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**Are CEOs overpaid in Switzerland?**

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By

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## **Abstract**

CEO compensation has risen sharply in recent years and it is even 200-300 times that of ordinary employee salary. And CEOs have ever been criticized that they get high compensation for doing nothing.

As one of the highest CEO compensation countries in Europe, whether the Swiss CEO is overpaid is a persistently hot topic in recent years. However, what a shock that Swiss choose to oppose the referendum about limiting the top executive's salary cap. Do Swiss admit the high salaries for CEOs? Is CEO compensation exactly related to firm performance? And whether the emergence of high-paying jobs is in need. In this research, the relationship between firm performance, CEO tenure, CEO age, and CEO compensation will be studied.

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## Introduction

In the past few decades, the chief executive officer compensation has risen sharply. Their income is even 200-300 times that of ordinary employees. As the "paradise of high salaries", Switzerland has a tradition of being most generous to CEOs in big companies. In news reports, the chief executive boards are often blamed because they set wages and their wages are too high. On the other hand, boards of directors often get criticized for overpaying CEOs without paying for performance. However, no report shows the reason why CEO compensation is extremely high and the criteria how CEO gets salaries and bonus.

Based on the current status of CEO compensation, the main question in this research will be:

*Are CEOs in Switzerland overpaid and what are the explanatory variables for executive compensation?*

The background of Swiss salary regulation plays an essential part in looking for salary allocation. Therefore, I will look for how CEOs are paid and then figure out what factors their salaries are related to. To answer the main question, firstly I will apply descriptive analysis to CEO basic salary, CEO bonus, and Total CEO compensation, and get a preliminary relationship among these three measurements. In the descriptive analysis, I will calculate the descriptive statistics for CEO information, CEO compensation, and firm performance as well. Secondly, I will find the income data for CEOs and figure out the relationship between their basic salary, bonus, and total income and firm performance by regression analysis. In this step, CEO compensation has three measurements which are basic salary, bonus, and total compensation,

and firm performance also has three measurements which are ROA, ROE, and market value. Thirdly, I will test whether the age and the tenure of the executive have impacts on Swiss CEO compensation by regression analysis. Finally coming out the result of which one is the explanatory variables for executive compensation among the indicators involved in the test. Then giving the conclusion whether Swiss CEOs are overpaid and the reason why the company will invest heavily in them by using the results of the analysis as mentioned above, supported by the empirical results of the regressions. If CEOs are overpaid, what market monitoring methods can control the level of payroll for the company will be significant.

I will try to find the data from Bloomberg. The collected data will be settled by basic salary, bonus, total compensation, ROA, ROE, market value, age, and tenure. At first, the compensation data will be calculated to averages, maximums, minimums, means, medians and standard deviations. The results of these data can visually show the movement by graphs. Then I will use regression analysis to test the first hypothesis by using the data of basic salary and bonus for CEO compensation. They will be the dependent variables. And the return on sales, return on assets will be the independent variables for firm performance. Also, these control variables will contribute to the second hypothesis.

In this research, the researcher is going to figure out whether the Chief Executive officers in Switzerland are hired with a gratuitously high salary or not. If the company overpaid them, then ordinary employees will feel disgruntled, and the market balance will be broken. The high salary paid to

the CEOs has not been fully utilized to benefit the social market. If the company has not overpaid them, the CEOs may be paid according to their effort.

## **Literature review**

Firm investors and shareholders are convinced that the CEO's salary shall include equity incentives in addition to the basic salary which results in a close relationship between the CEO's income and the growth of the company. In this case, the CEO will work harder and be willing to lead the development of the company. The stock price has skyrocketed has brought the CEO's salary to astronomical figures. However, according to the data analyzed by Attaway, the correlations between the performance and the control variables such as education and stock ownership are generally low (Attaway, 2000). And in recent years, criticism about the dramatical growth in the income gap between CEOs and traditional workers has been endless. There are 27 big companies in Switzerland with a gap of more than 100 times the salary gap between the top and the bottom. The biggest difference is Nestlé. The CEO of the group, Paul Bulcke, is 230 times the salary of the lowest-paid employee. But what's shocking is that the Swiss do not agree to reduce the CEO's salary, and about two-thirds of them astonishingly oppose the referendum which is "limit the top executive's salary cap to twelve times the lowest-paid worker" proposal (Karaian, 2013).

### **Regulations and Principles on Compensation in Switzerland**

Switzerland had experienced a significant business culture change on March 3, 2013. In this period, Minder Initiative was proposed and played an essential role in Swiss business development.

Before the first day of 2014, all the Code of Obligation was compulsory and the Swiss Stock Exchange 07/09 Directive ("comply and explain" basis) shall

be abided by the SIX companies (Attaway, 2000). Moreover, the SIX companies and other financial institutions shall comply with FINMA Circular on remuneration schemes.

With the referendum of Minder Initiative, the Swiss consensus changed based on business culture as 68 percent of Swiss Citizens cast the vote for Minder Initiative. Since the high approval of the Initiative, the Initiative was suggested to convert into law by the Federal Council and the Swiss Parliament. The four main changes in the Minder Initiative are (1) Binding Say-on-Pay in the annual general meeting, (2) new election procedures of BOD, executive board, and advisory board (3) prohibited compensation and (4) criminal sanctions, such as imprisonment up to 3 years and pay-back obligations up to six times the CEO's annual salary (Hänni & Nikitine, 3 March 2013; Rey, 2014).

After the introduction of Minder Initiative, from January 1, 2014, the new rules about excessive compensation constraint on Swiss listed companies. All in all, the requirements for compensation disclosures on performance-based-compensation is the most powerful modifications in the Swiss Code 2014.

### **Relationship between CEO compensation and company performance**

As regards the state by Kerr and Bettis in 1987, the CEO will be rewarded according to the financial returns to the shareholders which can reflect there is a strong connection between CEO and shareholders. However, with the fact that the salaries of the CEO continue to rise, more and more stockholders believe that there is no connection between executive compensation and corporate performance.

To find out the relationship between CEO compensation and corporate performance, the researchers compared the connections between the executive pay and stockholders' equity, stock performance and profitability respectively which are the most common ways operating by firm performance. However, the result shows that 1) no relationship was found between shareholders equity and executive pay (Murthy and Salter, 1975), 2) the performance of a company's stock would not be considered when changing executives' salaries and bonuses (Kerr and Bettis, 1987), 3) and higher return on equity in firms would result in higher cash compensation of CEOs while this only aim at a specific industry (Veliyath and Bishop, 1995). These results suggest that there is a weak but positive relationship between corporate performance and CEO pay (Attaway, 2000). Therefore, I dare to assume that CEO compensation is related to company performance in Switzerland.

### **CEO compensation surged**

CEO compensation is far more today than the 1990s. And it is far more than the typical worker's. Compared to the compensation ratio of CEO-to-worker in 1965, The 2017 ratio sharply rises to 213-to-1 from 20-to-1 in 1965 by 50 years. According to a report by Lawrence and Jessica, the average U.S. CEO compensation of 350 largest firms increases by 17.6 percent over 2016. Compared to the salary, the compensation of the typical worker just rises 0.3 percent, almost remained flat (Lawrence & Jessica, 2018). The compensation gap does not only exist between the CEO and the typical worker, but also between the CEO and the average earner in the top 0.1 percent.

This is a report about the fluctuation of CEO compensation in the United States, but no related report in Switzerland is published. In this research, I will try to figure out the changes in CEO income in recent years.

## **Research approach**

### **Hypotheses**

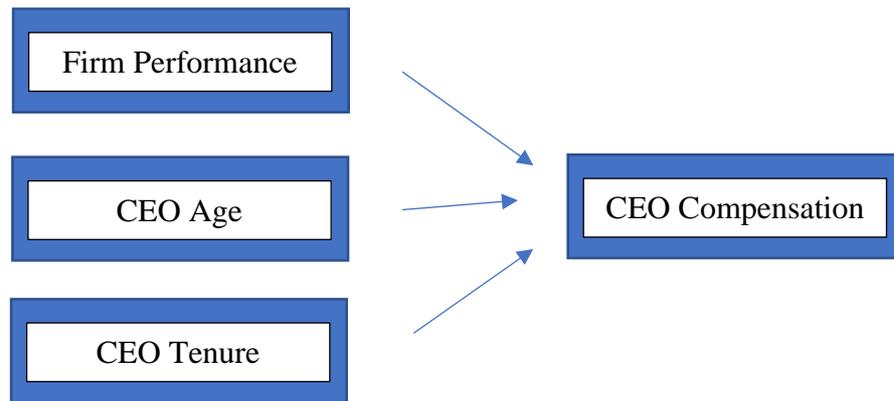
To answer my research questions, I will use several hypotheses and regression analysis to prove:

1. Swiss CEO compensation depends on firm performance.
2. The tenure and age of the CEO have a positive influence on its compensation.

In this research, the Cross-Sectional study is proposed to research whether CEOs in Switzerland are overpaid or not. The study looks at the cross-section of firm performance and CEO compensation. The researcher aims to find out whether the CEO compensation is proper in salary decisions by figuring out the relationship between firm performance and CEO compensation and the tendency of well-paid careers. In this case, the qualitative approach is applied with the data about the firm performance data and high salaries of not only the CEO but also other careers.

The researcher uses a sample of 48 listed Swiss companies' data in CEO compensation, CEO characteristics and firm performance which will support to find the relationship between them. This research insists to contribute to the body of research by comparing the tendency of firm performance and CEO salaries in Switzerland. Then using regression analysis to figure out the relationship, whether Swiss CEOs are overpaid or not, and come up with the conclusion.

The primary focus of this research is to find the relationship between firm performance, CEO characteristics like gender as well as the tenure of CEOs and CEO compensation. Figure 1 shows the model used in the research.



*Figure 1*

### **Method to collect data**

Most data about executive compensation rely upon the secondary data from Bloomberg. The data for the firms is obtained from secondary databases. After collecting the data, the researcher uses EXCEL to process and analyse data.

### **Sample size**

The sample of this research is Swiss listed companies. The researcher collects 49 Swiss listed company's data from 2014-2018. Only the company that releases all the types of data from 2014-2018 I want could be selected. Compared to the tendency of variables, finding the relationship between the firm performance, CEO characteristics and CEO compensation in the 49 Swiss firms.

### **The method of data to be used**

As I said in the introduction, the compensation data is firstly calculated to averages, maximums, minimums, means, medians and standard deviations. Then the graph of results will show the macro movement of CEO compensation. I use the correlation matrix to test the relationship between these variables. After that, the regression analysis is used to find the relationship between CEO compensation and firm performance, CEO Tenure, and CEO Age. In this part, I distinct the basic compensation and the bonus salary and attach some control variables. The Ordinary Least Squares regression run as:

$$\text{Compensation}_{it} = \alpha_0 + \alpha_1 \text{Performance}_{it} + \alpha_2 \text{Age}_{it} + \alpha_3 \text{Tenure}_{it} + \lambda_j + \delta_t + \epsilon_{it}$$

(Thissen, 2013).

In this formula,  $\text{compensation}_{it}$  represents the amount of compensation paid to the CEO for firm  $i$  in year  $t$ . And compensation comes up with the basic payment and bonus salary. Return on assets (ROA), return on sales (ROE) and Market value are three variables that value Firm performance. I assume that corporate performance is positively correlated with CEO compensation. In this case, the  $\alpha_1$  coefficient is positive. To control CEO characteristics, CEO age and tenure will be added to the regression as variables controlling. To capture industry and time fixed effects the terms  $\lambda_j$  and  $\delta_t$  are added to the regression. And  $\epsilon_{it}$  is added to the regression as an idiosyncratic error term (Thissen, 2013). At the same time, I also test the relationship between CEO characteristics and CEO compensation. All the regression analysis test 49 Swiss listed companies' data from 2014-2018.

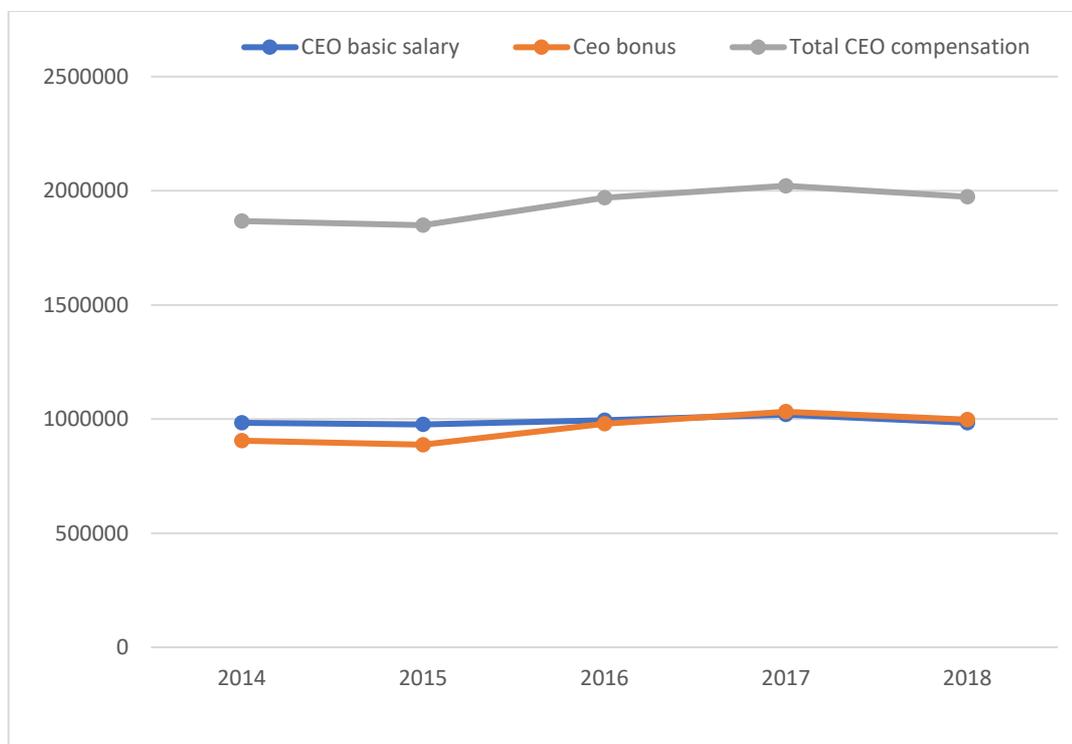
After using the regression model to test the relationship between Firm performance, CEO Age as well CEO Tenure and CEO Compensation, the results are used to figure out whether the relationships exist between CEO compensation and the variables.

## Results

### Descriptive analysis

All the collected data are from Swiss Listed companies. The researcher selects the company that has disclosed the information on CEO Age, CEO Tenure, CEO Basic Salary, CEO Bonus, Total CEO compensation, ROA and ROE. Finally, 48 companies have all of this information from 2014-2018. The following analysis is based on these data.

Before testing the regression analysis, the researcher uses some descriptive statistics to overview the data about CEO compensation. Chart 1 shows the means of 48 listed companies' CEO basic salary, CEO bonus, and Total CEO compensation from 2014 to 2018. As can be seen from the graph, the CEO basic salary does not change significantly with the change of years, but the trend of CEO bonus is similar to that of Total CEO compensation.



Graph 1: Mean CEO compensation 2014-2018 (in CHF)

The table below shows the used variables and presents the number of mean, median, minimum, maximum and standard deviation per variable. The numbers reported for basic salary, bonus, and compensation are in CHF Dollars in 2018. The average age of a CEO of 48 corporations is about 54, and the minimum and maximum ages are 43 and 65. The mean tenure is just above 5.57, the maximum tenured CEO is 16 years in office and the minimum is less than one year. As for the compensation, it can be seen that the bonus range is larger than the basic salary range, meaning that CEOs get a huge bonus gap.

	Mean	Median	Min	Max	StdDev.
<b>Age</b>	53.73	54.00	43.00	65.00	4.65
<b>Tenure</b>	5.57	4.50	0.92	16.00	3.81
<b>Total Market Value(Bllion)</b>	20.50	4.95	0.12	265.20	49.37
<b>Basic Salary</b>	991424.96	882000.00	310700.00	4000000.00	600657.90
<b>Bonus</b>	982428.37	541350.00	97794.00	3120000.00	832222.18
<b>Total compensation</b>	1973853.34	1485405.00	514000.00	6791950.00	1337297.61
<b>ROA</b>	5.38	5.18	-14.51	16.86	5.46
<b>ROE</b>	13.82	12.09	-27.99	49.60	12.03

*Table1: Descriptive statistics CEO information and firm in 2018.*

Table 2 presents the correlation matrix of variables in 2018. It shows that Basic Salary, Bonus, CEO compensation are highly related to Market Value. However, from Table2, it can be seen that age and tenure have a low correlation with bonus and CEO compensation but no correlation with the basic salary, meaning that the age of CEO and the number of years in office are not that important to explain the CEO compensation. Besides, ROA and ROE are highly correlated with Market Value but are not significantly correlated with three variables of compensation.

	<i>Age</i>	<i>Tenure</i>	<i>Market Value</i>	<i>Basic Salary</i>	<i>Bonus</i>	<i>CEO compensation</i>	<i>ROA</i>	<i>ROE</i>
Age	1							
Tenure	0.3376	1						
Market Value	-0.2110	0.0025	1					
Basic Salary	-0.0097	0.0985	0.7892	1				
Bonus	0.2481	0.1195	0.2752	0.7010	1			
CEO compensation	0.1539	0.1233	0.5523	0.8963	0.9446	1		
ROA	-0.2308	-0.0001	0.2307	0.1211	0.1279	0.1353	1	
ROE	-0.2180	0.0530	0.3924	0.2280	0.1603	0.2047	0.9190	1

*Table2: Correlation matrix*

### **Relationship between CEO compensation and performance**

From the regression analysis, the result between Age and three variables of CEO compensation is showed in the first column. Age and CEO compensation do not have a significant relationship. As for the second column, the relationship between Tenure and 3 variables of compensation are more significant than Age with the variables. However, the result is still not obvious. And the results of ROA and ROE are similar to Age and Tenure, which means they also have a weak relationship with CEO compensation. The only variable associated with compensation is the market value. The researcher found that the Market value has a 0.75 correlation coefficient with 2018 basic salary and 56% of the numbers fit the model. And the Market value has a 0.63 correlation coefficient with 2018 Total CEO compensation and 40% of the values fit. Although 0.47 is the lowest coefficient when the variable is Market value, it still has a positive impact on Bonus.

Y\X	CEO Age	CEO Tenure	Total Market Value	ROA	ROE
CEO Basic Salary	0.2193	0.3604	0.7500	0.1643	0.3058
CEO Bonus	0.2142	0.2666	0.4792	0.1300	0.1859
Total CEO compensation	0.1570	0.1605	0.6334	0.1542	0.2523

*Table3: Regression results in 2018*

The result of regression analysis from Table 3 is used data that are from 2018. When the researcher changes the data to 2014, 2015, 2016 and 2017, the results have not changed significantly, meaning that the regression analysis results do not change by years and are representative over time. All in all, the researcher can find the relationship between Bonus and Total compensation. According to the line chart which represents the mean CEO compensation, trends of Bonus and Total compensation are similar. And the basic salary hasn't changed much in the last five years. Furthermore, from the correlation matrix of all variables, the Total market value is highly related to Basic Salary, Bonus and CEO compensation. Not only that but also in the regression analysis, the Total market value has a significant positive relationship with the three variables of compensation. However, only Total Market Value is found that has an impact on CEO compensation. Age, Tenure, ROA, and ROE do not have significant results in the relationship between them and compensation variables.

It is hard to say that CEO compensation and firm performance have a high dependency because only the Total market value has found a relationship with CEO compensation. However, the correlation between CEO compensation and the Market value indicates that the CEO is not paid casually. CEO salaries changed with the Market value, which is a part of firm performance, CEOs may reasonably be paid for their performance because the firm performance is closely related to CEOs'. However, as CEO Age and

Tenure increase, there is no influence on their salary, indicating that CEO who work longer and have more experience will make no sense on their salaries. Furthermore, with the rapid development of the economy, not only the CEO's salary has increased rapidly, but also a lot of high-paying jobs have sprung up. The increase of CEO compensation is not unreasonable, the huge increasing salaries are the result of the innovation for excellent talent.

## **Conclusion**

### **Conclusion of the research**

In conclusion, the result of what is researched will be given a summary.

Based on the news and lectures, I attempted to find out whether CEOs in Switzerland are overpaid or not. Then I selected 49 listed Swiss companies and find their data from 2014-2018. Only 49 companies are chosen because they all published the data which I need. The period 2014-2018 is chosen because I want to use the latest data to study the recent situation. I tried to research the relationship between firm performance, CEO characteristics and CEO compensation including Bonus and Basic salary and the changes of these variables in 2014-2018.

I use descriptive analysis before doing regression analysis. In the graph of the mean of three variables of CEO compensation, the trend of CEO compensation changing with the ten years is similar to the CEO bonus. However, CEO basic salary has not changed significantly. In this case, researchers can preliminarily judge that the CEO Total compensation has a greater correlation with the CEO bonus and less correlation with Basic salary. The correlation matrix is also be used to do a descriptive analysis. It implies that CEO compensation is not strongly related to ROA, ROE, and CEO characteristics but is related to market value.

After doing regression analysis, the results become more remarkable that market value does have a significant relationship with CEO compensation. While all other variables cannot find a relationship with CEO compensation,

the Market value has a high correlation coefficient. Although this study only found one variable related to CEO compensation. But it also slightly supports the fact that CEO compensation is not arbitrary. CEO compensation is related to the company's performance. When the Market value is high, the CEO will get more bonuses resulting in more total salary.

### **Limitations**

In this research, the results are insignificant. Compared to the successful research from Thissen, my research design has a deficiency. In his research, he used 12 years of data from 2000 to 2012. Its sample size is larger than mine. He uses an abundant number of observations, which is over 5,000, however, I only find 49 companies that have all the information I want. Inevitably, Switzerland is a small country with fewer companies than America. At the same time, not every company is disclosing the data I need. In this case, it's very difficult to find a large number of observations like Thissen does. On the other hand, not only is the time scale not wide enough, but the time dimension of the data is not large enough. The results might be better if company information are calculated on a quarterly or monthly basis rather than every year.

To find out whether CEOs are overpaid or not, I test the relationship between CEO compensation and firm performance. Due to the limitation of time and difficulties in measurement, no non-financial performance like reputation, customer satisfaction, or brand recognition was covered. However, non-financial performance may play an important role in measuring whether a CEO is qualified with his salary. For example, the reputation of the CEO in the

company may well influence the degree to which employees believe in him. If his reputation is not respectable, then the employee will not work with efficiency, affecting the company's performance. If the company doesn't perform well, it won't have enough money to pay the CEO. Therefore, non-financial performance may play an important role in salary assessment to CEOs.

On the other hand, the only aspect of financial performance the researcher choose is firm performance including ROA ROE and Market value which is not convincing and representative to conclude. However, other financial performance may have a relationship with compensation like CEO ownership, EPS, or Tobin Q. These performances also may have an essential influence on CEO salary.

In the end, the study finds only one variable related to CEO compensation and did not directly conclude whether CEOs were overpaid. With other variables for which results have not been tested to the relationship, the researcher thinks that more observations will probably make a difference. But finding more comprehensive data is difficult because Swiss companies are not fully disclosed their information about CEO compensation and CEO characteristics.

### **Contributions**

As one of the highest-paid CEOs country in the world, whether the CEOs are overpaid is widely reported by the media. Whether CEOs are worth what they get for compensation is a hot topic. This research tries to clarify that the CEOs are not overpaid. Although the result of this research is not significant, only

Market Value is found to be related to compensation, this related variable makes sense to the evaluating Swiss CEO income. Admittedly, not only do Swiss CEOs have a high salary but CEOs all over the world. In the new era, “distribution according to work” will be the ultimate goal.

## Reference

- Attaway, M. C. (2000). A study of the relationship between company performance and CEO compensation. *American Business Review*, 18(1), 77-85. Retrieved from <https://kean.idm.oclc.org/login?url=https://search.proquest.com/docview/216319517?accountid=11809>
- Hänni, L., & Nikitine, A. (3 March 2013). Special Edition: Minder Initiative Approved. <http://www.walderwyss.com/publications/1286.pdf>.
- Karaian, J. (2019). Some Swiss firms pay CEOs 200 times more than workers, and voters are cool with it. Retrieved 25 September 2019, from <https://qz.com/150735/some-swiss-firms-pay-ceos-200-times-more-than-workers-and-voters-are-cool-with-it/>
- Kerr, J., & Bettis, R. (1987). Boards of directors, top management compensation, and shareholder returns. *Academy of Management Journal*, 30(4), 645-664.
- Murthy, K.R.S., & Salter, M.S. (1975). Should CEO pay be linked to results? *Harvard Business Review*, 53(3), 66-73.
- Randøy, T. & Nielsen, J. *Journal of Management & Governance* (2002) 6: 57. <https://doi.org/10.1023/A:1015511912289>
- Rey, M. (2014). The New Draft Swiss Code of Best Practice. [www.caplav.ch/2014/the-new-draft-swiss-code-of-best-practice/](http://www.caplav.ch/2014/the-new-draft-swiss-code-of-best-practice/).
- Thissen, M. (2013). *CEO compensation and the effect of the financial crisis*. [online] Arno.uvt.nl. Available at: <http://arno.uvt.nl/show.cgi?fid=132032> [Accessed 7 Nov. 2019].
- Veliyath, R., & Bishop, J. W. (1995). Relationship between CEO compensation and firm performance: Empirical evidence of labor market norms. *The International Journal of Organizational Analysis*, 3(3), 268-283.
- Zargarian, H. R. (2018). *CEO Compensation and Performance in Publicly-Traded Hospitals: 2011-2016*(Doctoral dissertation, Northcentral University).