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Women in the management – cases of Turkish women progress in the IT ranks

Abstract: It has been observed that Turkey, contrary to the country stereotypes, has high female participation in the IT, including professional and managerial positions. As in the women participation in the IT shows big differences among world's countries, it seems important to research the possible sources of higher women participation in the IT in some countries. Based on the pilot of in-depth interviews with Turkish IT professionals the article looks preliminary into the following subjects:

1. What economic, social and cultural factors influence females' IT choice in Turkey?
2. What were the success factors contributing to women employment and career in the IT in Turkey?
3. What barriers for IT management career progression have been identified by Turkish women?

The article also proposes approach into further research into the subject.

Key Words: Women career, gender equality in management, women in ICT Turkey

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Summary

The objective of the article is to conduct preliminary analysis, based on the set of in-depth interviews with Turkish females who achieved independent or managerial position in the IT and literature reviews. The article:

1. Introduces the concept of women in the management and barriers in their managerial career.
2. Compares the level of women participation in the Turkish IT and how that compares with other countries?

3. Identifies major factors influenced interlocutors' choice of the IT career. How these factors can be classified?
4. Identifies interviewees perception of factors contributed to women success in the Turkish IT.
5. Identifies what are the major barriers in the IT career progression stated by the interlocutors.
6. Proposes how such initial research can be taken further to look into more cross-cultural aspects of women in the IT management.

Women in the management

The issue of women progress in the management ranks became popular in the late 1980's and 1990's where it was commonly recognized that patterns for women life have changed and that women are taking more important position in the economy and business management [Schwartz, 1992]. Schwartz also made first arguments why having women in the management makes sound business case. While the corporate world of the management and in technology is still male-dominated as shown "Women in Management Worldwide" report [Davidson, Burke, 2011] there is a growing recognition of women role in the business management and Catalyst executes annual surveys showing women participation into Fortune 500 companies [Catalyst, 2012]. The increase of female managers, is significantly driven by perceived company performance impact, as confirmed e.g. by study conducted by Credit Suisse Research Institute [2012] of over 2,400 listed companies which shown that „(...) over the past six years, companies with at least some female board representation outperformed those with no women on the board in terms of share price performance”.

From the same perspective it can be stated that higher women participation results in increased diversity in the IT workforce and that in turn would lead to [Winkler, 2005] increased creativity, better decision making and business elasticity as observed in other businesses.

As early as 1976 it was noted [Wood, 1976] that „Women...have the same problems as men managers..., but the woman manager also has some unique problems because she holds a position that has long been considered a “man's job”.” The survey performed by Wood indicated on one hand the perceived benefits of women managers bringing „long-needed balance to the organization... valuable in marketing all products... making significant contribution in handling of customers”, but in those early days showed issues of women needing to „stop assuming male colleagues are superior...be more assertive with ideas and opinions...ask fewer questions” and pointing to „two critical faults... are their demanding nature at times and their unwillingness to “reach out and help other females”.” Wood predicted that „it would take years, possibly decades, before women will be found more commonly in management”

[Wood, 1976], but the number more than doubled from 15.9% in 1970 to 33% by 1985 [Catalyst, 2013] and the recent Catalyst research [Catalyst, 2013] shows that women comprise 46.9% of US labor force and already 51.5% of the management, professional and related occupations.

While there is a growing numbers of females employed and becoming managers, Korn/Ferry Institute [Orr, 2013] identified that certain factors, mostly perceptual, inhibit women progress to the senior management/board level:

1. Different motivation at work, rather than formal position and influence
2. Higher standards of technical competence and performance expected
3. Lack of high-visibility experience
4. While women are rated higher on interpersonal skills they were rated lower on numerical, financial and strategic skills, which are considered a must at board level.

From that perspective IT industry that puts a high value to proven technical competence, but at the same time creativity and where relationships (particularly in new companies) are less formal, but more interpersonal should represent a fertile ground for women management career.

Women in the IT in Turkey and worldwide

The research into women careers in the IT started after internet boom and Galpin [2002] looked at women in computing. He noted that the following countries have relatively high participation of females taking graduate computing courses, though the numbers in the study are quite dated:

Table 1 – Countries with high women participation in the IT

Country	Percentage	Comment
South Africa	32.1%	Increase from none during the apartheid era
Zimbabwe	40.7%	
Nigeria	From 30% to 32.6%	
Malaysia	51.4%	
Singapore	>50%	
Thailand	55%	The South-East Asia countries have highest women participation in IT
Sweden	approx. 30%	Similar numbers for Norway and Sweden have been reported more recently by Hozer-Kocmiel and Zimoch [2012]
Norway	24% - 32%	
Iceland	24% - 28%	
Mexico	39.2%	
Guyana	54.5%	

Country	Percentage	Comment
Bolivia	34.1%	
Brazil	20% - 34.8%	
USA	26.7%	There is no data to students' ethnic background
Turkey	20.4%	In 2001, increase from 18% in 1997

Source: Galpin [2002]

The global trend shown in the analysis is that with the exception of Scandinavia the high participation of women in computing is more characteristic for developing countries, and many countries in developed Europe it is closer to 10%. Though the more recent European Commission Information Society [2009] shows narrowing gender gap, the report does not differentiate between IT jobs and high-tech manufacturing or services jobs, so there is still no reliable evidence of higher women participation in the IT in Europe.

Turkey with 20% in 2001 was not the leader, however it can be inferred from general trends in Turkish engineering [Smith, Dengiz, 2010] that currently in Turkey the percentage of females in engineering is closer to 27% and IT numbers are likely to be in line or even higher. The Turkish percentage of females ICT students in academic year 2008/9 was 37% [Gülseçen, Akman, Hatipoğlu, 2010]. The Galpin [2002] study also states that this trend is not really justified by cultural differences as same trends and same attitudes can provide different results in different countries, however that is being questioned by other research, which showed examples of relation between perception of women role and share in ICT employment [Gülseçen, Akman, Hatipoğlu, 2010].

Literature review shows that in spite of the low actual women participation in the workforce in Turkey – only around 29% [Turkish Statistical Institute, 2012] the social perception of women role in Turkey is quite different to what could be expected from Islamic culture. Kemal Atatürk – founder of Turkish Republic is famous for his quotations, which gave Turkey a sense of direction after republic foundation in 1923. Two of those quotations should be mentioned here: „Everything we see in the world is the creative work of women” in [Atillasoy, 2002] and „In Turkish society, women have not lagged behind men in science, scholarship, and culture. Perhaps they have even gone further ahead”. (cited in <http://www.arceus.com.tr/turkey/ataturk08.html>) and such perception was confirmed by Gülseçen, Akman and Hatipoğlu [2010].

Research approach

The proposed research concentrates on analyzing professional women perceptions and opinions. Such views depends subjective experience of people involved in communication and back in the late 1970's [Morgan, 1980] it was argued that traditional quantitative approach stemming from functionalist

paradigm may not be fully suitable to such social situations. The interpretative approach which argues that social reality is the result of subjective and inter-subjective experience of individuals, while still believing in the underlying pattern and order of the social world brings “puzzle solving-activities” more focused on people perception and changing social circumstances. Matveev [2002] interestingly pointed that major disadvantage of quantitative research is “Limited outcomes to only those outlined in the original research proposal due to closed type questions and the structured form” and that qualitative research enables “Obtaining a more realistic feel of the world”. Further Sułkowski [2009] & [2010] discussed that for such initial investigation penetrating to potential influence of culture and meaning and where the objective is “Understanding, description, synthesis, changes stimulation” the qualitative method stemming from interpretative approach coming from humanistic roots seems to be most appropriate. Certainly as there is no initial hypothesis, the investigation objective was to uncover perceptions and human drivers we have to understand people’s feelings and their interpretation of reality, therefore applied method has to allow for freedom of expression and interaction with subjects.

Because of limited access to successful IT female professionals, author started with pilot of 5 phone in-depth with women employed in Turkish subsidiaries of international companies. The objective to indentify whether there any common issues affecting women choice of IT career, its perceived value and potential problems.

The interviewed female professionals were representing:

1. Senior Professional – person responsible for own work, formally recognized as professional in own company and on the market
2. Manager – person managing others, reporting within the company management chain
3. Director – person managing other managers, reporting only to highest-ranking person in the Turkish subsidiary or to mother company

The interviewed professionals are presented in the Table 2

Table 2 – Interviewed female professionals

Id	Position	Department	Background
P1	Senior Professional	IT Consulting	10+ years IT experience. Experienced in the research in the US, in Turkish software company in Turkey, presently in an international IT company. Business Administration Bachelor degree and Master in Computer Engineering
P2	Senior Professional	IT Pre-Sales	20 years experience, most in an international IT company and also in research. Started in support then in pre-sales. Computer Engineering education (Master level)

Id	Position	Department	Background
P3	Manager	IT Consulting	15+ years experience, developer background in various Turkish companies, for last 12 years in international IT company. Computer Engineering education (Master level)
P4	Director	IT Consulting	20+ years, international companies experience including working abroad, at present from 15 years at international IT company, played different roles including country consulting leader. Computer Engineering education (Master level)
P5	Director	IT Sales	15+ years experience, worked through all careers levels in marketing and sales in international companies, Business Administration degree (Master level)

Source: Own research

The interview was loosely built with the objective to get understanding:

1. Why interviewed woman has chosen IT career?
2. What factors influenced that choice?
3. What impact education had for the choice?
4. What in interviewed opinion is the perception of IT appropriateness as choice for woman?
5. What was their family and surrounding society view?
6. Does the gender make a difference for her in choosing co-workers, subordinates and managers?
7. Is she satisfied with the choice? How the choice of IT has influenced this person life outside work?

As the in-depth interviews were conducted question topics were added and interlocutors were contacted again to answer those additional questions. Generally the interview followed the free-format allowing for expression of interviewee perceptions and experience.

The following chapters present results obtained from the interviews.

Factors influencing choice of the IT career and their categorization

For the interlocutors the choice of IT as career was not always evident from the start, however the common themes have emerged. The factors influencing such choice were grouped into three categories:

1. Economic Factors – Perception of IT as employment choice
2. Social & Cultural Factors – Perception of engineering as career choice
3. Social Factors – Society influence

Table 3 - Factors influencing IT choice

Factor	Influence
Perception of IT as employment choice – Economic Factors	
Attractiveness of the IT as dynamic business	<p>All women mentioned that IT is perceived as dynamic, changing business and that makes it for them interesting as sector of employment:</p> <p>P1 „And there is always something new – in IT changes are very rapid and you are constantly doing new things. It is so boring in banking, by comparison”.</p> <p>P2 „The reason I chosen IT? – it is very dynamic”.</p> <p>P3 „I like how the things are changing in the computers. You see so much progress in last years. You know next year it will be something new”.</p> <p>P4 „In the IT I can play different roles. I am there for 20 years, every few years doing completely different job”.</p> <p>P5 „Every year there is a new product and you must learn it. They enable customers to do new things. Your competition does not sleep either and you must be constantly aware and look for new ways to persuade customers to buy. Very exciting”.</p>
IT job security and job opportunities	<p>IT is perceived by them as sector where new jobs are created and when intelligent person can always find work. That provides with future job security:</p> <p>P1 „IT is also a very perspective business. There is always a job in the IT and you can move easily (...) new option can come next year”.</p> <p>P2 „There is always a job in the IT sector”.</p> <p>P3 „I don't have to worry about having the job, even in crisis years. At worst I will get slightly lower position somewhere else”.</p> <p>P4 „There is plenty of options to choose from, at least up to certain career level”.</p>
IT salaries	<p>Interviewed woman perceived IT jobs as attractive from salary perspective and rewarding for the effort</p> <p>P1 „Also I wanted to make money and everybody in the IT was making decent money. I was then able to get a job and sustain myself”.</p> <p>P2 „IT pays high salaries”.</p> <p>P3 „If you want to become independent – IT pays good. If one wants you can always make more, it is just sometimes not worth that extra effort”.</p> <p>P4 „Money was of course important. We both work in the IT and it is a good income”.</p> <p>P5 „When you perform your variable salary can be very high. If your company products are good, they sell well and you can make lot of money. Much more than in marketing job. And it is important if you want to maintain living standards”.</p>

Table 3 - continuation

Factor	Influence
Perception of engineering as career choice – Social & Cultural Factors	
Close connection between education and the technical career choice	<p>For some of the women IT was a natural choice because of their strong interest in math and technology, which was supported by their high school education:</p> <p>P1 „I was very strong in mathematics in high school. I attended mathematics and science class. That given me good background to study IT. Standards for algebra teaching in my school were very high”.</p> <p>P2 „My education was key for getting IT job. In high school I chosen math and physics – and that mostly determines your future career, if you like more social science you choose literature. There were plenty of girls choosing that way – in my class it was approximately 50% females. I was very strong in math and had excellent results in state exams. Only by having such results you can get admitted to the Computer Science University”.</p> <p>P3 „I loved mathematics and was always interested in science. I still am. Studying engineering was for me the only choice”</p> <p>P4 „I always wanted to work in regular engineering, as IT was not that popular in my times, at school I of course chosen math class. You have to be good in math to pass the exams”.</p> <p>However, that was not necessarily always the case:</p> <p>P5 „No, I was very interested in literature and never thought of studying engineering. I studies Business Administration as it gives you lot of different possibilities. As I have told you – IT happened by chance”</p>
Perception of the technical career as better social choice	<p>Interlocutors recognize the perception whereby education and engineering career are not only socially acceptable, but even desired:</p> <p>P2 „In Turkey education and good job is one of main “social elevators” for people. You have to be born into rich or important family, to make political career or chose to get best education and good job. The last path is considered very appropriate progress for female and engineering jobs are also considered appropriate. Maybe not construction, but other engineering professions”.</p> <p>P2 „Typical job for female is to become a teacher. This is when you have no aspirations”.</p> <p>P3 “Education is necessary. If your parents are educated they want you to be educated and it is expected from their friends that their kids are educated. Engineering is in high regard. It is one of most difficult universities to get in. It shows brains”.</p>

Factor	Influence
IT as part of engineering more suitable for the females	<p>When choosing engineering career IT seemed for them to be more attractive to females:</p> <p>P1 „There is business side of IT which often attracts females – there are woman who are strong and want to drive something (...) In fact there is less competition for that kind of job then other more “female” business such as advertising or marketing. Men became developers”.</p> <p>P3 „What can I choose rather than IT? Construction or civil engineering? And then to work on construction site in Moscow or somewhere in Russia as my friends do?”</p> <p>P4 „IT is an office job. Clean. Mechanical engineering is still dominated by men”</p>
Society influence – Social Factors	
Family influence	<p>Choosing IT or at least engineering education was often recommended or supported by family members:</p> <p>P1 „I wanted to follow my father steps and to became scientist, academic, as he was and he initially pushed me in that direction. I tried, but I also seen how much he and my cousins struggled in academia world. Then my father introduced me to the IT to the management information systems. He showed me around couple of companies and I became fascinated”.</p> <p>P3 „Of course my parents wanted me to study engineering”</p> <p>P5 „My aunt and uncle both worked in the IT. They were recommending IT companies to me. So when I was looking for internship they arranged for me a summer job in the IT company, saying it will be good for me”. But sometimes, the IT choice was partially against the family:</p> <p>P4 „My parents wanted me to study proper engineering, not some novelty and strange IT, but with time they get slowly convinced that this is a future profession”.</p>

Source: Own research

So IT as business career was perceived by females as attractive, dynamic, well-paying and socially acceptable choice. The specific perception of engineering being a highly desired profession is in Turkey enhanced by the entry exams systems for the university. All candidates pass written exam test operated centrally by *Öğrenci Seçme ve Yerleştirme Sistem*, which are submitted anonymously and scored independently, with no information about applicant sex. All interviewees mentioned that such system creates no barrier in engineering / ICT entry for woman, but one has to be good as there are almost 4 times as many high school graduates as places at the state universities. To be admitted to the medical or engineering university requires highest number of points. That confirms engineering students standing as “crème de la crème” of the society. Further academia world in Turkey has sizeable women participation (40.9%) with highest proportion of female professors (27.6%)

[Healy, Ozbilgin, Aliefendioglu, 2005] and interlocutors mentioned that teachers were encouraging them to study, graduate and make further career.

Identified Success Factors for women in Turkey

The following success factors were commonly cited by participants:

1. Culture-specific perception of women career – The women perception in Turkey was mentioned by interviewees as one of the significant success factors:
 - a. **P1** „You have to understand – it is like Turkish Mother, not only taking care of home, but actually sustaining and leading whole family. It is normal for girls to choose career”.
 - b. **P5** „We are not in the Middle East. In Turkey woman is expected to be educated and working. To be successful”
2. System of entry exams and relative feminization of Turkish universities – Turkey operates very unbiased entry exams system. P2 said : „I...had excellent results in state exams. Only by having such results you can get admitted to the Computer Science University.“ All respondents confirmed that during the University they experiences no competence bias towards men from teachers or colleagues.
3. IT being specific industry – according to interlocutors in the IT there are 3 kinds of jobs: sales, business-facing and development/programming. Though interviewed women have all three kinds of job background that all stressed that sales and business-facing jobs give women more chance for success:
 - a. **P1** „There is business side of IT which often attracts females – there are women who are strong and want to drive something. But they are not IT people – but they have business background. In fact there is less competition for that kind of job then other more “female” business such as advertising or marketing. And men they rather choose development side. (...) girls they join IT as they are able to manage multiple teams and drive the program”.
 - b. **P2** „IT females (...) they are more in customer-facing position or business-facing positions when men choose back office and development. (...) It is more difficult for a man to say no to female sales person, that is why we are successful”.
 - c. **P5** „We are just better in sales. We listen to the customer and establish relations, we investigate and understand what they really want. The most successful sales were women”.
4. IT meritocracy and job possibility to shape job to suit life – respondents mentioned that IT rewards actual job results, especially in sales-related

jobs. They feel that they will be recognized, rewarded and promoted if they achieve good results:

- a. **P5** „Your sales results speaks for themselves, no-one can question it. And that is recognized”.
 - b. **P1** „Why females are promoted? (...) they try harder and give more. The make it their own business – even if working for corporate. People see it”.
 - c. **P2** „What I see happening at client side is that females when they get closer to thirties they tried to move from developer or administrator job to something more business-related or managerial. They do it to have flexibility for family”.
 - d. **P4** „There is no problem for a consultant to arrange work in a way she wants. There are client demands, but there is also way around them”.
5. Managing people – the respondents in managerial and director position emphasize woman’s ability to motivate and manage people. They believe that as managers they listen more to their employees, take care of their concerns and motivate them to work harder. This in turn allows them to perform better and be successful. However, there is at the same time a strong negative perception of female managers as noted below in p. 2 in Barriers section.
6. Ability to delegate work at home – Turkish culture accepts use of house help. **P2** „In Turkey better doing woman has a permanent house help. It does not matter if you work or not”. House help is considered relatively affordable. Having such help, very often emigrants from former Soviet Asian republics, is indicated as great difference in ability to work. **P3** „At least I don’t have to worry about cooking”. **P2** „Men do not care who does the house work, as long as everything is done. Then my friends can work and house help does everything”. **P5** „Without a nanny I could not manage”. This is particularly important as still there is a perception that all work at home and bringing up the children is a woman’s sole responsibility. IT demands often long hours and woman needs someone to take care of children and home. House help is considered a good alternative.

In general interlocutors were satisfied with their career progress and position, which they achieved. They all, save one, believe that they still have career in the IT and want to stay there.

Identified Career Barriers for women in Turkey

Statistics shows that despite decent women share of professional jobs (36%) women’s share in the management across industries is only 10% [Turkish Statistical Institute, 2011].

Interviewees have identified some barriers, which they experienced or perceived in their career:

1. IT still being male-dominated industry – the respondents though acknowledge that there is no specific barrier created by the industry, it is still according to them for male. **P1** „When technology company hires – they hire men. (...) gender is very important. If competence is same they will hire man rather than woman. (...) In my previous company with 50 guys and 2 girls in development. Those 2 girls, they suffered a lot as they felt they have to prove themselves constantly”. However, interviewees mentioned that themselves they like to have female subordinates and colleagues and they do hiring based on merit **P1** „Doesn't matter – when I build the team. I interviewed 47 people, chose 5 – 2 women, 3 men”. **P3** „When I hired, I have not thought of applicant sex. It was the competences. But, I just hired two men, maybe I should think about it”. **P4** „Almost all my consultants were female” See also p. 5 below
2. Perception of women as bad managers, which may negatively influence decision to promote women – interestingly enough all respondents stated their first preference is to work for man.
 - a. **P1** „Men also work better with men. There is no power struggle with man-woman as between women. Men do not go to personal level as female do, they do not get hurt when you say something. All my brothers and cousins who had females as bosses they changed jobs”.
 - b. **P2** „Will I choose female as a boss? I would prefer men. No, sorry, that is not true. I had three female bosses and they were all excellent. I was very lucky”.
 - c. **P3** „I think I work better with male boss”.
 - d. **P5** „When I changed my job our females struggle was one reason”.
3. Negative balance between work and family – having husband, children and willingness to spend time with them is perceived as a barrier in the IT career:
 - a. **P1** „Men (...) don't take break because of children. (...) At least they have army service, which gives us some initial advantage. (...) With long hours your social life suffers”.
 - b. **P2** „My life is different. My husband [is now aboard] and my parents help me a lot with my baby. Most women take 1 year of unpaid leave thereafter and that affects their career”.
 - c. **P3** „I could get to my current position earlier, but my baby was a priority, I afforded to wait. Now I can also get better job and higher position elsewhere, but this will be struggle and I don't want it. My priorities are now different”
 - d. **P4** „With both of us working it could have been really difficult. That is why I chosen more stable position, though international aspects and different timezones make it hard”

- e. P5** „Sometimes I feel my career was to blame for my health and family shattering”

The family-work struggle is the one, which interlocutors recognize as biggest barrier for themselves and most difficult issue to solve.

1. Some parts of IT industry being closed to females – though in general IT is open to females, it is perceived that women choice of company to work for is somehow limited:

- a. P2** „In IT I see females in all sectors – even in public sector, except army. Only religious-based companies are limit”.

2. Glass ceiling in international companies – because in international companies management is still male-dominated it is perceived that the potential for women advance in international structures (as opposite to Turkish market-related) is limited:

- a. P4** „At that stage there was only one female director in our company in the whole region – I. OK, there was this woman in Greece, but for a very short time. How many female directors you have met? Of course ones here in Turkey”.

Overall the interviewed women felt that there is more opportunities than barriers in the IT and that for women „Telecommunication and banking are there. Very successful (...) in business roles in IT in almost all sectors, even in logistics companies (...) she is going to be visible and drive something”.

Proposed next research steps

This initial insight into women in the IT management in Turkey gives starting point to further research the subject. The objective will be to further identify factors contributing or hindering women participation in the IT management ranks with potential particular cultural and country differences. This could be achieved by:

- a. Interviewing more female professionals in Turkey (at least up to 20-30) to have broader base for the views and see whether also exception show any patterns. That should be anchored with interviews (around 10) with male ICT directors and managers to get their views of women as subordinates, women career perspective and women as bosses.
- b. Similar interviews can be conducted with women in the ICT in another country with high female proportion in the IT – such as Sweden. That will give a perspective of developed country and the relative enablers and barriers for women in the management there.
- c. On the end interviews will be conducted with ICT female professionals in Poland, where women share is relatively low [Hozer-Kocmiel, Zimoch, 2012] to understand their perception of barriers and enablers for successful women managers in the IT.

This should enable to build and discuss hypothesis about women in IT management and identify factors that can help promote higher diversity in the IT management ranks.

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