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Featured Research

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Predictability of Investment Performance and the Impact of the Level of CEO's and Partners

Prospective study of 24 companies and 6 private equity firms

Conducted by:

Sjätte AP-fonden

ENHANCER

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Included in the study are companies where an analysis had been made, by Enhancer, to determine the CEO's Mission and successively the level of that Mission. In parallel the capability level of the CEO had been determined, so that comparison could be made between the CEO's level of capability and the level of the company's Mission.

The study includes both companies where investments already had been made when the analysis was performed and companies where the analysis was part of the Due Diligence process. Regarding the latter, also companies in which no investment was made are included in the study.

For integrity reasons the cases will be described in a way that minimizes the possibility to identify the companies, the firms or the individuals. Therefore turnover, profitability, return and size of investment and the time of the analysis, will not be disclosed. However, the level of the Mission and the level of the CEO will be reported in all cases.

At the time of the closing of the study a qualitative evaluation of the present situation in the invested companies, related to both external and internal factors as well as performance, was performed by Sjätte AP-fonden (SF). Evaluation of the invested funds' portfolios was made using the same scale. As both external factors and internal factors, apart from the level of the CEO/partners, obviously have an impact on company performance, these factors are weighted into the SF representatives' ratings. The following scale of criteria was used in this performance rating:

7 Exceptional development, much above expectations
6 Very positive development, in line with expectations
5 Positive development, slightly below expectations
4 Limited development, much below expectations
3 Flat development, very much below expectations
2 Negative development, exceptionally below expectations
1 Very negative development, radically below expectations

Criteria 5-7 are estimated to give positive returns in varying degree.
Criteria 4 is estimated to give the money back, while 3-1 will give negative returns.

The scale for Performance rating was designed in order to match the real life evaluation that the SF already performs based on extensive and systematic information gathering and analysis. The rating is made up of a mix of exited cases and cases that are at different points in the investment cycle. Positive development is therefore in some cases a quality that can be experienced and qualitatively assessed, but not yet quantitatively measured. In real life the scale is also an indicator that is action generating. The validation of the hypotheses strictly against performance measures is therefore ambiguous, as conditions related to the hypotheses might change along the way. Therefore, as in any study of this kind, validation needs to be extensively corroborated by further analysis.

3. Theory

It has been shown in a number of scientific studies that it is possible to determine the complexity of a role by measuring the time it would take to complete the most long term task in the role. This is called Time Span Measurement (TSM). Through the use of TSM it has also been found that the type of complexity involved in different roles are of the same kind within certain time span intervals. It has been shown that when the time span of a role extends through time the complexity is of the same character until one reaches a certain boundary, where the complexity suddenly changes into a completely different kind. It is a stratification of work which could be compared to how ice changes into water, and water into steam, at certain degrees on a thermometer.[3]

Different roles require different levels of Time Span

Time span		Role Examples	Company Level
> 50 yrs		Super Corp. CEO	VIII
20 - 50 yrs		Corp. CEO	VII
10 - 20 yrs		Corp. EVP / CEO	VI
5 - 10 yrs		BU Pres. / CEO	V
2 - 5 yrs	*Coordinating the proceeding of several interconnected projects*	General Manager	IV
1 - 2 yrs	*Creating and pursuing plan to reach targeted change*	Unit. Manager	III
3 - 12 months	*Accumulating information, prioritizing actions*	1:st line Mgr.	II
1 day - 3 months	*Following instruction and set procedures*	Operator	I

The intervals depicted above are called Strata or Levels. Since these same levels were found in organizations all over the world in all kinds of organizations where people were employed to perform certain tasks, the hypothesis was set up that the reason why these levels exist is because people have different ways of processing information. The particular way of processing information enables people to handle different levels of complexity and thus naturally organizing themselves in hierarchies with very different tasks delegated to different levels in the organization.[4]

[3] Jaques, E. & K. Cason (1994) "Human Capability". Gloucester, Cason Hall
[4] Ibid

In a controlled study by Jaques & Cason (1994) evidence was published that verified the presence of levels. In this study two completely different ways of assessment was used and the results were compared on a common scale.

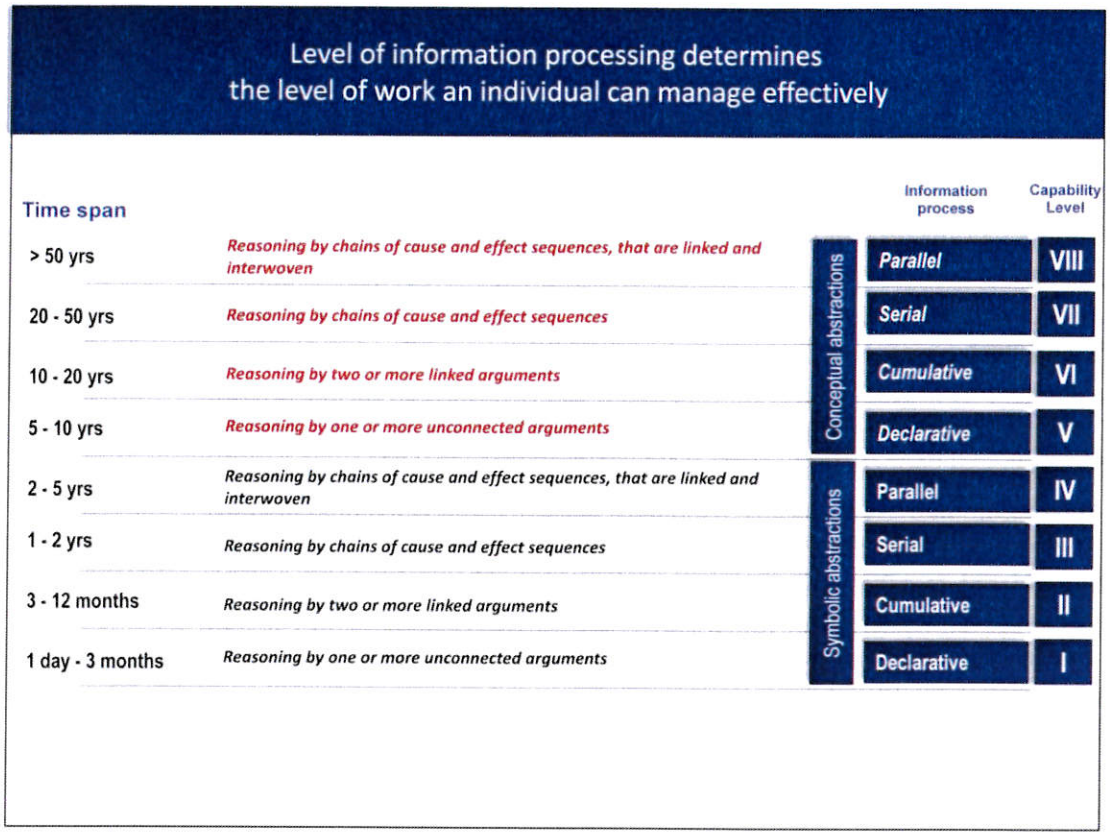
One way to assess an individual's level of capability is to measure the level of the individual's role through TSM and then judge the level of the individual in relation to that role. In the study, the assessment was made through double blind judgment by the individual herself, her manager, and her manager's manager. The judgments correlated by >.9, which means that the so called Inter-Rater-Reliability is extremely strong and that the scale of measurement is very stable.

The other way of assessment is by looking at an individual's reasoning process when engaged in engrossed argument. An individual will in the argument use increasingly complex ways of connecting arguments, although using a maximum level of complexity in her reasoning. The assessment was made through double blind judgment of the individual's reasoning process, performed by three trained evaluators. The judgments correlated by >.9, which means that the Inter-Rater-Reliability also in this kind of evaluation is extremely strong. This assessment technique is referred to as CIP (Complexity of Information Processing) assessment.

Comparing the two ways of assessment revealed extremely high correlations (.96). The high validity of the measurement techniques makes them unique within this field of science where validity this high previously had not been found and corresponded more to validity found in the natural sciences.[5] Other available measurement methods, as for example IQ measurement, typically correlate with job performance at a rate in between .2 to .6, depending on which type of job one evaluate against.[6]

[5] Ibid

[6] Hunter, J.E. and Hunter, R.F. (1984). Validity and utility of alternative predictors of job performance. Psychological Bulletin, 96, 72-98



The discoveries can be said to provide a norm for how to organize work in a hierarchy, and staff roles at different levels with people with the matching level of capability. They have made it possible to measure and analyze the relationship between a role and its incumbent. An individual may have the right capability level for a specific role, but may also have a higher or lower capability than the role requires. The discoveries have also made it possible to measure and analyze role relationships and interpersonal relationships in a ratio scale, identifying too many or too few organizational layers and too little or too much distance in capability between managers and subordinates. Measurement of this kind brings transparency into the analysis of the conditions that affects the performance of organizations.[7]

The scientific discoveries of work levels or strata and the possibility to measure these levels are named the Stratified Systems Theory. More than 2400 studies, directly based on the theory have been made, including 90PhDs (PhDs at Harvard, UCLA, Yale, Berkeley, Cambridge, Oxford, Toronto and Melbourne). The knowledge about the existence of organizational level have been used by many large organizations for example; Toyota, Honda, Mitsubishi, Whirlpool, GE and US Army.[8]

[7] Jaques, E. (1996) "Requisite Organization" 2nd Ed, Gloucester, Cason Hall
[8] Kenneth Craddock (august 2009) "Requisite Organization Annotated Bibliography" 5th Ed, Columbia University

4. This is a systems company in the media industry. The company is highly dependent on business cycles. Strong potential with clear customer needs. However, management was not at the time able to capitalize on the opportunities. The challenge was not due to competitors but due to the difficulty to partner with other players in the market. When the analysis was made the possibilities were confirmed but neither the CEO nor the board was on the required level. The underlying technical organization had the necessary skills but management failed to develop the company into the desired position. Due to good timing the owners were able to sell the company with exceptional return and much above expectations but only the technology and the developers were included in the deal.
   Exit at 18 times the invested amount.
   Level of CEO: IV
   Level of company Mission and CEO role: V
   Performance rating: 7

5.2 Companies in which investments were made, not yet exited

5. This company has built a system for decision making. The company is very sensitive to business cycles. At the time of the analysis the company had gone through a period of internal turmoil and needed funding if it was about to survive. It became clear that the technology was well proven and had true potential in the market, which provided room for enhancement of the strategy and the business model. The new CEO was at the right level but sales needed to be upgraded. Shortly after, the company entered into a period of progressive development with the CEO as the major driving force. Later the CEO left the company and a new CEO on the required level was recruited. The company performance is regarded as positive but slightly below expectations.
   Level of CEO: V
   Level of company Mission and CEO role: V
   Performance rating: 5

6. This is a company that has developed a system for a much more effective logistics handling. The company is only to a limited degree sensitive to business cycles but at the time the challenge was more in the hands of management to get the strategy in line with the potential. The company strategy and technology originally looked very promising but the expected enhancement of strategy and business development didn't happen. When the analysis was made it was found that the CEO was not on the required level. Unfortunately the largest owners didn't succeed in convincing the other owners, the founders, the board and the CEO that an upgrading was necessary. The company performance is regarded as limited, much below expectations.
   Level of CEO: IV
   Level of company Mission and CEO role: V
   Performance rating: 4

7. This is a company in the safety systems business in a very attractive market where the current business cycles are positively impacting the industry. The analysis showed that the company had a strong competitive edge and if the mission was to be completed this would be a very attractive investment. However the CEO was not on the right level and the investor failed to make the required change. The company performance is regarded as limited, much below expectations.
Level of CEO: IV
Level of company Mission and CEO role: V
Performance rating: 4

8. This is a company in the safety equipment business that at the time of the investment had a leading position in several markets in its segment. The company is only to a very limited degree sensitive to business cycles. The founder left his position as CEO and was replaced. At the time when the analysis was made the new CEO had recently entered his new position. The new CEO had a level of capability two levels below what was required. One year later both sales and profitability had decreased significantly. It took quite some time to replace the CEO and the company was severely damaged. The company has now a new CEO that has not been analyzed. The company performance is regarded as negative, exceptionally below expectations.
Level of CEO: III
Level of company Mission and CEO role: V
Performance rating: 2

9. This is a consumer goods company, active in a few markets with a relatively stable business. The company performance is strongly impacted by the business cycles. The SF decided to invest, based on the rigorous business plan for how to expand from the current position. The analysis resulted in a mission for the company that would capitalize on the company's full potential. The analysis also clarified that top management needed to be strengthened with a new CEO on the required level. It took too long to make the necessary upgrading of management and meanwhile the recession hit the company. The insufficient management also failed in implementing the new strategy and today the investment performance is regarded as negative, exceptionally below expectations.
Level of CEO: IV
Level of company Mission and CEO role: V
Performance rating: 2

10. This is a systems company in the advertisement optimization business. The market is very attractive and new technology is creating potential for growth in the whole industry. However the underlying demand is highly impacted by business cycles. The analysis resulted in a clear mission that if completed would make the investment very attractive. The analysis also showed that a new CEO on a higher level was required. It took some time to convince the founders to recruit a new CEO and meanwhile market downturn hit the company. The entry of a new CEO on the required level combined with further financing and international expansion has resulted in that the company performance today is regarded as positive, slightly below expectations.
    Level of CEO: V
    Level of company Mission and CEO role: V
    Performance rating: 5

11. This is a media company with a business to exploit the demand for local news and advertising. The company had a proven record and an ambition to expand geographically. Like most media companies it is very dependent on business cycles. The analysis led to the conclusion that there was a realistic possibility to grow and become competitive with good margins. Management was on the required level but the company was severely impacted by the recession. The company performance is now regarded as negative, exceptionally below expectations but has performed similar to most of its direct competitors.
    Level of CEO: V
    Level of company Mission and CEO role: V
    Performance rating: 2

12. This is a company in the retail industry. The company has established a strong brand and market position in certain segments. Like other companies in the same industry this company is strongly impacted by business cycles. The analysis showed that based on historical success this company had potential to repeatedly build new brands and expand geographically. The founder operated on the required level and several members of the management team was also on the right level to complete the mission as defined in the workshop that was held. Later one member of the management team became CEO. The company is today regarded as having a positive development, slightly below expectations, as they were formulated in the mission.
    Level of CEO: V
    Level of company Mission and CEO role: V
    Performance rating: 5

13. This is a media company that is exploiting already proven technology in new geographical markets. The demand for the company's services is high and technology and regulation works in the favor of the company. The company is somewhat dependent on the business cycles. The company has also developed a very successful partner strategy and the analysis showed that the potential is exceptional. Several board members that operate on the required level are operationally very active. The initial CEO was not on the required level and the board members took over most of the CEO's tasks. A new CEO will be recruited but the company has struggled to find a successor since people at the required level are scarce. Performance potential is regarded as exceptional and much above expectations.
    Level of CEO: IV
    Level of company Mission and CEO role: VI
    Performance rating: 7

14. This is a technology company that has developed an internationally leading position in its segment. The company is only to a limited degree impacted by business cycles but both new technology and competitors contribute to expand the market. A new application was opening up the possibility to create an even larger business. The analysis showed that this company can be developed into a very successful investment. The CEO was on the right level for the company mission at the time of the analysis. The company has had a very successful implementation of the plan to complete the mission. Now when the new application is being commercialized the company needs a CEO on a higher level. Breaking out the new application as a separate company containing the new application is therefore considered. The company today is showing exceptional development, much above expectations.
    Level of CEO: V
    Level of company Mission and CEO role: V
    Performance rating: 7

15. This is a technology company that has developed a product that significantly increases the capacity in their customers' products. The market is very attractive but strongly impacted by business cycles. The analysis showed that this company had the potential to grow very fast with high profitability. The CEO is on the right level. Strategy development and implementation has been in line with the mission. Performance is regarded as exceptional and much above expectations.
    Level of CEO: V
    Level of company Mission and CEO role: V
    Performance rating: 7

16. This is a company in a service industry. The company has been successful but has been operating in a narrow geography. It is family-owned, with one of the family members as the major driving force. The analysis showed that there was potential for geographical expansion but also for establishment of a partnership that would have a strong impact on the business. The CEO is not on the required level for the mission, but the family member mentioned above is very operational and the implementation of the plan to complete the mission is developing very well. Development is regarded as very positive, in line with expectations.
    Level of CEO: IV
    Level of company Mission and CEO role: V
    Performance rating: 6

17. This is a company that has developed a software application for a market that is very attractive. The company was initially ahead of competition in developing this application but has lost momentum. The analysis showed that this company could become a very successful investment if the mission could be completed including an enhancement of the business model. The CEO was not on the required level to complete the mission. It was not possible to convince the board consisting of founders, one of which was also the CEO, that a new CEO on a higher level should be beneficial to the company's development. The enhancement of strategy and implementation of the plan was very poor. The company has shown a very negative development in sales, radically below expectations, and is most likely a loss of investment.
    Level of CEO: IV
    Level of company Mission and CEO role: V
    Performance rating: 1

18. This is a company in the consumer service market. The market size is relatively large but very fragmented. No major player exists. The market is not very impacted by the business cycles. The analysis showed that the company had potential to consolidate the market. However the CEO was not on the required level. The company has not been very successful in implementing their plan and has achieved limited development much below expectations.
    Level of CEO: IV
    Level of company Mission and CEO role: V
    Performance rating: 4

19. This is an IT service company that had developed a platform in an area with great potential. The company is strongly impacted by business cycles. It was earlier ahead of those that first entered the area. Analysis showed that the company could be further developed to be able to reach a very successful position. The CEO was however not on the required level to complete the mission. The investor tried to convince the owners, the board and the CEO that management needed to be strengthened with a new CEO. Finally the investor conditioned a second round of investment to the recruitment of a new CEO. No agreement was made and the investor decided not to invest in this second issue. Several years later the company has the same CEO and has had a flat development, very much below expectations.
    Level of CEO: IV
    Level of company Mission and CEO role: V
    Performance rating: 3

5.3 Companies in which investments were not made

20. This is a company in the energy business. The company had a historical record of successful development in several different areas but the growing and size of the business led the founder to search for external financing to be able to realize several new projects. The analysis showed that the company, if properly financed, could turn into a very successful player. The CEO was not on the required level to handle the future demands, and didn't agree with the investors' requirements for how to structure the financing. The company failed to fund the investments and some months thereafter the company went bankrupt.
    Level of CEO: IV
    Level of company Mission and CEO role: V
    Performance rating: 1

21. This is a company in the energy business with a well established position in a few markets. The potential for growth in existing and new markets was high, and the company had a strong competitive edge. The analysis showed that this company had the potential to become a very successful investment and the CEO was on the required level to complete the mission that was created during the workshop. The investor and the owners could however not agree on the evaluation of the company. The company has later shown positive development.
    Level of CEO: V
    Level of company Mission and CEO role: V
    Performance rating: 5-7, registered as 6

22. This is a system company with an established business in handling administrative functions for companies. The potential is huge and the company had clear advantages against competition at the time of the Due Diligence process. The analysis showed that the strategic thinking and the developed mission of what the company could develop into was very attractive. The CEO had a proven record and was on the required level. The investor decided not to invest as they deemed the evaluation to be too high. The company today shows positive development.
    Level of CEO: V
    Level of company Mission and CEO role: V
    Performance rating: 5-7, registered as 6

23. This is a company in the retail business that has a record of turning acquisitions around very successfully by introducing very competitive business principles. The company needed funding for international expansion. The analysis showed that if the company's full potential was capitalized it could develop into a successful investment. The CEO was also on the right level to complete the mission. The investment was not made because of expected terms and because of friction with one of the members in the management team. The company has been negatively affected by the business cycles but has still managed to show a positive development.
    Level of CEO: V
    Level of company Mission and CEO role: V
    Performance rating: 5-7, registered as 6

24. This is an initiative to exploit a segment in the decision support market. The founder is an expert in the field. The analysis clearly disclosed the attractiveness of the market but the established position came out as too weak. The CEO was not on the required level. No investment was made. The founder has not succeeded in funding the necessary investments and has not been able to exploit the potential.
Level of CEO: III
Level of company Mission and CEO role: V
Performance rating: 1

5.4 Analysis of funds in which investments had been made before the analysis

25. This firm had more than twelve partners at the time of the analysis. In this firm both TSM and CIP assessment were used for analysis of the partners. The outcome, comparing both methods, was the same for all individuals in determining level of capability. This firm had three partners at level V or above. The performance is in line with expectation.
Level of Partners: 3 partners at level V, at the time for the analysis.
Performance rating: 6

26. This firm had two partners at level V or above. The performance is estimated as in line with expectations. Exits are so far only made to a limited degree.
Level of Partners: 2 partners at level V, at the time for the analysis.
Performance rating: 6

27. This firm had two partners at level V or above. The performance is estimated to be positive but slightly below expectations. Exits are so far only made to a limited degree.
Level of Partners: 2 partners at level V, at the time for the analysis.
Performance rating: 5

28. This firm had no partners at level V or above. The SF therefore decided to withdraw the funding to minimize risk and to be able to allocate the funds to investments with a higher probability to generate high returns. The firm had already made some investments, a few with some potential but the total investment shows very negative development, radically below expectations.
Level of Partners: 0 partners at level V, at the time for the analysis.
Performance rating: 1

29. This firm had one partner at level V or above. When the firm's portfolio of investments was reviewed it contained around 30 companies. The few investments in the portfolio that were regarded as having potential to generate positive returns were all made by the only partner operating at level V. The other investments in the portfolio are expected to give very negative returns and result in substantial losses for the investment totally.
Level of partners: 1 partner at level V, at the time for the analysis.
Performance rating: 1

30. This firm had no partner at level V. The performance so far has been negative, radically below expectations, since some exits are still to be made there is some possibility for a more positive result but this is considered very unlikely by the SF. Total performance very negative, radically below expectations.
Level of partners: 0 partners at level V, at the time for the analysis.
Performance: 1

Predictability of investment performance and the impact of the level of CEO's and partners

Performance	Expected Return	12 companies where the CEO did not operate at the required level	12 companies where the CEO operate at the required level	3 PE firms with one or no partner at level V or above	3 PE firms with two or more partners at level V or above
7		2	4		
6	Positive	1	4		2
5			3		1
4	0	3			
3		1			
2	Negative	2	1		
1		3		3	

5.4 Additional observations

The closing of the study was done in the beginning of 2010 which means that results for companies and funds were impacted by the market downturn. At the closing of the study, companies had been part of the study for 2 to 8 years and PE firms for 6 to 8 years.

In this study 4 of the 24 companies have been exited. The performance rating in the remaining 20 companies is based on the most recent evaluation at the time of the closing of the study. Whether these returns will be achieved or not will not finally be determined until the exit of the company. A similar measurement of ROI for the PE firms will finally be determined when all companies in the fund are exited. The performance evaluation is therefore not absolute but is supported by a thorough analysis of the companies' and funds' development. It should also be noted that of the six companies that are rated as exceptional returns much above expectation (Performance rating 7), three are exits.

Twelve companies in the study had CEO's at level V or above, which was in line with the level of the company missions. Eleven of these companies are rated as 5, 6 or 7. Two of them are already exited with rating 7 ("Exceptional development, much above expectation") and one is exited with rating 6 (Very positive development, in line with expectations). Only one company with a CEO on the required level relative the company mission shows negative performance. This company is working in an industry where most competitors faced the same situation at the time of the closing of the study due to the downturn in the market.

Twelve companies did not have CEO's on the required level in relation to company missions. Nine of these companies are not expected to give a positive return. In the three companies with expected positive returns one is exited. In this company the owners was successful in selling the company as an asset deal, not including management. In the second of these three companies two board members have stepped in and taken very executive roles. In the third company a family member have stepped in and taken a very executive role.

In companies where the CEO's were not on the required level, the enhancement of Strategy and implementation of the Mission was regarded as poor with the exception for the cases where the board stepped in. On the other hand, Strategy and Business model enhancement and Mission implementation was regarded very positive in companies with a CEO on the required level.

TSA of all partners in six Private Equity firms was made as a part of this study. All together more than thirty partners were analyzed. Less than ten of them were operating at level V or above.

Three PE firms in the study had two or more partners operating at level V or above. All three of these are expected to give positive returns and one of the firms already have a proven record with a number of successful exits.

Three PE firms had one or no partner operating at level V or above. From one of these firms the funding was withdrawn. The other two are expected to generate substantial losses at exit. In one of these firms it was possible to evaluate the performance of individual partners. In other firms such evaluations was difficult to make, since several partners over time was responsible for the same investments. Every investment that was rated as 5, 6 or 7 in the firm where it was possible to evaluate performance of individual partners, had been made by the only partner that was operating at level V.

6. Conclusion

The aim of this study was to explore the possibility to predict future performance within Private Equity investments based on the separation and analysis of two isolated variables. These variables were tested through two separate hypotheses:

1. If a CEO operates on the required level for the company's Mission, as measured on the Jaquesian scale of levels of work/levels of capability, it is assumed that it will positively impact the whole organization's ability to perform and complete the Mission. If a CEO is operating on a lower level than the Mission it will negatively impact the whole organization's ability to perform and complete the Mission.

2. It is assumed that if partners in PE firms operate at level V or higher, as measured on the Jaquesian scale of levels of work/levels of capability, it will have a positive impact on the fund's returns. If partners in PE firms operate on a lower level than level V, it is assumed that it will have a negative impact on the fund's returns.

The analysis supports the hypotheses, suggesting that by matching the Level of Capability of a CEO with the Level of the CEO role, i.e. the level of the Mission, it will have a significant impact on the PE firms ROI. It also suggests that investors in PE firms should consider the level of the PE firm's partners when making the investment decision.

It should be said that the sample is fairly limited, and that the measuring of expected ROI, in relation to probable ROI, in invested companies is rather ambiguous, but even with such a small sample the pattern is fairly obvious. Eleven out of twelve CEO's on the required level are expected to give varying degrees of positive returns while nine of twelve CEO's that were not on the required level are not expected to give positive returns. The PE firms with two or more partners operating at level V or above were expected to give positive returns, while the firms that had one or no partner operating at level V or above were expected to give substantial losses. In one of them, the only positively developing portfolio was associated to the only partner that operated at level V.

The result from this study thus suggests that Due Diligence, when considering investments in companies and funds, also need to include analysis of the CEO mission, the organization and management. Any systematic method used would most likely generate some transparency. However, using a method, based on the scientific discoveries presented in this study, supports decision making in a very valuable way. Or, to put the other way around, not doing this kind of analysis puts an unnecessary and additional risk into the investment.

Investors in funds are using past performance of a fund to evaluate future investments. When changes occur and partners leave, or new funds are set up, past record is not always available or no longer relevant. Considering the result of the present study, it must be emphasized that the Level of Capability among partners is a critical dimension to consider when predicting future performance of funds.

For additional information, please contact Alison Brause, Research Chair, ROII - alison.brause@gmail.com