IT PROFESSIONAL KNOWLEDGE-LEVEL AT ITS PEAK. A QUALITY STUDY

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Abstract:In the swirl of the multi-layered factors of opportunities, security, workforce dynamism, knowledge, company cultures and so much more, the skillset one might need in creating a decent work-life balance is at the highest standards. This paper comprise a quality study conducted between 15 subjects from various IT companies, of Cluj-Napoca city, centered around a semi-structured interview guide. The guide contains seven major topics, among which are the educational background, labor experience, training habits, flexicurity in the workplace and future career plans. The aim of this study is to unravel those interconnected factors which shape career path choices, build labor behavioral patterns and predict working models, led by new learning curves dictated by a changing industry at a fast pace.

Keywords: IT professionals, Cluj-Napoca, Life Long Learning (LLL), workforce fluctuation, flexicurity

Introduction

Why quality study? It was the best way to collect nuanced parameters and to get an in-depth look into the layers of an organization. It's a non-intrusive form of inquiring the professionals background and competence and to understand their contribution to the organization's culture and structure. Also, it was essential to see reactions and non-verbal communication from the interviewees. As Marshall and Reason pointed out in their work, a research has different values for all participants, therefore it produces as many inputs as many participants are:

> All good research is for me, for us and for them: it speaks for three audiences…It is for them to the extent that it produces some kind of generalizable ideas and outcomes…It is for us to the extent that it responds to concerns for our praxis, is relevant and timely…[for] those who are struggling with problems in their field of action. It is for me to the extent that the process and outcomes respond directly to the individual researcher's being-in-the-world. [1]

The focus of this study was to briefly describe the carrier path of an Information Technology (IT) professional and to evidence the skill-set needed in this domain. More precisely, the aim was to unravel those interconnected factors which shape career path choices, build labor behavioral patterns and predict working models, led by new learning curves dictated by a changing industry at a fast pace.

Research questions

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[1] Marshall, J. and Reason, P. (1994). Adult learning in collaborative action research: Reflection on the supervision process, Studies in Continuing Education, Research and Scholarship in Adult Education, pp. 113

Though the interview guide was developed to serve for a more complex project, some simple research questions could be drawn out of it for this paper, to represent some basic aspects of the IT industry in Cluj-Napoca.

In what form is the flexibility present in the "bones" of IT companies in Cluj-Napoca?

Where is the overlapping when discussing about career, opportunities and education?

Can an employee achieve employment security nowadays, when knowledge-intensive cultures are at its peak?

Presenting the interview sampling

The interviews were conducted in February 2018, having fifteen subjects. The sample included six females and nine males from thirteen different IT companies located in Cluj-Napoca city, Romania. The size of the companies was of all ranges, varying between micro firms (having less than 9 employees) to large enterprises (having above 250 employees). The average age of the subjects was 28,66 years, ranking between 24 and 35 years. The job positions occupying inside the companies shows that 86,6% of the interviewees works as a software developer, software engineer and software tester, and only two subjects have other IT-related activities, one of them doing customer support and the other being Product Owner. Also, six out of the fifteen subjects have team leader responsibilities as well, beside their daily software coding tasks.

Methodology and parameter description in a theoretical point of view

The used interview guide was a semi-structured one, with seven major topics, which included general data, such as demographics, education, professional background of the subjects, legal forms of the labor, benefits at the companies, future career plans, workplace ambience and ergonomics. Beside these parameters, the interview guide covered aspects well-known in the literature.

Workplace flexibility and security or flexicurity was highly discussed in many papers of Wilthagen et al.[2] and since then used by other authors concerned in the labor market. Another important aspect is the Lifelong Learning (LLL) strategies. This term highlights a significant reality of nowadays labor market, which is strongly linked to the security in the continuous employment. Changing the jobs at a never seen pace makes it necessary for the employees to keep up in their professional life. Due to its importance, Lifelong Learning became a household terminology in the Commission of the European Communities reports.[3]

Another relevant term got its place in this study, namely the Perceived Organizational Support (POS). The term was developed from Eisenberger and Rhoades organizational support

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[2] Ton Wilthagen, Frank Tros, Harm van Lieshout. *Towards "flexicurity"? Flexibility and security in EU member states* (Paper prepared for the 13th World Congress of the International Industrial Relations Association (IIRA), Berlin, 2003).

[3] Commission of the European Communities. (2001, November 21). Making a European Area of Lifelong Learning a Reality. Retrieved from EUR-Lex: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0678:FIN:EN:PDF

theory[4]and it can be defined as the socioemotional needs employees has towards their employer. The more an organization values its workers' contributions and cares about their well-being, the more positive is the reciprocity with them, which reflects in the quality of work they are doing.

Further on, I used the Organizational Ethnography as a method to structure labor-related parameters, to shape organizational structure, ambient and culture. Using interview as a tool to collect data about the IT organizations, made it simple, yet the picture can't be complete without other quality methods. Observatory method would complete the data by structuring behaviors and internal processes and patterns, which are hardly seen only through the interviewees' eyes. Nonetheless, the range of collected data varied not just in terms of organizational size (number of employees), but in many different and unimaginable ways. In the book entitled the same, 'Organizational Ethnography', the authors point out that the ethnography is about the mystery in the ordinary:

> […] much of the intriguing 'mystery' of organizational life is hidden in the ordinary exchanges of ordinary people on an ordinary sort of day. From this perspective, the intricacies of everyday organizational life can be better grasped not through questionnaires developed and analyzed while sitting in an office, but by going out into the organizational 'field' […] where and when one can closely monitor 'up close and in person' how work is organized and how that organizing organizes people.[5]

The variables were divided into four major groups, which are: demographics, education, financials and work-related. One of the aims of this study was to "recruit" ideas through the interviews, to understand more in-dept the development of the IT field, particularly in Romania. Obviously, not all the proposed parameters by the interview guide were discussed by all interviewees, but most of them were at least mentioned during each discussion.

The parameters were processed in the quality research tool, Atlas.ti. This generated connections and networks between the variables, which outlined a more complex view of the dynamics inside an organization. It also helped to understand the richness and the multidimensionality of these relations, which find its places in the heart of an organization.

Results

The results show complex interconnections between the variables, but there are also some of them which we would expect to be intercorrelated, but they are – in fact – not. The biggest example in this sense is, that 20 % of the interviewees haven't have IT related bachelor's degree. Those who didn't obtained bachelor's degree in the IT field, claimed that they have learned software programming by themselves or by doing a paid specialization. For the question why, they chose to get a job in a domain that wasn't their profession, the answer was simple, because they became aware that the IT industry is well paid in Romania. Surprisingly 40% of the subjects wasn't aware of the opportunities and wages in this domain, when they started in the labor market. This is most likely due to the fact, that at the time they choose a University to follow, the

[4]Eisenberger, R., Huntington, R., Hutchison, S., and Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71: 500 –507

[5] Ybema, S., Yanow, D., Wels, H., Kamsteeg, F. (2009). Organizational Etnography. Studying the complexities of everyday life, London, Thousand Oaks, New Delhi, Singapore: Sage Publications Ltd, pp. 1

IT industry wasn't blooming in Romania as much as it does now. One of the subjects even emphasized this aspect:

> There are many opportunities in this field, the labor market is saturated with job opportunities, new IT companies are coming in Cluj-Napoca, and there are not enough professionals to fulfill the needs. This wasn't the case when I started 9 years ago. And I can see this new tendency already for more than 4-5 years.

As in the below figure can be seen, the four major categories – Demographics, Education, Financials and Work – with their belonging parameters, are interrelated. The relations show, that the demographics and education variables did not determine the subject's career path, nor the financial aspects. The only parameter from the education category which influences work-related parameters are the Lifelong Learning strategies, which are determinant in the career development. Also, a foreign language is mandatory in the IT field, especially English, moreover two-thirds of the interviewees speaks, at least at a basic level, a second language as well.

Figure 1
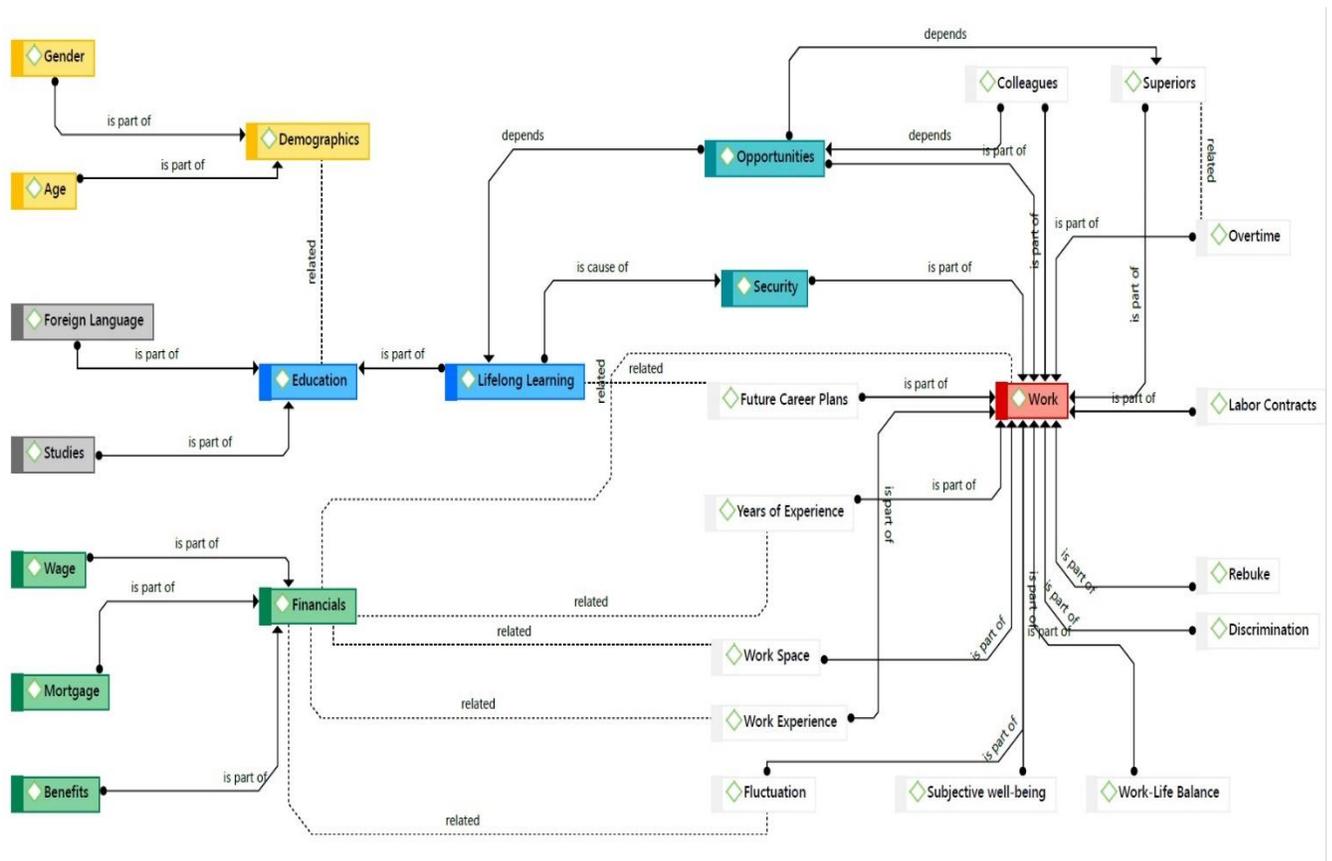
An extremely strong correlation can be observed in the next figure, where parameters like work space, relationship with superior and colleagues, benefits, career opportunities and professional training possibilities, are all contributing to the subjective well-being (SBW), which further on

influences the work-life balance (WLB). If only one or two of the above parameters is not accomplished inside the organization it could quickly turn into personnel fluctuation, which is the biggest "pain" of the companies.
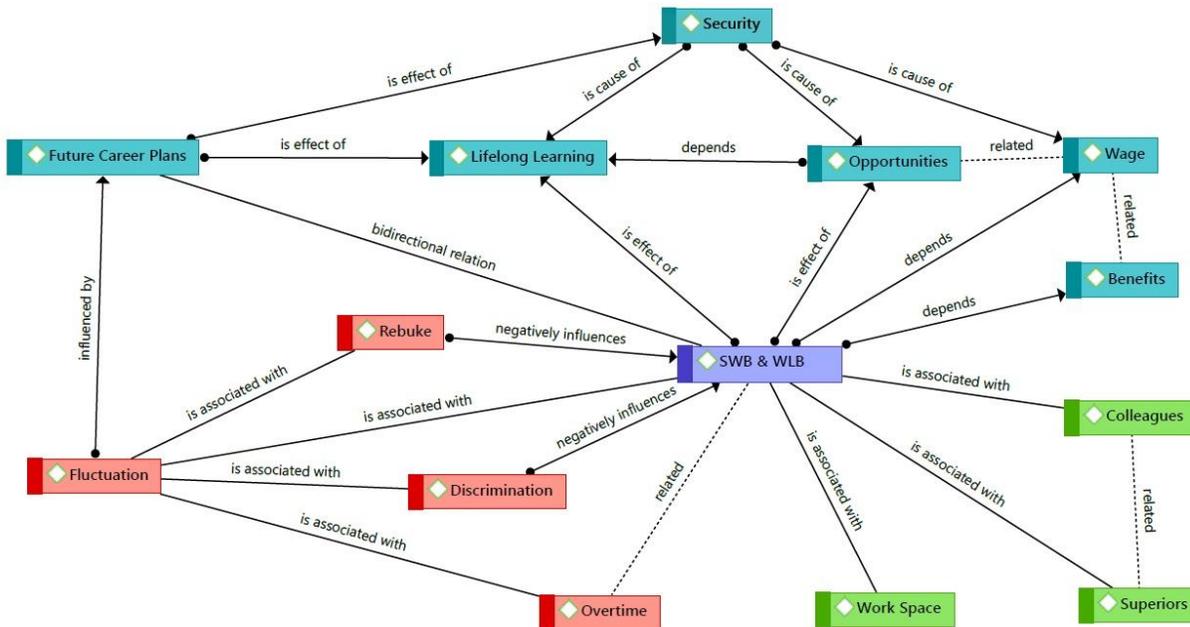

Figure 2

Fluctuation can also be provoked if the organizational culture is not solid, or if company is suspected of any forms of rebuke or discrimination. Though the newcomers (meaning not more than 3-4 years working in the labor market) never heard about the last two aspects, those who had been working in this field before it exploded in Cluj-Napoca, remembers rebukes and describes it as below:

> Doesn't exists something like rebukes in our organization, it's not about threats if you do something wrong. However, I remember the last case of rebuke, like six years ago, when a colleague was internet-surfing too much during the working hours and the company cut his wage with, I think, 20%. But it was for a month, not forever...The person remained in the company, but this incident surely mattered in the next salary negotiation.

Beside the consistent wage an IT employee earn, they also have access to benefits offered by the company on a large scale. Just to mention a few of them, we can list the private health insurance, bonuses for Holidays, gym and swimming cards, vouchers, growing vacation days by the years, at some places profit shares, fruits, coffee, tea at discretion, professional trainings and free participation of international technical conferences. Out of twelve respondents 41,6% have ongoing mortgage, but it doesn't cause them inconveniences in paying it, nor determine them to search for a better paid job. One of the interviewees emphasized the relatively high income she receives after only two years of working in the IT labor market:

> I am earning more than my parents together, after only two years in the labor market. My father works in a slaughter house and my mom is a florist. This is sad, from their perspective.

Discussing the work experience the subjects had, it wasn't a surprise the number of jobs they had in their career, which varied from one job till six jobs, the average being 2,73 jobs per capita. This number will change in the upcoming years, as the IT market will change itself, and the personnel fluctuation will meet new dimensions. Further on, the last discussed subject was referring to the future career plans they have and their learning habits. Most of the companies offer internal training programs, either held by their own staff or by contracted trainers in the technical and soft skills fields. It's also common to send the employees to international technical conferences, supporting the costs of it, if that would help the employee in his day-by-day tasks. 40% of the interviewees also allocate time at home to further develop their technical knowledge, but not necessary to became better at work, but out of passion or seeking for opportunities to become self-employed.

Figure 3

Particularly, I would like to quote one interviewee, who for more than three years allocated
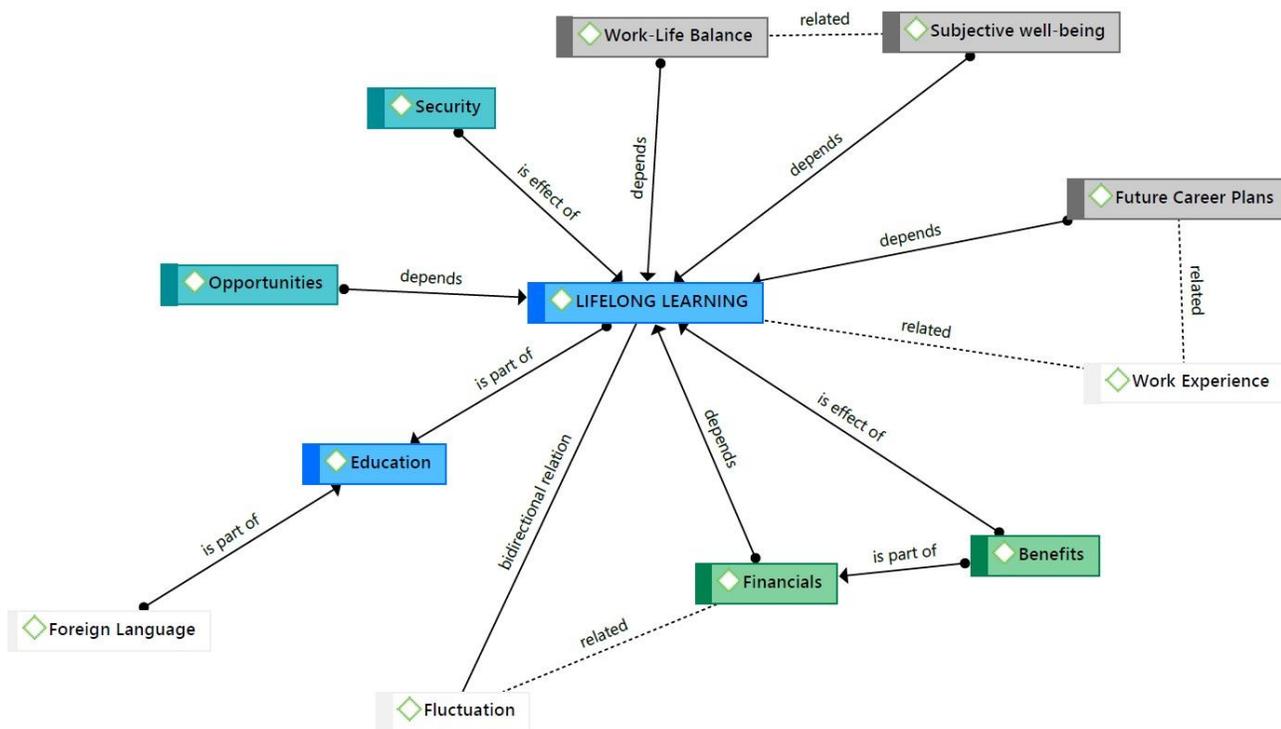
substantial personal time to create a business, where he was a co-founder. The narrative shows that success can only be achieved by hard working. I only add to this, that one year after our discussion, he succeeded.

> I worked at home for my project after I finished my job, for more than three years. At the beginning I worked around 60 hours per month, but in the last year I worked around 160

hours per month beside my actual job. It was like a second job, I worked in the afternoons and during the nights and every weekend. The aim was to start the business and to get some money out of it. I hope that in the next 2-5 years the business will grow, and I can be a self-employer, still working on the technical part of our business.

Conclusions

The collected data need more in-depth analyzing to show its value. The next step is to take further these parameters and to build up an organization's structure, with its culture, processes, internal behaviors, unwritten rules and extensive flexibility possibilities; to describe in extenso the similarities and particularities of a career path in this domain; to deeply examine and expose the variety of labor practices in Cluj-Napoca's IT field; in other words to let the "mystery" shine in the every day's ordinary. Further going on, this data-set can (and will) be complemented and opposed by the interviews of managers, Human Resource professionals and entrepreneurs to see the "other side" of the coin. Surely, the new data-set would reveal hidden and fragile structures of an organization, patterns in work organization, habits in professionals' recruitment and methods in maintaining them; behind-the-curtain, unseen structures for the eye of employees or outsiders.

As mentioned before in this paper, beside the interviews, the use of other quality methods, like observation at the workplace would as well round the image of the IT sector in Cluj-Napoca. This would be mandatory for a complex research, but it would need more researchers to participate at it.

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