to find a job that provides a better job-education match, as well as one that offers opportunities for learning and skill enhancement. It will, however, be relevant in the future to document individual's specific degrees, club them according to their disciplines and find out their effects on labor market outcomes.

Interfirm mobility is also influenced by work timings. Time flexibility is often considered a positive workplace arrangement, enabling women workers to balance the requirements of both work and family. However, rotating shifts are seen as incompatible with post-marriage family life (McMillin, 2006; Singh & Pandey, 2005) and childbirth. The present findings show mixed effects (Model 5 in Table 2 and 3). They must be seen over a time period and parallel to the family processes that progress alongside women's working lives. The majority of the women surveyed enter the labor market when they are unmarried. Rotating shifts (including night shifts) do not pose any conflict for single women as they often receive full parental support (Singh & Pandey, 2005; Tara & Ilavarasan, 2009).

However, post marriage and childbirth, rotating shifts pose a greater challenge as they bring uncertain working hours which are often in conflict with women's family roles. Thus, it could be that either it takes longer for women to find their next job (one with preferred working hours), or women voluntarily stay in jobs longer in order to adapt to new family roles. The descriptive findings suggest that women surveyed prefer to work in fixed shifts, allowing them to work standard hours. This implies that it certainly takes longer for women to find next

company that could offer desirable working times. The findings show that 70 percent (23) of the women who worked in rotating shifts in their second firm moved to a fixed shift in their third organization.

Rotating shifts were also interacted with marital status in order to find the effect of rotating shifts on interfirm mobility for married women (Model 5 in Table 2 and Model 6 in Table 3). The effect was significant in the first job, whilst it was insignificant in the second job. The mixed effects suggest three possibilities. First, there may have been a few women in the sample who were married and had worked in rotating shifts. Hence, the few observations lead to statistically insignificant results. Second, this could have resulted from the time the women spent finding jobs that offered desirable working hours. The Indian IT-ITES sector is heavily dependent on developed countries in which employees are expected to work in rotating shifts to serve their clients located in different time zones across the world. But to find a company with standard-hours shift is a challenge and demands an extensive job search. Third, the married women stayed voluntary to adjust to new family roles. The descriptive findings however support the second explanation which shows women's preference for the fixed shifts. The findings show that 48 percent (32) of the women who worked in rotating shifts in their first organization moved to a fixed shift job in their second firm, while 52 percent (35) of the women continued working in rotating shifts in their second job.

Although individuals seek to advance their careers through promotion, ultimately it is firms that decide such matters. The present study finds interesting results in this regard. Women who received a promotion in their second firm were significantly more likely to change their employer as compared to those who did not get a promotion. This effect may be attributed to the time at which the promotion was received. We do not know when the women received their promotions. It could be that they earned it at the time they joined their second firm, or after a specific period of time. In both the cases, the women surveyed stayed at firms longer after

attaining a higher position. The women were also aware that it could take longer to get their next promotion due to the opportunity structures and promotion prospects of their firm (Petersen & Spilerman, 1990).

Women were also aware that they had better possible opportunities (offering the expected rewards in the expected time period) outside their current firm. The women weighed the costs and benefits of staying and leaving their firm; however, the expected value of leaving the firm was higher than staying. The descriptive findings also show that 81 percent of those women who attain a higher position in their second firm also receive a higher position in their third job, while 69 percent of the women who did not receive a higher position in their second firm received it in their third firm. The findings therefore confirm that interfirm mobility leads to career advancement.

The maximization tendency through interfirm mobility is further confirmed by the significant strong positive effect of lower levels of job position. The findings show that women surveyed change employers to improve their position in their next firm. The women located at entry levels (i.e., at level one and level two) were significantly more likely to change employers. Petersen & Spilerman (1990) suggest that individuals are more likely to move out from the lower level job positions where promotion prospects are poor.

If women do not get the opportunity to move upward in their organization, and if their job position does not improve in an expected time period, they are more likely to change employers. The descriptive findings also support the regression results in this regard. The results show that mean value of women's job position in the first firm was 2.0 on a five-point scale from low (1) to high (5), which improved to 2.49 in the second firm. However, the women were not able to upgrade their position after reaching the middle level. Despite two interfirm moves, the majority of the women remained concentrated at the middle level.

Marriage and motherhood are two crucial factors that have limited Indian women's Labor Force Participation (LFP) for the decades. Lower LFP of women continues to be a bigger challenge for India to achieve gender equality. Although employment in the IT-ITES sector has enabled young women to return to, or continue working post marriage and childbirth, women continue to be excessively burdened with both childcare and family responsibilities. While adding into previous research, this study finds that women stay significantly longer in firms if they become mothers (see Kelkar et al., 2002). Children significantly slow down women's interfirm mobility.

However, the claim that due to family responsibilities women are unable to change jobs as frequently as men (Kelkar et al., 2002) is not supported by the present study. This is because the interfirm mobility patterns shown by the present study are similar to the interfirm moves of men in the IT industry observed by Upadhya and Vasavi (2006) who show that the majority of the men change one to two jobs, whilst a few individuals change four or more jobs. The present study also finds a similar pattern of interfirm mobility of women where 80 percent of the women changed their first job and 58 percent changed their second job. Most of the women in the sample were working in second and third firms until the study ended. A very few women were found to change three or more employers.

Also, the idea of 'frequency' of job change is a contested one. How many job changes are considered good or bad or how many job changes contribute to career development depends upon the attainment level of individuals in the current firm. As this study shows, women benefit in their career in terms of both status and income attainment by changing employer. How much actual rewards-gain women receive upon changing employer however cannot be derived from the available data. This limitation of the present data should be taken as an opportunity for future research to investigate the extent to which workers benefit in their rewards attainment

in terms of both promotion and increased income in next firms. The frequency of job changes could also be accounted while examining such rewards-gain.

The findings nevertheless show that women surveyed are mobile. Majority of the job changes in the beginning of the career takes place for exploring better career opportunities as indicated by 47% of the women who moved out for better career prospects from first to second firm and 45% of the women who moved out from second to third firm. What is important and consistent is that women with children remain excessively burdened with childcare and family responsibilities, resulting in longer durations in firms, which, in turn, lowers their mobility rates. In other words, it takes longer for mothers to change firms. Adding to this claim, the present findings show that, compared to non-mothers, 47 percent[3] of the mothers find it difficult to combine both work and family, while 55 percent[4] of the mothers often had to take days off due to family responsibilities.

Marriage, however, was not found to significantly influence women's job changing rates. This could be attributed to two factors. First, the effect may be due to the sample selection bias. All the participating women were married at the time of their interviews, due to which the variation between married and unmarried women may have been compromised. Second, this result may reflect a growing flexibility in terms of the conservative norm of keeping women home post marriage (at least amongst the highly educated women in the sample).

Marriage, unlike motherhood, does not necessarily constraint the role of women as workers in the current sample. However, a number of responsibilities are associated with marriage, such as an increase in household responsibilities, caring for elder members of the family, the expected presence of married women at social events, as well as the maintaining links with

[3] Pearson chi2(2) = 11.565, Pr = 0.003
[4] Pearson chi2(2) = 16.7171, Pr = 0.000

their extended family. However, marriage, unlike motherhood, does not change much of the lifestyle of young women. Married women (without children) in the sample are better able than mothers to balance both work and family.

Conclusion

This paper analyzed the determinants of interfirm mobility of young women in their early career period. It particularly focused on exploring the effects of family events such as marriage and first childbirth on women's interfirm mobility decision. Due to the limitations of the data, the study does not claim the generalizability of the findings. They are limited to the women surveyed.

The paper showed that two initial job changes are highly common in the early career stage. Women surveyed spend almost two and a half years in each job. The interfirm mobility patterns of young women shown in this paper closely resemble the interfirm mobility patterns of men in the IT industry shown by Upadhya and Vasavi. The study therefore does not find that women in the sample are less mobile. It however takes longer for women with children to change firms due to childcare responsibilities and the extensive search needed to finding a company with standard working hours. Excessive family responsibilities also make it difficult for mothers to balance both work and family, due to which they often take days off from work.

This study concludes that women surveyed advance their careers by maximizing status and income rewards through interfirm mobility. It is one of the strategies of career development for them. The data, however, cannot demonstrate the exact rewards-gain women receive upon changing employers. Interfirm mobility certainly enables women to move out of the lowest position, but it does not help those at the middle level. Despite changing firms, the majority of the women surveyed eventually become concentrated in middle level positions. Whilst women in the sample are mobile, the interfirm mobility of women with children is slow due to

excessive childcare responsibilities, which also increase their working duration in firms. In order to further understand women's career development as well as gender differences in career development, this paper suggests future research to explore the extent to which women and men workers benefit in rewards-gain such as promotion and income upon changing employer. The future research may also benefit from taking into account the frequency of job change and building upon the limitations of this and other studies that were limited in including diverse groups such as single women and men workers. The future study could also be enriched by drawing samples from other sectors.

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Table 1 List of independent variables and coding scheme

Variable	Description
Highest education	Highest level of degree attained. Recoded 1for technical/professional degrees at master level; 2 for non-technical/professional degrees at master level (ref. category); 3 for non-technical/professional degrees at bachelor level; 4 for technical/professional degrees at bachelor level
Migrant status	Recoded 1 if women belong to other States of India, otherwise 0
Age at entry into job	Age is calculated at the beginning of each job
Wages and monetary benefits	Recoded 1 if women receive higher wages and monetary benefits, otherwise 0
Married	Time varying covariate measured at the beginning of each job. Recoded 1 if woman is already married at the beginning of the job. Recoded 0 if women marry after job ends or if women were not married either during the job or before beginning a job
Children	Time varying covariate measured at the beginning of each job. Recoded 1 if a woman is already a mother at the beginning of the job. Recoded 0 if women become mothers after job ends and if women do not become mothers either during the job or before beginning a job
Rotating shifts	Recoded 1 if women work in rotating shifts and 0 for fixed shift
IT-ITES sector	Recoded 1 for IT-ITES sector; 0 for other sectors
Job position in the firm hierarchy	Originally measured on a five point scale. Level 1 indicates lowest position and level 5 indicates highest position in the organizational hierarchy
Promotion	Originally measured on a five point scale from strongly agree (1) to strongly disagree (5). The survey asks '*you got higher position'.* Recoded 1 if women received higher position, otherwise 0
Good working conditions	A new variable on a five point scale from (1) low to (5) high is generated by merging four indicators measured on a five point scale from strongly agree (1) to strongly disagree (5). The four indicators are- if a woman finds her job less stressful, if she works in her favourable working time, if she perceives her job as providing career opportunities and if she receives cooperation from colleagues and seniors.

Table 2 Regression analysis: Mobility from first firm

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
	Individual factors			Firm factors	
Highest education (ref: Master non-technical degree)					
Master technical/professional	-.331* (.202)	-.350* (.202)	-.355* (.202)	-.319 (.202)	-.283 (.202)
Bachelor non-technical/professional	-.194 (.238)	-.204 (.238)	-.197 (.238)	-.349 (.240)	-.341 (.240)
Bachelor technical/professional	-.496** (.228)	-.504** (.228)	-.506** (.228)	-.406* (.230)	-.398* (.229)
Migrant status (ref: Delhi-NCR)	-.078 (.140)	-.075 (.140)	-.082 (.140)	-.103 (.142)	-.111 (.143)
Age at entry into first job	.001 (.002)	.002 (.002)	.003 (.003)	.002 (.003)	.002 (.003)
Married		-.236 (.175)	-.203 (.182)	-.144 (.184)	.075 (.199)
Children			-.187 (.321)	-.343 (.324)	-.425 (.326)
Rotating shifts (ref: fixed shift)				.036 (.151)	.248 (.169)
IT-ITES sector (ref: other sector)				-.775*** (.164)	-.804*** (.165)
Job position in organisation (ref: Level 3)					
1 (lowest)				.637*** (.178)	.628*** (.178)
2				.402** (.187)	.426** (.188)
4				.145 (.415)	.144 (.414)
5 (highest)				.591 (.734)	.677 (.735)
Marriage X flexible shifts					-.996** (.405)
Observation	1077	1077	1077	1077	1077

Standard errors in parentheses, *** $p < 0.001$, ** $p < 0.05$, * $p < 0.10$

Table 3 Regression analysis: Mobility from second firm

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Individual factors			Firm factors		
Highest education (ref: Master non-technical degree)						
Master technical/professional	.793** (.294)	.793** (.294)	.808** (.294)	.702** (.301)	.490* (.303)	.513* (.302)
Bachelor non-technical/professional	.645** (.326)	.645** (.326)	.671** (.327)	.787** (.342)	.618* (.340)	.633* (.342)
Bachelor technical/professional	.227 (.344)	.228 (.345)	.245 (.345)	.424 (.353)	.226 (.356)	.218 (.356)
Migrant status (ref: Delhi-NCR)	-.054 (.187)	-.056 (.189)	-.056 (.189)	-.038 (.193)	.077 (.194)	.113 (.196)
Age at entry into first job	-0.007** (0.003)	-0.007** (0.003)	-.006* (.003)	-.004 (.003)	-.005 (.003)	-.007* (.003)
Wages & monetary benefits	.142 (.277)	.142 (.277)	.150 (.277)	.243 (.280)	.199 (.287)	.220 (.288)
Married		-.014 (.194)	.043 (.200)	.053 (.205)	.177 (.211)	.132 (.241)
Children			-.303 (.300)	-.525* (.308)	-0.677** (0.31)	-.629** (.312)
Rotating shifts (ref: fixed shift)				-.321 (.223)	-.381* (.224)	.851 (1.171)
IT-ITES sector (ref: other sector)				-1.093*** (.209)	-1.177*** (.211)	-.618** (.305)
Job position in organisation (ref: Level 3)						
1 (lowest)				1.194*** (.317)	1.634*** (.352)	1.718*** (.359)
2				.517** (.210)	.535** (.210)	.564** (.211)
4				.079 (.328)	.045 (.329)	.089 (.329)
5 (highest)				-.923 (1.017)	-1.083 (1.017)	-1.208 (1.019)
Promotion					.780** (.250)	.739** (.247)
Good working conditions					-0.27** (0.134)	.177 (.296)
Married X flexible shifts						.440 (.416)
IT-ITES sector X working conditions						-.577* (.323)
Observation	851	851	851	851	851	851

Standard errors in parentheses, *** $p < 0.001$, ** $p < 0.05$, * $p < 0.10$