

# Are CEOs Different?

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# Authors



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## □ EDUCATION

- Professor Kaplan earned his PhD in Business Economics from Harvard University. He received his AB, summa cum laude, in Applied Mathematics and Economics from Harvard College.

## • Research Interests:

- private equity
- venture capital
- corporate governance
- executive talent
- income inequality

## Publications:

- “Can Investors Time Their Exposure to Private Equity?”, Journal of Financial Economics





Morten Sorensen

□ Associate Professor, Tuck School of Business,  
2020–present

□ **EDUCATION**

- PhD, Stanford University, 2005;
- MSc., Aarhus University, 1999;
- BSc., Aarhus University, 1997

• **Research Interests:**

- Entrepreneurial Finance
- Venture Capital
- Private Equity

**Publications:**

- "What Is CEO Overconfidence? Evidence from Executive Assessments," Journal of Financial Economics,



# Abstract

- Using 2,603 executive assessments, we study how CEO candidates differ from candidates for other top management positions, particularly CFOs.
- More than half of the variation in the 30 assessed characteristics is explained by four factors that we interpret as general ability, execution (vs. interpersonal), charisma (vs. analytical), and strategic (vs. managerial).
- CEO candidates have more extreme factor scores that differ significantly from those of CFO candidates.



# Abstract

- Conditional on being considered, candidates with greater general ability and interpersonal skills are more likely to be hired.
- These and our previous results on CEO success suggest that boards overweight interpersonal skills in hiring CEOs.



# 1. Introduction



MANY EXECUTIVES ASPIRE TO BECOME CEOs. At the same time, perhaps the most important job of a board of directors is to choose an effective CEO.

Yet little is known about the characteristics of executives who become CEO candidates, how CEOs differ from other top managers, and how boards choose a CEO from among those candidates.

Kaplan, Klebanov, and Sorensen (2012, henceforth KKS) use personality assessments of 316 CEO candidates to study determinants of CEO success.



In this study, we use a substantially larger sample that contains 2,603 assessments to further characterize top managers. Our analysis complements and extends KKS in four ways.





## Contribution

- We provide statistically significant predictors of who become CEOs. To the extent that a candidate's personality can be changed or improved, the results may also provide guidance for aspiring CEOs.
- We believe that these results complement existing academic research and are potentially relevant for both boards choosing CEOs and candidates aspiring to become CEOs.



## 2. Data



- 数据来源：ghSMART（表A1）—2603份高管特征评估报告(由风险资本、股权投资、收购投资者要求做的)，关于高管个性和背景的描述;数据包括上市公司和私营公司
- ghSMART评估过程以心理学为基础，主要部分是结构化面试，面试官询问面试人工作和生活中的行为和动作，以及教育和家庭背景
- 从CapitalIQ, Zoominfo.com, LexisNexis, and Internet searches，以及聘请ghSMART做评估的风险投资者收集候选人是否被录用到评估的职位，以及其后续的职业信息



### GhSMART评分特征指南

	特征	描述	与高分相关的行为	与低分相关的行为
领导才能	雇佣A级员工	消息来源、招募和雇佣A级员工。	有90%的时间雇佣A级员工	有25%的时间雇佣A级员工
	培养员工	指导员工担任当前的职位以提高绩效，并为他们未来的职业做好准备	团队说，候选人给了很多的发展和指导建议。许多团队成员会扮演更重要的角色。	团队成员没有说候选人提供了很多指导。团队成员不会继续做得更好的事情。
	开除表现不佳的人	在180天内开除C级员工。通过指导、调动、降职或开除来实现这一点。	在180天内开除C级员工给一个新职位或雇佣新的员工。	可能会偶尔开除C级员工，但保留大部分，且通常是多年。
	尊敬	重视他人，公平地对待他们，并关心他们的观点和感情。	团队会说候选人是公平和尊重对待员工。候选人根据团队努力来描述表现。	候选人热衷于自己的想法，团队成员可能会说候选人令人厌烦，有缺点
	效率	能够以最小的精力产生大量的产出。	候选人在短时间内完成了很多工作	候选人的产出并不高。他是一个执行力很差的“思想家”。
	网络	拥有一个庞大的人才网络。	候选人有能力快速建立网络	候选人没有大的网络，建立网络的能力有限。
	灵活	快速调整改变优化条件充满复杂性和变化。	候选人不被新的或不断变化的环境所困扰。以一种实事求是的方式面对变化。	当发生变化时，候选人经常指责其他人没有做好他们的工作。



## GhSMART评分特征指南

	特征	描述	与高分相关的行为	与低分相关的行为
个人才能	正直	在道德上不抄近路。赢得信任，保持信心。	以总是做正确的事而感到自豪。	走捷径，不清楚行为是否在不道德的边缘。
	组织	以高效、富有成效的方式进行计划、组织、日程安排和预算。	工作成就与目标相近。候选人设置优先级。	候选人的成就与目标不符，个人目标多变。
	镇静	在重压力或应力条件下保持稳定	在各种各样的情形下执行情况相同，而不管压力如何。	对高压的情况反应过度。在压力下未能完成目标。
	积极进取	行动迅速，采取一个强有力的立场，没有过度令人讨厌。	候选人会言行一致，即使会惹恼其他人。	候选人采取观望的态度，放慢行动以减少风险。
	迅速	迅速采取行动，不陷入障碍。	候选人会采取行动，并在短时间内完成很多工作。	候选人完成的速度很慢。
	承担的义务	遵守口头和书面协议，不考虑个人成本。	无论如何都要完成工作	不符合口头或书面协议的要求。



## GhSMART评分特征指南

	特征	描述	与高分相关的行为	与低分相关的行为
才智	智力	学习很快。展示了快速理解和吸收新信息的能力。	较高的 <b>GPA</b> 和 <b>SAT</b> 分数能够快速获取新的工作细节。	<b>GPA</b> 和 <b>SAT</b> 分数较低。可能会在很长一段时间内保持相同的角色。
	分析技能	结构和处理定性或定量的数据，并得出结论。	引用了多个解决问题的技能的例子。	很少能通过分析来解决问题。严重依赖直觉。
	战略远景	能够以一种鼓舞人心的方式看到和传达大局。	对当前和未来的角色有着远大的愿景。激发别人的愿景。	对当前或未来的角色没有一个愿景。不重视规划。
	创造力	为问题的解决尝试新的和创新的方法。	多次为棘手的问题提供新的和创新的解决方案	很少能提供创造性的解决方案。
	注意细节	不要让重要的细节泄露或破坏项目。	花时间查看细节。问深入的问题。	因为忽略了小而重要的细节，所以犯了很多错误



## GhSMART评分特征指南

	特征	描述	与高分相关的行为	与低分相关的行为
动机	热情	对工作表现出激情和兴奋。有一种“能做到”的态度。	表现出很高的活力和对工作的热情。	表现出低活力和对工作的有限热情。
	坚持不懈	表现出坚韧的意愿去完成任务。	永远不放弃。坚持完成任务，直到任务完成。	有放弃的记录
	主动	不被告知该做什么就会采取行动。给公司带来了新的想法	定期为一个组织带来新的想法。自主的。	从不带来新的想法。在被告知之前不采取行动。
	职业道德	他有强烈的意愿，努力工作和长时间来完成工作。	长时间努力完成工作。	刚好够完成工作。
	高标准	期望个人表现和团队表现都是最好的。	期待来自他自己和他周围的其他人的最佳表现。	允许自己80%的工作/让别人的糟糕表现下滑。





## GhSMART评分特征指南

	特征	描述	与高分相关的行为	与低分相关的行为
人际关系	倾听能力	让别人说话，并试图理解他们的观点。	显示出倾听他人意见以理解意义的能力。	打断人说话，不解决问题，误解。
	可接受批评	经常征求反馈意见，并在接受批评时反应冷静。	通过寻找成长和变得更好的方法来回应批评	对批评的反应是指责别人，反应强烈。
	写作能力	用正确的语法写得清晰而清晰。	在各种形式的交流中展示清晰写作的能力。	没有提供任何证据证明他有很强的写作能力。
	口头沟通	说话清晰，不会过于冗长或健谈。	说话清楚、清晰、简洁	说话太快或太慢，喃喃自语，使用了很多术语，等等
	团队合作	接触同行，与主管合作，建立关系。	认识到一个强大的团队的力量，并进行合作。	倾向于单独操作。可能无法与他人和谐相处。
	劝导能力	能够说服别人采取行动。	说服他人采取行动，即使最初持反对意见。	未能或从未试图说服他人采取行动
	让人们承担责任	为团队设定目标和后续工作，以确保达到完成工作的进度	设定目标，后续跟进，并让人们为失误负责。	不设定目标，不跟进，或让人们负责。





## A. Candidate Assessments

Panel A: Candidates Interviewed per Year

Year	CEO	CFO	COO	CXO	Other	ALL
2000	6	2	0	8	9	17
2001	35	14	10	59	37	96
2002	64	30	14	108	92	200
2003	77	21	13	111	112	223
2004	95	20	15	127	90	217
2005	79	39	16	134	105	239
2006	72	39	18	129	161	290
2007	96	48	19	163	170	333
2008	85	36	11	132	112	244
2009	70	27	9	106	119	225
2010	73	28	16	116	128	244
2011	72	33	21	125	143	268
2012	1	0	0	1	0	1
2013	0	0	0	0	6	6
Total	825	337	162	1,319	1,284	2,603



Panel B: Descriptive Statistics of Candidate Characteristics

	CEO		CFO		COO		CXO		ALL	
	Mean	<i>N</i>	Mean	<i>N</i>	Mean	<i>N</i>	Mean	<i>N</i>	Mean	<i>N</i>
Years working	24.8	802	23.7	332	23.9	156	24.4	1,286	23.5	2,511
Years current	5.2	777	3.4	323	4.3	152	4.6	1,248	4.9	2,449
Co. Number of	5.0	807	5.2	332	5.0	156	5.1	1,291	4.9	2,515
Co.'s										
Female	5.1%	825	8.3%	337	8.0%	162	6.3%	1,319	10.1%	2,603
Military	13.7%	810	7.2%	332	16.7%	156	12.4%	1,294	12.4%	2,524
Insider	45.4%	812	27.2%	334	52.8%	159	41.7%	1,301	41.2%	2,571
Hired	59.4%	798	53.7%	328	72.0%	157	59.4%	1,278	59.4%	2,427

Panel C: Incumbency and Hired Candidates

	Not Hired		Hired		N/A	Total
Outsider	801	53.0%	610	40.8%	100	1,511
Company	60	16.1%	300	80.7%	12	372
Position	116	16.9%	518	75.3%	54	688
N/A	9	28.1%	13	40.6%	10	32
Total	986	37.9%	1,441	55.4%	176	2,603



## B. Hiring Companies

Panel A: Hiring Company Type

	CEO		CFO		COO		CXO		ALL	
Venture capital	23%	187	13%	45	14%	22	19%	254	15%	396
Growth equity	13%	106	17%	56	24%	39	15%	201	13%	326
Buyout	53%	437	55%	185	44%	72	52%	690	45%	1,178
Public	3%	28	3%	11	9%	14	4%	53	11%	289
Other private	6%	53	8%	27	8%	13	7%	92	8%	211
Investor	1%	11	4%	13	1%	2	2%	26	8%	198
N/A	0%	3	0%	0	0%	0	0%	3	0%	5
Total	100%	825	100%	337	100%	162	100%	1,319	100%	2,603

Panel B: Hiring Company Location

	CEO		CFO		COO		CXO		ALL	
USA	81%	668	85%	288	84%	136	82%	1,088	79%	2,064
Canada	8%	65	4%	15	6%	9	7%	88	9%	235
Europe	3%	21	4%	15	7%	11	4%	47	6%	165
Japan	0%	1	0%	0	0%	0	0%	1	0%	3
N/A	8%	70	6%	19	4%	6	7%	95	5%	136
Total	100%	825	100%	337	100%	162	100%	1,319	100%	2,603



Panel C: Hiring Company Size (from Public Sources)

	CEO		CFO		COO		CXO		ALL	
Small	24%	202	13%	43	17%	28	135%	272	16%	425
Medium	35%	292	41%	139	44%	72	247%	499	31%	818
Large	14%	116	23%	76	9%	14	102%	206	17%	433
Very large	9%	78	11%	37	15%	25	69%	140	18%	475
N/A	17%	137	7%	42	14%	23	124%	250	17%	452
Total	100%	825	94%	337	100%	162	677%	202	100%	2,603

Panel D: Company Size (Orbis)

	CEO		CFO		COO		CXO		ALL	
Small	6%	46	6%	21	6%	9	6%	76	5%	129
Medium	17%	139	19%	65	22%	36	18%	238	16%	419
Large	22%	184	22%	74	19%	30	22%	286	19%	483
Very large	34%	277	40%	134	41%	66	36%	477	43%	1,122
N/A	22%	179	13%	43	13%	21	18%	242	17%	450
Total	100%	825	100%	337	100%	162	100%	1,319	100%	2,603



## C. Subjective Perception of Candidates

Panel A: Subjective Rating by Position

	CEO	CFO	COO	CXO	ALL
Nice person	77%	76%	79%	77%	78%
Risk-taker	64%	48%	58%	59%	58%
Personality	79%	68%	73%	76%	74%
Good at sales	79%	34%	62%	67%	65%
Career path	40%	33%	37%	38%	35%

Panel B: Subjective Rating by Ownership Type, All Candidates

	VC	PE	Public	ALL
Nice person	76%	79%	79%	78%
Risk-taker	64%	58%	55%	58%
Personality	72%	77%	64%	74%
Good at sales	66%	65%	66%	65%
Career path	44%	37%	26%	35%



Panel C: Subjective Rating by Ownership Type, CEO Candidates

	VC	PE	Public	ALL
Nice person	77%	78%	71%	77%
Risk-taker	70%	62%	68%	64%
Personality	76%	81%	78%	79%
Good at sales	77%	79%	77%	79%
Career path	46%	39%	43%	40%

Panel D: Subjective Rating by Gender

	Female	Male	Female CEO	Male CEO
Nice person	82%	78%	72%	77%
Risk-taker	52%	59%	70%	64%
Personality	70%	74%	79%	79%
Good at sales	56%	66%	85%	79%
Career path	34%	35%	41%	40%



## 3. The Four Factors





## Average Characteristic Ratings

	CEO	CFO	COO	CXO	ALL
Hires A-players	3.28	3.21	3.34	3.27	3.26
Develops people	3.32	3.24	3.35	3.30	3.30
Removes underperformers	3.17	3.08	3.19	3.15	3.14
Respect	3.54	3.54	3.59	3.55	3.56
Efficiency	3.55	3.49	3.63	3.55	3.56
Network	3.50	3.27	3.40	3.43	3.43
Flexible	3.46	3.37	3.43	3.43	3.43
Integrity	3.86	3.88	3.92	3.87	3.88
Organization	3.51	3.61	3.66	3.55	3.55
Calm	3.62	3.53	3.59	3.59	3.57
Aggressive	3.62	3.35	3.53	3.54	3.52
Fast	3.60	3.41	3.56	3.54	3.53
Commitments	3.72	3.64	3.73	3.70	3.71
Brainpower	3.60	3.55	3.58	3.59	3.57
Analytical skills	3.51	3.60	3.52	3.53	3.51
Strategic vision	3.42	3.15	3.19	3.32	3.28
Creative	3.54	3.18	3.35	3.42	3.43
Attention to detail	3.38	3.56	3.58	3.45	3.46
Enthusiasm	3.60	3.29	3.53	3.51	3.51
Persistence	3.76	3.59	3.72	3.71	3.72
Proactive	3.72	3.46	3.65	3.64	3.63
Work ethic	3.84	3.73	3.86	3.81	3.81
High standards	3.63	3.51	3.62	3.59	3.61
Listening skill	3.45	3.42	3.50	3.45	3.47
Open to criticism	3.31	3.38	3.41	3.34	3.37
Oral communication	3.57	3.36	3.49	3.51	3.50
Teamwork	3.49	3.45	3.54	3.48	3.49
Persuasion	3.56	3.22	3.42	3.46	3.44
Holds people accountable	3.46	3.34	3.44	3.43	3.41
Average	3.54	3.43	3.53	3.51	3.51



Panel A: Factor Loadings (|loadings| < 0.15 are Blank)

	Factor 1	Factor 2	Factor 3	Factor 4
Hires A-players	0.59			
Develops people	0.56	0.25		
Removes underperformers	0.53	-0.17		-0.22
Respect	0.31	0.73		
Efficiency	0.71			-0.22
Network	0.64			
Flexible	0.54	0.38		
Integrity	0.30	0.31		
Organization	0.50		0.44	-0.23
Calm	0.44	0.33		
Aggressive	0.68	-0.43	-0.26	
Fast	0.69	-0.37	-0.18	
Commitments	0.70			-0.21
Brainpower	0.52		0.33	0.43
Analytical skills	0.54		0.56	0.25
Strategic vision	0.58	-0.16		0.46
Creative	0.52			0.39
Attention to detail	0.40		0.46	-0.27
Enthusiasm	0.55	0.24	-0.44	
Persistence	0.66	-0.16		
Proactive	0.74	-0.26	-0.20	
Work ethic	0.57			
High standards	0.73	-0.17		
Listening skill	0.39	0.62		
Open to criticism	0.41	0.65		
Oral communication	0.49	0.16	-0.16	0.19
Teamwork	0.48	0.61		
Persuasion	0.60		-0.37	0.18
Holds people accountable	0.66	-0.21		-0.27



Panel B: Eigenvalues and Variance Explained by First Six Factors

	Eigenvalue	Proportion	Cumulative
Factor 1	9.34	32.2%	32.2%
Factor 2	2.88	9.9%	42.1%
Factor 3	1.51	5.2%	47.3%
Factor 4	1.12	3.9%	51.2%
Factor 5	0.85	2.9%	54.1%
Factor 6	0.42	1.4%	55.5%

Panel C: Pair-Wise Correlation Coefficients

	Nice Person	Risk Taker	Outgoing Personality	Good at Sales	Career Path	Female
Nice person	1.00					
Risk-taker	-0.17***	1.00				
Personality	0.01	0.15***	1.00			
Good at sales	0.04*	0.11***	0.16***	1.00		
Career path	-0.05**	0.10***	0.04**	0.00	1.00	
Female	0.03	-0.04**	-0.03	-0.07***	-0.01	1.00
Factor 1 (+Ability)	0.17***	0.18***	0.10***	0.29***	0.01	0.02
Factor 2 (-Execution)	0.55***	-0.24***	-0.02	-0.05**	-0.05**	0.03
Factor 3 (-Charisma)	-0.06***	-0.16***	-0.21***	-0.26***	-0.06***	-0.02
Factor 4 (+Strategic)	0.00	0.07***	0.05***	0.12***	0.04*	-0.08***

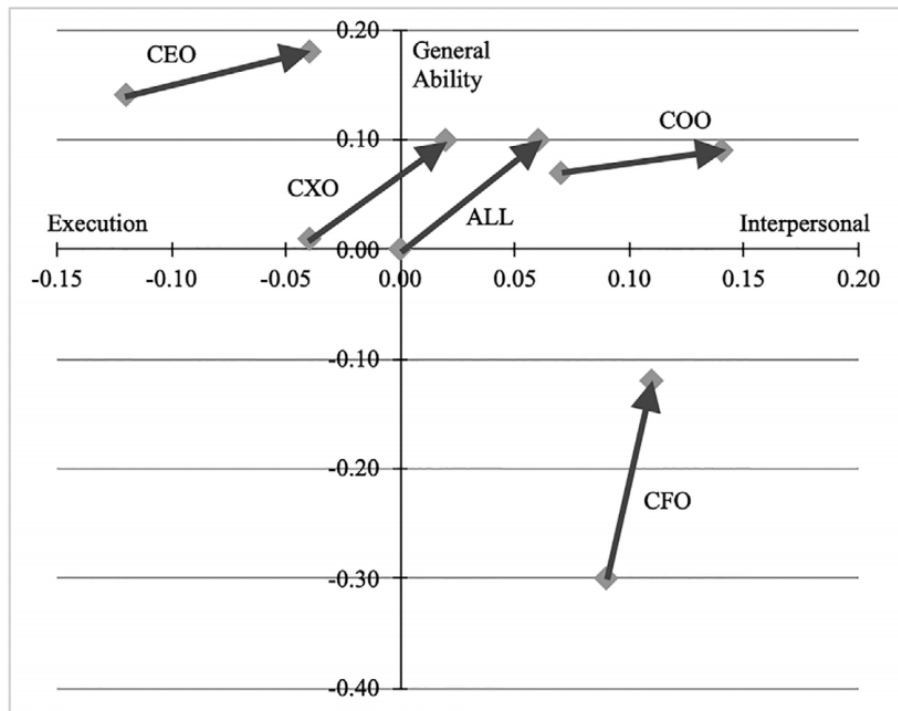


## 4.CEO, CFO, and COO Characteristics

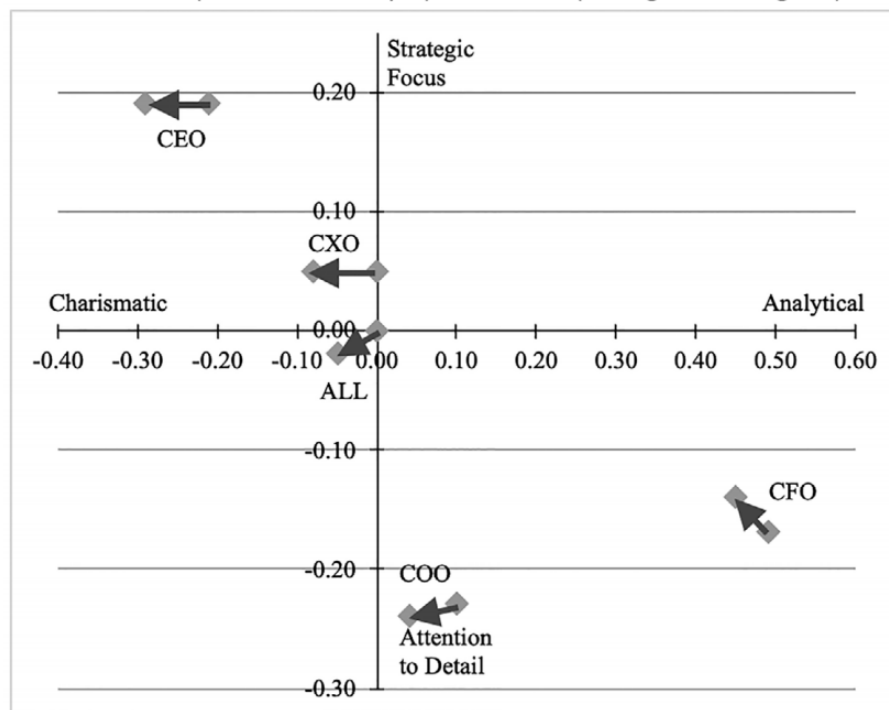


# A. Factor Scores of All Candidates

Panel A: Factor 1 (General Ability) and Factor 2 (Execution vs. Interpersonal)



Panel B: Factor 3 (Charisma vs. Analytic) and Factor 4 (Strategic Focus vs. Managerial)



Panel A: Factor Scores

	CEO	CFO	COO	CXO	ALL
Factor 1 (+Ability)	0.14	-0.30	0.07	0.01	0.00
Factor 2 (-Execution)	-0.12	0.09	0.07	-0.04	0.00
Factor 3 (-Charisma)	-0.21	0.49	0.10	0.00	0.00
Factor 4 (+Strategic)	0.19	-0.17	-0.23	0.05	0.00

Panel B: Factor Scores by Ownership Type

Venture Capital	CEO	CFO	COO	CXO	ALL
Factor 1 (+Ability)	0.04	-0.27	0.01	-0.02	-0.02
Factor 2 (-Execution)	-0.19	-0.12	0.18	-0.14	-0.11
Factor 3 (-Charisma)	-0.32	0.58	0.25	-0.11	-0.14
Factor 4 (+Strategic)	0.42	-0.25	-0.24	0.25	0.19
Private Equity	CEO	CFO	COO	CXO	ALL
Factor 1 (+Ability)	0.18	-0.33	0.10	0.03	-0.05
Factor 2 (-Execution)	-0.07	0.12	0.10	0.00	0.03
Factor 3 (-Charisma)	-0.22	0.46	-0.05	-0.01	-0.07
Factor 4 (+Strategic)	0.09	-0.18	-0.29	-0.03	-0.06
Public	CEO	CFO	COO	CXO	ALL
Factor 1 (+Ability)	0.40	0.37	0.26	0.36	0.37
Factor 2 (-Execution)	-0.12	0.12	-0.03	-0.04	-0.02
Factor 3 (-Charisma)	0.50	0.57	0.37	0.48	0.30
Factor 4 (+Strategic)	0.16	-0.10	-0.24	0.00	-0.08



Panel C: Factor Scores by Size of Hiring Company (from Public Sources)

Small or Medium	CEO	CFO	COO	CXO	ALL
Factor 1 (+Ability)	0.07	-0.39	-0.06	-0.06	-0.08
Factor 2 (-Execution)	-0.09	0.04	0.13	-0.03	0.01
Factor 3 (-Charisma)	-0.28	0.50	0.06	-0.05	-0.11
Factor 4 (+Strategic)	0.24	-0.21	-0.27	0.07	0.02
Large or Very Large	CEO	CFO	COO	CXO	ALL
Factor 1 (+Ability)	0.33	-0.20	0.29	0.15	0.13
Factor 2 (-Execution)	-0.20	0.11	-0.16	-0.10	-0.02
Factor 3 (-Charisma)	-0.06	0.45	0.17	0.14	0.14
Factor 4 (+Strategic)	0.06	-0.06	-0.13	0.00	-0.06

Panel D: Factor Scores of Hired Candidates

	CEO	CFO	COO	CXO	ALL
Factor 1 (+Ability)	0.18	-0.12	0.09	0.10	0.10
Factor 2 (-Execution)	-0.04	0.11	0.14	0.02	0.06
Factor 3 (-Charisma)	-0.29	0.45	0.04	-0.08	-0.05
Factor 4 (+Strategic)	0.19	-0.14	-0.24	0.05	-0.02



## B. Factor Scores of Hired Candidates

Panel A: Probit Estimates of Hiring						
	(1) CEO	(2) CFO	(3) COO	(4) CXO	(5) Other	(6) ALL
Factor 1 (+Ability)	0.21*** (0.055)	0.37*** (0.077)	0.20 (0.131)	0.24*** (0.040)	0.34*** (0.043)	0.28*** (0.029)
Factor 2 (-Execution)	0.13** (0.054)	-0.00 (0.084)	0.15 (0.125)	0.12*** (0.042)	0.13*** (0.044)	0.12*** (0.030)
Factor 3 (-Charisma)	-0.08 (0.058)	-0.11 (0.121)	-0.25 (0.174)	-0.05 (0.046)	0.04 (0.046)	-0.01 (0.032)
Factor 4 (+Strategic)	-0.08 (0.061)	0.05 (0.111)	-0.02 (0.158)	-0.09* (0.049)	-0.08* (0.047)	-0.08** (0.034)
Incumbent	1.15*** (0.105)	1.81*** (0.222)	1.51*** (0.274)	1.29*** (0.086)	1.20*** (0.092)	1.25*** (0.063)
Female	-0.37* (0.220)	0.40 (0.296)	0.62 (0.680)	-0.03 (0.160)	-0.05 (0.120)	-0.05 (0.095)
Constant	-0.28*** (0.096)	-0.21 (0.151)	-0.10 (0.302)	-0.28*** (0.075)	-0.19** (0.076)	-0.24*** (0.053)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	787	326	154	1,263	1,142	2,405





Panel B: Hiring of Incumbents

	(1) CEO	(2) CFO	(3) COO	(4) CXO	(5) Other	(6) ALL
Factor 1	0.15*	0.05	-0.21	0.07	0.17***	0.12***
(+Ability)	(0.086)	(0.158)	(0.242)	(0.065)	(0.066)	(0.045)
Factor 2	0.18**	0.07	-0.34	0.15**	0.07	0.10**
(-Execution)	(0.080)	(0.172)	(0.285)	(0.064)	(0.067)	(0.045)
Factor 3	-0.19**	-0.24	-0.03	-0.09	0.10	-0.01
(-Charisma)	(0.082)	(0.265)	(0.233)	(0.068)	(0.067)	(0.047)
Factor 4	-0.17*	0.21	0.30	-0.16**	-0.08	-0.11**
(+Strategic)	(0.090)	(0.282)	(0.273)	(0.075)	(0.069)	(0.050)
Female	-0.34*	-0.13		-0.08	-0.37*	-0.27*
	(0.327)	(0.626)		(0.251)	(0.202)	(0.154)
Constant	0.85***	1.22***	1.78***	0.93***	1.02***	0.97***
	(0.148)	(0.313)	(0.411)	(0.121)	(0.127)	(0.087)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	362	89	82	532	462	994

Panel C: Hiring of Outsiders

	(1) CEO	(2) CFO	(3) COO	(4) CXO	(5) Other	(6) ALL
Factor 1	0.26***	0.53***	0.49**	0.36***	0.48***	0.40***
(+Ability)	(0.074)	(0.099)	(0.229)	(0.054)	(0.061)	(0.040)
Factor 2	0.11	-0.03	0.64***	0.10*	0.16***	0.13***
(-Execution)	(0.076)	(0.100)	(0.236)	(0.056)	(0.060)	(0.041)
Factor 3	0.01	-0.02	-0.57*	-0.02	0.01	-0.02
(-Charisma)	(0.085)	(0.147)	(0.320)	(0.066)	(0.066)	(0.046)
Factor 4	-0.01	-0.01	-0.39	-0.05	-0.09	-0.07
(+Strategic)	(0.087)	(0.129)	(0.243)	(0.066)	(0.067)	(0.046)
Female	-0.45	0.49	-0.06	-0.01	0.15	-0.09
	(0.309)	(0.323)	(1.091)	(0.208)	(0.148)	(0.118)
Constant	-0.30***	-0.16	-0.00	-0.27***	-0.23***	-0.25***
	(0.113)	(0.168)	(0.409)	(0.088)	(0.087)	(0.062)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	425	237	72	731	680	1,411





Panel D: Hiring and Subjective Ratings

	(1) CEO	(2) CFO	(3) COO	(4) CXO	(5) Other	(6) ALL
Factor 1 (+Ability)	0.13** (0.063)	0.41*** (0.096)	0.14 (0.164)	0.20*** (0.047)	0.33*** (0.054)	0.26*** (0.035)
Factor 2 (-Execution)	0.15** (0.069)	0.03 (0.129)	0.17 (0.172)	0.13** (0.056)	0.08 (0.060)	0.10** (0.040)
Factor 3 (-Charisma)	-0.05 (0.065)	-0.18 (0.143)	-0.15 (0.199)	-0.06 (0.054)	0.01 (0.056)	-0.02 (0.039)
Factor 4 (+Strategic)	-0.09 (0.065)	0.07 (0.126)	-0.22 (0.199)	-0.10* (0.053)	-0.10* (0.053)	-0.10*** (0.037)
Nice Person	0.26* (0.145)	-0.16 (0.295)	0.19 (0.420)	0.16 (0.122)	0.10 (0.133)	0.14 (0.089)
Risk-taker	0.22* (0.112)	0.05 (0.200)	0.22 (0.309)	0.13 (0.090)	-0.04 (0.099)	0.05 (0.066)
Personality	0.21* (0.127)	0.00 (0.200)	0.38 (0.329)	0.16 (0.099)	0.10 (0.105)	0.13* (0.071)
Good sales	0.16 (0.137)	-0.14 (0.198)	-0.03 (0.317)	-0.01 (0.098)	0.03 (0.104)	0.01 (0.071)
Career path	0.01 (0.105)	-0.01 (0.192)	0.64** (0.318)	0.03 (0.086)	-0.09 (0.097)	-0.03 (0.064)
Incumbent	1.09*** (0.112)	1.81*** (0.261)	1.54*** (0.329)	1.21*** (0.093)	1.18*** (0.103)	1.20*** (0.069)
Female	-0.32 (0.241)	0.38 (0.367)	0.68 (0.759)	-0.02 (0.180)	-0.25* (0.139)	-0.17 (0.108)
Constant	-0.86*** (0.224)	-0.05 (0.353)	-0.70 (0.664)	-0.56*** (0.172)	-0.19 (0.184)	-0.40*** (0.125)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	718	249	132	1,095	915	2,010



Panel E: Hiring and Ownership Type, All Candidates

	(1) VC	(2) Growth Equity	(3) Buyout	(4) Public	(5) Other Private
Factor 1 (+Ability)	0.20** (0.081)	0.25*** (0.078)	0.25*** (0.042)	0.58*** (0.141)	0.43*** (0.114)
Factor 2 (-Execution)	0.01 (0.071)	0.20** (0.085)	0.17*** (0.046)	0.04 (0.115)	0.24** (0.112)
Factor 3 (-Charisma)	-0.04 (0.078)	0.02 (0.093)	0.01 (0.048)	0.09 (0.132)	-0.06 (0.115)
Factor 4 (+Strategic)	-0.11 (0.077)	-0.26*** (0.089)	-0.03 (0.052)	-0.19 (0.120)	0.14 (0.154)
Incumbent	1.01*** (0.149)	1.23*** (0.174)	1.26*** (0.096)	1.50*** (0.223)	1.39*** (0.281)
Female	-0.20 (0.271)	0.22 (0.243)	-0.20 (0.164)	0.34 (0.277)	0.18 (0.294)
Constant	0.05 (0.182)	-0.33 (0.184)	-0.21*** (0.074)	-0.59*** (0.205)	-0.51** (0.198)
Time FEs	Yes	Yes	Yes	Yes	Yes
Observations	377	312	1,082	261	186



Panel F: Hiring and Company Size (from Public Sources), All Candidates

	(1) Small	(2) Medium	(3) Large	(4) Very Large
Factor 1 (+Ability)	0.17** (0.078)	0.25*** (0.047)	0.20** (0.077)	0.70*** (0.096)
Factor 2 (-Execution)	0.06 (0.069)	0.15*** (0.053)	0.20*** (0.075)	0.10 (0.087)
Factor 3 (-Charisma)	-0.03 (0.077)	0.03 (0.056)	0.14 (0.085)	0.06 (0.099)
Factor 4 (+Strategic)	-0.08 (0.077)	-0.13** (0.059)	0.00 (0.085)	-0.11 (0.095)
Incumbent	1.01*** (0.145)	1.21*** (0.113)	1.55*** (0.170)	1.23*** (0.156)
Female	-0.25 (0.263)	0.13 (0.173)	-0.18 (0.249)	0.01 (0.202)
Constant	0.00 (0.176)	-0.14 (0.095)	-0.25** (0.123)	-0.78*** (0.149)
Time FEs	Yes	Yes	Yes	Yes
Observations	402	770	408	416



Panel G: Hiring and Company Size (from Public Sources), CEO Candidates

	(1) Small	(2) Medium	(3) Large	(4) Very Large
Factor 1 (+Ability)	-0.13 (0.127)	0.33*** (0.089)	0.04 (0.166)	0.71*** (0.245)
Factor 2 (-Execution)	0.21** (0.107)	0.14 (0.095)	0.30** (0.147)	-0.14 (0.254)
Factor 3 (-Charisma)	0.07 (0.119)	-0.11 (0.101)	0.00 (0.173)	0.11 (0.222)
Factor 4 (+Strategic)	-0.33** (0.145)	-0.09 (0.103)	0.10 (0.173)	-0.11 (0.268)
Incumbent	1.12*** (0.212)	1.16*** (0.181)	1.08*** (0.328)	0.74* (0.390)
Female	0.17 (0.389)	-0.43 (0.373)	-0.70 (0.710)	
Constant	0.14 (0.270)	-0.18 (0.166)	0.15 (0.260)	-0.90*** (0.330)
Time FEs	Yes	Yes	Yes	Yes
Observations	194	280	113	72



# 5. Personalities and Subsequent Careers



## A. Candidates Who Eventually Become Managers

Panel A: Assessed for CEO and Eventual CEO

CEO	Eventual CEO		Total
	No	Yes	
No	1,489 (84%)	289 (16%)	1,778 (100%)
Yes	176 (21%)	649 (79%)	825 (100%)
Total	1,665 (64%)	938 (36%)	2,603 (100%)

Panel B: Assessed for CFO and Eventual CFO

CFO	Eventual CFO		Total
	No	Yes	
No	2,200 (97%)	66 (3%)	2,266 (100%)
Yes	92 (27%)	245 (73%)	337 (100%)
Total	2,292 (88%)	311 (12%)	2,603 (100%)



Panel C: Assessed for COO and Eventual COO

COO	Eventual COO		Total
	No	Yes	
No	2,268 (93%)	173 (7%)	2,441 (100%)
Yes	87 (54%)	75 (46%)	162 (100%)
Total	2,355 (90%)	248 (10%)	2,603 (100%)

Panel D: Assessed for CEO and Eventual CFO

CEO	Eventual CFO		Total
	No	Yes	
No	1,484 (83%)	294 (17%)	1,778 (100%)
Yes	808 (98%)	17 (2%)	825 (100%)
Total	2,292 (88%)	311 (12%)	2,603 (100%)





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Panel E: Assessed for CFO and Eventual CEO

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CFO	Eventual CEO		Total
	No	Yes	
No	1,360 (60%)	906 (40%)	2,266 (100%)
Yes	305 (91%)	32 (10%)	337 (100%)
Total	1,665 (64%)	938 (36%)	2,603 (100%)

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Panel A: Factor Scores for Candidates Eventually Obtaining Indicated Position

	Non-CEO	Non-CFO	Non-COO
Factor 1 (+Ability)	0.12	-0.12	0.09
Factor 2 (-Execution)	-0.17	0.05	-0.12
Factor 3 (-Charisma)	-0.10	0.39	-0.01
Factor 4 (+Strategic)	0.07	-0.08	-0.10

Panel B: Probit Estimates of Eventually Obtaining Indicated Position

	(1) Non-CEO	(2) Non-CFO	(3) Non-COO	(4) Non-CEO	(5) Non-CFO	(6) Non-COO
Factor 1 (+Ability)	0.14*** (0.039)	-0.06 (0.056)	0.05 (0.041)	0.14*** (0.040)	-0.07 (0.057)	0.06 (0.042)
Factor 2 (-Execution)	-0.18*** (0.039)	0.03 (0.059)	-0.07* (0.041)	-0.17*** (0.039)	0.03 (0.060)	-0.07* (0.041)
Factor 3 (-Charisma)	-0.17*** (0.041)	0.29*** (0.069)	0.01 (0.045)	-0.17*** (0.042)	0.26*** (0.070)	0.02 (0.046)
Factor 4 (+Strategic)	0.15*** (0.043)	-0.08 (0.067)	-0.09* (0.046)	0.15*** (0.043)	-0.08 (0.069)	-0.10** (0.048)
Incumbent				0.02 (0.079)	-0.09 (0.118)	0.12 (0.082)
Female				-0.37*** (0.129)	-0.49* (0.267)	-0.77*** (0.206)
Constant	-1.00*** (0.066)	-1.84*** (0.092)	-1.60*** (0.073)	-0.99*** (0.073)	-1.80*** (0.104)	-1.59*** (0.081)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,778	2,266	2,441	1,759	2,237	2,412



Panel C: Probit Estimates of Eventually Obtaining Indicated Position

	(1) Non-CEO	(2) Non-CFO	(3) Non-COO	(4) Non-CEO	(5) Non-CFO	(6) Non-COO
Nice person	-0.15 (0.118)	-0.01 (0.189)	0.02 (0.126)	-0.15 (0.118)	-0.02 (0.190)	0.03 (0.127)
Risk-taker	0.13 (0.089)	0.17 (0.143)	0.01 (0.093)	0.13 (0.090)	0.16 (0.143)	-0.01 (0.093)
Personality	0.02 (0.095)	-0.11 (0.143)	-0.12 (0.097)	0.02 (0.095)	-0.12 (0.144)	-0.12 (0.098)
Good sales	0.22** (0.094)	-0.56*** (0.143)	0.07 (0.099)	0.21** (0.094)	-0.58*** (0.144)	0.06 (0.101)
Career path	0.11 (0.085)	-0.03 (0.136)	-0.03 (0.089)	0.11 (0.086)	-0.03 (0.137)	-0.03 (0.089)
Incumbent				0.04 0.087	-0.06 0.136	0.12 0.089
Female				-0.28** 0.143	-0.40 0.283	-0.66*** 0.215
Constant	-1.14*** (0.160)	-1.58*** (0.243)	-1.55*** (0.171)	-1.14*** (0.166)	-1.50*** (0.253)	-1.54*** (0.177)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,410	1,898	2,018	1,406	1,892	2,012



Panel D: Probit Estimates of Eventually Obtaining Indicated Position

	(1) Venture Capital		(3) Private Equity		(5) Public	
	Non-CEO	Non-CFO	Non-CEO	Non-CFO	Non-CEO	Non-CFO
Factor 1 (+Ability)	0.31** (0.126)	0.02 (0.179)	0.15*** (0.050)	-0.10 (0.075)	-0.00 (0.142)	-0.04 (0.216)
Factor 2 (-Execution)	-0.35*** (0.111)	0.14 (0.172)	-0.10* (0.054)	0.02 (0.083)	-0.36*** (0.131)	0.14 (0.217)
Factor 3 (-Charisma)	-0.22* (0.113)	0.26 (0.207)	-0.13** (0.054)	0.31*** (0.098)	-0.19 (0.141)	0.31 (0.240)
Factor 4 (+Strategic)	0.24** (0.111)	-0.02 (0.192)	0.12** (0.059)	-0.17* (0.093)	0.40*** (0.139)	-0.06 (0.215)
Female	-0.41 (0.462)		-0.64*** (0.195)	-0.55 (0.380)	-0.11 (0.312)	-0.12 (0.488)
Constant	-0.88*** (0.260)	-1.90*** (0.325)	-1.00*** (0.086)	-2.09*** (0.148)	-1.06*** (0.230)	-1.67*** (0.306)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	205	310	961	1,263	261	256



## Conclusion

- CEOs are different from and more talented than other candidates.
- boards might focus more on execution skills when choosing a CEO.
- Hired CEO candidates score lower on execution skills (and higher on interpersonal skills) than assessed candidates on average implies that boards and shareholders overweight interpersonal skills in their hiring decisions.
- Candidates who score higher on execution, charisma, and strategic focus are more likely to become CEOs.



THANKS!



山西大学

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