Correlate with pay: check the generalist premium for men and women

Check the “path” to CEO for women and men:

Past COO/CFO/board experience

Gender Difference in General skills

1. % of female CEOs OVER time, rising over time
2. Gender differences in index components

Mean of generalist ability index for female CEO is significantly higher than that of male at 1% significance level. The table below also shows the summary stats of 5 components for generating generalist ability index. Compared with male CEOs, Female CEOs significantly work in higher number of past positions, higher number of past firms, higher number of past industries, more industries, and have higher chance of being CEO before at 1% significance level, and have higher chance to work in conglomerate at 5% significance level.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | generalistv8 | Countpastpos | Countpastfirm | Countsic4 | Ceodum | Ceodivdummy |
| Female | mean | **0.508351** | **7.386931** | **2.509289** | **2.347854** | **0.352338** | **0.867393** |
| Sd | 1.267873 | 3.856421 | 2.419488 | 2.145077 | 0.477852 | 0.339259 |
| Max | 7.395903 | 25 | 18 | 14 | 1 | 1 |
| Min | -1.52018 | 0 | 0 | 0 | 0 | 0 |
| Count | 1561 | 1561 | 1561 | 1561 | 1561 | 1561 |
| Male | mean | **-0.01618** | **5.723561** | **1.582926** | **1.479452** | **0.284084** | **0.848051** |
| Sd | 0.98601 | 3.391008 | 1.758377 | 1.514078 | 0.450981 | 0.358975 |
| Max | 13.43175 | 61 | 49 | 13 | 1 | 1 |
| Min | -1.52018 | 0 | 0 | 0 | 0 | 0 |
| Count | 49056 | 49056 | 49056 | 49056 | 49056 | 49056 |
| Total | mean | -9.13E-10 | 5.774858 | 1.611494 | 1.506233 | 0.286188 | 0.848648 |
| Sd | 1 | 3.418386 | 1.789582 | 1.544697 | 0.451983 | 0.358396 |
| Max | 13.43175 | 61 | 49 | 14 | 1 | 1 |
| Min | -1.52018 | 0 | 0 | 0 | 0 | 0 |
| Count | 50617 | 50617 | 50617 | 50617 | 50617 | 50617 |

1. Internal vs External

Female CEOs are more likely to be internal CEOs, CEO are defined as CEO/MD/Chairmen/President

|  |  |  |  |
| --- | --- | --- | --- |
|  | Internal CEOs | External CEOs | Total |
| Female | 897 | 664 | 1561 |
| **57.46%** | **45.54%** |  |
| Male | 24,535 | 24,521 | 49,056 |
| **50.01%** | **49.99%** |  |
| Total | 25,432 | 25,185 | 50,649 |
| 50.24% | 49.76% |  |

Female CEOs are more likely to be internal CEOs, CEOs are just CEO title

|  |  |  |  |
| --- | --- | --- | --- |
|  | Internal CEOs | External CEOs | Total |
| Female | 1,132 | 429 | 1561 |
| **72.52%** | **27.48%** |  |
| Male | 31,903 | 17,153 | 49,056 |
| **65.03%** | **34.97%** |  |
| Total | 33,035 | 17,582 | 50,649 |
| 65.26% | 34.74% |  |

1. Career Path
2. Age first becoming CEO

There is no much difference in the age first becoming CEO for female or male.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Mean | Sd | Max | Min | N |
| Female | 47.23507 | 7.332533 | 84 | 25 | 1557 |
| Male | 47.51692 | 8.489639 | 81 | 16 | 48253 |
| Total | 47.50811 | 8.455945 | 84 | 16 | 49810 |

1. When to gain the generalist ability
   1. Generalists and components summary stats when **first becoming CEO**. There are 104 female first time CEOs, and 2168 male first time CEOs. Generalist Ability Index for both male CEOs and females CEOs drop significantly compared to whole sample. This is not surprising as Ceodum(if the CEOs has been CEO in other firms in the past) drops to zero when constraining to be first time CEO.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | generalistv8 | Countpastpos | Countpastfirm | Countsic4 | Ceodum | Ceodivdummy |
| Female | mean | **-0.13079** | **7.028846** | **1.365385** | **1.355769** | **0** | **0.807692** |
| Sd | 0.821833 | 3.465381 | 1.526832 | 1.467567 | 0 | 0.396022 |
| Max | 3.10869 | 23 | 7 | 7 | 0 | 1 |
| Min | -1.44048 | 1 | 0 | 0 | 0 | 0 |
| Count | 104 | 104 | 104 | 104 | 104 | 104 |
| Male | mean | **-0.50925** | **4.941882** | **0.817343** | **0.805812** | **0** | **0.817343** |
| Sd | 0.607647 | 2.81753 | 1.11326 | 1.093093 | 0 | 0.386474 |
| Max | 5.258457 | 21 | 11 | 13 | 0 | 1 |
| Min | -1.52018 | 0 | 0 | 0 | 0 | 0 |
| Count | 2168 | 2168 | 2168 | 2168 | 2168 | 2168 |
| Total | mean | -0.49193 | 5.037412 | 0.84243 | 0.830986 | 0 | 0.816901 |
| Sd | 0.623873 | 2.882693 | 1.140811 | 1.118496 | 0 | 0.386833 |
| Max | 5.258457 | 23 | 11 | 13 | 0 | 1 |
| Min | -1.52018 | 0 | 0 | 0 | 0 | 0 |
| Count | 2272 | 2272 | 2272 | 2272 | 2272 | 2272 |

* 1. Generalist and components summary stats for executives who have been CEOs before

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | generalistv8 | Countpastpos | Countpastfirm | Countsic4 | Ceodum | Ceodivdummy |
| Female | mean | **0.553972** | **7.412491** | **2.59094** | **2.418668** | **0.377488** | **0.871654** |
| Sd | 1.281906 | 3.882644 | 2.450919 | 2.168489 | 0.484925 | 0.334589 |
| Max | 7.395903 | 25 | 18 | 14 | 1 | 1 |
| Min | -1.52018 | 0 | 0 | 0 | 0 | 0 |
| Count | 1457 | 1457 | 1457 | 1457 | 1457 | 1457 |
| Male | mean | **0.006391** | **5.759659** | **1.618005** | **1.510315** | **0.297024** | **0.849429** |
| Sd | 0.994017 | 3.410672 | 1.7743 | 1.523351 | 0.456952 | 0.357634 |
| Max | 13.43175 | 61 | 49 | 12 | 1 | 1 |
| Min | -1.52018 | 0 | 0 | 0 | 0 | 0 |
| Count | 46875 | 46875 | 46875 | 46875 | 46875 | 46875 |
| Total | mean | 0.022898 | 5.809484 | 1.647335 | 1.537698 | 0.29945 | 0.850099 |
| Sd | 1.008244 | 3.437443 | 1.806067 | 1.554486 | 0.458022 | 0.356978 |
| Max | 13.43175 | 61 | 49 | 14 | 1 | 1 |
| Min | -1.52018 | 0 | 0 | 0 | 0 | 0 |
| Count | 48332 | 48332 | 48332 | 48332 | 48332 | 48332 |

* 1. Generalist and components summary stats for CEOs **since** they become CEOs (additional number of firms and positions for the Years in the panel but after firstly become CEOs)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Countpastpos | Countpastfirm | Countsic4 |
| Female | mean | **0.890269** | **0.447205** | **0.426501** |
| Sd | 0.965359 | 0.659126 | 0.631373 |
| Max | 6 | 3 | 3 |
| Min | 0 | 0 | 0 |
| Count | 483 | 483 | 483 |
| Male | mean | **0.965393** | **0.427464** | **0.402178** |
| Sd | 1.18536 | 0.75413 | 0.716044 |
| Max | 10 | 6 | 5 |
| Min | 0 | 0 | 0 |
| Count | 10836 | 10836 | 10836 |
| Total | mean | **0.962188** | **0.428306** | **0.403216** |
| Sd | 1.176875 | 0.750306 | 0.712628 |
| Max | 10 | 6 | 5 |
| Min | 0 | 0 | 0 |
| Count | 11319 | 11319 | 11319 |

* 1. If not restrictive in Panel Year, check career path in BoardEx for first time CEOs. Interestingly, female CEOs has took **more** number of positions, worked in **more** number of firms, and worked in **more** number of industries (measured by sic4) **before** becoming CEOs compared to male CEOs, but less after becoming CEOs. This suggest that female CEOs gain more generalist sills by working in more positions/firms/industries **before** being CEOs.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | #pastpos\_bCEO | #pastpos\_aCEO | #pastfirm\_bCEO | #pastfirm\_aCEO | #sic4\_bCEO | #tsic4\_aCEO |
| Female | mean | **5.701923** | **9.663462** | **3.076923** | **9.663462** | **2.269231** | **3.451923** |
| Sd | 3.863898 | 6.560563 | 2.241239 | 6.560563 | 1.495824 | 1.960185 |
| Max | 24 | 32 | 14 | 32 | 9 | 9 |
| Min | 1 | 0 | 1 | 0 | 1 | 0 |
| Count | 104 | 104 | 104 | 104 | 104 | 104 |
| Male | mean | **4.152022** | **10.10367** | **2.505346** | **10.10367** | **1.718735** | **3.251976** |
| Sd | 2.843785 | 7.085586 | 1.646376 | 7.085586 | 0.932323 | 1.985228 |
| Max | 37 | 68 | 14 | 68 | 13 | 18 |
| Min | 0 | 0 | 0 | 0 | 0 | 0 |
| Count | 2151 | 2151 | 2151 | 2151 | 2151 | 2151 |
| Total | mean | 4.223503 | 10.08337 | 2.531707 | 10.08337 | 1.744124 | 3.261197 |
| Sd | 2.915807 | 7.061472 | 1.682084 | 7.061472 | 0.971958 | 1.984093 |
| Max | 37 | 68 | 14 | 68 | 13 | 18 |
| Min | 0 | 0 | 0 | 0 | 0 | 0 |
| Count | 2255 | 2255 | 2255 | 2255 | 2255 | 2255 |

1. Time in the firm before being CEOs for internal CEOs

The following summary stats suggests that Female CEOs worked in the firm for longer time before being CEO compared with male CEO, regardless of in broad term CEO or narrow term CEO. This stats only valid for Internal CEOs.

|  |  |  |
| --- | --- | --- |
|  | Years before broad CEO | Years before CEO |
| Female | **4.233735** | **6.970239** |
|  | 6.508346 | 8.570215 |
|  | 32.79452 | 46.08219 |
|  | 0 | 0 |
|  | 284 | 284 |
| Male | **4.01886** | **6.6609** |
|  | 6.876172 | 9.077332 |
|  | 46.94794 | 53.16712 |
|  | 0 | 0 |
|  | 7542 | 7499 |
| Total | 4.026657 | 6.672188 |
|  | 6.86289 | 9.058989 |
|  | 46.94794 | 53.16712 |
|  | 0 | 0 |
|  | 7826 | 7783 |

1. Number of positions in the firm before being CEOs
2. COO/CFO/Board Experience – number of board positions in other companies
3. Tenure (number of years being CEO in the firm)

* Career path picture
* Draft, jirk jenter, how to run regression
* Pay
* Size – s&p500 /industry. If size of firm/ industry worked before, how matter in the career path.
* Distribtuion of gender, median