An Interactive Mining Approach to find the job Satisfaction and Staff Turnover Intentions

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Abstract : *Turnover among professionals still remains a challenge for many companies. IT professionals suffer from high stress levels. This, in turn, may lead to burnout and result in quitting their jobs. Knowing the factors that affect the quitting decision of professionals is important for companies to decrease the turnover rate of qualified employees. The study investigated the impact of stressors, job stress organizational commitment, and locus of control and job satisfaction on intention to quit among professionals in Turkey. A set of questionnaires were collected from professionals. The results show that job satisfaction is explained by stressors and locus of control, whereas the effect of job stress on job satisfaction is found to be insignificant. Additionally, both organizational commitment and job satisfaction predict intention to quit. In this Research Paper a set of questions are asked to the professionals and a survey is taken and their reasons for quitting job and their turn over intentions are calculated.*
Keywords: *Job Satisfaction, Job Stress, Turnover Intentions*

1. INTRODUCTION

Data mining is the process of extracting patterns from data. In general terms data mining is a survey that concentrated on pattern of result that the result itself. The concept of identifying patterns is not new. It has its roots centuries ago. Baeyer's theorem, which was devised in 17th century, has been the predecessor for this concept followed by regression analysis in 18th century. As humanity rows so do modernity. Changes made date's to be stored as data sets and raise in technology along with great human ideas has made the process of data mining. Data mining is used to study the pattern and find hidden patterns that are outcome of inputs provided. This project has used data mining as the concept to derive patterns out of data provided by employees. It's finding the proverbial needle in the haystack. In this case, the needle is that single piece of intelligence your business needs and the haystack is the large data warehouse you've built up over a long period of time.

But if anyone wonders why data mining is done the reason would be simple. This world is filled with more data than any human can imagine. Storing this and making them into information is done by people. But organizing data and creating subset of them are left to think. Data mining extract pattern out of data's and give out result that can act as the representation of whole data.

In other terms, a huge collection of data is analysed and a new pattern to represent them is formed. Even though this could look bizarre the outcome can be stored instead of the data itself. Every company/organization needs data mining and data entry services to increase their profitability. As in other words for business intelligence, Market tracking and to provide Quality Assurance to your Customer Data Mining is must.

From a business point of view, data mining services are actively used in marketing and finance to cross examine competitor growth, profit analysis, sales, budget etc. Data mining has different stages like exploring, data building and validation and deployment. Thus, through different stages of development and analysis data mining provides the patterns for various inputs.

2. INFORMATION TECHNOLOGY AND IT WORKERS

The information, as we know, is processed data. Computer was primarily found to process the data and give out results. There laid the basis for the Information technology. According to ITAA (Information Technology Association of America) the definition for IT is as follows: "The study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware". The above words clearly define Information Technology. So Information Technology has not only covered just sharing and storing but "designing, studying, implementing, supporting and managing". Since, artificial intelligence is yet to make wonders; the job of "designing, studying, implementing, supporting and managing" is fed to system by human. Those human are generally referred as "IT workers".

2. LITERATURE REVIEW

Jiunn-woei lian et al [2] "nowadays people put more emphasis on the quality of life than before. Consequently life satisfaction becomes an important issue for human resources management". So people tend to move to job even though the feel stressed. Abdul Rahman et al [4] found that job opportunities had significant positive impact on turnover intentions.

Number of people employed in overall IT industry in India (end 2006): 1.3 million directly -- 3 million indirectly [BBC Jan 07]. It surpasses Indian railways, which is one of the world's largest commercial or utility employers. Not only the amount of employers is more but also the

amount of people applying for IT jobs. According to a BBC Jan 07 survey, number of people applying at Infosys in Bangalore is 1.4 million.

This means that out of 63.6% of India's population (which falls under working class) nearly 30% tries to get job in IT sector. But however the total number of people being employed by the three major Indian IT firms (Infosys, Wipro, and TCS): according to 2006 survey is, between 52,000 and 83,000 each. So nearly 80% of people who applied for the job don't get the job.

But this survey's doesn't mean that there is job satisfaction for all those who work in IT firms. The overall output of the firm may be astonishing but individual performance lacks a little more than their potential.

3.1 JOB STRESS AND STATISTICS

The key reason for this can be job stress. Robert Kerr et al, Marie McHugh et al, Mark McCrery et al [14] provide some unbelievable survey that "Indeed, between 2007 and 2008, an estimated 13.5 million working days was lost to stress- related absence". This clearly explains that every individual worker spends at least a day in a week stressed by his job.

The job stress many be due different reasons yet it must be found and solved. Else the IT sector will not only see a severe blow but will also get to the point of losing all the human resource it has with it.

India is the second largest human resource provider for world after china and so the management and eradication of stress to the human resource can only save the badest nightmare that the future can become for IT sector.

"Every job has stress" will be the common phrase that employers in IT sectors may refer to but that can only be a reply not a solution. Higher payment can attract people to do the job but at the same time it is not the solution for job stress.

Employees working in IT sector get stress due to mechanization which deviates them from environment. They are thrown into a circle that makes them think only about the machine and its work and so their inner self is made to shift its focus from a large world to single machine.

This change slowly develops the stress which depresses one's mind and converts the ideas into mechanized form. So they become an organic machine and exert their stress through anger or addiction.

When compared to world the amount of stressed IT workers is negligible. Yet, in India the race for job is too astounding that the stress they get makes them even commit suicide. For instance, Bangalore is hub for IT industry in India and a shocking report says as follows:
"According to the National Crime Records Bureau, at least 35 in every 100,000 people in Bangalore commit suicide. Experts say most suicide cases in the city are related to stress; its citizens are unable to cope with Bangalore's quick growth."

3.2 JOB SATISFACTION AND UNSATISFIED JOB

According to Wikipedia the job satisfaction is defined as , "a pleasurable emotional state resulting from the appraisal of one's job; an affective reaction to one's job; and an attitude towards one's job This definition suggests that we form attitudes towards our jobs by taking into account our feelings, our beliefs, and our behaviors"

The reason for need to work on job satisfaction is clearly stated by Paul Harvey et al, Kenneth j. Harris et al, mark .martin et al [3] that "Job satisfaction partially mediates the Relationship between hostile attribution styles and turnover Intentions". Job satisfaction is the basic bond between the attribution style and turnover intentions.

Job satisfaction at time depends also on pay satisfaction. This is deeply discussed by Christian Vandenberghe et al, Michel Tremblay et al [4] as they suggest that an employee might be satisfied by his salaries but unsatisfied pay raise can also cause reduced level in job satisfaction.

The need for motivation in job satisfaction is necessary. The motivation can be through words or through higher pay. The need of motivation in job satisfaction was also studied by Bjørnar Tessem1 et al and Frank Maurer et al[6] in which he gives makes a case study about motivation as a part of job satisfaction. Employee's job satisfaction is the key to every organization and it is also the need of the hour. The reasons for unsatisfied job may be the outcome of job stress or unsatisfied pay raise or lack of motivation or combination of all the above.

3. RESEARCH MODEL

Three main constructs are included in a research model proposed below encompassing job stress, job satisfaction and Turnover Intentions. Their relationships are illustrated in figure 1 below.
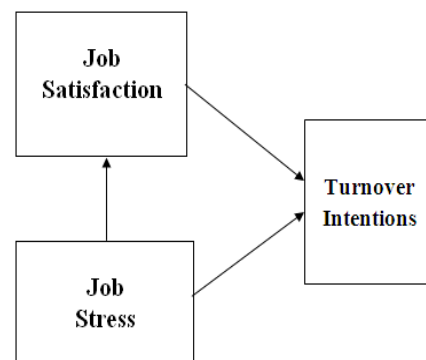

Figure 1 Research Model

4. METHODOLOGY

A survey was made using pilot survey software which contained a list of questionnaires about the personal details, technical details, reasons for leaving the previous job, current job satisfaction and turnover intentions.

Questionnaire was designed to select anyone one of the following options:

Strongly agree = 5, agree =4, neutral =3, disagree = 2, strongly disagree =1.

The software used ASP.NET as a front end and stored the answers in database designed in SQL. The output showed the job satisfaction percentage classified based on marital status, age, turnover intentions and the domain the employee work on.
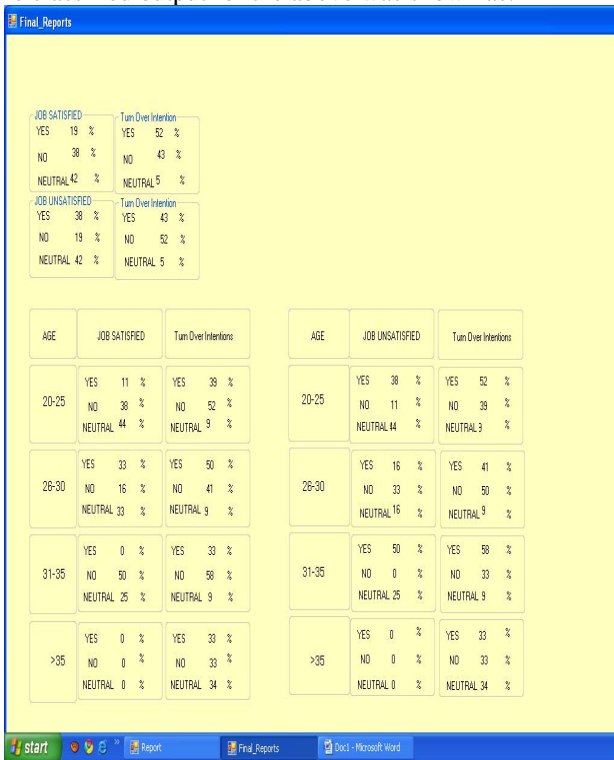
The classified output for the above was shown as:
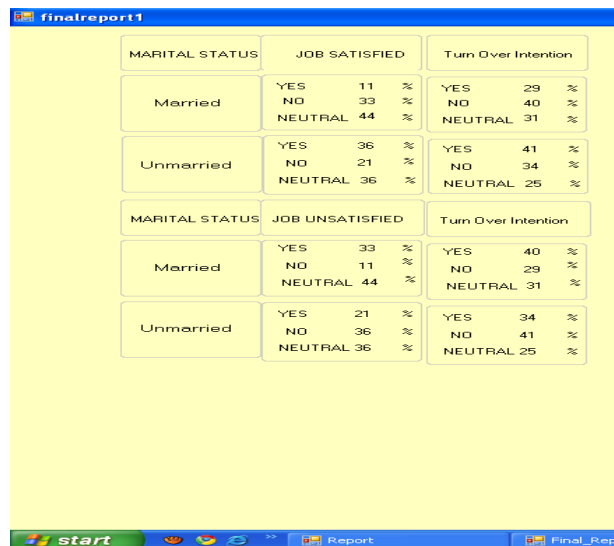

FIGURE 2: AGE WISE CLASSIFCATION
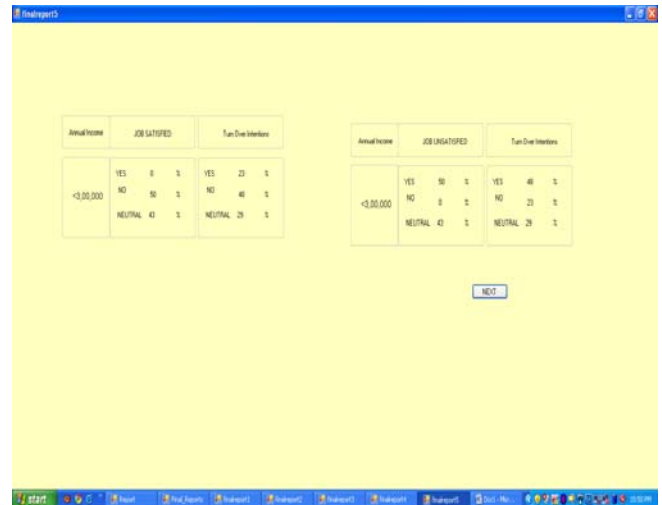

FIGURE 3: MARITAL STATUS

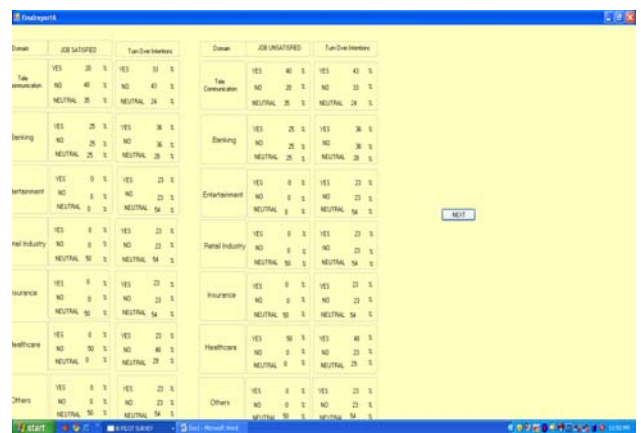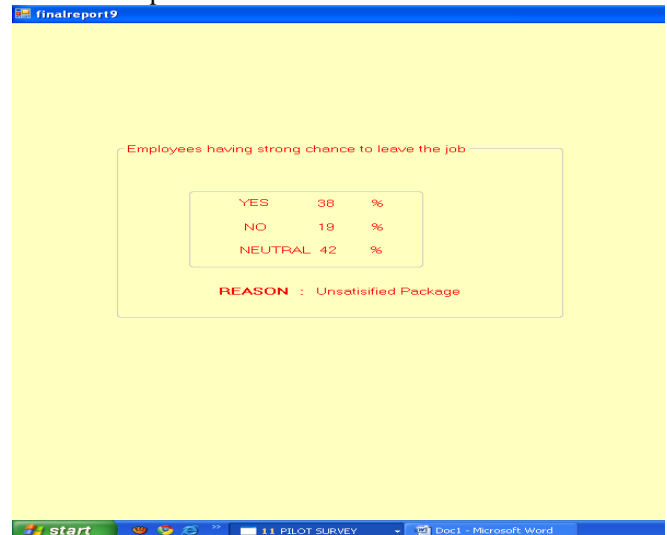**FIGURE 4:** TURNOVER INTENTION

FIGURE 5: DOMAIN

The final output was shown as follows:

The output showed that 38% of the employees are having strong chance of leaving the job, while 42% were neutral. Only 19% of the employees were statisfied with their job.

5. CONCLUSION

Hence, looking deeply into individual's con's can help the IT firms to maintain steady growth and development. Considering human as a resource, the resource must be provided with proper environment and situations to become useful material.

Looking at the big picture, an employee is a part of industry and so not only the work of the employee must be considered but also the factors that can make the employee maintain his pace. Downsizing and lay-off can be effective but can also prove to reduce the company's dignity

In future, the employees satisfaction should be found by conducting survey like this every year so that the employer can be aware of the reason for unsatisfied job and reduce job stress.

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