

Boardex Manager and Firm Level Panel Documentation

Manager-Level Panel

Get variable on whether a manager has worked in a 'finance' sector

- Import board summary dataset
- Drop rows with duplicate ['DirectorID*', 'Individual Name', 'Sector'], to get a dataset where each row contains a unique (director, sector) pair
- Set 'worked_in_finance' = 1 if sector is one of the following: ['Banks', 'Investment Companies', 'Private Equity']
- Get a list of unique directorIDs corresponding to the directors who worked in finance
- Add a column to board summary, 'director_worked_in_finance', which equals 1 if the directorID appears in the above-mentioned list.

Pre-process board summary

- Import board summary dataset
- Drop rows with duplicate ['DirectorID*', 'Individual Name'], to get a dataset where each row contains a unique director. This is the base of the manager level panel.

Get variable on whether a manager has been a CEO / CFO

- Get a list of all unique roles from the 'Individual Role' column
- Get a list of ceo roles where the role is included if it starts with ceo, e.g, 'CEO', 'CEO/MD'
- Get a list of cfo roles where the role is included if it starts with ceo, e.g, 'CFO', 'CFO/Chief Administration Officer'
- Add a ceo and cfo column to the pre-processed board summary where variable = 1 if the role name is in the list of ceo / cfo roles, respectively.
- Get a list of directorIDs who have been CEOs, and CFOs before.

Get director characteristics

- Import director characteristics dataset
- Merge with pre-processed board summary to add ['Age', 'DOB', 'Nationality'] columns
- Groupby ['DirectorID*', 'Individual Name', 'DOB'], and apply the functions ['Age': 'max', 'Nationality': 'first'] to the remaining variables

Get education characteristics

- Import education characteristics dataset
- Groupby ['DirectorID*', 'Individual Name'], and apply the functions ['Country': list, 'InstitutionID*': list, 'Institution Name': list, 'Company Type': list, 'Qualification': list, 'Qualification Description': list] to the remaining variables
- Merge with latest board summary to add the education qualifications variables
- Get number of qualifications

Get achievements

- Import achievements dataset
- Groupby ['DirectorID*', 'Individual Name'], and apply the functions ['Country':list, 'OrganisationID*':list, 'OrganisationName':list, 'Achievement Date':list, 'Award/Achievement':list] to the remaining variables
- Merge with latest board summary to add the achievements variables
- Get number of achievements

Get total and average time on board

- Import board summary dataset
- Annual Report Year: replace 'Current' with 'May 2021'
- Extract month and year from annual report year
- Groupby ['DirectorID*', 'Individual Name', 'CompanyID*'] and apply the function ['Month':count] to each group of (director, company), to get the total number of months each director worked at each company
- Then, groupby ['DirectorID*', 'Individual Name'] twice, once to get the mean and once to get the total number of months each director was on board.
- Merged with latest board summary to add the 'ave_time_on_board_months' and 'sum_time_on_board_months' variables

Save

- Save as csv

Firm-Level Panel

Pre-process board summary

- Import board summary dataset
- Annual Report Year: replace 'Current' with 'May 2021'
- Extract month and year from annual report year
- Filter year >= 2002
- Get a table where (1 firm, 1 year) = 1 row. This is the base of the firm level panel. Drop director-related variables ('Director Type', 'DirectorID*', 'Individual Name', 'Individual Role') to get the firm information.

Get banker for company

- Import company details dataset, get columns ['CompanyID*', 'Bankers']

Get mean values for manager-related variables

- Import manager-level dataset, get ID
- Merge manager-level dataset with board summary on 'DirectorID*'
- Groupby ['CompanyID*', 'Company Name'] and apply the mean function on the following variables: ['number_of_qualifications':'mean', 'number_of_achievements':'mean', 'ave_time_on_board_months':'mean', 'sum_time_on_board_months':'mean']

Get top 3 nationalities

- Using the manager-level dataset, get the DirectorID* and nationality column.
- Merge board summary with nationality to get nationalities for every director.
- Groupby ['CompanyID*', 'Company Name'] and apply a function to each group of directors associated with a company get the top 3 most common nationalities.

Merge

- Merge the new columns with the board summary
- Save as csv