

Key Determinants of Employee Performance in a Non-Bank Financial Institution

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Abstract: The current trend in most companies has been on compensating its employees based on performance rather than seniority. This is based on the concept that this approach ensures the competitiveness and efficiency of a business entity. This is particularly relevant for businesses and industries involved emerging technologies and trends. On the other hand, it is recognized that, esp. in a company with organized labor (union), the primary consideration for employees is on seniority and security of tenure, with minimal regard to merit, especially in the determination of compensation. In this paper, we look at the cross sectional employee profile of a successful non-bank financial corporation that operates in a highly regulated industry (under the supervision of the Bangko Sentral ng Pilipinas (BSP)). Statistical analysis (descriptive and multivariate) is made using age, tenure, gender, assignment and skills level as determinants of performance. We hope to see how age (maturity), tenure (seniority), gender, and skill-level contribute or correlate to an employees' performance. In the end, we are able to come up with external attributes that would help management in its selection of employees based on established demographic profile.

It is recognized that this study has limitations as it merely focuses on the statistical data involving external attributes, which can be subjective. External factors, such as leadership and incentives schemes help motivate an employee to perform, which are beyond the scope of this study.

INTRODUCTION

One of the practices being employed by successful companies in achieving its corporate objectives is through performance ratings of its employees (executives and staff). Such mechanisms are then used to motivate employees through bonuses, promotion and increases in compensation of each company employee. These systems help ensure that employee performance contribute to the company's bottom line. In coming up with the appropriate performance measurement system, there is a need to ensure its objectivity and alignment with the company's objective and goals. There is also a need to look at variables that help guide the company with respect to coming up with policies with respect to hiring, motivating, and training their respective personnel. Issues on seniority, discrimination on compensation based on gender, work experience, and educational background have been cited as basis for hiring, promotion and compensation. Seniority on the job is still given some consideration, notwithstanding the negative impression given by some radical labor organizations, due to its positive effects with respect experience and efficiency in organizations. (Gosseries, 2004) On the other hand, certain institutions, such as Universities and Colleges that focus more on research and studies have shown a negative correlation of seniority with performance and compensation. (Yeh, 2012) In information technology companies, there is noted a preference for senior and experienced employees that are involved in customer service due to their effect on service quality. (Kuo, 2010) Similarly, we note the importance that companies give to educational

background, especially in those fields that are highly technical and require some degree of expertise and experience (Ang, 2002). It is in this light that this study is being made, to determine factors that possibly help determine an employees' performance in a non-bank financial institution (NBFI). It must be emphasized that due to time limitations and data accessibility constraints, this study shall be primarily limited to a statistical analysis of available data.

NBFI Background

This NBFI is classified as a non-stock financial institution under the supervision of the Bangko Sentral ng Pilipinas (BSP). It has been in operation for more than 4 decades and has grown its assets to more than ₱ 60 Billion. As a non-stock financial institution, its funds are sourced mostly from its members, similar to cooperatives. Members are compensated through dividends with rates of return that are relatively high when compared with the banks and other financial institutions. These dividends are, by law, likewise tax- exempt. Over the past 10 years, return on member funds (classified as capital) have not been lower than 15% on a per annum basis. Considered as one of the biggest in its industry, it operates more than a hundred offices (branch and extension offices) in the country, providing service to its membership. Its present workforce is more than 600, of which more than half are distributed to the different offices all over the country. In 1992, management allowed its workforce to form a union. This could have been prevented by virtue of the fact that its employees are also owners since they are allowed to become capital contributors to NBFI as well. This

implies that as owners, they may not be allowed to bargain against their own company. This condition was largely instrumental in increasing the benefits for its employees. The early management felt that in allowing the employees to form a Union, it will help check management performance and prevent abuses that have been noted in past audits by the BSP. To a great extent, this has been achieved. However, it is noted that with the increasing involvement of the Union officers with other radical labor groups, it has been very demanding on some issues, both political and economic, during collective bargaining negotiations over the past decade. This is particularly evident with respect to issues involving disciplinary actions and promotions of rank and file personnel. Of particular concern is the demand by the Union on giving preference for employees who are more senior, or have had a longer tenure with the company, when it comes to promotion, salary increases and other fringe benefits. Automatic pay increases and across the board bonuses have also been incorporated in the CBA. While there are certainly merits to recognizing seniority in the workplace (Gosseries, 2004), recent evaluations point to its negative impact on this NBF's competitiveness and leadership in the industry in which it operates. Under this condition, management initiated a rating system following the balanced scorecard framework starting in 2004. This is to ensure that employees are able to perform at levels commensurate with their jobs, and help NBF maintain its competitiveness. Evaluations are done on a semestral basis (January – June, and July to December). The parameters for each category are discussed with the respective employees prior to the evaluation period, and for which they employee are asked to sign the evaluation sheet prior to submission to the Human Resource Division. These performance ratings are then used as basis for promotions and rewards of outstanding performance on an annual basis. Attempts to use the same performance ratings in the granting of bonuses have not been successful. Nevertheless, management deemed it best to implement the performance ratings for Management and Supervisory positions starting in 2012. This was based on the evaluation that guaranteed rewards and bonuses have resulted in the deterioration of worker performance. This was initially noted with its declining market share and profitability over the past decade. During the organizational review conducted in 2008, it was shown that most of the provincial offices', which are each manned by only 1 personnel, outputs have been drastically reduced, and not enough to maintain such offices. Accordingly, reorganization was undertaken resulting in the reduction of extension office personnel and the shift towards hiring of agents who are compensated based on output and performance. These agents are not classified as regular personnel, and hence are not entitled other fringe benefits.

METHODOLOGY (data constructs and measures)

In this study, we use available employee information (independent variables) that may have some explanatory influence on their respective performance (dependent variable) which is called Performance Measurement System (PMS). Data obtained is a cross section of both the managerial and rank and file employees over a one (1) year period. The initial data

identified as available and relevant for this are as follows: PMS Rating, attendance record (absences/ leaves), basic-pay, age, pay-level, employee category (union vis-à-vis non-union for rank and file employees), gender, assignment (head office/ branch office), and educational attainment. Stata 11 is the primary statistical tool in generating the results for analysis.

Variable Name	Description
PMS Ratings	Ratings based on scores obtained from the NBF form ratings following balanced scorecard principle
Absences	As a proxy for attendance, where higher absences mean lower attendance
Basic pay	Bonuses and other benefits are excluded to minimize distortions
Age	Actual age at the time of data collection
Tenure	Stay in the company as a proxy for seniority
Gender	Male/ female
Employment category	For rank and file, distinction is made between union and non-union members
Assignment	Head office/ branch office assignment
Pay level	Indicates the level of expertise, with higher pay-grade indicating higher level of skill, with commensurate higher pay
Educational attainment	Attainment have been grouped into below high school (0), secondary/ high school (1) level, college graduate (2), graduate degree/ licensure as CPA, Lawyer (3)

The use of the foregoing data is made to determine their possible impact employee performance, with some possible policy implications. More specifically, there may be some reinforcing effect between PMS rating and compensation and the pay-level. Gender and assignments variables are included to determine any biases against specific category as observed in several studies on perceptions of discrimination in performance evaluations (Gilbert, 2012). This could involve policies on hiring and changes in the rating systems. Considering the differences in the policies and guidelines governing performance evaluation of managers and rank and file, separate diagnostics is undertaken. This is to further reduce problems with respect to normality and outliers.

Data analysis for Supervisors and Manager was made based on 73 observations from a total population of 96. On the other hand, a total of 194 observations were analyzed from a total of 543 rank and file employees. This was largely due to the limited time to obtain complete data needed for this study.

Results of statistical diagnostics and regression for Supervisors and Managers (*annex 1*) indicate that the variables selected, though significant, are able to possibly explain only 38% of the performance of these personnel. This was after we have removed the multicollinearity effect of pay-level and basic pay. Among the remaining variables, we also note the significance of tenure, assignment and age with respect performance ratings. On the other hand, the results further show the absence significant relationship of performance ratings with respect to gender, pay level, educational attainment and absences (attendance). This indicates the positive influence, though minimal, that age and tenure (seniority) with the company have on the performance of managers with NBF. There also seems to be a premium with being assigned to head office,

possibly due to the fact that the more technical skills are limited to head office managers, while branch managers and supervisors are more or less homogeneous in skills. On the other hand, we do not see any significant impact of educational attainment, attendance and gender on performance for Supervisors and Managers.

Diagnostics, to include regression, of the rank and file (*annex 2*) data shows that the independent variables, though significant are able to explain only 16% of the performance ratings. This is mainly attributed to the absences, assignment, and basic pay. The negative coefficient for absences merely supports the premise that attendance is a primary consideration for the rank and file. The results for assignment indicate a premium for those who are assigned to the branch offices, which is understandable since they deal directly with customers. We note also reject the impact of educational attainment, pay-level, employee category (union membership), gender and age on employee performance.

DISCUSSION AND CONCLUSION

On the whole, the results, though significant, may not be adequate to fully make any definite conclusions considering the low level at which the values are able to account for the performance of employees of NBF. The simplicity of the assumptions and data inadequacy has resulted in seeming violations necessary (linearity and normality) for a more meaningful statistical analysis of data gathered. Furthermore, the analysis assumes the reliability of the PMS ratings of NBF as a true measure of employee performance. In reality, this method may possess the element of subjectivity, with its own inherent biases. A more reliable system of performance evaluation can be found in non-parametric method of Charnes and company, known as Data Envelopment Analysis (DEA) (Du, 2013). This, however, is beyond the scope of this study. Nevertheless, it is felt that the data analysis has given insights on further enhancements that can be made if one is to undertake a more meaningful analysis of factors that help determine employee performance at NBF.

ACKNOWLEDGEMENT

In completing this study, I wish to acknowledge the great contribution given by the Head of the Human Resource Division of HRMD who has provided the necessary data, even on short notice, needed in completing the task. Likewise, Dr Brian Gozun, who has guided me in completing the study, especially on how to properly apply the statistical tools gained in the course, DBA723D.

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- Staff performance analysis based on data envelopment analysis (DEA) (electronic version)

ANNEX 1

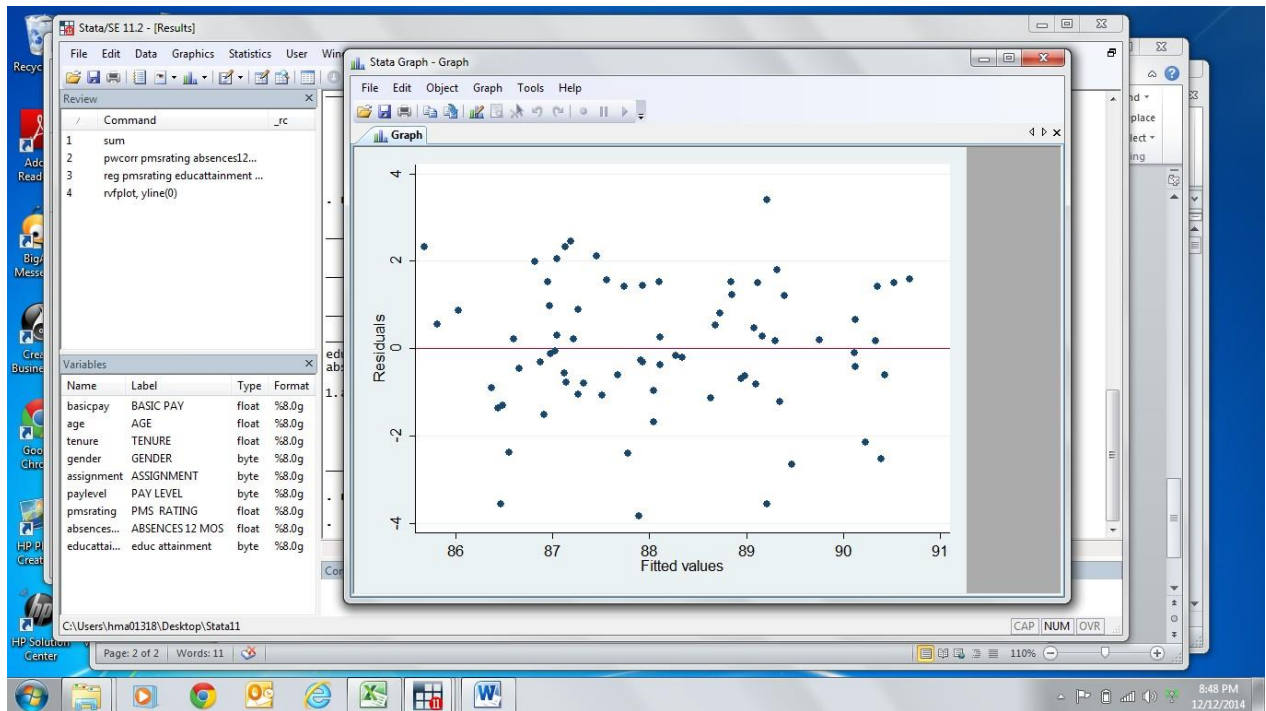
Supervisors and Managers Diagnostic Results
Summary

variable	obs	mean	std. dev	min	max
basic pay	73.00	53714.58	14204.93	37910.00	95070.75
age	73.00	48.43	5.76	33.81	58.88
tenure	73.00	22.58	6.17	4.92	33.90
gender	73.00	0.59	0.50	0.00	1.00
assignment	73.00	0.47	0.50	0.00	1.00
paylevel	73.00	9.97	1.18	8.00	13.00
pms	73.00	88.14	2.00	82.91	92.62
absences	73.00	12.01	7.54	1.00	34.50
educ attain	73.00	2.55	0.58	0.00	3.00

Pearson Correlation

	pms	absence	educ att	pay level	assign-t	gender	tenure	age	basic pay
pms	1.00								
absences	-0.01	1.00							
educ attain	0.95		1.00						
pay level	0.16	0.30		1.00					
assignment	0.10	0.07	0.05		1.00				
gender	0.56	0.18	-0.08	0.07		1.00			
tenure	0.00	0.13	0.51	0.56	0.00		1.00		
age	0.12	0.00	0.07	0.03	0.00	0.12		1.00	
basic pay	0.32	0.97	0.56	0.81	0.99	0.04	0.65*		1.00
	-0.05	-0.02	-0.15	0.09	-0.21	0.04	0.04	0.27*	
	0.68	0.87	0.20	0.45	0.07	0.04	0.04	0.27*	
	-0.17	-0.16	-0.13	0.25*	0.04	0.04	0.65*	1.00	
	0.16	0.18	0.29	0.03	0.77	0.77	0.00		
	0.22	-0.20	0.20	0.98*	0.03	0.03	0.12	0.27*	1.00
	0.06	0.09	0.09	0.00	0.80	0.80	0.31	0.02	

Graphical test for normality



Breusch- Pagan test

Ho: constant variance

Variables: fitted values of pms rating

Chi2(1) = 0.01

Prob > chi2 = 0.91

Linear regression, robust

Number of observations = 73

F (8, 64) = 6.38

Prob > F = 0.00

R-squared = 0.43

Root MSE = 1.6

	coef	std error	t	P> t	95% conf interval
pms					
educ attain-t	-0.64	0.33	-1.97	0.05	-1.29 0.01
absences	-0.02	0.03	-0.70	0.48	-0.08 0.04
pay level	0.64	0.69	0.93	0.35	-0.74 2.02
i.assign-t	2.17	0.42	5.12	0.00	1.32 3.01
i.gender	0.45	0.38	1.20	0.23	-0.30 1.20
tenure	0.07	0.03	2.24	0.03	0.01 0.13
age	-0.11	0.04	-2.96	0.00	-0.18 -0.03
basic pay	0.00	0.00	-0.36	0.72	0.00 0.00
_cons	87.07	4.68	18.58	0.00	77.71 96.43

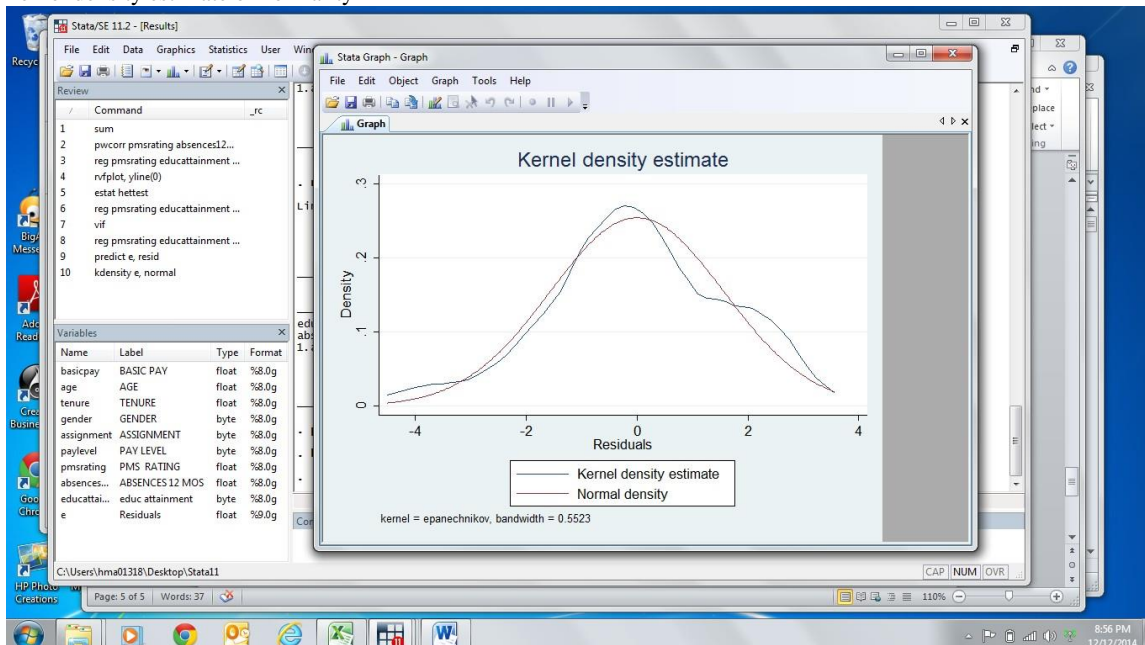
Test for Multicollinearity –vif

variable	vif	1/ vif
educ attain	1.18	0.84
absences	1.17	0.86
pay level	24.20	0.04
i.assign-t	1.30	0.77
i.gender	1.03	0.97
tenure	1.91	0.52
age	1.93	0.52
basic pay	24.87	0.04
mean vif	7.20	

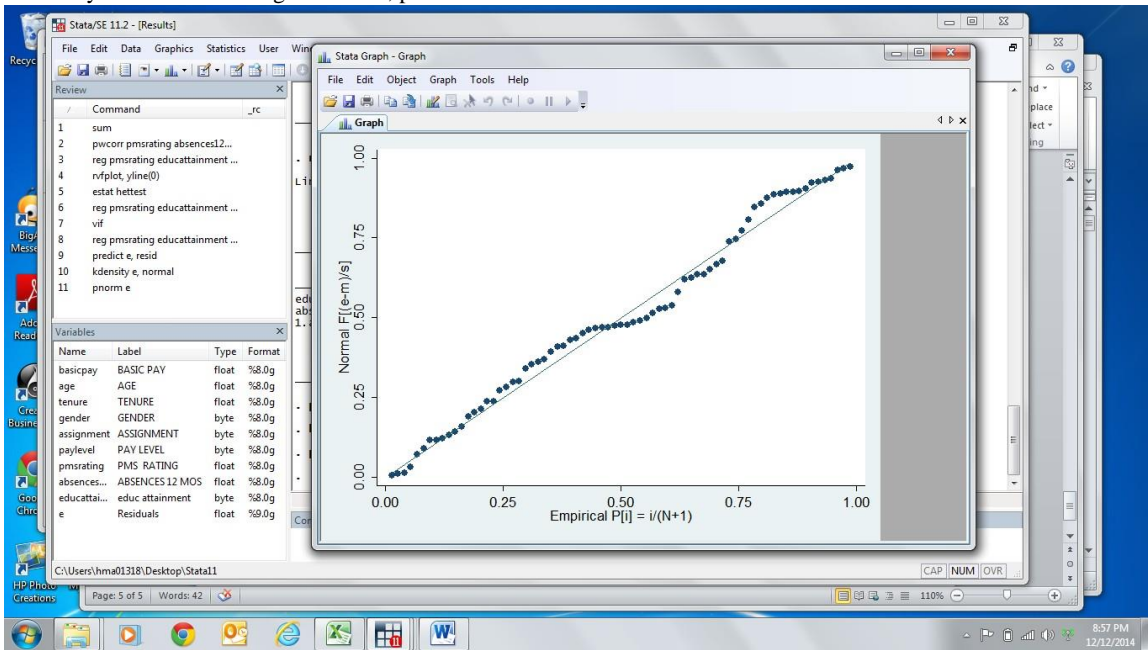
Linear regression, without pay level and basic pay, robust

pms	coef	std error	t	P>[t]	95% conf interval
educ attain-t	-0.39	0.30	-1.32	0.19	-0.98 0.20
absences	-0.03	0.03	-1.21	0.23	-0.09 0.02
i.assign-t	2.28	0.40	5.67	0.00	1.48 3.09
i.gender	0.45	0.39	1.16	0.25	-0.33 1.23
tenure	0.06	0.03	2.23	0.03	0.01 1.20
age	0.08	0.03	-2.45	0.02	-0.15 -0.02
_cons	90.83	1.85	49.13	0.00	87.14 94.52

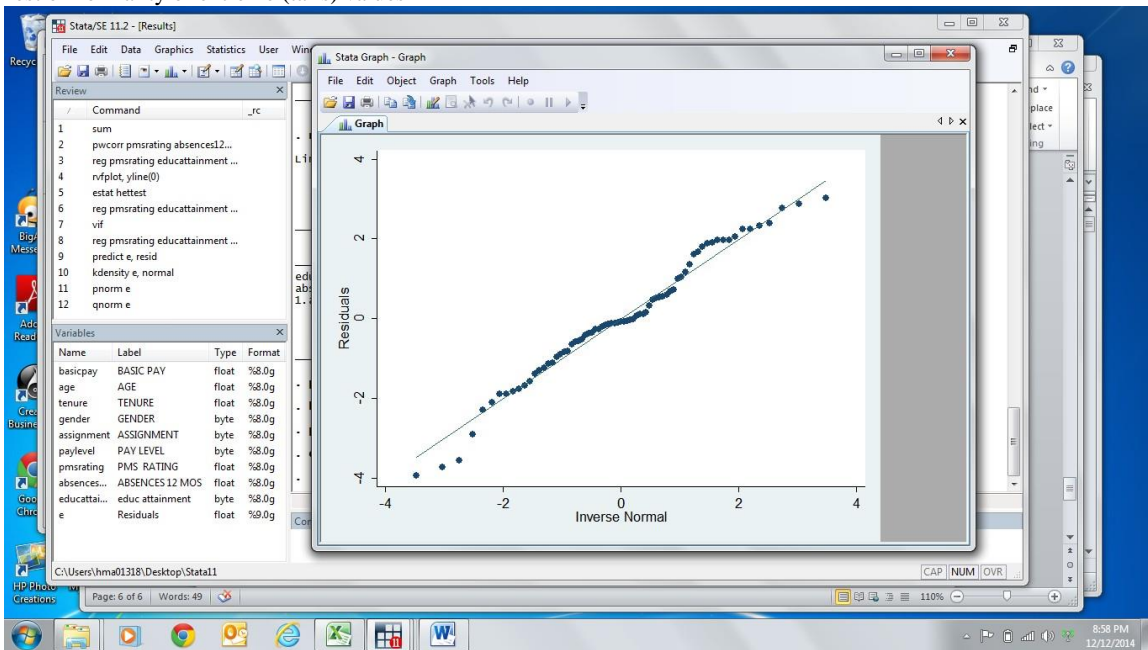
Kernel density estimate of normality



Normality test of middle range residuals, pnorm e



Test of normality of extreme (tails) values



Shapiro-Wilk test of Normality

Variable	obs	w	v	z	Prob z
e	73	0.98	1.49	0.87	0.19

Rank and File Diagnostic Results**I. Data Summary**

Variable	observations	mean	Standard deviation	minimum	maximum
Basic pay	194	27,297.25	5661.56	10801	35933
Age	194	43.13	8.77	23.11	59.81
Tenure	194	16.95	8.33	1.7	35.36
Gender	194	0.61	0.49	0	1
Employee category	194	0.21	0.41	0	1
Assignment	194	0.48	0.50	0	1
Pay-level	194	4.44	1.47	1	7
PMS rating	194	89.96	1.88	81.42	97.25
Absences	194	7.05	9.43	0	62
Education attainment	194	2	0.52	0	3

II. Pearson Correlation Matrix

	pms	absences	educ att	pay level	assign-t	emp cat	gender	tenure	age	base pay
pms	1.00									
absences	-0.30*	1.00								
educ att	0.12	-0.28	1.00							
pay level	0.10	0.05	0.45*	1.00						
assign-t	-0.25*	-0.15*	-0.16*	-0.17*	1.00					
emp cat	-0.06	0.04	0.12	0.14	0.18*	1.00				
gender	0.01	-0.03	0.29*	0.28*	-0.08	0.18*	1.00			
tenure	0.91	0.66	0.00	0.00	0.28	0.01		1.00		
age	-0.07	0.03	-0.15*	0.13	0.18*	-0.24*	-0.10		1.00	
basic pay	0.31	0.73	0.04	0.08	0.01	0.00	0.16			1.00
	-0.08	0.02	-0.16*	0.02	0.19*	0.20*	-0.10	0.87*		
	0.26	0.76	0.02	0.79	0.01	0.00	0.16	0.00		
	0.06	0.05	0.19*	0.69*	0.04	-0.01	0.13	0.71*	0.60*	
	0.40	0.48	0.01	0.00	0.56	0.84	0.08	0.00	0.00	

III. Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

- Ho: constant variance
- Variables: fitted values of pms rating
- Chi2(1) = 0.00
- Prob > chi2 = 0.9518

IV. Linear Regression

Number of Observations= 194

F (9, 184) = 6.35

Prob > F = 0.00

R-squared = 0.17

Root MSE = 1.75

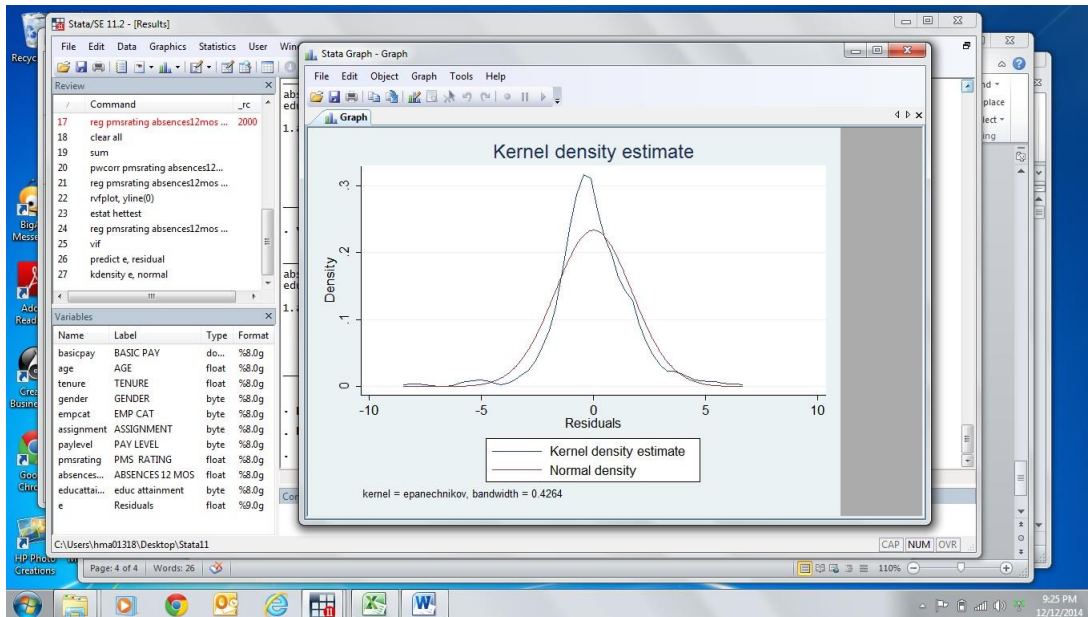
pms rating	coeff	Robust Std error	t	P>[t]	(95% Confidence Interval)	
absences	-0.54	0.01	-5.35	0.00	-0.07	-0.03
aducattain-t	0.17	0.33	0.50	0.62	-0.49	0.82
paylevel	-0.21	0.17	-1.26	0.21	-0.54	0.12
L.assignment	-0.70	0.27	-2.60	0.01	-1.23	-0.17
l.empcat	-0.25	0.39	-0.63	0.53	-1.02	0.53
i.gender	-0.15	0.24	-0.61	0.55	-0.62	0.33
tenure	-0.06	0.03	-1.78	0.08	-0.12	0.01
age	-0.02	0.03	-0.54	0.59	-0.07	0.04
basic pay	0.00	0.00	2.38	0.02	0.00	0.00
_cons	89.31	1.02	87.35	0.00	87.29	91.33

V. Test for Multicollinearity, VIF

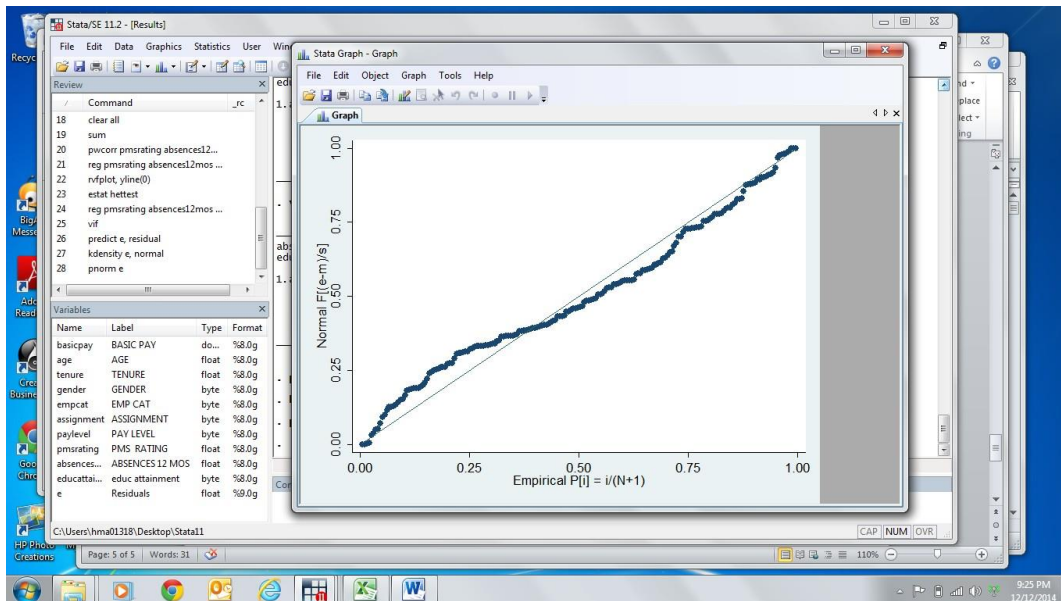
variable	VIF	1/VIF
absences	1.03	0.97
educattain-t	1.39	0.72
paylevel	4.47	0.22
L.assignment	1.20	0.84
l.empcat	1.23	0.81
i.gender	1.18	0.85
tenure	7.13	0.14
age	4.62	0.22
basic pay	8.01	0.12
mean VIF	3.36	

VI. Normality tests

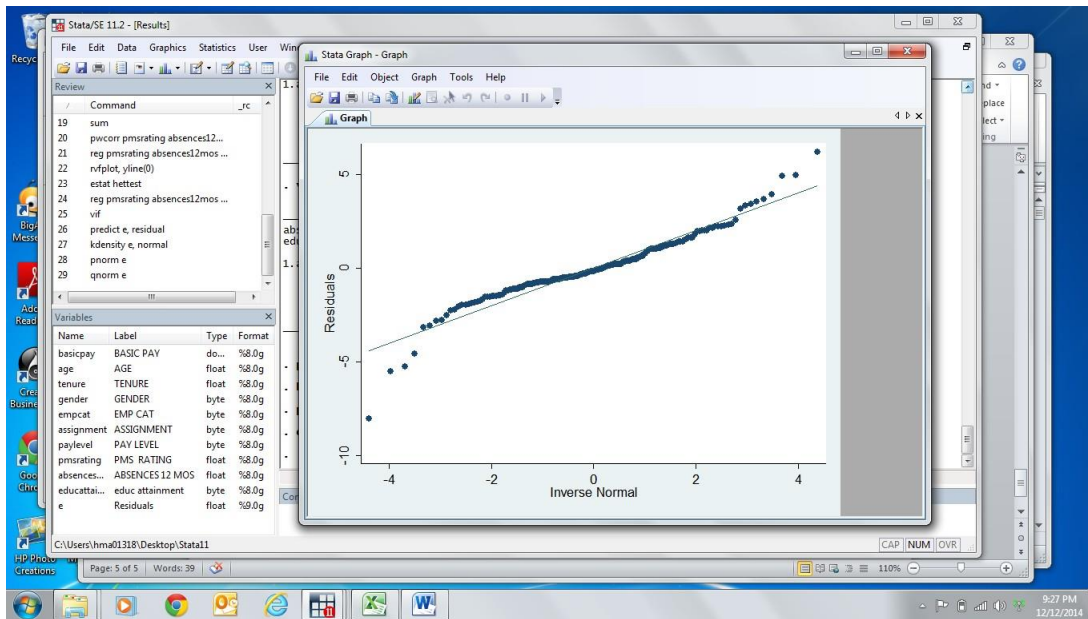
a. Kernel density test



b. Pnorm – graphical test of middle range residuals



c. Test for normality of extreme residuals (tails)



d. Shapiro-Wilk test of normality

variable	obs	w	v	z	Prob>z
e	194	0.94	8.45	4.90	0.00