

System Dynamics Approach for Managing Turnover Problem in Professional Service Firm

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Background & Objectives

Why this research important?



INTRODUCTION



- **Employee turnover** is a measurement of how long your employees stay with your company and how often you have to replace them.
- **Employee turnover** is calculated by dividing separations by the total staff: $\text{employee turnover} = \text{number of separations} / \text{average number of employees}$.
- There are two main categories of turnover: **voluntary** and **involuntary**.
- From a managerial perspective, attraction and retention of high quality employee is more important for staying competitive



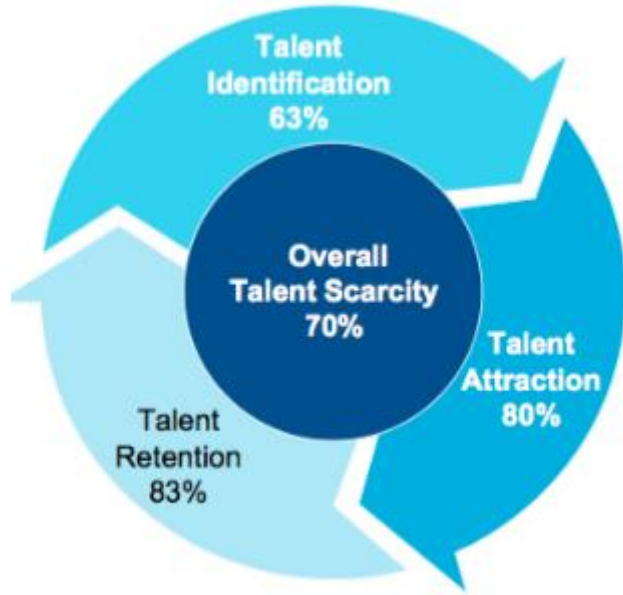
RESEARCH BACKGROUND



- Employee turnover give negative impact for organization performance, especially talent shortage in middle management.
- Professional and business service sector had 27.8% turnover rate from 2000 – 2013.
- In 2020, if this trends continue, many organizations in Indonesia will facing 56% talent shortage in middle management & 17% in senior management (*BPS, 2013; BCG Report, 2013*)



RESEARCH BACKGROUND



Indonesia's Organizational challenge in managing employee

- Failure on retaining right talents will affect organizational performance directly or indirectly (Cascio, 2006).
- From financial aspect, Turnover contributes 60% - 200% higher cost on human resources, especially in professional service sector
- There are several strategies for reducing turnover, which are need cost consideration to implement and unfortunately some strategies really charge high cost.



RESEARCH OBJECTIVES



- How can professional service organization manage turnover growth without making loss in investment when implement their strategy?
- Which possible strategy alternatives that professional service organization should take?



BOUNDARIES & ASSUMPTIONS



- Model built based on previous turnover model
- Some data assumption we used based on professional service sector organization (*public accounting firm*)
- No significant difference characteristics between individual

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Model Development

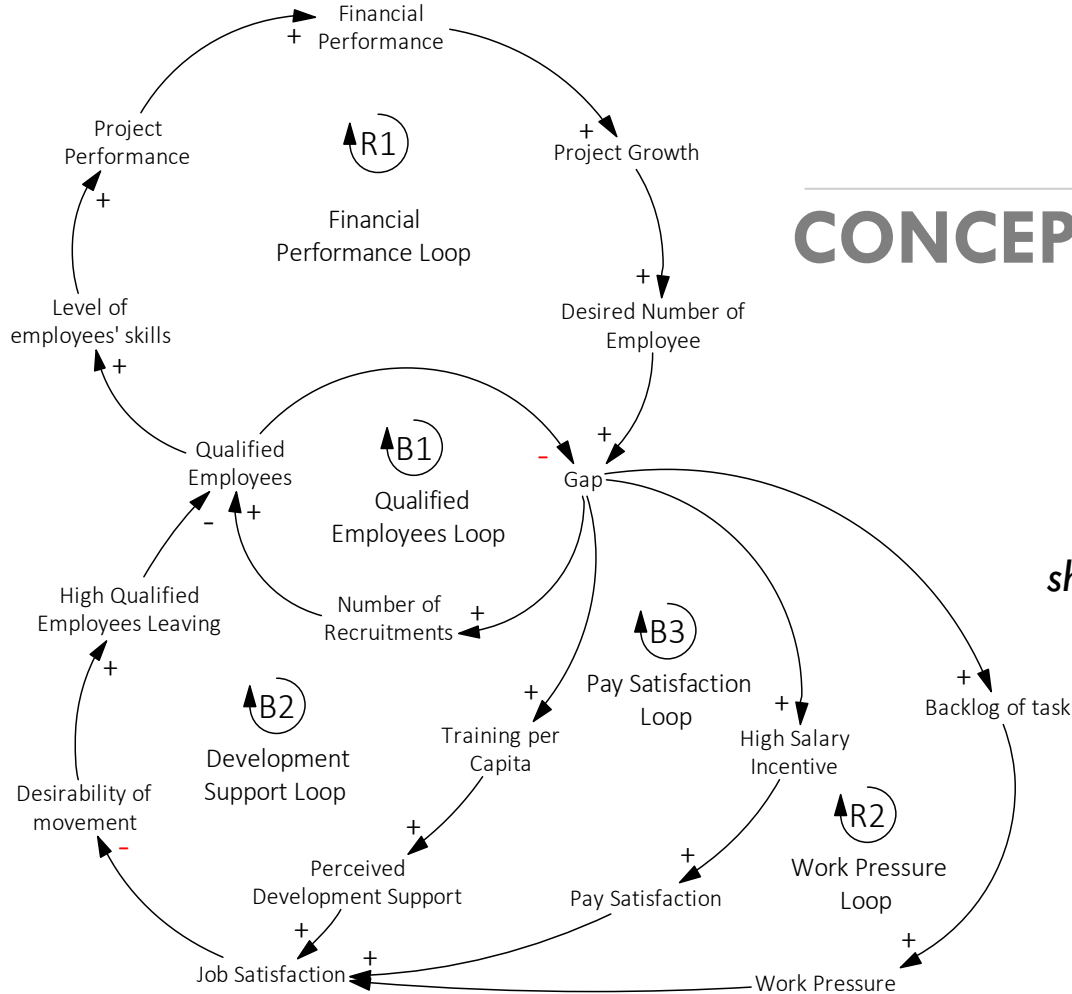
Model that we have developed



PRELIMINARY MODEL*



*Based on survey conducted in 2012 from 1,662 active employees and 1,785 employees which had quit.



MODEL CONCEPTUALIZATION

Our review on many turnover research, has shown that it is essential to consider time in the turnover process.

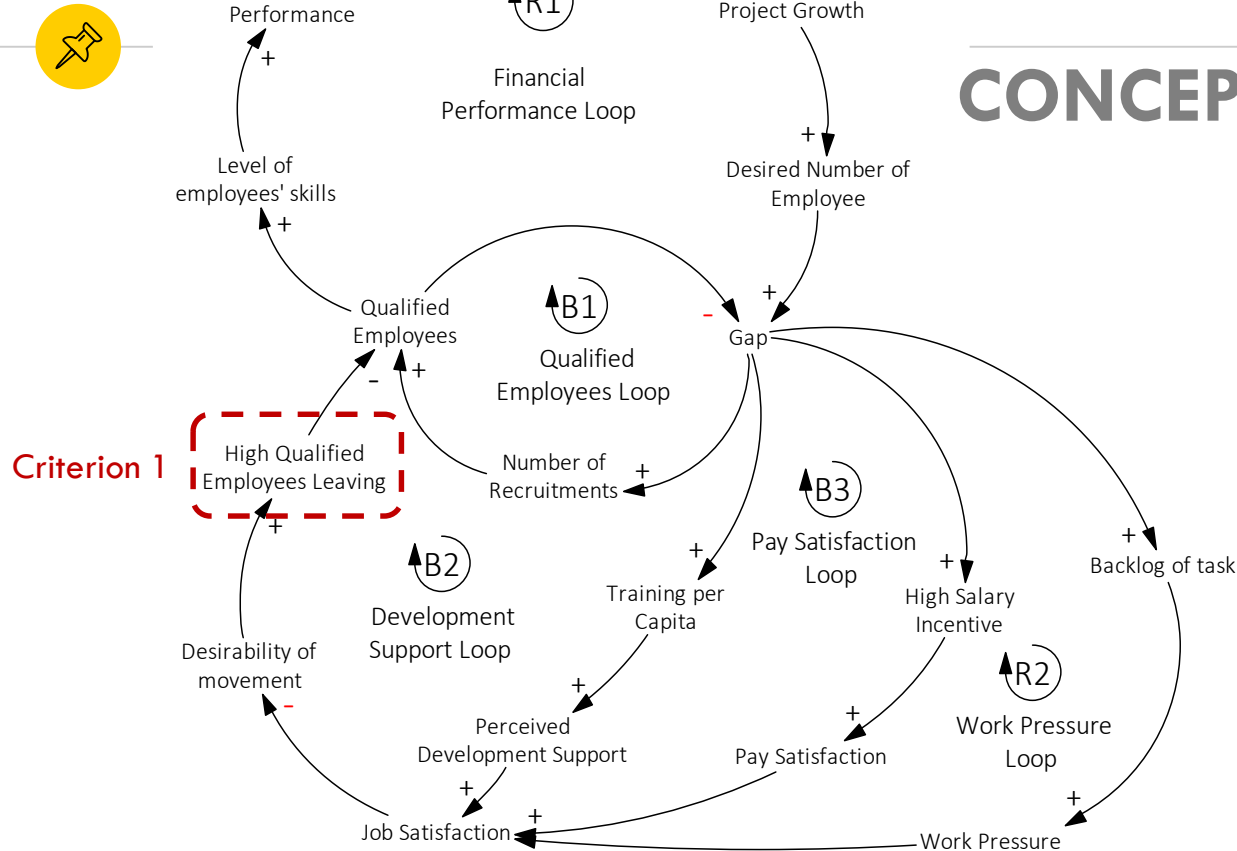
MODEL

CONCEPTUALIZATION

Main criteria for model output

Based on objective from problem owner, there are 2 important criteria as output basis for model:

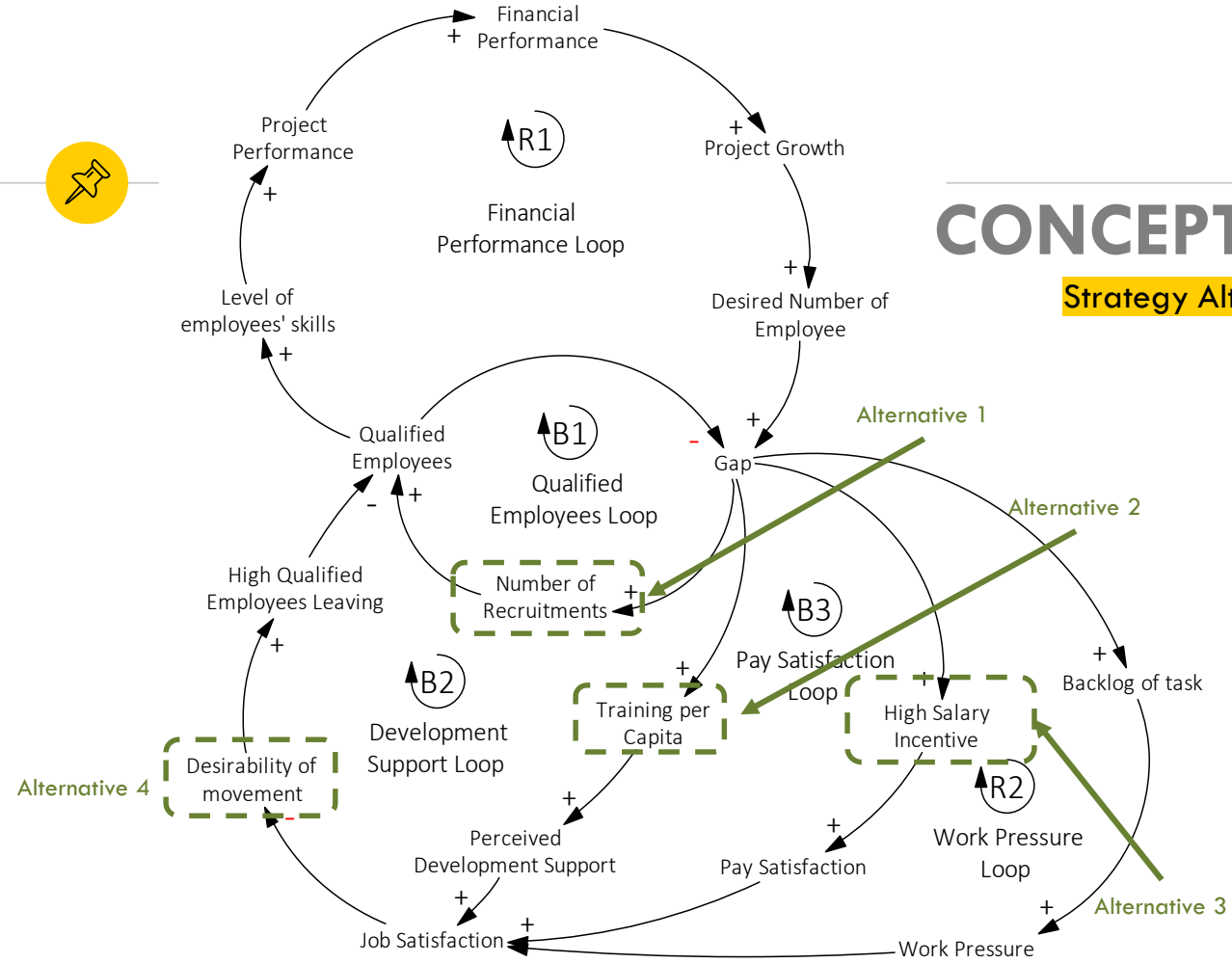
- Percentage of annual employees that leaving organization (%)
- Financial Performance for each strategy that implemented (% ROI)



MODEL

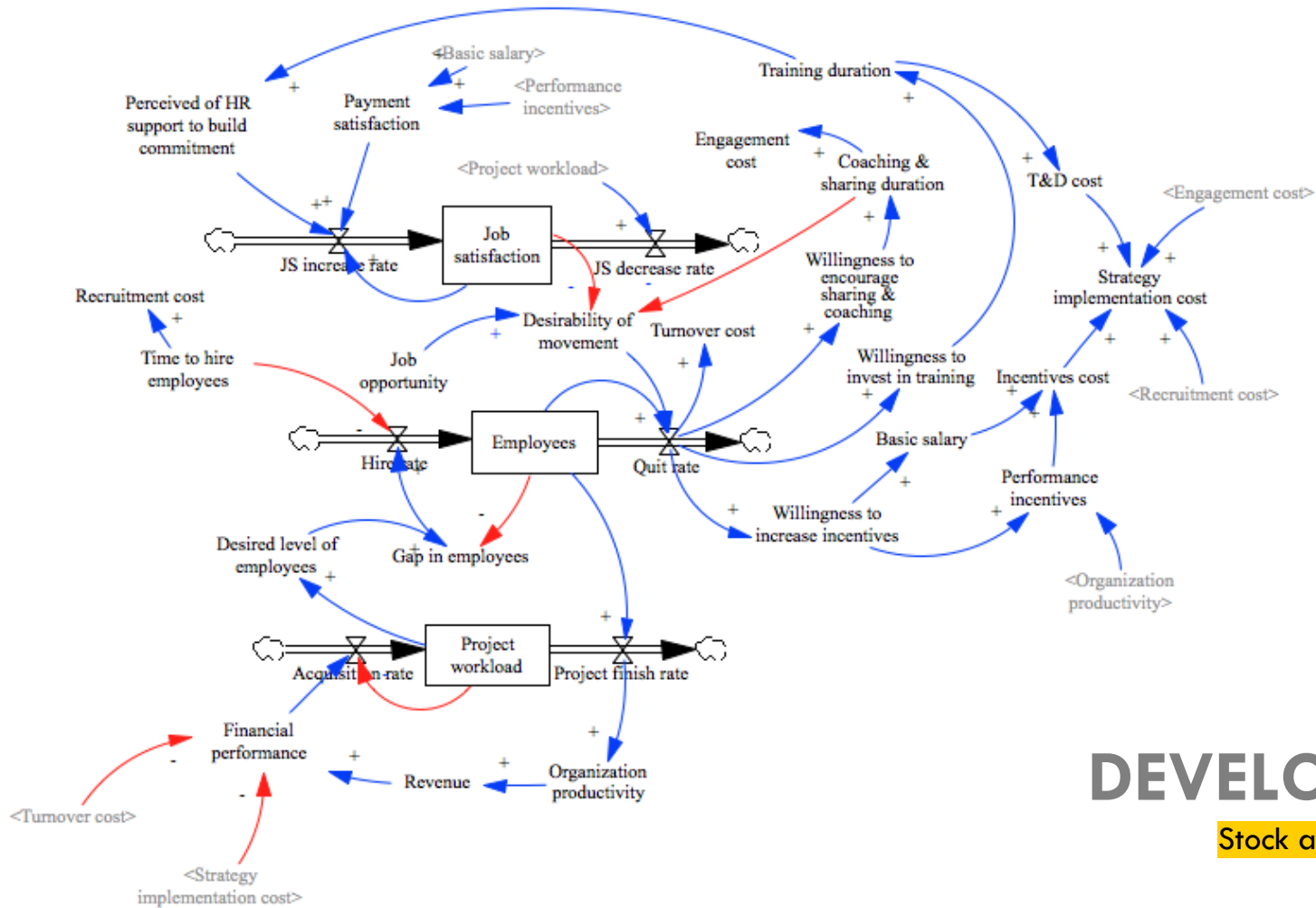
CONCEPTUALIZATION

Strategy Alternatives to Manage Turnover



There are 4 strategy alternatives we tested on the model:

- A1 : Introducing job preview and cultural fit assesment in recruitment
- A2 : Increasing training & development session
- A3 : Increasing basic salary & apply performance based incentive
- A4 : Encouraging knowledge sharing & performance coaching



MODEL DEVELOPMENT

Stock and Flow Diagram

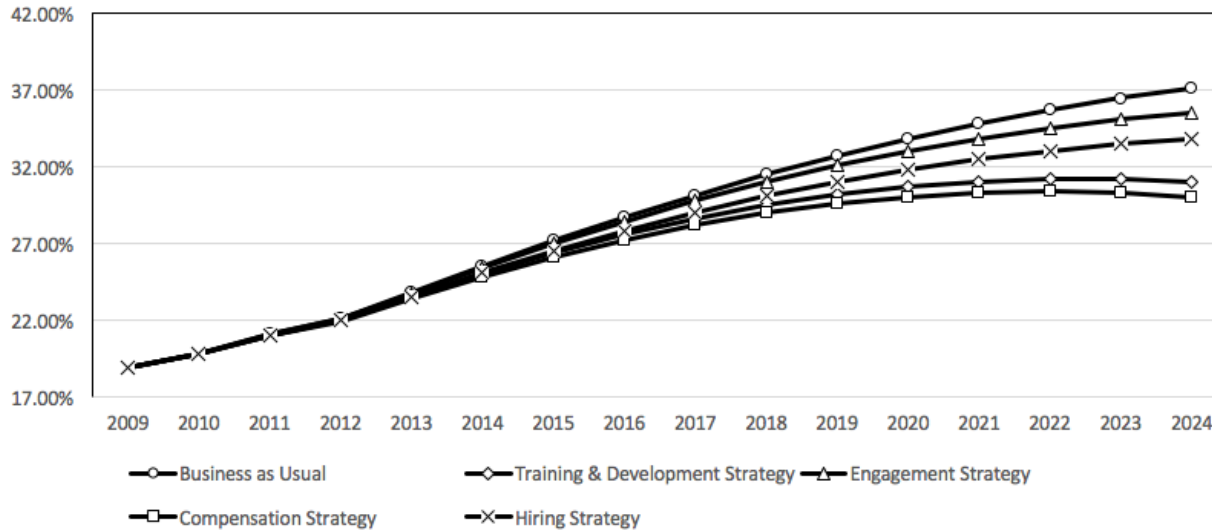
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Simulation Results

Result that we got from models



MODEL SIMULATION RESULT



Models of dynamic systems that have been constructed then executed within the period up to 2024 to present how the form of its behavior over time



COMPARISON OF STRATEGY IMPLEMENTATION ROI



Strategy Option	%ROI / year (Estimation)
Training & Development Strategy	74%
Engagement Strategy	38%
Compensation Strategy	-132%
Recruitment Strategy	-65%



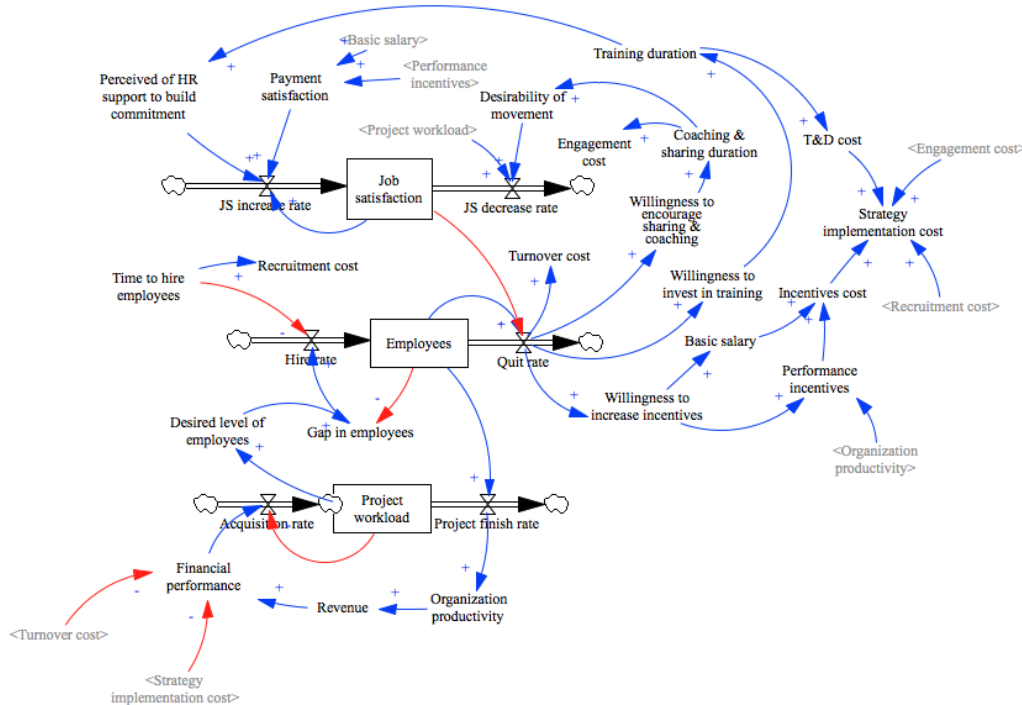
STRATEGY SUGGESTION



	Training & Development Strategy	Engagement Strategy	Compensation Strategy	Recruitment Strategy
Average on Reducing Turnover Rate per Year	0.78 (Value : 6%)	0 (Value : 1.2%)	1 (Value : 7.3%)	0.36 (Value : 3.4%)
Average ROI per Year	1 (Value : 74%)	0.82 (Value : 38%)	0 (Value : -132%)	0.32 (Value : -65%)
Total Score	1.78	0.82	1	0.68
Rank Order	1	3	2	4



STRATEGY ANALYSIS



Based on exit survey from organization we observe (2014), pay satisfaction / compensation factors has more retention impact than development support.

But compensation factors far more expensive rather than development support to implement.

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CONCLUSION

Conclusion from our research



CONCLUSION



- Based on our simulation result, turnover trends will continue to increase up to 37% per year in professional service organization in 2024.
- Our suggestion is to implement Training & Development Strategy to manage turnover effectively with good financial performance, following by Compensation strategy which is the most effective to manage turnover
- Most important thing from this research is, theoretically, system dynamics can be useful to support strategy decision for solving dilemmatic problem like employee turnover.



SUGGESTION



- Further development of this model can be divided into 3 level of employees : low level, middle level, and senior level.
- Model can be developed to test multi / combined strategies, with correlation consideration between strategies
- Model can be developed to run in various uncertainty environment so this model can generate robust strategies.
- This theoretical model can be adopted and improved when considered to use in other organization type / sector.



Thank you for your attention!

Any questions, comments or suggestions are welcome.