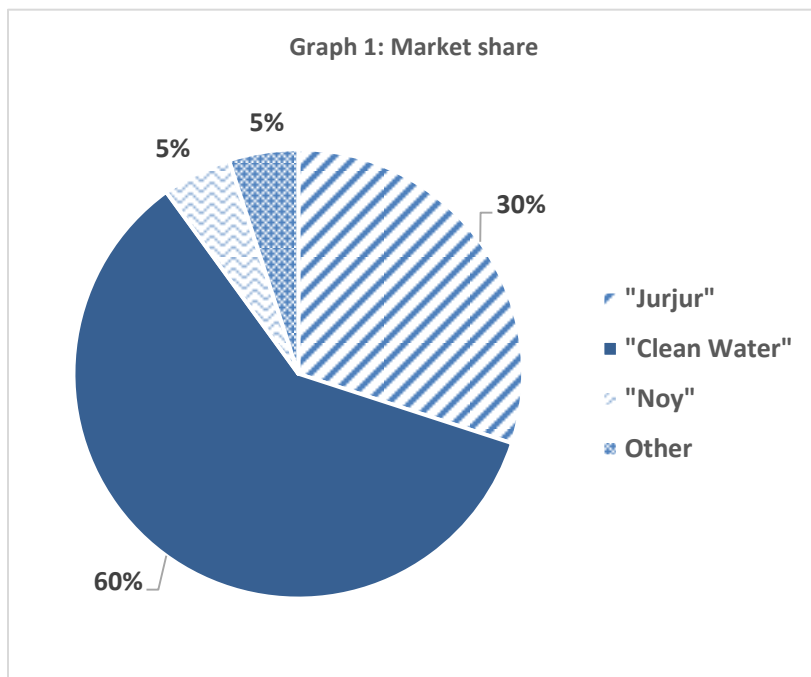




“Every Day” CJSC: The motivation crisis in Jurjur
Research paper

Introduction

During 8 years of activity “Every Day” CJSC, the representative of “JurJur” and “Byuregh” brands, has been continuously facing one important problem: delivery staff becomes demotivated from time to time. The company tried to solve it in different ways, but the problem rose again and still exists: *how to overcome motivation crisis of the delivery staff*. The company needs to use the full potential of human resources to increase the productivity, which will enable it to achieve higher levels of output in the sphere of drinking water delivery.



The industry, in which the company operates, is highly competitive, with the players having almost no impact on prices. It is a delivery business of drinking spring waters, various food, and non-food products. The companies are providing leasing and sanitation services for water dispensers as well. When JurJur was just entering the industry in 2008, “Clean Water” was already enjoying a major share in the

market. Only after several years of hard working and bold diversification, “JurJur” captured 30% (Graph 1: Market share) of the water delivery market (“Clean Water” has 60% of the market, while there are also some small players like “Noy” water distributor).

As mentioned above, there is intense competition in the market, where each player tries to get more customers and keep the existing ones through various supplementary services. In this

extent JurJur is quite successful, having high customer loyalty rate, suggesting free delivery when ordering non-water products along with water. During the last year, JurJur has increased its user base and sales level through offering supplementary products to existing customers. This reinforced the bonds with the customers, making them unwilling and uninterested to switching to a competitor. JurJur is also improving its delivery truck base, making the company more appealing for the customers.

In the water industry “Every Day” CJSC has 3 main competitive advantages over its competitors:

1. Adaptability:
 Company tries to do its best to adapt to every situation, in every condition.
2. Flexibility:
 Sometimes customers do late or wrong orders, the company tries to be flexible every time, so customers feel their importance for the company.
3. Innovation:
 The innovation is mainly used in IT department of the company. The IT staff is always working on creating new and effective software to deliver fast and professional service.

So, in order to improve the productivity of delivery staff of the company our group has conducted quantitative and qualitative research to understand possible reasons of the motivation crisis. Also, we have made a regression analysis to find out how independent factors, such as salaries, bonuses, working experience influence on motivation. Taking into account these surveys and interviews our group has figured out overall issues and complaints we think are considered to be the main factors of demotivation and the aim of these paper is to present those issues and complaints and recommend possible options to be solutions for them, which we believe will help to overcome the motivation crisis of delivery staff of “Every Day” CJSC.

Methods of the Research

For understanding the current motivation problem we have used several methods to observe the reasons for the problem and make conclusions and suggestions based on the obtained results.

So, for the analysis we have used these tools:

- Quantitative research;
- Qualitative research;
- Regression analysis.

Quantitative research

This is the first step of the analysis, where we have distributed anonymous questionnaires to all employees of the delivery department(Appendix 5). The purpose is mainly to find out:

- ✓ What they like at work;
- ✓ What are their preferences of changing the current working situations;
- ✓ How their motivation has changed during their working experience;
- ✓ What will make them change the current work;
- ✓ What they especially dislike at work.

The questionnaires gave us understanding of the main problems in the delivery department and the key issues that demotivated the overall staff.

In the survey we have included a question about the marital status and their overall motivation at work. Further, we have identified the link between the marital status and the motivation level of the delivery staff employees. After calculating the averages of each variable we have gotten the following results:

The average motivation is 5.5 out of 7 which is considered moderate and needs to be improved. Comparing the average motivation levels of married and single employees we can see obvious link between the marital status and the motivation.

For married employees the motivation is 6.14 which higher both, from singles' and from the total average. To sum up, we recommend continuing hiring more candidates, who are married.

Average motivation	5.5
Average motivation of married employees	6.14
Average motivation of Single employees	4

Another average indicator that has been obtained is the average duration of employment which came out to be 2 years and 7 months approximately.

One of the important open-ended questions in the survey is “what they like at their work”. From this question we see that employees appreciate

- ✓ Some working conditions, like punctuality, time schedule, the working environment

- ✓ The teamwork and team partners
- ✓ The quality of work and discipline
- ✓ On time payment of wages (no delays) and the stability of work

The other important thing that we have observed from the survey is what the employees highlight as a good working day. Approximately 63% of the respondents have mentioned the “delivery of orders on time” as a vital reason; approximately 21% have mentioned the existence of large amount of orders and only the last part (≈16%) the existence of less amount of orders. There are some employees that have also mentioned other reasons of good working day, such as

- ✓ Equal division of areas
- ✓ Absence of other barriers, mostly external such as traffic jam, customers not being at home, etc
- ✓ Consensus in everything both within the company and with the customers

The survey also helped us to reveal those factors that make the working difficult and can be considered as demotivating part which includes the following:

- ✓ Long distance of deliveries
- ✓ Traffic jams during rush hours
- ✓ Misunderstanding with clients and internal staff
- ✓ The work being physically hard
- ✓ Accurate area division
- ✓ Work overload
- ✓ Underestimation of work being done
- ✓ Working no Sundays/Holidays

The delivery staff employees also mentioned that they would like to be free to express new ideas and suggestions which would be taken into account while making decisions.

On the question of “whether there is open and free communication with the management staff in the company” there are approximately equal answers. Particularly 52% of respondents answer “partially” and the other part which is approximately 48% answers “yes”. There is not “no” answer, which shows that there is no communication disruption between employees and the management staff.

Qualitative research

The next step is qualitative research. For this purpose, we have divided the delivery staff into two main focus groups: employees with long term and short term years of experience. Then we made a sampling from these focus groups choosing 2-3 people from each group and interviewed each of them. It helped us to get deeper into the problem. Particularly, we came to these three main points:

- The reasons of the problems were identified;
- More problems were revealed, that were not specified in the survey;
- Came up with several solutions.

Regression

For the further exploration of the motivation effects, we have done a regression. As a regression model, we have taken the motivation of each employee for every year as a dependent variable, which is observed from the independent variables, which are:

1. The ID of each employee;
2. Number of years working in the delivery department;
3. Salary of each employee per year;
4. Amount of bonuses in yearly basis;
5. Average number of delivery of each employee per year.

From the regression analysis we have obtained the following results:

Table 1: Coefficients of Variables

		Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
Model	B	Std. Error	Beta					Lower Bound
1	(Constant)	-15,126	9,955		-1,519	,139	-35,457	5,206
	Salary	4,444E-5	,000	7,847	2,745	,010	,000	,000
	Salary_square	-3,667E-11	,000	-14,874	-2,307	,028	,000	,000
	Salary_cubic	8,862E-15	,000	6,832	1,750	,090	,000	,000
	Bonuses	-1,558E-5	,000	-1,132	-1,626	,114	,000	,000
	Bonuses_cubic	1,395E-15	,000	,716	1,114	,274	,000	,000
	Average_number_of_delivery	,002	,002	,140	1,003	,324	-,002	,005
	Year	1,141	,351	1,000	3,253	,003	,425	1,857

a. Dependent Variable: Motivation

As $R^2=0.5$ (Table 1: Motivation), the model is statistically significant. It shows that the independent variables (in our case the salary and year) explain the variability of the motivation by 50%. In our model the only parameters that affect motivation are year and salary (the ID of an

employee is a fixed variable, Appendix). There is a positive relationship between motivation and year, also between motivation and salary. From the coefficients, we can say that the salary's impact on motivation is not so high. However, in case of "year" parameter, there is approximately proportional increase with the motivation (1-year increase makes the motivation to increase by 1.141 points). It shows that the company should use its efforts and resources to motivate newcomers to stay in the company for a long time in order to raise them to the critical level of experience where their fixed salary is quite high. It means that the company should not dedicate further resources to motivate the experienced employees (above 3 years of experience) because they are already motivated.

The regression equation is:

$$Y = 1.141 * X_1 + 0,0000444 * X_2$$

Besides, we observed the correlations between those variables:

Table 2: Correlation table

		Correlations					
		Motivation	ID	Year	Salary	Average_number_of_delivery	Bonuses
Motivation	Pearson Correlation	1	-,076	,406**	,073	-,003	,036
	Sig. (2-tailed)		,596	,003	,627	,982	,827
	N	51	51	51	47	46	39
ID	Pearson Correlation	-,076	1	-,551**	-,576**	,076	,015
	Sig. (2-tailed)	,596		,000	,000	,616	,927
	N	51	51	51	47	46	39
Year	Pearson Correlation	,406**	-,551**	1	,424**	-,008	,136
	Sig. (2-tailed)	,003	,000		,003	,960	,410
	N	51	51	51	47	46	39
Salary	Pearson Correlation	,073	-,576**	,424**	1	,248	,285
	Sig. (2-tailed)	,627	,000	,003		,097	,079
	N	47	47	47	47	46	39
Average_number_of_delivery	Pearson Correlation	-,003	,076	-,008	,248	1	,328*
	Sig. (2-tailed)	,982	,616	,960	,097		,044
	N	46	46	46	46	46	38
Bonuses	Pearson Correlation	,036	,015	,136	,285	,328*	1
	Sig. (2-tailed)	,827	,927	,410	,079	,044	
	N	39	39	39	39	38	39

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

We observed that employees who have greater working experience have high motivation and their motivation has increased during the time. It proves the negative sign of ID which shows that the employees with less number of years of working experience are less motivated.

The other thing is that according to data the bonuses and the average number of delivery have very little correlation on motivation (less than 1% and 3% respectively, which in the model are statistically insignificant). In the surveys, the employees mentioned those two things as important factors of the good working day, however, according to data the variables do not affect the motivation directly.

Research Results

Throughout the whole research, several interviews have been conducted both with the CEO of “JurJur” Karen Sarkavagyan, and with a representative sample of the delivery staff. The problem has been analyzed from both points of views. For getting more confidential insight from the employees and make them voice about things which were considered taboo in the organization, anonymous surveys have been developed and distributed to all of the employees in the delivery department. After combining all the information, a regression have been made, which finished the research process, revealed attractive results and made us do the following judgments:

1. Almost all of the employees were complaining about 5th and 6th floor deliveries without elevators. Normally, each group in a truck is getting a bonus of X AMD for a bottle (12 and 19 liters) of water delivered irrespective the workload, the floor in a building to which the bottle should be delivered, etc. The fact that they get the same amount of bonuses both for the 1st and 6th floor deliveries makes them demotivated and unwilling to work.
2. Another great number of employees had suggestions on the optimization of the area division process between different delivery trucks. There were a lot of situations when a truck should drive to a far location for a single order, while another car from another district, was very close and could deliver the order in 3 minutes instead of the first car doing it in 20 minutes. After these orders, delivery staff becomes tired and wastes too much time by getting late for other orders.
3. Another point revealed by the research was the fact that literally none of the members of the delivery staff was willing to work on Sundays. The argument was that this fact does not let them relax from a heavy week, have some time with family and friends, do some personal things and start the new week refreshed and fully motivated. This problem intensifies in the summer, when they are working three Sundays in two months. A well-planned solution to this problem would heavily increase the motivation; make the staff more robust and fresh.
4. The team members who were serving areas with dense population, mainly Kentron District and other areas with heavy traffic, were complaining of unavailability of parking spaces. In most cases the driver has to park in a wrong part of the road in order not to be late from the timetable and make the delivery on time. This causes a stack of fines to be collected at the end of the month making a big hole in their pocket.
5. A portion of the employees was willing to have a third staff member in the truck, especially in summer months, when the workload is significantly high.

6. The current workday of the delivery department is divided into two parts: the first part lasts from 8:30 to 12:00, and the second part from 13:00 to 18:00. The employees were thinking of eliminating the division of workday and doing all the work at once, being able to go home sooner, but this change is both unrealistic and useless. The customer of JurJur knows that they can order water in the morning and still get the same day delivery. This is a great value for the customers, and the elimination of this asset will heavily harm the reputation of the company.
7. Other members of the department were complaining of such basic things as the salary, the heaviness of the job, the daily workload, the weather, etc., which are non-constructive objections and will always exist.

Problem Discussions and Suggestions

After analyzing all the possible causes of demotivation in “Every Day” CJSC we came up with four suggestions that can help the company overcome the motivation crisis.

1. The amount of bonuses for delivery should not be changed

As the regression shows the amount of bonuses is not statistically significant. From this information we suggest to keep the bonuses level the same. It has its economic explanation too. The marginal utility of getting bonuses decreases over time (it shows the weak correlation between years and bonuses, which is 0.136). So, every additional raised bonus causes less utility (in our case less motivation) for the employees. Therefore, the regression analysis shows that bonuses do not effect on motivation.

2. Keep the salary amount system the same

The regression analysis showed that the amount of salary is significant. However, its impact on motivation is negligible. As the regression equation shows 1 point increase in salary brings to 0.000444 point increase in salary. Therefore, we highly suggest keeping the salaries the same and push the attention on other factors. The effect of salaries is short-term and will not bring to desired results.

3. Area division

Another vital factor that will motivate the delivery staff is proper area division. Delivery staff spends a lot of time on roads, because of inconvenient area distribution. Based on the problem

we came up with a solution which is the following: for simplicity consider two districts of Yerevan (Map 1. Area Division): Shengavit and Erebuni. Each of this two areas is being served by one delivery track. Suppose the red car (red dots) gets orders from points A1, B1, C1, D1, E1, F1 and G1, and the blue car (blue dots) has orders from points A2, B2, C2, D2, E2, F2. For the red car coming to the point G1 is a waste of time, energy, money and motivation as well. In scenarios like this it would be much beneficial to distribute the orders between trucks in a way that the blue car gets the order G1 as well, because he is going to approach the point F2 anyway, which is situated near G1.



Map 1. Area Division

Currently, area division is made by CRM, but the overall distribution of orders is human-controlled. After getting all the orders for the upcoming delivery, the person responsible for the orders can manually change several orders between trucks. It will make the working process easier with being more organized and time-saving.

Moreover, we have observed that exchanging the distribution areas between distributors once in a while can also be a great factor for their motivation. It will bring some positive changes to their everyday working process; they will get familiar with different regions and different clients of the company.

4. Contract-based workers for Sunday

Another big reason for demotivation is having one working Sunday in a month during a year and two working Sundays during summer. Most of the delivery staff workers are married persons and they want to gather with the whole family and have a relaxed weekend on Sundays. Instead, we discussed the option of having Saturday as day-off with workers, but many of them said that Sunday is the only free day for the whole family. If a person does not have a work-life balance, he will become exhausted and demotivated sooner or later.

Three possible alternatives were discussed for solving the Sunday problem:

- a. Do not work on Sundays;
- b. Offer paid delivery on Sundays to make it less attractive for clients;
- c. Start working with contract based workers.

After heavy discussions, we came to a mind that options a. and b. will have a negative effect on the company, as “MGA Water”, the main competitor of “Every Day” CJSC, delivers on Sundays and with no extra fee. With this step we will give them a competitive advantage, which is not desirable for the future of the company.

Option c. gives the best solution to the problem for the following reasons:

- Workers will have a full day-off each week. The delivery staff does a heavy job and good rest once a week will keep them in a much better physical form. And finally, new working conditions will raise the motivation of delivery staff.
- The Company will continue working on Sundays with no extra payments. Usually, there are a lot of orders on Mondays, and shifting a portion of those orders to Sundays will significantly relieve the Monday schedule. This will help to avoid work overload on Mondays and stay competitive in the water market.
- Currently, 2 cars (4 people) work, mostly part time, on each Sunday. If the company has contract-based workers, they can be 2, but work on full-time basis and be available for the whole day.
- More jobs in the market. There are many people who work in different companies on part-time basis (1 day work, 1 day off) and this kind of people usually search for one day works. It is a great opportunity for them to have 4 more working days in a month.
- According to surveys and employee proposals, in summer, the Company has highly overloaded days, when in several areas a 3rd worker is needed. The majority of respondents ($\approx 72\%$) mentioned in the survey the need of the 3rd worker. If there would be contract-based people for Sundays, they can call them for other days as well without a need to search for new and bad-informed people.

We have calculated the costs of contract-based workers on monthly and yearly bases (the amount is confidential and will be reported to the Management of “Every Day” CJSC) and came up with the idea that 2 people are enough for each Sunday. Also, the company’s budget can allow this kind of expenditures on yearly basis, if there will be 1 or 2 people.

5. Partly compensation of fines

One more demotivating factor is a big number of fines in high dense population areas, mainly Kentron District and other areas with heavy traffic. The employees have a problem with the unavailability of parking spaces and not to be late for other orders; they have no other choice but parking in forbidden areas. Our suggestion is to cover monthly fines partly.

At the end of the month, each driver can bring all the fines and after reviewing them, the company can cover some part of them. Of course, the whole money shouldn't be compensated, so they should not be discharged from the responsibility. It would make them think that the company is sharing the burden with them.

Conclusion

Combining the three analysis methods (quantitative, qualitative and regression), our team analyzed the current situation of the delivery staff of "JurJur". This analysis allowed us to reveal the factors that motivate as well as demotivate the delivery staff. Moreover, we understood the current motivation level of the delivery staff. After taking into account the budget and other constraints such time, culture of the delivery department and the company strategy we made recommendations for the following aspects:

1. The amount of bonuses for delivery should not be changed
2. Keep the salary amount system the same
3. Area division
4. Contract-based workers for Sunday
5. Partly compensation of fines

So, the company should use its efforts and resources to motivate newcomers to stay in the company for a long time in order to raise them to the critical level of experience where their fixed salary is quite high. It means that the company should not dedicate further resources to motivate the experienced employees (above 3 years of experience) because they are already motivated.

The bonuses should also be kept on the same level, as it is proved not to have any significant impact on motivation.

To sum up, the objectiveness of the outcomes will help the company to implement the recommendations effectively, improve the current motivation issue and have long term impact within a short period of time.

Appendix

For the regression analysis, we have used a statistical tool SPSS. The regression model that we have taken is Fixed effect model (Univariate linear model in SPSS. In order to have good regression results, it is important to check some assumptions, which are called Gauss Markov's conditions:

- Independence of observations (i.e., independence of residuals): This can be checked using the Durbin-Watson statistic.
- Homoscedasticity: This is where the variances along the line of best fit remain similar as we move along the line.
- Multicollinearity: This occurs when we have two or more independent variables that are highly correlated with each other. It leads to problems with understanding which independent variable contributes to the variance explained in the dependent variable, as well as technical issues in getting multiple regression models.
- Significant outliers/high leverage or highly influential points: These type of observations in the data set have somehow unusual impact on the statistical test performed. An observation can be classified as more than one type of unusual point. All these points can have a negative effect on the regression equation, thus reduce the accuracy and statistical significance of the analysis. SPSS enables us to detect possible outliers while running multiple regression analysis.
- Residuals (errors) should be normally distributed.

Appendix 1: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,707 ^a	,500	,384	1,307	1,613

a. Predictors: (Constant), Year, Average_number_of_delivery, Bonuses, Salary, Bonuses_cubic, Salary_cubic, Salary_square

b. Dependent Variable: Motivation

In the model we assume that there is no autocorrelation which is shown in the last column of the model summary which is Durbin-Watson (DW) test. Practically, if the DW \in [1.8; 2.2] then we accept H_0 hypothesis that the standard errors are not correlated with each other. In our case there the DW=1.613 which is very close to the lower limit of the range.

Appendix 2: ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51,311	7	7,330	4,292	,002 ^a
	Residual	51,242	30	1,708		
	Total	102,553	37			

a. Predictors: (Constant), Year, Average_number_of_delivery, Bonuses, Salary, Bonuses_cubic, Salary_cubic, Salary_square

b. Dependent Variable: Motivation

The model is also significant, which is proved in the ANOVA table. The sig $0,000 < 0.05$ and F statistics is greater than 3.

The model excludes some variables considering them insignificant.

Appendix 3: Excluded Variables^b

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Bonuses_square	-2,707 ^a	-,181	,857	-,034	7,715E-5
	Avg_num_sqr	-1,049E2 ^a	-1,751	,090	-,309	4,345E-6

a. Predictors in the Model: (Constant), Year, Average_number_of_delivery, Bonuses, Salary, Bonuses_cubic, Salary_cubic, Salary_square

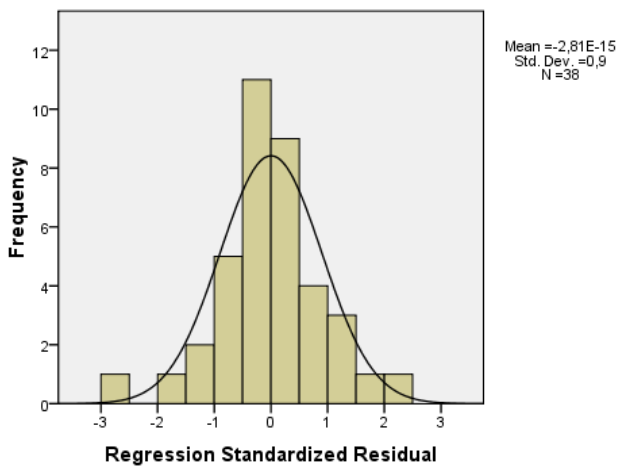
b. Dependent Variable: Motivation

- Case wise Diagnostics.** In the regression model we also select Case wise Diagnostics, which automatically excludes all points, that falls outside the 3 standard deviation from the regression line. These points are called outliers. The absence of these points gives the model more accuracy and significance. The case wise diagnostics removes all undesirables' outliers that create high variations out of 3 standard deviation from the regression line.
- The problem of multicollinearity is denied.** The multicollinearity occurs when the p values and the t statistic contradict each other. For example the t statistic

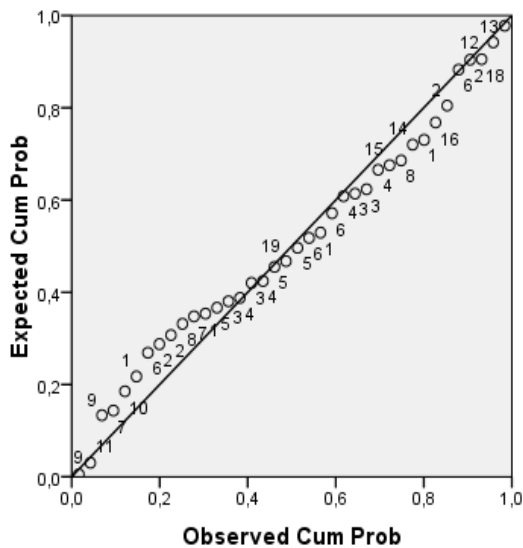
shows that the variable is significant, but the sig_t shows the opposite. The multicollinearity occurs when we have two or more independent variables that are highly correlated with each other. This problem is not found in the model, as p values and t statistics are consistent.

- **Residuals are approximately normally distributed.** The standard errors of estimation have Student's distribution. (The histogram and graph are very close to the normal distribution).

Histogram 1: Dependent Variable: Motivation

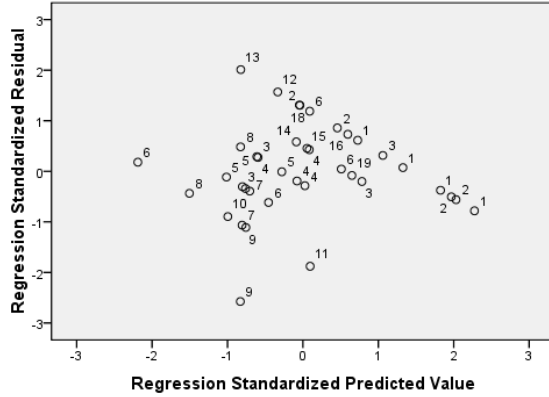


Graph 2: Normal P-P Plot of Regression Standardized Residual



The graph below shows that there is heteroscedasticity in the model.

Graph 3: Scatter Plot: Dependent Variable: Motivation



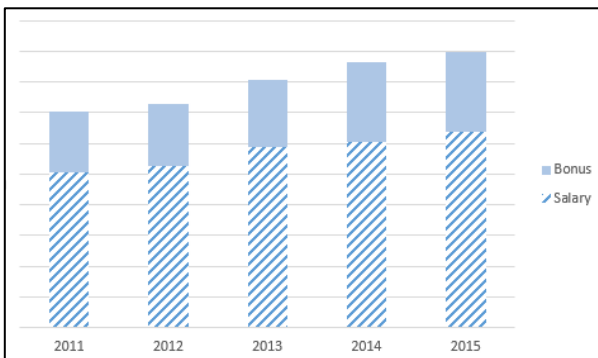
In the model ID is considered as a fixed effect.

Appendix 4: Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	5,564673	,449340	37	12,384	,000	4,654224	6,475121
ID	E0 -,033170	,052001	37	-,638	,527	-,138534	,072194

a. Dependent Variable: Motivation.

Graph 3: Trend of Salaries and Bonuses during 5 years



Appendix 5: Survey Template

	1	2	3	4	5	6	7
Evaluate with the scale of 1 to 7(1-worst, 7-best)							
Evaluate your motivation for each year of your working experience							
For the 1 st year							
For the 2 nd year (if applicable)							
For the 3 rd year (if applicable)							
For the 4 th year (if applicable)							
For the 5 th year (if applicable)							
	1	2	3	4	5	6	7
Evaluate your working conditions							
Evaluate your workload							
How would you evaluate your relations with clients?							
How would you evaluate your relations with colleagues							
To what extend are you involved in decision-making process							
How do you evaluate:	1	2	3	4	5	6	7
Subsidized food							
Health insurance							
New delivery trucks							
Paid vacation							
Uniform provided by seasonality							
Trainings							