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Non-Monetary Solutions for Retaining the IT Workforce

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ABSTRACT
Retaining their employees and reducing costs were identified as top issues for IT executives nowadays however the actual situation in companies is a lot different. Employed IT workers see better chances for advancement on external job markets than in their own company and are little satisfied with their career opportunities and expectations. IT employers need to solve this urgent issue as a global IT talent shortage massively threatens the IT labor supply. Based on an extensive review of literature we come out with a framework of five non-monetary solutions for retaining the IT workforce, non-monetary due to the current global financial crisis. These non-monetary solutions are career development, community building, lifestyle accommodation, work experience and security. Each solution is presented in detail containing differentiated forms of composure.

Keywords
Retention, IT Workforce, Non-Monetary Solution, Talent Shortage

INTRODUCTION
According to the recent 2007 survey sponsored by the Society for Information Management, “attracting, developing and retaining IT professionals” is the number one concern for managers in the IT industry (Luftman and Kempaiah 2008). This is not surprising when one observes the statistics concerning the considerable gap between demand and supply in the IT labor market. Between 2006 and 2012, twenty five percent of all new jobs are projected to be IT related, according to the Bureau of Labor Statistics (Luftman and Kempaiah 2007). They also forecast that between the time period of 2000 to 2010, ‘Computer and Data Processing Services’ will be the industry showing the fastest wage and salary employment growth, and two of the top ten occupations with the largest job growth will be IT-related (Bureau of Labor Statistics, 2007). However the IT bubble of 2000 and fear of outsourcing in the IT industry have discouraged young people in pursuing a career in IT, which has led to a shortage of IT professionals (Luftman and Kempaiah 2007). As the stagnating supply of IT professionals fails to keep up with the booming IT industry, a shortage of 6 million IT jobs is expected in the U.S. IT labor market by 2015 (Luftman and Kempaiah 2007). Furthermore Luftman and Kempaiah (2008) identified the business growth, replacement of employees who have left, customer support, ERP installations and regulatory compliance as the top drivers for hiring IT professionals.

This indicates that the ongoing issue of talent shortage due to demographical reasons (Frank et al. 2004) is additionally enforced by a heavy turnover problem. An average turnover rate of 25% for the IT industry has already been prognosticated in April 2006. Summing up companies need to hire the same number of employees over a four year period that were on the payroll in year one in order to maintain the workforce (Scorce 2008). Turnover remains no longer as regional phenomenon since companies in outsourcing countries as China or India are also threatened by a shrinking employee potential due to high fluctuation rates (Farrell and Grant 2005, Acharya and Mahanty 2008). Interestingly recent investigations observed not only a particular high salary convinces IT employees in outsourcing countries to stay with their current employer but also challenging work tasks or opportunities for skill and career development (Lacity et al. 2008, Acharya and Mahanty 2008). The high level of turnover in the IT industry can also be explained by IT workers’ highly transferable skills (Gill and Pidduck 2001) as well as lacking retention practices for IT employees in IT and non-IT corporations worldwide (Eckhardt and Laumer 2009).

At the same time economies worldwide have entered an era of recession according to the global financial crisis. Even though the IT job market proofed to be crisis resistant in the past (Panko 2008) cost cutting for recruiting and retaining of IT professionals has become a must. No wonder that “Reduce the cost of doing business” has been listed as new entrant as
fourth most important issue overall in the top-10 list of concerns for IT executives (Luftman and Kempaiah 2008). Rethinking that retaining IT professionals was identified as number one issue within the same survey (Luftman and Kempaiah 2008) the need to develop effective cost-saving measures to retain IT professionals is essential for both research and practice. Therefore our paper aims to examine such retention practices and develop a framework containing non-monetary solutions to retain the IT workforce. Although compensation and salary is a major factor for employees’ decision to remain with their current employer, this paper wishes to analyze less costly alternatives to expensive pay increases. The introduced framework will be built on an extensive review of IT staff retention and turnover literature as well as the results of an empirical study we conducted questioning IT employees regarding their general job satisfaction, career opportunities and expectations.

To ensure the logic flow of our approach we structured the paper as follows: the subsequent section will explain why retention is such a major issue for IT firms. A quick overview of previous research relevant to non-monetary retention is provided afterwards. The next section presents the results of an empirical survey with 728 IT workers employed in major US and European companies observing their general expectations and satisfaction. The following section describes the underlying non-monetary solutions of our framework based on existing literature. It also contains a detailed examination regarding the effectiveness. We conclude the paper and provide the framework in the final section.

THEORETICAL BACKGROUND

The following subsections describe the theoretical background of our research and outline the importance of the overall topic. Potential costs of turnover as well as the snowball effect force research and practice to develop effective retention measures they are described in detail in the subsections below. Previous research on non-monetary retention practices are summarized afterwards.

The cost of employee turnover: Why is retention essential?

Staffing costs take up about fifty-two percent of an IT budget, which clearly explains why recruiting and retaining IT professionals is a crucial issue for senior management (Luftman and Kempaiah, 2007). Bringing staffing costs in control through effective retention could result in substantial cost cuts and overall increased profitability for the firm. Employee turnover incurs both direct and indirect costs and may even cause a ‘snowball effect’, which will have a significant negative impact for the organization. The different types of cost as well as the snowball effect are presented within this subsection.

Direct costs

In the case of turnover, the vacant positions must be backed up by recruitment. Based on our earlier examination of the IT labor market it is clear that recruiting will be not only challenging but also expensive. Initial recruiting costs include employment advertising, interviews, screening, recruiter’s salary, etc. (von Stetten et al. 2008). These costs are followed by training and orientation costs in later stages. The remaining staff fulfilling the work of the leaving IT workers has to be paid for their overtime work (Scorce 2008).

Indirect costs

The direct costs indicated above represent just a part of the overall cost. Indirect costs also occur and may be even higher although they may be difficult to quantify. Projects will be delayed due to turnover and job errors may occur and eventually lead to customer dissatisfaction (Scorce 2008). Morale and reputation can be reduced and ultimately lead to lost sales (Scorce 2008). Further customers may be lost due to the inexperienced replacement workers, lowered quality of work due to overworked personnel and even poaching by leaving employees (Scorce 2008). In addition to the occurrence of direct costs and indirect costs companies may be threatened by a snowball effect.

Snowball effect

The snowball effect illustrates how the departure of one employee could lead to other employees following suit resulting in mass turnover (Moore and Burke 2002). The departure of employees might result in increased workload for remaining workers and potential burnouts (Moore and Burke 2002). The overall morale is reduced as remaining employees get to experience only the positive consequences of transferring to another job (Moore and Burke 2002). In determining the extent of a snowball effect the firm’s turnover culture is decisive. As individuals become more emotionally attached to their organization they become more compliant to the ethics and norms of their employer (Moore and Burke 2002). Communication and information flow form turnover culture like a process of social contagion (Moore and Burke 2002). A high turnover culture resulting from the high transferability of job skills and insufficient retention practices may have devastating effects on company’s daily business (Moore and Burke 2002).
Previous research on non-monetary retention practices

Agarwal et al. developed five retention profiles and categorized them according to their emphasis on work environment and career development, community building, monetary incentives and employment incentives (Agarwal et al. 2006). The ‘Human Capital-Focused Profile’ showed the lowest turnover rate of 10.3%. This represents a clearly understandable issue as companies heavily invested in all criteria and viewed human resources as long-term investments (Agarwal et al. 2006). However a noticeable fact coming from this study is that the ‘Secured Profile’ showed the second lowest turnover rate. The ‘Secured Profile’ boasted a 12.1% retention rate despite having the lowest emphasis on monetary incentives out of the five profiles. This was mainly achieved by employment incentives such as the promise of long-term employment (Agarwal et al. 2006). Another interesting result was how the ‘Utilitarian Profile’ fared worse than the ‘Task Focused Profile’, although employers invested more in retention practices, especially monetary incentives. Although monetary incentives are obviously positive correlated to lower turnover one can derive from the results above that monetary incentives may not play such an important role in employee turnover intention as one would imagine (Agarwal et al. 2006).

Technicians are typically well compensated in comparison to their non-technical peers and therefore find motivation to work due to other factors such as the opportunity to work with a leading technology (Score 2008). This fact also supports the idea that monetary methods of retention involving increase in salary and bonuses maybe not as effective as other non-monetary alternatives. To develop such non-monetary solutions it is a necessary precondition to observe the general attitude of the target group regarding their satisfaction and expectations.

IT EMPLOYEES’ CAREER OPPORTUNITIES, SATISFACTION AND EXPECTATIONS

As explained in the previous section it is important to understand IT-employees’ expected career opportunities, satisfaction with their actual working conditions and their expected job profile while discussion turnover and retention issues of the IT workforce. Therefore we will present in this section results of a survey conducted with 728 IT professionals in Western European and US companies. The survey was conducted in July 2008 using an online questionnaire. The questionnaire was available online on university’s website and introduced to IT professionals using an email invitation.

Career Opportunities

Figure 1 illustrates the expected career opportunities as highlighted by the surveyed IT professionals. 38.8 percent expect that there are at least good opportunities on the internal job market of their actual companies to find a job with a better chance for personal development. On the national job market 52.7 percent expect these chances and 51.8 percent for the international job market. These figures demonstrate that IT professionals expect better opportunities on the external job market than on the internal one.

![Figure 1: Expected Career Opportunities](image)

Satisfaction
In addition to the previous section this one is discussing the satisfaction of IT professionals with their actual job and employer. As Figure 2 highlights 83.4 percent of the surveyed IT professionals are satisfied with their colleagues they have to work with, 66.8 percent with their overall labor conditions and 63.9 percent with their superiors. However, only 56.3 percent point out that they are satisfied with their current employer in total and 49.2 percent with the public perception of their employer. Only one third is satisfied with their actual rewards, the exchange of information within the company and the expected career opportunities.

![Figure 2: IT Professional's Job and Employer Satisfaction](image)

**Expectations**

The previous section discussed the actual satisfaction of IT professionals with their current job and employer. In addition this section points out the expectations IT professionals have for their optimal job profile. Figure 3 exemplifies that nine of ten IT professionals would like to have the possibility to bring ideas in, to work with competent colleagues and to have the opportunity for personal development. Changing challenges and working in projects is for more than 80 percent of the surveyed IT professionals important. More than two thirds point out that an optimal job profile includes the possibilities to bring creativity in, to work in teams and annual reward increase. Less important is managerial responsibility and continuous advancement.
As these figures demonstrate monetary characteristics of a job profile is only ranked on the 7th rank. More important for the surveyed IT professionals are non-monetary characteristics of their specific task and their working conditions. In addition, as the previous sections discussed IT professionals are unsatisfied with non-monetary characteristics like the exchange of information within their actual employer. Therefore it is not surprising that IT professionals expect better opportunities on the external than on the internal job market (see Figure 1) and turnover rates of IT professionals are high. Based on these results the following section discusses non-monetary retention practices as measures to improve the actual turnover rate of IT professionals.

**NON-MONETARY RETENTION PRACTICES**

Within this section we build up our framework and describe the related solutions. At first the concept of career development is introduced, followed by the challenging work experience, community building, lifestyle accommodation and security.

**Career development**

The non-monetary solution career development contains of two major measures technical training and leadership. Both are introduced in detail within this subsection.

**Technical training**

IT professionals have a tendency to prefer to work where the ‘action’ is meaning they want to be able to apply their set of skills in their workplace. If this is not the case and they begin to feel that their skill set is becoming rusty and outdated they will start considering a move to an organization where they are given the opportunity to learn and practice new technical techniques (Scorce 2008). Allan Paller, director of education and research at the CIO Institute in Bethesda says regarding this issue, “If their bosses won’t get them the education that they need, they are going to look for someone who will.” IT workers will want training for both their current needs as well as longer range career related requirements (Scorce 2008).

Thus in order to satisfy this thirst for technology, the firm must be able to provide their IT personnel with the appropriate training. Survey results in 2004 showed that higher amounts of training improved retention rates by eighty-seven percent (Scorce 2008). Training not only increases the IT workers’ job satisfaction but also increases the ability of the IT workforce, which can be viewed as an upgrade for a significant asset of the firm. A large manufacturing firm organized a ‘mentor-based competency system’ where employees could identify goals, career choices and required competencies by working with mentors and then go on to identify their specific training needs (Agarwal and Ferratt 2002). But offering training is not the only effective solution, by conducting tuition reimbursement programs and providing computer-based training options, many organizations were able to encourage their employees to participate in trainings (Agarwal and Ferratt 2002).
Leadership

As IT began playing an integrated role in business, IT professionals are no longer viewed as mere technicians, but as essential workers who also should be involved in decision making as decisions are made, not after decisions are made (Roepke 2000). Therefore providing appropriate leadership training and offering career planning opportunities for IT professionals, which enables their advancement and taking of managerial roles, has become an important retention practice (Agarwal et al. 2006). Many firms realize how important leadership and non-technical training is so many efforts have been shown in this area. For example an educational institute sent their IT managers to a Covey Leadership workshop, whereas a cosmetic manufacturer designed leadership programs for IT managers by bringing in a consultant (Agarwal and Ferratt 2002).

An interesting case study of utilizing career development as a retention tool is the case of 3M in the late 1990s. 3M launched the leadership initiative aimed at applying management training and development programmes for IT personnel. This not only helped the employees building their future careers, but also to understand their goals and align them to the corporation’s goals, thus succeeding in building a relationship between the employee and the corporation. Such understanding of goal alignment has led to single digit retention rates as employees developed organizational commitment and loyalty towards the firm. (Agarwal et al. 2006) (Roepke 2000).

Challenging work experience

Unlike the average worker who would be motivated to work hard in order to advance, the typical IT technician is motivated by being involved with a popular or leading edge technology. Being assigned to such a project at an important position would be a major motivation for them (Scorce 2008). The reason for this is because IT workers realize what an important asset their resume is and therefore wish to hold occupations, where they can work with modern and leading technologies (West and Bogulmi 2001). The Information Week Research National Survey (1998) stated that ninety percent of all respondents confirmed that challenge is important to them, which reinforces the idea of how important assigning challenging work is for retaining IT professionals (Gill and Pidduck 2001). Agarwal and her colleagues’ research on executives’ opinion on retention practices ranked the availability of interesting work as highest in terms of importance (Agarwal et al. 2006). Interesting work was also ranked in third position in the survey conducted by the Gartner Group (Gill and Pidduck 2001).

By assigning technically challenging projects whenever possible, turnover can be reduced, as continued assignment of everyday tasks involving stale technology leads to increased turnover. Further suggestions are, enhancing assignments to make them challenging and if necessary creating internal assignments involving leading edge technologies (Scorce 2008). Job rotation is also another effective method, allowing IT staff to experience various jobs and technologies (Agarwal and Ferratt 2002). Allowing employees to partici-pate in different roles and business units in order to develop new skills is strongly recommended (Luftman and Kempaiah 2007). In order to assign challenging work for the in-house IT workers employed by the firm, less challenging routine work, involving inferior skills can be outsourced offshore (Scorce 2008).

However this idea may also approach obstacles, as offshore workers also show strong dissatisfaction with work involving lacking task variety and low skill utilization. The result of a survey on turnover intentions of Indian IT workers proved this and mentioned that salary is not the main reason for workers looking for a new employer (Lacity et al. 2008). Lacity et al. suggest that when routine work occupies the majority of the work being done the Indian IS professionals should be rotated. However this has to done with the promise of a reliable career path and interesting work in the future (Lacity et al. 2008). A challenging work experience was ranked third in Luftman’s top six vehicles for retaining IT staff (Luftman et al. 2006).

Community building

The non-monetary solution community building contains of the two particular measures, communication between managers and employees as well as social activities.

Communication between managers and employees

IT personnel are notorious for being independent in character relative to non-IT personnel. In order to be able to lead such a workforce frequent and clear communication is critically important and a good leader need to be a good communicator who is capable of inspiring and motivating his employees (Scorce 2008). Managers, who communicate, express their appreciation, provide guidance and express commitment to their employees, can significantly impact the overall retention rate (Scorce 2008). As mentioned earlier in this approach communication plays an important role in forming the turnover culture. In an organizational environment where ‘exit’ is seen as a more comfortable alternative to exercising ‘voice’, high turnover rates are unavoidable (Moore and Burke 2002). Not only are costs of turnover incurred, but valuable comments and suggestions from those leaving are lost (Moore and Burke 2002). Without ‘listening’ and addressing the concerns of IT employees further turnover cannot be stopped (Moore and Burke 2002). Even just listening to the IT employees may help to retain workers who feel being ignored (Moore and Burke 2002).
In a survey on Indian IS workers on their turnover intentions, participants expressed reasons for their job satisfaction. Eighty percent of the participants stated that management support is a factor which justifies their feelings towards the organization, making it the most important reason for explaining organizational satisfaction. Supervisor support was also chosen as a decisive factor, being chosen by sixty-four percent of all participants (Lacity et al. 2008). Luftman et al. (2006) highlighted as well that an open and honest communication between employees and managers is the top vehicle for retaining IT staff. Furthermore a good worker-supervisor relationship is another top key for retaining the IT-workforce according to Luftman’s 2005 survey.

CIO Chats and CIO Cafeteria visits is a further effective way of building communication with employees and developing a sense of community, as it provides a good opportunity to socialize with superiors and peers. It also facilitates IT workers’ understanding of how their work fits within the large corporate context (Agarwal and Ferratt 2002).

**Social activities**

Typically IT work is characterized by project orientation, therefore building an espirit de corps is important and can be achieved through various social activities (Agarwal et al. 2006). Social activities also help IT workers suffering under stress and burnout to better balance their professional and personal lives (Agarwal and Ferratt 2002). ‘Going downtown for a party’, ‘having a day off for charity work’, and ‘having brown bag lunches’ are some of the examples being suggested. An insurance company started to build a “Fun in the Workplace” culture through chartering a ‘fun committee’, holding a big Halloween event and organizing picnics (Agarwal et al. 2006). Having a fun work environment, which focuses on “getting the job done but enjoying yourself while you do it” helps to improve employees’ loyalty and retention. “Going with the whole department to the best steak house in, that’s cheaper than paying one headhunter once” (Scorce 2008). 3M has also persevered in this field by conducting several community building efforts. A good example is the IT department’s own publication, which introduces articles on IT activities and their staff (Agarwal et al. 2006).

An important word of caution is that community-building practices have to be sincere and constant or they may cause a boomerang effect by causing skepticism and resentment among employees (Agarwal et al. 2006). Social activities is a basis for trust building among coworkers which is ranked fourth in Luftman’s top vehicles for retaining IT staff (Luftman et al. 2006).

**Lifestyle Accommodation**

Within this subsection the retention measure lifestyle accommodation is discussed, it contains two part-solutions with flexibility and the work-life balance.

**Flexibility**

Telecommuting may be an interesting option for workers who prefer working from home (Scorce 2008). Flexible benefits, flexible time, flexible spending account and having a compressed work week are HR policies which could enhance flexibility in the workplace (Mesmer-Magnus and Viswesvaran 2006). Financial Service Company Capital One is a strong advocate for a flexible work environment. By providing Wi-Fi technology employees are capable of moving around the office. Telecommuting is also allowed (Luftman and Kempaiah 2007).

**Work-Life balance**

Although it has been mentioned before that providing challenging tasks to IT workers is an effective way of retaining workers, overloading workers with work may incur the exact opposite effect. Workers are unhappy with situations where “management places unrealistic and arbitrary goals on us, then refuses to hire anyone to help” (Moore 2000). According to estimations, the average IT professional works 50 hours a week, almost half work an average of six hours on weekends and about seventy percent have experience of working while sick (King 1995). Such stress in the workplace causes IT professionals to consider switching careers (Sethi et al. 2004).

An aspect, which explains why some IT workers prefer not-for-profit employers to higher paying for-profit employers, is a less demanding and less stressful work environment and shorter work hours (Ang et al. 2002). Sethi et al. explore the stress factors for IT workers and indicate prevention methods for them. Performance as a stress factor can be seen as relevant to this section, as other stress factors such as career development stress and job security stress are relevant to other sections. In order to reduce performance related stress, clear communication regarding performance and reward expectations is said to be useful according to the interview and questionnaire respondents (Sethi et al. 2004).
There is also family pressure to balance work and family life, especially by IS workers in India. Eight percent of the Indian IS workers who participated in the survey stated that this balance in work and family life affects their turnover intentions. ‘P23’, a female participant of the interview, explains how time consuming it is to commute to her workplace and how working overtime affects her family life (Lacity et al. 2008). Although the following family friendly HR practices are not from a text specifically discussing IT workers, many may be applied in the IT industry. Sick child days off, family picnic, childcare subsidy, onsite childcare, family seminars are a few examples of the twenty-one practices mentioned, which may indeed help IT workers maintain balance between work and family life, and therefore make them reluctant to leave their current employer (Mesmer-Magnus and Viswesvaran 2006). This kind of balance between work and outside life was ranked sixth in Luftmans top vehicles for the retention of the IT workforce (Luftman et al. 2006).

Security

The research by Agarwal et al. on categorizing firms according to their emphasis on retention practices shows that the ‘Secured Profile’ achieved second place out of five profiles. The ‘Secured Profile’ has low emphasis on all retention practices excluding employment incentives, meaning job security (Agarwal et al. 2006). This interesting result shows how important the promise of long-term employment is in determining employee loyalty. The lower risk of job loss is another reason many IT workers prefer to work for not-for-profit organizations, foregoing higher pay at for-profit organizations (Ang et al. 2002).

In order to reduce stress for IT workers concerning job security, organizing sessions explaining organizational changes to employees, avoiding surprise news, and letting workers have a clear view of important future changes can be of help (Sethi et al. 2004). This issue could also be confirmed with our survey results as IT employees wish more and better communication within their corporation. 3M has also realized the importance of employment security and financial stability which is demonstrated by their generous retirement benefits. This has also contributed to their low turnover rates (Agarwal et al. 2006).

CONCLUSION AND IMPLICATIONS

In the wake of an economic slowdown, where ‘belt tightening’ has become inevitable, this contribution’s primary intention was to explore non-monetary retention methods, which can be used instead of expensive pay increases and bonus payments. The paper explored, how turnover of IT professionals can land devastating costs for organizations, both direct and indirect, and why it is essential to retain employees early on, in order to avoid a ‘snowball effect’. A survey with 728 IT professionals confirmed the importance and outlined the low satisfaction of IT employees with their internal career opportunities.

The non-monetary solutions to retain the IT workforce were then investigated and built on these outcomes. They are classified into methods related to career development, challenging work experience, community building, lifestyle accommodation and job security. Each solution was discussed in detail how important they may be in retaining IT professionals. These retention methods were based on various prior research on retaining the IT workforce and successful cases from practice. The whole framework of non-monetary solutions we developed in our research is presented in the Figure 4.

At the time when economies worldwide have entered an era of recession according to the global financial crisis recruiting and retention issues seems not to be important any more as they was in times of economic growth. It seems, that today there are more candidates available then before due to downsizing of some industries. However, as Trevor and Nyberg (2008) discussed especially in times of recession and downsizing retention issues are becoming more important because they analyzed that beside the planned layoffs more and more of the remaining staff is leaving the company as well. Therefore they conclude that career development and retention issues are especially important in times of recession.
Although a rich variety of retention methods have been discussed in this paper, organizations need to be careful in applying those which are adequate to the firm and those which specifically address the concerns of the IT employees belonging to the firm.

Further research should be conducted on turnover intentions and effective retention methods for IT workers from various cultures as the IT workforce becomes more multi-cultural due to offshore outsourcing. In general the needs and concerns of the average IT professional will also continue to evolve and future retention methods must also continue to keep up the pace. Furthermore first analysis of the data available indicates that there are differences between different levels of employees (years of experience, manager vs. non-manager), the class of age, gender, current position, industry and company size. Future research should discover the different turnover motivations of different groups and how retention measures as presented in this paper might help to decrease the turnover intention of the IT workforce.

REFERENCES


Non-Monetary Solutions for Retaining


