Capstone Project

Why we need Labor Laws?

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Yuechen Yang

VANDERBILT UNIVERSITY

Content

I.Background
II.Data
III. Methodology
IV.Result
V.Conclusion

I. Background

There are a lot of aspects that can influence employees' emotions during working, such as benefits and culture.

Some companies are willing to invest in their people because if their employees have good emotions during the work day, they may work more effectively.

Do firms who invest in their people have better financial performance than those who don’t?

II. Data

Companies: S&P 500 over 2010 to 2020

Financial data: Refinitive

- Price to Book ratio: compares a company's market value to its book value.
- Return on Assets: a financial ratio that indicates how profitable a company is in relation to its total assets.

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- Scrape the employees' reviews from Indeed.com

III. Methodology

There are 3 main steps for the project:

1. Scrape the employees' reviews data from Indeed:
    (1) Selenium
    (2) BeautifulSoup
2. Use Transformer model:
    (1)sentiment analysis
    (2)zero-shot classification: "culture", "compensation", "work life balance", "career opportunity"
3. Statistics on the data

IV. Result

Price to book ratio

	Culture	Compensation	Work life balance	Career opportunity
positive	7.117	7.249	6.532	6.879
neutral	7.391	7.571	6.147	6.750
negative	7.427	7.454	6.171	6.619
difference	-0.31	-0.205	0.361	0.260
P value	9.60e-10	6.885e-05	4.955e-09	4.866e-06

IV. Result

Return on Assets

	Culture	Compensation	Work life balance	Career opportunity
positive	6.469	6.468	6.498	6.493
neutral	6.480	6.495	6.475	6.524
negative	6.531	6.532	6.533	6.546
difference	-0.062	-0.064	-0.035	-0.053
P value	0.00012	7.50e-05	0.0378	0.001326

V. Conclusion

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- The big picture is that companies who invest more in their people will have worse financial performance.
- We need the Labor Laws because they are needed to keep the balance between the company profits and employees' happiness.

Thank you!
Questions?

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