

Can Promotion Tournaments Produce Bad Managers? Evidence of the Peter Principle

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Peter Principle, the best **worker** is not always the best candidate for **manager**.

Do firms promote best potential managers or best workers on the current job?

Results suggest:

- Incentive benefits of emphasis in current job performance are high
- Firms make inefficient promotion decision

Methodology: 3 Steps Estimation

1. Manager fixed effect (all sample)

$$Sales_{imft} = \text{Log}(1 + sales_{imft}) = a + \delta_i + \delta_m + \delta_{ft} + \varepsilon_{imft}$$

2. Propensity to be promoted to manager (sample of not yet being promoted)

$$Promote_{ift} = a_1 Sales_{ift} + a_2 Collaborators_{ift} + X_{ift} + \delta_{ft} + \nu_{ift}$$

3. Relationship between manager and pre-promotion sales (only managers)

$$\hat{\delta}_{m\{i,f\}} = b_1 Sales_{if,PRE} + b_2 Collaborators_{if,PRE} + \delta_f + \mathbf{G}(\widehat{Promote}_{if}) + u_{if}$$

Main Results

Cross-section regression

$$\hat{\delta}_{m\{i,f\}} = b_1 Sales_{if,PRE} + b_2 Collaborators_{if,PRE} + \delta_f + G(\widehat{Promote}_{if}) + u_{if}$$

$H_0 : b_1 = b_2 = 0$. Firms maximize managerial quality.

After controlling for the propensity to promote, high pre-promotion sales workers should not be systematically better or worse managers.

$H_1 : b_1 \neq 0, b_2 \neq 0$. Firms has mistaken beliefs about predict power of sales or firm set different promotion threshold based on workers sales as an incentive mechanism

Result: $b_1 < 0$, in the cross section managers with high pre-promotion sales add less value to employees

Main Comments

Peter principle test implies that it was impossible to produce in **real time** a better allocation of managers.

1. Time-varying Manager Added Value
2. Empirical Model and Identification Assumptions
3. Economic Interpretation of the Results

Comment 1: Time-varying Manager Added Value

Cross-sectional test

$$\hat{\delta}_{m\{i,f\}} = b_1 Sales_{if,PRE} + b_2 Collaborators_{if,PRE} + \delta_f + G(\widehat{Promote}_{if}) + u_{if}$$

It is possible that managers add value right after promotion, but not on average

For example, after being promoted the team does great (+ added value), then new people come in but manager does not add value to them.

Suggestion: Estimate time-varying manager fixed effect (yearly or quarterly) and explore the time series dimension of the relationship between pre-sales and manager fixed effect.

Comment 2: Empirical Model and Identification Assumptions

Statistical inference is based on correct and unbiased estimation of b_1

$$\hat{\delta}_{m\{i,f\}} = b_1 Sales_{if,PRE} + b_2 Collaborators_{if,PRE} + \delta_f + G(\widehat{Promote}_{if}) + u_{if}$$

1. Manager Fixed Effect is identified from workers that we observe under multiple managers (654 of 2231)
2. $\widehat{Promote}_{if}$ is an estimated variable extrapolated from the LPM, need to correct standard errors
3. Exclusion restriction, the excluded variables are tenure, team size, etc.
4. In the absence of instruments, Heckman selection model identify out of non-linearity, but running LPM

Suggestion 2: Empirical Model and Identification Assumptions

1. Manager Fixed Effect is identified from workers that we observe under multiple managers (654 of 2231)

Describe the difference between workers under multiple manager and others

2. $\widehat{Promote}_{if}$ is an estimated variable extrapolated from the LPM, need to correct standard errors

Analogy to manually estimating 2SLS, heteroskedasticity is not enough

3. Exclusion restriction, the excluded variables are tenure, team size, etc.

Look for other potential instruments. For example, industry promotion rules or norms?

4. In the absence of instruments, Heckman Selection model identify out of non-linearity, but running LPM

Without valid instrument non-linearity and error distribution is crucial, potentially use structural simultaneous estimation

Comment 3: Economic Interpretation of the Results

Small team managers and heterogeneity by industry

Average team is 4.6 (median 4) employees

⇒ Description of the industries

δ_m as a measure of manager quality

Managers with high pre-promotion sales can be unconditionally good, but for workers that switch teams they do not add value

⇒ Sales of other team participants after a worker switch teams

Can we say that is costly for firms?

Managers do not add value to workers, because it is easier for them to increase their own work load

⇒ Look at manager's own work hours after promotion, overall sales increase

Conclusion

Very interesting paper using a unique and rich dataset

Unique opportunity to understand within firm labor dynamics

Empirical strategy need to be refined to improve statistical inference

Thank you!