Jordan Journal of Mechanical and Industrial Engineering

Main Factors Causing Workers Turnover in Jordan Industrial Sector

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Abstract

Workers turnover has been studied in Jordan to find out the main reasons causing this problem. A questionnaire was designed and distributed over twenty eight factories in Jordan, seven factories in each of the three main industrial cities there, and seven factories outside these industrial cities. Five main categories for workers turnover were studied and investigated. The salary, the working environment, the helpfulness and corporation of the management, the worker psychological state and relationships with surrounding environment, and the services provided by the employer to the employee. Analysis of the results showed that the main reason for turnover in industrial cities is the salary, which affects workers in industrial cities located closer to big cities more. One the other hand workers in factories located outside industrial cities suffer mainly from working conditions and environment, which force them to leave. These two reasons are the main issues of workers in industrial sector in Jordan as just an example of Middle Eastern countries.

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Keywords: Workers turnover, Jordanian industrial sector, Salary, Working conditions.

1. Introduction

Understanding workers flow is the fundamental aspect for understanding the market and how successful the economy of the country is. Although it is known that workers flow is very large in Jordan, the basic reasons which cause this workers turnover is not well realized yet. No comprehensive studies in the literature have been made until now, neither in Jordan nor in the Middle East region, to investigate those reasons. Instability in economy might lead to workers turnover as a result for looking for more satisfaction, higher wages and better working conditions.

The main reason for workers turnover might be different from country to another and from culture to another. So, Jordan, as a country in the Middle East, might have its reasons for large workers flow which does really deserve to be studied and investigated.

2. Literature Review

Many research studies have been made for investigating the main reasons for workers turnover all over the world. In 1998 Bartol and Martin [1] found that two forms of applicant market-referent information, number of applications filed and degree of target organization wage information possessed, were both significantly and positively related to turnover.

in labor market flows in Estonia contrasts sharply with the experience of other transition economies that pursued more gradual reforms.

In 2005, Tsou and Liu [8] found a pegative relationship

the transition economies; Estonia, and found that the surge

On the other hand Dale-Olsen (2006) [9] found a positive correlation between wages and fringe benefits in Norway. He concluded that higher wages and more fringe

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Lucifora [2] stated in 1998 that empirical evidence suggests that Italian trade unions have succeeded in reducing turnover.

Lehmann and Wadsworth [3] showed in 2000 that tenure-turnover rates are higher in Russia and lower in Poland than in Britain. Same year Strand [4] related the inefficiencies due to bargaining and externalities in the matching process lead firms to employing too few worker types.

Lambert et. al. [5] study in 2001 found that indicate that the work environment is more important in shaping worker job satisfaction than are demographic characteristics, and that job satisfaction is a highly salient antecedent of turnover intent.

In 2002 Gautier et. al. [6] investigated whether employers exploit cyclical downturns to improve the average skill level of their work force. Their findings are that at each job level mainly lower educated workers leave during downturns. They found no evidence that higher educated workers crowd out lower educated workers during recessions.

Haltiwanger and Vodopivec [7] studied in 2002 the labor market flows of one of the rapid reformers among

In 2005, Tsou and Liu [8] found a negative relationship between wage dispersion and job reallocation, and (excess) worker turnover in Taiwan.

benefits reduce the worker turnover rate. Same year Liu [10] studied again the turnover in Taiwan and found that hiring determines worker entry and quits most strongly contribute to worker exit.

Munasinghe (2006) [11] found that workers with favorable job assessments have a lower and flatter tenure-turnover profile.

Morrison *et. al.* (2006) [12] found that in New Zealand the quitting behaviour of workers is a function of local labour market conditions, non-wage income and the costs and benefits of migration to other local labour markets.

Sousa-Poza and Sousa-Poza (2007) [13] studied the effect of job satisfaction on labor turnover by gender in Switzerland. Their results confirm that job satisfaction is a very good predictor of future quits and here is no apparent difference in firm attachment between men and women.

Senter and Martin (2007) [14] studied the factors affecting the turnover of different groups of part-time workers, and concluded that organizational commitment, job satisfaction, and perceived employment alternatives differentially predict turnover for these part-time groups.

Wheeler provided in 2008 [15] an explanation for the observed positive association between average producer size and the magnitude of an industry's presence within local labor markets. Turnover factors revisited and a longitudinal study of Taiwan-based staff nurses was made in 2008 by Chen *et. al.* [16]. Their study confirms earlier findings on the relationships among turnover determinants, job satisfaction, and intent to stay, and suggests a more comprehensive selection of turnover factors must be taken into account when attempting to explain variations in actual turnover.

McKnight et. al. studied in 2009 [17] the factor that reduces IT turnover intention the most, the job characteristics or the workplace characteristics. They found that workplace characteristics out-predicted job characteristics.

Based on literature discussed above, no comprehensive study has been made for all factors affecting the turnover. Moreover, no such a study has been made on workers in the Middle East region.

3. Problem Statement and Solution Technique

3.1. Problem Statement

Workers turnover is very expensive issue, especially for a third world developed country like Jordan. In the last few years, Jordan started to attract many industries from all over the world by offer the convenient environment to have successful business.

Factories in Jordan are distributed over the three largest cities, Amman, Zarqa and Irbid. Many of the factories are located in industrial cities in these largest cities, but other factories still there outside these industrial cities. The industrial cities are Sahab industrial city in Amman, AlDulail industrial city in Zarqa and AlHasan industrial city in Irbid. The establishment of these industrial cities intended to improve and support the industrial sector and introduce all possible services for as much industries as possible.

Since Amman, Zarqa and Irbid contain more than 90% of the Jordanian population; the study was limited to these three cities. The workers turnover from factories in these three largest cities caused instability both in the production capacity and the production quality. Shortage in number of workers leaded to decreasing production capacity, and leaving skilled and experienced works and hiring prospective works leaded to decreasing the products quality. On the other hand, the increase in the workers turnover affected not only the industrial sector and the country economy, but also the Jordanian community and social life of the Jordanian. As the number of factories and industries is increasing, as the workers turnover problem is getting larger.

For all these reasons this study is trying to investigate this workers turnover issue to find the main reasons which lead to this phenomenon, and so it is the first main step for reducing the effects of this problem.

3.2. Solution Technique

A questionnaire was designed such that it includes five main categories; Category A is the salary, Category B is the working environment, Category C is the helpfulness and corporation of the management, Category D is worker psychological state and relationships with surrounding environment, Category E is the services provided by the employer to the employee. Each category contained many questions, and the answers ranged from strongly agree with a load of 5 to strongly disagree with a load of 1. Strongly agree means that question was not really a reason for turnover. While strongly disagree means this question is a reason for turnover. So, as the average points a question achieve is lower as that question is qualified for being a reason for turnover. On the contrary if the average a question achieve is high, then that means this question is away from being a reason for turnover.

The question was distributed over twenty one factories, seven factories in each of the industrial cities. Seven more factories located in the largest cities but outside the industrial cities were also chosen to be included in this study. In each factory, the 50% of the sample was from workers who already turned over and left the factory in the last two years, and 50% of the sample was from people still working in their jobs. Equal number of questionnaires was collected from all factories to be around 80.

All questionnaires results were analyzed using Excel and by comparing the average achieved by each question in the questionnaire, the main reasons for workers turnover were determined.

3.2.1. AlDulail Industrial City

AlDulail industrial city represents a village community that is located far from the capital city Amman, where people are relatively poor with lower level of education than people live in big cities like Amman. And so AlDulail city represents the community of people who do not have a main career, like AlHasan industrial city where people live mainly on cultivation, or higher level of education and standards of living, like people live in the capital city, Amman.

Figure 1 compares the averages of the different categories. It can be clearly seen that criterion E, the services provided by the employer to the employee, has the

highest average value of 3.21, to be the least important issue for workers turnover in that industrial city. Mainly that is related to village community are not looking for superior services, and they accept to live very simple life with basic needs available. On the other hand criterion A, the salary, has the greatest effect on workers turnover with an average value of 2.41. The explanation for this is that AlDulail industrial city is located in relatively poor region, where the effect of world wide inflation is influencing more. But, since AlDulail is not a rich city, services by employer there are relatively sufficient and so workers are not expecting more in this direction from their employer, which makes salary the main reason for workers to turn over.

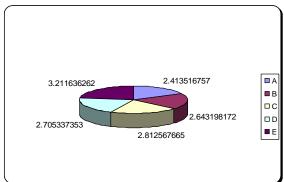


Figure 1. Comparison of A-E criteria of AlDuhlail industrial city 3.2.2. Sahab Industrial City

Sahab industrial city is located near the capital city Amman. People working in that industrial city usually live in Amman. Results of the questionnaire in that industrial city are summarized in Figure 2. It shows that the criterion C has the highest average of 3.0, to be the least effect reason for workers turnover in Sahab industrial city. So, the management is helpful in Sahab industrial city and that reduces workers turnover there.

Salary again is an issue to force the workers to leave their jobs in Sahab industrial city. The lowest average was for criterion A, with a value of 2.38. That average was even lower than that corresponding average of AlDulail industrial city. That was expected result as people work in Sahab industrial city mostly live in Amman as the questionnaire shows, and Amman is very expensive compared to AlDulail and AlHasan cities. So, workers there may suffer from low salaries more than workers of AlDulail industrial city.

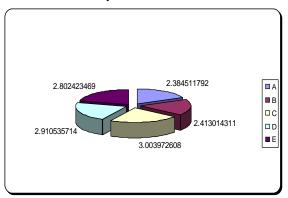


Figure 2. Comparison of A-E criteria of Sahab industrial city

3.2.3. AlHasan Industrial City

Although AlHasan industrial city is located in the north far from the capital city Amman, it shares same reasons for workers turnover with Sahab and AlDulail industrial cities. The lowest average was for the criterion A with a 2.43 value. It is a little higher than that corresponding value for Sahab and AlDulail industrial cities. That is mainly related to life nature around AlHasan industrial city that is located in the cultivation community and life there is much cheaper than that in the capital city Amman. The criterion with the highest average was D, worker psychological state and relationships with surrounding environment. Usually communities depending on cultivation in their lives have better psychological state and relationships with surrounding environment, than communities of big cities.

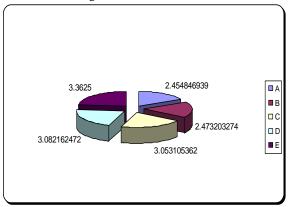


Figure 3. Comparison of A-E criteria of AlHasan industrial city

3.2.4. Industrial Cities in Jordan

Industrial cities are a healthy phenomenon that started to appear in Jordan in the last two decades. Instead of having factories distributed here and there all around the city, all or most factories located in that city are placed in one region that has special services and treatments, called the industrial city. Figure 4 summarizes the results of the three main industrial cities in Jordan. Workers in the three industrial cities agree that the salary is their main concern to leave their jobs there.

The next factor that might be a reason for workers turnover from industrial cities was the working condition and environment. On the other hand a reasonable satisfaction was achieved for the services provided by the employer.

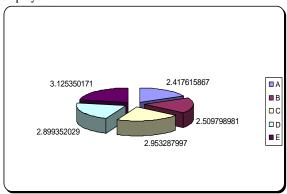


Figure 4. Comparison of A-E criteria of industrial cities in Jordan

3.2.5. Factories Outside Industrial Cities in Jordan

Seven factories located in the capital city Amman but outside any of the three industrial cities were included in survey of this study. The results of these factories are summarized in Figure 5.

Compared to results of factories located in industrial cities, it can be noticed here that the main reason for possible workers turnover is the worker psychological state and relationships with surrounding environment, in contrast to salary that was the main reason for workers turnover in factories located inside the industrial cities. That might be related to the fact that factories outside the industrial cities usually look for professional and experienced workers and so the pay them good salaries and of course expect from them more. That put the workers under stress all the time and makes the main reason for possible turnover is the psychological state of the workers.

Investigating all results in Figure 5 indicated that averages of all criteria are low compared to corresponding criteria for industrial cities. Which means the general satisfaction of workers in factories inside industrial cities is much more than the satisfaction of workers in factories outside industrial cities. That might be related to services and facilities provided by the government to those industrial cities. So, generally the workers turnover problem severity is more for factories located outside industrial cities, especially those factories looking for profession and experienced workers.

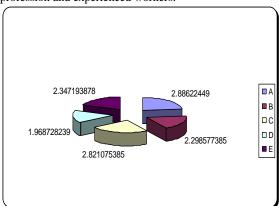


Figure 5. Comparison of A-E criteria of factories outside industrial cities in Jordan

3.2.6. Overall Turnover Results

Combining the results of the factories inside the industrial cities and the results of factories located outside the industrial cities to achieve an overall idea about the workers turnover problem in the industrial sector in Jordan, gave results summarized in Figure 6. As results show the main reason for possible turnover in industrial sector in Jordan is the working conditions and environment. Then the salary factor comes to be the second factor for turnover. Other factors have less effect on turnover issue.

The least factor affecting the turnover is criterion E, the services provided by the employer. It looks that employee are satisfied with serviced provided. Average values for all

criteria show that all of them are above 2.5 except criterion B. That means the only dissatisfaction is in the working conditions and environment. But other factors are not really issues for turnover.

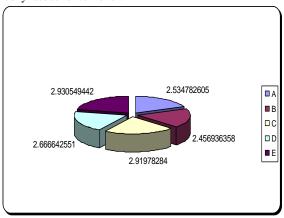


Figure 6. Comparison of A-E criteria of industrial sector in Jordan

4. Conclusions and Recommendations

Based on the study results, the main conclusions can be summarized in the following points:

- For factories located in big cities, the main reason for possible turnover is the salary then the working conditions and environment.
- For factories located outside big cities in farm regions, where people live mainly on cultivation, same two reasons for turnover as factories located in big cities, but with much less severity.
- For factories located in villages, where people live mainly on sheep, the only possible reason for turnover is the salary with less effect than that of big cities.
- People living in big cities suffer more from low salary than people live in farm regions and from poor people living in villages.
- Generally, turnover of workers from factories located in industrial cities is related to salary, but for factories located outside industrial cities, the reasons for possible turnover are the worker psychological state and relationships with surrounding environment, working conditions and environment and services provided for employee by the employer.
- In Jordan, as an example of Middle Eastern countries, the industrial sector has a problem of workers' turnover that is related mainly to working conditions and environment. So, those working conditions should be improved to reduce the turnover problem.

References

- K. Bartol, K., D. Martin, "Applicant referent information at hiring interview and subsequent turnover among part-time workers". Journal of Vocational Behavior, Vol. 53, 1998, 334-352.
- [2] C. Lucifora, "The impact of unions on labour turnover in Italy: evidence from establishment level data". International Journal of Industrial Organization Vol. 16, 1998, 353-376.

- [3] H. Lehmann, J. Wadsworth, "Tenures that shook the world: worker turnover in Russia, Poland, and Britain". Journal of Comparative Economics, Vol. 28, 2000, 639-664.
- [4] J. Strand, "Wage bargaining and turnover costs with heterogeneous labor and asymmetric information". Labour Economics, Vol. 7, 2000, 95-116.
- [5] E. Lambert, N. Hogan, S. Barton, "The impact of job satisfaction on turnover intent: a test of a structural measurement model using a national sample of workers". The Social Science Journal, Vol. 38, 2001, 233-250.
- [6] P. Gautier, G. Berg; J. Ours, G. Ridder, "Worker turnover at the firm level and crowding out of lower educated workers". European Economic Review, Vol. 46, 2002, 523-538.
- [7] J. Haltiwanger, M. Vodopivec, "Gross worker and job flows in a transition economy: an analysis of Estonia". Labour Economics, Vol. 9, 2002, 601-630.
- [8] M. Tsou, J. Liu, "Wage dispersion and employment turnover in Taiwan". Economics Letters, Vol. 88, 2005, 408-414.
- [9] H. Dale-Olsen, "Wages, fringe benefits and worker turnover". Labour Economics, Vol. 13, 2006, 87-105.
- [10] D. Liu, "The entry and exit of workers in Taiwan". Economics Letters, Vol. 92, 2006, 330-332.

- [11] L. Munasinghe, "Expectations matter: Job prospects and turnover dynamics". Labour Economics, Vol. 13, 2006, 589-609.
- [12] P. Morrison, K. Papps, J. Poot, "Wages, employment, labour turnover and the accessibility of local labour markets". Labour Economics, Vol. 13, 2006, 639-663.
- [13] Sousa-Poza, A. Sousa-Poza, "The effect of job satisfaction on labor turnover by gender: An analysis for Switzerland". The Journal of Socio-Economics, Vol. 36, 2007, 895-913.
- [14] J. Senter, J. Martin, "Factors affecting the turnover of different groups of part-time workers". Journal of Vocational Behavior, Vol. 71, 2007, 45-68.
- [15] Wheeler, "Worker turnover, industry localization, and producer size". Journal of Economic Behavior & Organization, Vol. 66, 2008, 322-334.
- [16] H. Chen, C. Chu, Y. Wang, L. Lin, "Turnover factors revisited: A longitudinal study of Taiwan-based staff nurses". International Journal of Nursing Studies, Vol. 45, 2008, 277-285.
- [17] McKnight, B. Phillips, B. Hardgrave, "Which reduces IT turnover intention the most: Workplace characteristics or job characteristics?" Information & Management, Vol. 46, 2009, 167-174.