LAPPEENRANTA UNIVERSITY OF TECHNOLOGY
School of Business and Management
Master's Program in Accounting

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Employee satisfaction and its relation to firm profitability: Evidence from Finnish medium size firms from 2011-2015

Master's Thesis 2017

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ABSTRACT

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The purpose of this Master's thesis is to study the relationship between employee satisfaction and firm financial profitability utilizing the service profit chain model and the presumed association between efficient human resource practices and firm performance as the theoretical base. This thesis is among the first studies about this topic that attempts to find empirical evidence by using data from Finnish companies.

Theoretical part of the thesis focuses on explaining the service profit chain and presenting earlier research literature. The general aspects of employee satisfaction are discussed through human resource management literature and prior studies linking human resource practices and firm performance. The sample group of companies with better than average level of employee satisfaction is selected from Great Place to Work's list of best medium size companies to work for in Finland in 2011. The profitability ratios of the firms in the sample group are compared against industry medians during a five-year period between 2011-2015. Additionally, the top firms in the ranking are compared with the bottom firms.

The results suggest that there is a positive relationship between employee satisfaction and firm profitability especially among the firms that are positioned high in Great Place to Work's ranking. The top performers of the ranking are statistically significantly more profitable than average Finnish firms during the five-year period. For the bottom performers the relationship is statistically insignificant.

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Tämän Pro Gradu -tutkielman tarkoituksena on tutkia työtyytyväisyyden vaikutusta yrityksen kannattavuuteen käyttäen hyväksi service profit chain teoreettista mallia ja oletettua yhteyttä tehokkaan henkilöstöhallinnon ja yrityksen kannattavuuden välillä. Tämä tutkielma on yksi ensimmäisistä aihetta käsittelevistä tutkimuksista, jossa tutkitaan suomalaisten yritysten kannattavuutta.

Tutkielman teoreettinen osa keskittyy service profit chain -mallin esittelyyn ja siitä aiemmin tehtyihin tutkimuksiin. Työtyytyväisyyttä käsitellään henkilöstöhallintoon liittyvän kirjallisuuden ja aiempien henkilöstöhallinnon ja kannattavuuden välistä yhteyttä käsittelevien tutkimusten kautta. Tutkimuksen otos, eli yritykset joiden työntekijät ovat keskimääräistä tyytyväisempiä työnantajaansa, on valittu Great Place to Work:n vuoden 2011 Suomen parhaiden keskisuurten työpaikkojen listalta. Näiden yritysten kannattavuuden tunnuslukuja verrataan toimialojen tunnuslukujen mediaaniarvoihin viiden vuoden ajanjaksolla vuosien 2011-2015 välillä. Lisäksi listalla korkealle sijoittuneiden kannattavuutta verrataan matalalle sijoittuneiden kannattavuuteen.

Tulokset osoittavat, että työtyytyväisyyden ja kannattavuuden välinen yhteys on positiivinen erityisesti korkealle Great Place to Work:n listalla sijoittuneiden yritysten joukossa. Vertailussa hyvin menestyneet yritykset ovat vertailuajanjaksolla tilastollisesti merkittävästi kannattavampia kuin suomalaiset yritykset keskimäärin. Vertailussa huonommin menestyneiden yritysten joukossa yhteys ei ole tilastollisesti merkitsevä.

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With the completion of this Master's thesis my studies at LUT are nearing their end. I would like to use this opportunity to express my gratitude to a few people who have supported me during my studies and made this achievement possible.

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In Helsinki, 29th of November 2017

Ville Eteläpää

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1 Introduction

Corporate leaders often consider employees as one of their most important resources. Phrases such as “employees are our most valuable asset”, “we’re only as strong as our employees” or “our employees come first” sound familiar and have been heard from many business leaders. Thus, it seems almost obvious that investments in employee wellbeing can have an impact on things such as productivity and job quality. These in return may provide financial gains for the company. Especially in the new economic era when technology and innovations are the key to success in many industries, investments to employees, to intellectual capital, may be the deciding factor in the firm’s success or defeat. Indeed, as a study of nearly 6000 managers in the United States (Chambers et al. 1998) concluded: “Superior talent will be tomorrow's prime source of competitive advantage.”

One way to measure employee wellbeing is to monitor the number of sick days that employees have taken. In Finland, according to the Confederation of Finnish Industries (Elinkeinoelämän keskusliitto 2016), sickness and accidents reduced regular working hours by 4,3% in year 2014. Sickness and accident related absences naturally bring direct economic consequences to a company in the form of sick leave costs or additional salary costs because of the need to hire substitute persons to get the job done. By paying more attention to employee wellbeing at work the sickness and accident related absences could be reduced and the negative financial effects minimized.

Naturally, investments in employee welfare provide also other economic consequences, both direct and indirect, as illustrated in figure 1 below. Satisfied employees tend to be more efficient, innovative and do their job with higher quality which all indirectly through higher productivity, quality and innovations affect firm profitability and competitiveness. (Otala and Ahonen 2003)

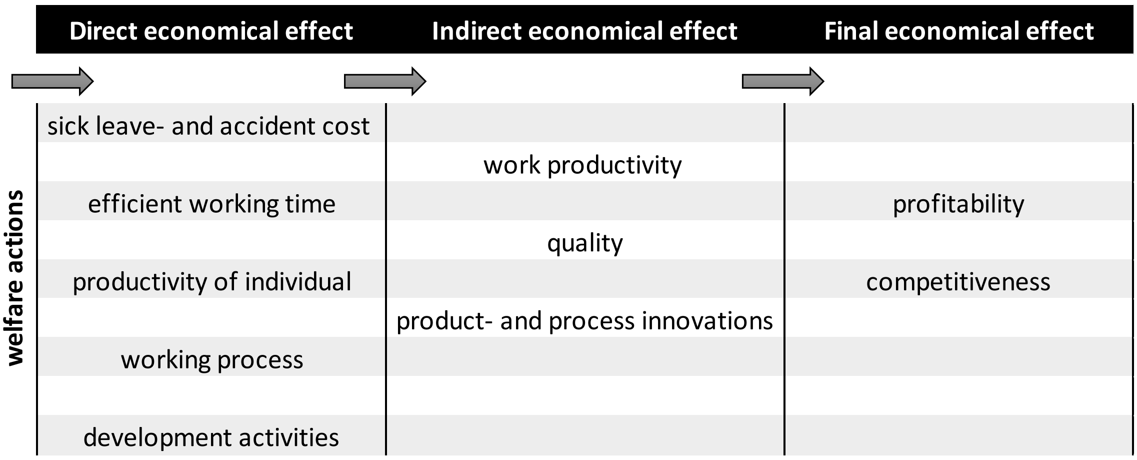

Figure 1. Economic effects of wellbeing at work (adapted from Otala and Ahonen 2003)

In other words, it seems that employee welfare and satisfaction should have an impact on firm profitability. But what is the final impact and can that impact be measured in financial terms? How much better financially do the firms with higher employee satisfaction perform than the rest? Or is there, in the end, any difference in profitability at all? That is ultimately what this thesis is about and what it attempts to discover.

Prior studies have been conducted regarding the relationship between employee satisfaction and firm performance and/or profitability but they have provided mixed results. For example, Fulmer et al. (2003) and Yee et al. (2008) have provided evidence that a significant positive relationship exists between employee satisfaction and firm performance. On the other hand, for example Keiningham et al. (2005) and Bernhardt et al. (2000) have found only an insignificant relation or a positive relation when using certain parameters and Silvestro and Cross (2000) even found the relationship to be negative. Majority of the prior research have concentrated on analyzing big multinational firms. Because of the mixed results in prior studies and limited results using data from medium size companies, this thesis focuses solely on medium size companies. As a further delimitation, the scope is narrowed to medium size Finnish companies operating in Finland.

1.1 Employee satisfaction

Terms employee satisfaction, job satisfaction and employee wellbeing are sometimes defined and used differently depending on the source and context. Employee satisfaction and job satisfaction are usually simply defined as the extent to which a person is happy (or unhappy) with his/her job and the role it has in his/her life (Weiss 2002). Employee wellbeing on the other hand is commonly defined using the broader concept of psychological wellbeing. For example, Warr (2002) refers to employee wellbeing as people's satisfaction with their jobs in terms of pay, colleagues, supervisors, working conditions, job security, training opportunities, team working and the nature of the job undertaken. In this this thesis, from this point onwards, only the term employee satisfaction is used but it should be understood to contain all the aspects of the broader concept of psychological wellbeing. That is to say, the term employee satisfaction on this thesis refers to an all-inclusive concept of employee wellbeing at work as described by Warr (2002).

1.2 Objective, scope and delimitations

The main objective of this thesis is to examine the relationship between employee satisfaction and firm financial profitability. Are these two concepts connected with each other or not? Does higher employee satisfaction increase productivity and/or quality and thus affect competitiveness and firm profitability? Therefore, the main research question is simply as follows:

"Are firms with a higher level of employee satisfaction more profitable?

Specifically, this study analysis the effects of high level of employee satisfaction to firm profitability among Finnish medium size firms between 2011-2015. Thus, the first sub-question of the main research question is the following:

"Are Finnish medium size firms with a high level of employee satisfaction more profitable than the average Finnish firms?"

The second sub-question is related to the profitability among those firms with a higher than average level of employee satisfaction. If the firms with better than average level of employee satisfaction are arranged in order based on their level of employee satisfaction, can we see any significant difference on their profitability? Thus, the second sub-question is as follows:

> *"Of those firms with better than average level of employee satisfaction, are the firms on the top third more profitable than the firms on the bottom third?"*

The scope of this study is delimited to Finnish medium size firms and their profitability during a five-year time frame from 2011 until 2015. Medium size firm in this study is defined as a firm with 50-350 employees, average total assets between 2,3 and 72 million euros and annual turnover between 6,5 and 110 million euros. Finnish firms are selected due to the lack of empirical studies regarding the relationship between firm profitability and employee satisfaction in Finland. Prior international studies have also mostly concentrated in big international companies (e.g. Fulmer et al. 2003) or been delimited to certain industries (e.g. Yee et al. 2008, Chi et al. 2009). Therefore, for the purpose of creating new evidence, the scope of this study is limited to Finnish medium size companies without any industry constraints. The five-year time frame is selected because of the possible time lag between management's actions for increasing employee satisfaction and the effects those have on financial profitability.

1.3 Data and methods

The data used in the empirical research is gathered from two different sources. The sample group of companies with better than average level of employee satisfaction is selected from the ranking of "Best medium size companies to work for in Finland" which is published by the global research and consultation firm Great Place to Work Institute. Each year Great Place to Work publishes lists of best Finnish small-, medium size and large companies (i.e. three separate lists) and ranks them in order according to its own assessment which is based on employee surveys and assessment of firms' management and leadership practices.

Financial data is gathered from Voitto+ financial information database that is maintained by Suomen Asiakastieto Oy. The database contains financial statement data for almost 200 000 active Finnish companies. The database contains for example balance sheet and profit and loss data, multiple financial ratios related to companies' profitability, solvency and liquidity, as well as industry benchmarks for all ratios.

In the empirical part of this thesis, there are two different sections and methods used to analyze the performance of the companies. In the first section, the financial ratios of the top 10 and the bottom 10 performers from 2011 Best medium size companies to work for in Finland are compared against their industry average ratios from the same year. Then, for the same companies from 2011 ranking the comparison is done for the next four consecutive years by using financial ratios based on 2012-2015 financial data. The total timeframe of five years is selected to diminish the previously mentioned time lag problem which might otherwise blur the results. In the second section, the average profitability of the top 10 and bottom 10 firms is compared with each other. This is to see whether the firms in the top 10 perform better than the firms in the bottom 10. Again, the comparison is done first for year 2011 and then for the next four consecutive years from 2012 until 2015. Statistical tests are used in both scenarios to determine to statistical significance of the results.

1.4 Theoretical framework

The theoretical framework of this thesis consists of certain business management theories and certain human resource management theories which all are connected with the relationship between employee satisfaction and firm financial performance, and also interlinked with each other. The interconnection is illustrated in figure 2 below.

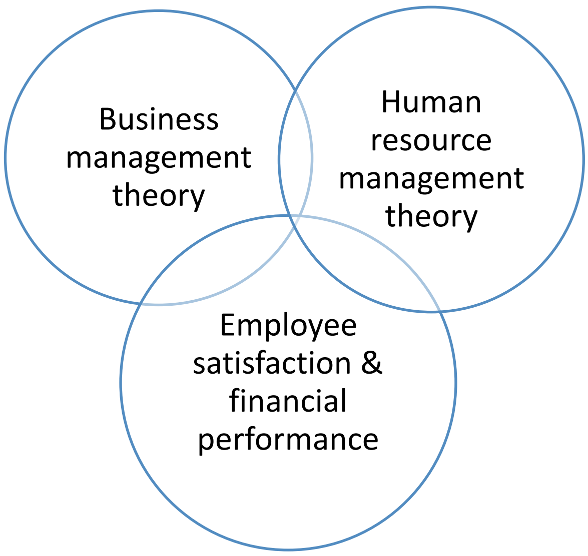

Figure 2. Theoretical framework of the thesis

The main theoretical contributor for this thesis is the service profit chain which is a business management theory developed by Heskett et al. (1994). In their research, they establish relationships between firm profitability, customer satisfaction and loyalty and employee satisfaction, loyalty and productivity. Heskett et al. suggest that firm profitability is likely to increase when its customers are satisfied. Customer satisfaction again is achieved through service quality and the basis for good service quality is a satisfied employee. Part of the increased profits then again can be put back to the cycle to increase employee satisfaction through human resource actions (see figure 3 below).

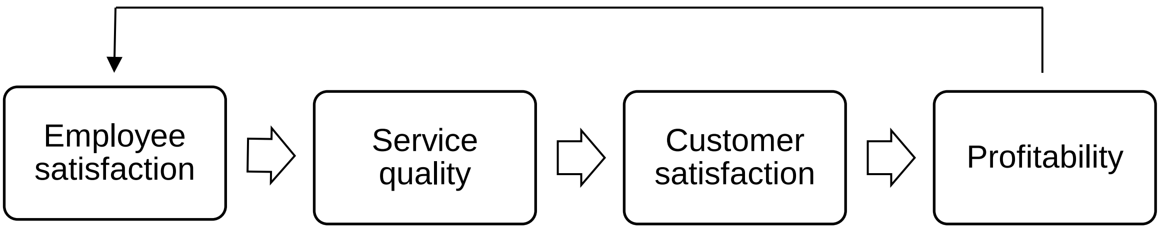

Figure 3. Service profit chain (adapted from Heskett et al. 1994)

If the model is examined closely, it can be argued that employee satisfaction is the starting point which leads to an increased service quality, which in return increases customer satisfaction and, in the end, has a positive effect on financial performance. Therefore, in this thesis the focus is on employee satisfaction and its relation to firm profitability. The empirical part of this thesis concentrates solely on analyzing the relationship between employee satisfaction and profitability. The other links of the service profit chain are considered to be outside the scope of this study. They are nonetheless presented briefly from theoretical point of view. The service profit chain is selected as the main theoretical base for this thesis because it clearly illustrates how employee satisfaction affects profitability and it also reminds us that there are always also other factors affecting profitability – never only employee satisfaction.

The service profit chain suggests that there is a connection between employee satisfaction and firm profitability. This connection has already been studied more closely by the international research community. Some of the empirical studies that that have been conducted previously regarding the relationship between employee satisfaction and firm profitability (Fulmer et al. 2003, Yee et al. 2008, Keiningham et al. 2005, Bernhardt et al. 2000) are presented in more detail in the following chapters.

The supporting theoretical background comes from human resource management (HRM) literature. For example, Guest (1997) and Purcell et al. (2003) suggest that certain HRM practices are linked with higher firm performance. These practices and their relationship to firm performance are discussed through examples from the prior studies in chapter 2.3. The model by Guest (1997) linking HRM practices and firm performance is also partially similar with the service profit chain as it connects certain HRM practices with firm performance through job quality and productivity. Guest's (1997) model although highlights the importance of HRM practices on creation of an atmosphere where employees become more productive.

1.5 Limitations

The main limitation of the study is related to the validity of Great Place to Work's list of best companies as a data source. The basic assumption and backbone of this study is that the Best Companies to Work for ranking actually does contain those companies with better than average employee satisfaction when compared to the rest of the Finnish medium size firms. However, it is difficult to measure if or how accurately this is the case. Especially when only those companies are presented in the ranking which themselves wanted to participate to the evaluation. This means that the ranking does not contain the ultimate best companies in Finland but only the best of those that wanted to participate – which is about 150 firms annually. On the other hand, the companies that do participate probably have a genuine interest to invest into their employees and strengthen employee satisfaction. Why would they otherwise take part? Thus, it can be argued that because of the interest to invest in employee satisfaction the companies in the ranking most likely have a higher level of employee satisfaction than the average firms. The methods of how Great Place to Work measures employee satisfaction are discussed with more detail in chapter three. Based on those methods and the arguments mentioned above, the assumption is that at least the top performing companies in the list do indeed have better than average level of employee satisfaction.

The second limitation, as the theory suggest, is the fact that there are always multiple factors that affect firm profitability. So, whether the results of this study indicate that firms with higher level of employee satisfaction have higher profitability or not, it can always be questioned what is the ultimate reason that is causing the higher, or lower, profits. Employee satisfaction may be one of the drivers leading to higher profitability but never the only one.

1.6 Structure of the thesis

In the following chapter two the theoretical background for this study is presented in more detail. First the framework of the service profit chain is presented together with a literature review on prior empirical research regarding the relationship between employee satisfaction and firm profitability. After this, human resource management practices, which are the key to employee satisfaction, are discussed in more detail. The focus is on those practices that are associated with firm performance. Chapter three is dedicated to Great Place to Work and the methods that it uses when it evaluates the firms while preparing its ranking as these are connected with the HRM practices discussed in the previous chapter. Once the theory is established the research methodology is presented in chapter four where the research method, sample, validity and data collection method are discussed in more details. The methodology is followed in chapter five by empirical results and analysis regarding the relationship between employee satisfaction and firm profitability in Finland. Finally, chapter six gives the concluding remarks along with discussion of the reliability and validity of the results and future research possibilities.

2 Employee satisfaction and profitability

Theoretical aspects of the relationship between employee satisfaction and firm profitability are discussed in this chapter. Firstly, the framework of the service profit chain that links employee satisfaction, customer satisfaction and firm profitability is presented in more detail. The service profit chain illustrates how employee satisfaction affects firm profitability through higher productivity and increased customer satisfaction. Secondly, findings from several prior empirical studies regarding the relationship between employee satisfaction and profitability are presented. Lastly, human resource management practices are discussed – especially those that according to prior studies are associated with financial performance.

2.1 The service profit chain

The service profit chain is a model developed by James L. Heskett, Thomas O. Jones and Gary W. Loveman in 1994 from analysis of successful service oriented companies. The model establishes causal relationships between firm profitability, customer satisfaction and loyalty, employee satisfaction, loyalty and productivity as presented in figure 4 below. In principal, it helps companies in the service industry to determine what drives their profit and proposes a way to build long-term profitability by putting employees and customers first. (Heskett et al. 1994)

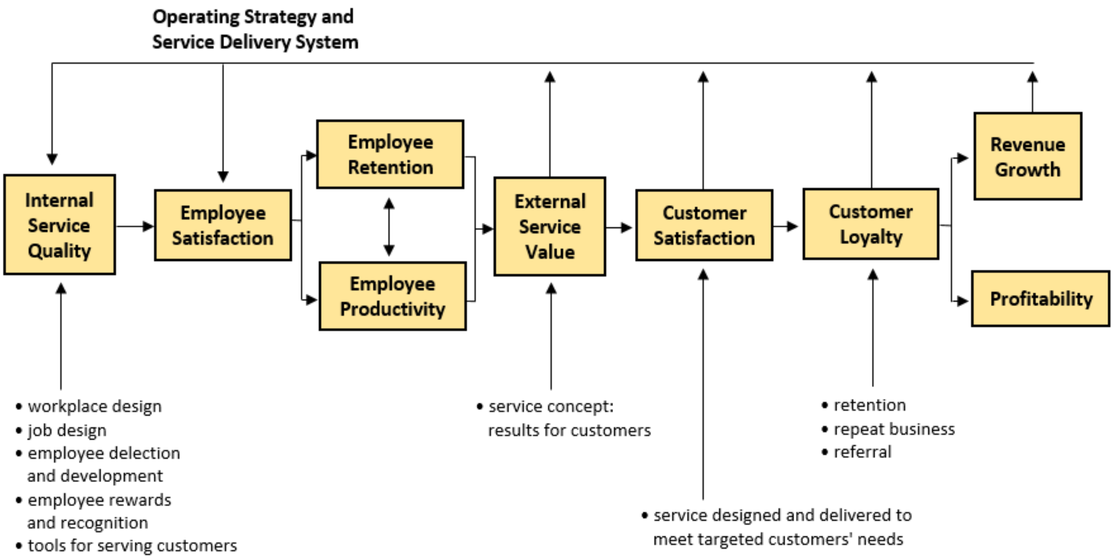

Figure 4. Links in the service profit chain (adapted from Heskett et al. 1994)

The links in the chain can be briefly describes as follows: Firm profit and growth are results of customer loyalty as loyal customers tend to buy more and more often. Loyalty, in turn, is a direct result of customer satisfaction which is caused by the quality of services provided to them. The quality of services are results from employee loyalty and productivity which are a direct result of employee satisfaction. Finally, the level of employee satisfaction results from the internal service qualities such as workplace design, employee rewards and development. (Heskett et al. 1994)

The empirical evidence that Heskett et al. (1994) provide to support the model is limited to a small number of companies and some of the links have no empirical evidence at all. Nonetheless, the service profit chain model has raised significant attention in the academic world and several researchers (e.g. Chi et al. 2008, Keiningham et al. 2005, Gelade et al. 2005, Silvestro and Cross 2000) have studied it more closely and provided additional evidence. The model is also quite complex because it interlinks and integrates many different drivers of performance and creates links between several separate variables. Because of the complexity the studies that have been conducted have provided mixed results. (Heskett et al. 1994) The following chapters provide a closer look on all the links and provide more information about the related research.

2.1.1 Employee satisfaction and customer satisfaction

According to Heskett et al. (1994) employee satisfaction is a driver for employee loyalty because satisfied employees are less likely to leave the company. Thus, loyalty increases productivity because replacing an experienced employee would, at least momentarily, have a significant effect on efficiency and productivity. Also cost of recruiting, hiring and training new employees brings additional costs. What employee satisfaction and high productivity bring for a customer is value. Customers today are very value oriented. For them value is all that they receive in return for the money that they pay for a service or product. So not only the product or the service itself matters but also for example the speed of the sales transaction or the knowledge of the salesperson. If a customer feels that he receives enough value for his money, he becomes satisfied. Thus, the connecting piece between employee satisfaction and customer satisfaction is the service value caused by the mirror-effect of employee loyalty and productivity as presented in figure 5 below. (Heskett et al. 1994)

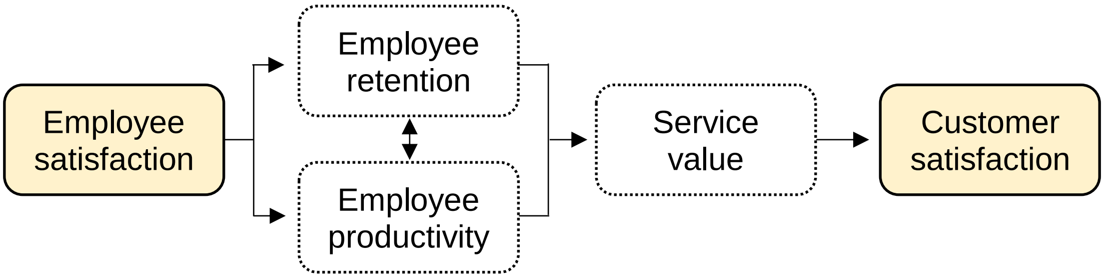

Figure 5. Employee satisfaction-customer satisfaction link (adapted from Heskett et al. 1994)

Majority of the later studies suggest that employee satisfaction and customer satisfaction are indeed positively correlated. For example, Yee et al. (2008) provide an extensive summary of the prior literature regarding the links between employee satisfaction and service quality, service quality and customer satisfaction, and employee satisfaction and customer satisfaction. They conclude that all the prior literature seems to agree that there is a positive correlation between all the links. Regarding employee satisfaction and service quality they cited studies by Loveman (1998), Silvestro and Cross (2000), Yoon and Suh (2003) and several others. In respect to service quality and customer satisfaction they mentioned prior studies, for example, by Babakus et al. (2004) who found that service quality is an antecedent to customer satisfaction. In relation to employee satisfaction and customer satisfaction Yee et al. (2008) mentioned for example Howard and Gengler (2001) who found evidence that by exposing customers to happy employees results in customers having a positive attitudinal bias towards a product.

Thus, in general it can be stated that employee satisfaction is frequently associated with favorable experiences to the customer and with customer satisfaction. Consumer researchers suggest that the link could be explained by the theory of emotional contagion (Hatfield et al. 1992). The theory suggests that employees who feel satisfied about their work radiate their positivity to their customers who absorb the positivity, and as a result have a pleasurable customer service experience. (Gelade et al. 2005)

2.1.2 Customer satisfaction and profitability

Heskett et al. (1994) suggest that customer satisfaction is the driver for customer loyalty. What customer loyalty means in practice, is that the customer buys more often from those companies that he or she is satisfied with, is willing to pay more and also to recommend the company to others. Especially those customers that are very satisfied (Heskett et al. call them apostles) are important because they are also highly loyal. Then again, the loyalty (and retention) rate drops very fast in parallel with the level of satisfaction as stated in figure 6 below. On the other side of the spectrum are the extremely dissatisfied customers (terrorists) who behave contrary to apostles by not only avoiding to buy but also by advising other people not to buy. (Heskett et al. 1994)

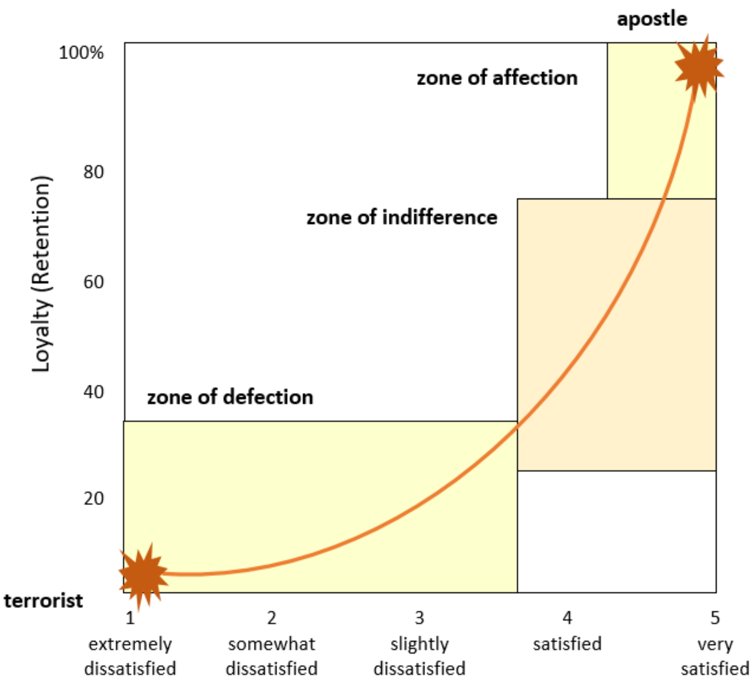

Figure 6. Customer satisfaction and loyalty (adapted from Heskett et al. 1994)

Heskett et al. define a loyal customer as a customer who buys more often, is willing to pay more and recommend the company to others. This means that loyal customers bring more sales revenue than ordinary customers and are also more profitable. According to Heskett et al. several companies have found that their most loyal customers (top 20% of total customers) provide all the profit and also cover the losses incurred from the less loyal customers. They also state that a five percent increase in customer loyalty can lead to profit increases from 25% to 85%. As a summary, it can be stated that customer loyalty is the connecting piece between customer satisfaction and profitability as presented in figure 7 below. (Heskett et al. 1994)

Figure 7. Customer satisfaction-profitability link (adapted from Heskett et al. 1994)

The empirical evidence regarding the suggested relationship between customer satisfaction and firm profitability is mixed. Researchers agree that the link between customer satisfaction and customer loyalty is real. According to Anderson et al. (1994) and Gronholdt et al. (2000) highly satisfied customers are likely to buy more frequently, in greater volume, pay premium prices and also buy other goods and services provided by the same company. The studies regarding customer satisfaction and profitability, however, provide more mixed evidence. Some researchers have found the relationship to be positive (e.g. Nelson et al. 1992), some positive in certain scenarios (e.g. Schneider 1991 and Bernhardt et al. 2000), and some have even found the relationship to be actually negative (e.g. Tornow et al. 1991).

Bernhardt et al. (2000) provide good reasoning for the inconclusive results. They argue that the reason for the conflicting results may be attributable to the fact that in many of the studies the data is collected at one point in time (i.e. cross-sectional data is used). They continue that in many cases the financial results of elevated customer satisfaction may not show immediately but only in the long-run. In short term, the profitability might even decrease because of the measures taken (employee trainings etc.) to increase customer satisfaction. There might also be other factors than customer satisfaction that blur the results when using data from one point in time such as weather conditions, time of the year, traffic, location and so on. When examining data over a period of time (longitudinal data) the effect of these short-run costs is softened. Bernhardt et al. found evidence that by using longitudinal data, the relationship between customer satisfaction and firm profitability is indeed positive. They also replicated their analysis by using cross-sectional data (data from one point in time) and found out that in those circumstances there was no significant relationship between customer satisfaction and profitability. (Bernhardt et al. 2000)

2.1.3 Employee satisfaction and profitability

As mentioned in previous chapters the driving force for firm profitability is customer satisfaction which is closely linked with employee satisfaction. Employee satisfaction is affected by, what Heskett et al. call, internal service quality. Internal service quality is measured by the feelings that employees have toward their jobs, colleagues, work environment and employers. Things that affect internal service quality are the factors that are commonly connected with human resources management. These are for example workplace design, job design, employee selection and development, salary and rewards and tools for serving customers. Creating a high level of internal service quality requires effort and creates costs for the employer. Thus, the higher the revenue and profitability the more resources a company can afford to put on creating a high level of internal service quality. This in the end, is linked back to profitability, and so the cycle of service profit chain is created. In other words, the connecting piece between profitability and employee satisfaction is the internal service quality as presented in figure 8 below. (Heskett et al. 1994)

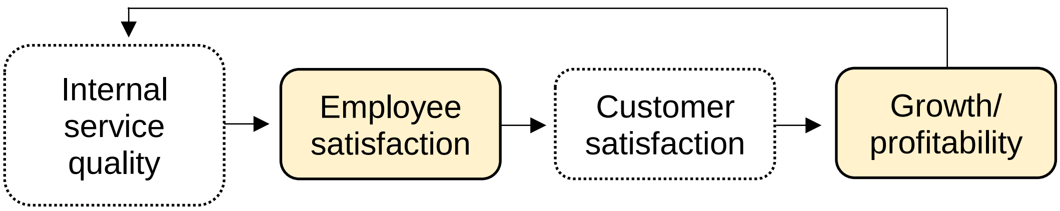

Figure 8. Employee satisfaction-profitability link (adapted from Heskett et al. 1994)

Similarly, as with customer satisfaction and profitability also the research on the relationship between employee satisfaction and profitability has provided mixed evidence. Some studies (Schneider et. al. 2003, Yee et al. 2008) have found evidence suggesting the relationship to be significantly positive as is suggested by the service profit chain. Then there are others who have found the relationship to be insignificantly positive or sometimes positive (Keiningham et al. 2005, Gelade et al. 2005, Bernhardt et al. 2000) or even negative (Tornow et al. 1991, Silvestro and Cross 2000).

Bernhardt et al. (2000) suggest that the mixed evidence exists because in most of the studies the data is taken from one point in time and this might blur the results. According to them the true relationship between employee satisfaction and profitability may be masked by any number of factors in any single time period. For example, employees might be happy because the company has invested money to their wellbeing but these investments have not yet had an impact on customers and profitability. When investing in employees, the costs are recognized immediately but the impact on profits might realize only after some time. Also, in economic downturn employees might be happy just to have a job and at the same time sales and profitability are down. (Bernhardt et al. 2000)

2.2 Literature review

This chapter presents in more detail some of the previous empirical studies that have been conducted on the relationship between employee satisfaction and firm profitability. The chosen studies by Chi et al. (2009), Yee et al. (2008), Keiningham et al. (2005), Fulmer et al. (2003) and Bernhardt et al. (2000) were selected because they provide an extensive breakdown of the methodology and findings on the area of employee satisfaction and profitability. In addition, these studies are also closely related to the service profit chain and the topic of this thesis.

In their study *"The impact of employee satisfaction on quality and profitability in high-contact service industries"* Yee et al. (2008) examined and analyzed the relationships between employee satisfaction, service quality, customer satisfaction and firm profitability in high-contact service industries. High-contact service industries in this case mean any service industry where there are frequent direct and close interactions between employees and customers. Yee et al. hypothesized that employee satisfaction has a positive influence on service quality, and that service quality in return has a positive influence on customer satisfaction. Also, they hypothesized that employee satisfaction has a positive influence on customer satisfaction, and that customer satisfaction in return has a positive influence on firm profitability. Their hypotheses were mainly based on the theoretical framework of the service profit chain. (Yee et al. 2008)

The data was collected via employee surveys. The persons in charge of a shop were responsible for answering questions related to customer satisfaction and profitability, and regular staff members answered the questions related to employee satisfaction and service quality. In total, the sample size was 618 questionnaires from 206 shops. Indicators for profitability were return on assets (ROA), return on sales, return on investment (ROI) and overall profitability. (Yee et al. 2008)

The results indicated that all the four hypothesized relationships were positive. The linkage between employee satisfaction and service quality was highly significant. Also, both employee satisfaction and service quality had a direct and significant impact on customer satisfaction. Also, the relationship between customer satisfaction and profitability was highly significant. As a limitation, the researchers pointed out the cross-sectional data used in the study. They concluded that there is a possibility that the results may be inaccurate because the impact of employee satisfaction to service quality or customer satisfaction may occur almost immediately while the impact of customer satisfaction on profitability could evolve over a vague time window. (Yee et al. 2008)

A similar type of study was performed by Chi et al. (2009). In their research *"Employee satisfaction, customer satisfaction, and financial performance: An empirical study"* the researchers examined the relationship between employee satisfaction and customer satisfaction, and the impact of both on financial performance of three and four-star hotels. The data for the study was collected from the employees, customers and managers of 250 three and four-star hotels. In total 2023 employee surveys and 3346 customer surveys were collected. The financial data was gathered from the hotel managers. The financial variables that were analyzed included return on investment (ROI), net profit, and general profitability. (Chi et al. 2009)

The results revealed a significant direct relationship between customer satisfaction and financial performance, as well as between customer satisfaction and employee satisfaction. Regarding the relationship between employee satisfaction and financial performance however, the results showed no direct relationship. But on the other hand, a clear indirect relationship was found between employee satisfaction and financial performance and that this relationship was mediated by customer satisfaction. In general, the results seem to provide supporting evidence for the service profit chain. (Chi et al. 2009)

Although the studies by Yee et al. (2008) and Chi et al. (2009) mostly support the service profit chain model, some other studies have provided more inconsistent results. In their study "*Reexaming the link between employee satisfaction and store performance in a retail environment*" Keiningham et al. (2005) attempted to re-test the relationship between employee satisfaction and profitability because some of the previous studies had provided mixed results. Specifically, the researchers tried to test the generalizability of the study by Silvestro and Cross (2000) who found an unlikely strong negative correlation between employee satisfaction and profitability. The data for the study came from a single large unnamed multinational retail grocery store chain based in continental Western Europe. The researchers had access to the stores' financial data and the employee attitudes were measured via employee surveys. In total 38 513 surveys were completed and 107 grocery stores were included in the sample. (Keiningham et al. 2005)

Keiningham et al.'s results differ substantially from Silvestro and Cross. They did not find any negative relationship between employee satisfaction and firm profitability. Keiningham et al. hypothesize that the unlikely results by Silvester and Cross may have been the result of a small sample size. Nevertheless, the results of

Keiningham et al. show no relationship between employee satisfaction and store profitability. But when delimiting the size of stores (i.e. by excluding the largest stores from the sample) the relationship is positive. They explain this with the assumption that in stores that employ hundreds of staff it is more difficult to cultivate team spirit and employee satisfaction. A similar assumption was made also by Silvestro and Cross when they pondered their unusual findings earlier. (Keiningham et al. 2005)

As limitations Keiningham et al. pointed out the cross-sectional data and the fact that there are also other factors than employee satisfaction that affect profitability. They mentioned that it is difficult to measure the ultimate impact that employee satisfaction has on profitability when there may be other factors also affecting the profits as is suggested by the service profit chain. (Keiningham et al. 2005)

Both of the previous two studies mentioned as a limitation the cross-sectional approach that was used in them. Bernhardt at al. (2000) take this into account in their research "*A longitudinal analysis of satisfaction and profitability*". They measure and analyze the effect of employee satisfaction and customer satisfaction to profitability of a fast food restaurant chain by performing a time-series analysis (data taken in multiple points in time) during a 12-month time window. Also, as comparison they prepared the same analysis using cross-sectional data. Bernhardt at al. argue that the conflicting relationships between customer satisfaction and profitability and employee satisfaction and profitability may be attributable to the fact that in many previous studies cross-sectional data (data collect at one point in time) was analyzed. (Bernhardt et al. 2000)

Employee satisfaction and customer satisfaction was measured via surveys. Customer satisfaction surveys were conducted in 472 restaurants once every month during a 12-month time period from March 1992 to March 1993. The total number of respondents was 342 308. The employee satisfaction surveys were conducted separately and only once. A total of 3099 questionnaires were returned from 382 of the 472 restaurants with an average of eight per store. The financial performance data was provided by the company for the whole 12-month period. (Bernhardt et al. 2000)

In their cross-sectional analysis Bernhardt et al. found a significant positive relationship between service quality and customer satisfaction and between customer satisfaction and employee satisfaction. However, they found no significant (neither positive nor negative) relationship between customer satisfaction and financial performance or employee satisfaction and financial performance. In their time-series analysis the results were the same, except that the relationship between customer satisfaction and financial performance was positive. According to Bernhardt at al. those restaurants with an increase in customer satisfaction had profits 30% above the chain average. Those with stable customer satisfaction had profits of only 1% above the average, and for those stores with decreasing customer satisfaction the profits were 26% below the average. They hypothesized that the results would be the same also for employee satisfaction and financial performance but they cannot confirm this because they did not have the data for the changes in employee satisfaction. As a limitation, the researchers mentioned that because the relationships were examined only in the fast food industry the generalizability of the results may be limited. (Bernhardt et al. 2000)

The last article introduced is "*Are the 100 best better? An empirical investigation of the relationship between a "Great Place to Work" and firm performance*" by Fulmer et al. (2003). This study is important not only because its similarity to this thesis but especially because the researchers tested whether the firms in the Great Place to Work ranking actually do have better than average employee relations. This was done via additional employee survey which results were compared against the original findings of the Great Place to Work Trust Index employee survey. In addition to this, the researchers analyzed whether superior employee relations have an impact on financial and market performance.

The focus of the study was on publicly traded firms included in the 100 Best Companies to Work for in America in year 1998. The final sample group consisted of 50 companies from January 1998 list. The sample group's financial ratios, specifically return on assets (ROA) and market-to-book ratio (market value of equity divided by book value of equity), were compared against companies in the broad market and also a group of matched firms. The financial performance was analyzed from 1995 through 2000. (Fulmer et al. 2003)

The results confirmed that the companies in the 100 best list indeed have better than average employee relations and they tend to stay quite stable over the time period of the study. Also, the firms in the 100 best list showed better financial performance than their counterparts. Return on assets and market-to-book ratios were consistently higher for the 100 best companies when compared against the market index or the group of matched firms (similar size firms from similar industries). (Fulmer et al. 2003)

For a summary of the studies mentioned in previous chapters see table 1 below.

Table 1. Summary of empirical studies on the relationship between employee satisfaction and profitability

Researchers	Relationship between employee satisfaction and profitability	Cross-sectional analysis or time-series analysis	Sample group	Main limitations
Bernhardt et al. (2000)	Insignificant relationship when using cross-sectional data and positive when using time-series data	Both	382 stores of an international fast food restaurant chain	No evidence on whether the results can be generalized across industries
Fulmer et al. (2003)	Significantly positive	Accounting data is time-series but employee satisfaction is cross-sectional	50 companies from the 100 Best Companies to Work for in America in year 1998	None mentioned
Keiningham et al. (2005)	Positive but only when the biggest stores were excluded	Cross-sectional	Large multinational retail grocery store chain from continental Western Europe	Cross-sectional data and possible other factors that affect profitability might blur the results
Yee et al. (2008)	Significantly positive	Cross-sectional	206 service shops in high-contact service industry in Hong Kong	Cross-sectional data
Chi et al. (2009)	No direct relationship; But instead a positive indirect relationship which is mediated by customer satisfaction	Cross-sectional	250 three and four-star hotels in the hospitality industry	Only the links between employee and customer satisfaction and profitability were examined but other factors affecting profitability may blur the results

2.3 HRM practices and financial performance

In their service-profit chain study Heskett et al. (1994) already named certain things that affect employee satisfaction such as workplace design, job design, employee selection and development, salary and rewards and tools for serving customers. All these activities fall under the wide umbrella of human resource management (HRM).

HRM activities can be categorized under six themes: organizational activities, resourcing, human resource development, reward management, employee relations, and health, safety and welfare (see figure 9 below for details). Organizational activities contain things such as workplace design and job/role design. Resourcing include for example recruiting and selection activities and talent management. HR development contains activities such as training and development (both individuals and the whole organization) and performance management. Reward management is related to different salary and reward schemes and employee benefits. Employee relations contain activities related to firm internal communication. Health, safety and welfare is related to health and safety related activities. (Armstrong 2016, 5)

Organization

- Organization design
- Job and role design
- Organization development

Resourcing

- Recruitment and selection
- Selection tests
- Introduction to the organization
- Release from the organization
- Talent management

HR development

- Organizational learning
- Individual learning
- Management development
- Performance management

Reward management

- Job evaluations
- Grade and pay structures
- Contingent pay
- Employee benefits

Employee relations

- Employee voice
- Communication processes
- Company spirit
- Industrial relations

Health, safety and welfare

- Health and safety
- Welfare service

Figure 9. HRM activities (adapted from Armstrong 2016, 5)

Several theoretical models have been designed which suggest that HRM practices influence firm financial performance. Guest (1997) for example developed a model (see figure 10 below) that links HRM practices and financial performance via productivity and quality of goods and services. This model is quite similar with the service-profit chain as it also presents service/product quality and productivity as drivers to increased financial performance. Guest's model although highlights the importance of effective HR practices in creation of competent and committed employees, who in turn, are the drivers for service quality and productivity, and ultimately to firm performance. The HRM practices that were mentioned in the study included selection, training, appraisal, rewards, job design, involvement, status and security. (Guest 1997)

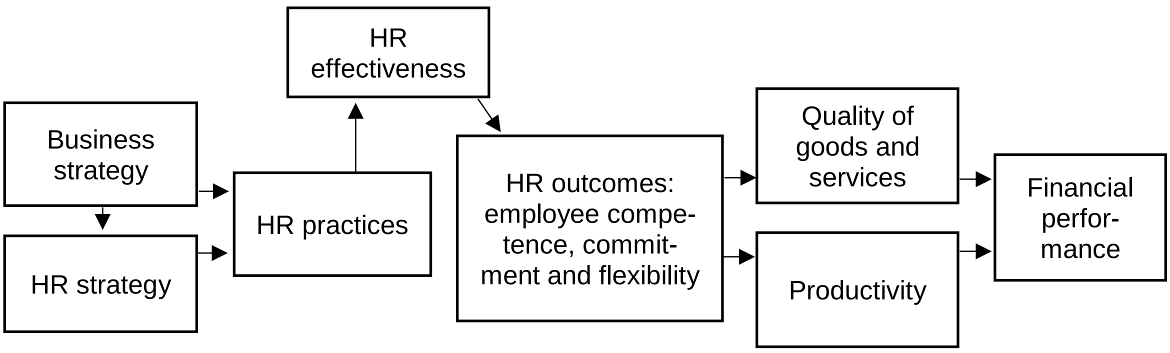

Figure 10. Model of the link between HRM practices and performance (adapted from Guest 1997)

Another model linking HRM practices and performance was originally developed by Wright et al. (2006) and later elaborated by Savaneviciene et al. (2012). The model (see figure 11 below) highlights the importance of line managers in implementing the intended HRM practices and afterwards communicating the actual HRM practices to employees in a way that they are perceived correctly by the employees. Only when the HRM practices are perceived by employees will they lead to employee reactions and behavioral changes which in turn will influence performance. In addition, HRM should be integrated with company's strategy by promoting employee satisfaction and monitoring its development and outcomes. The researchers didn't name any specific HRM practices in their research. They only suggested that the practices must be related to enhancing employees' skills, motivation and opportunities to participate.

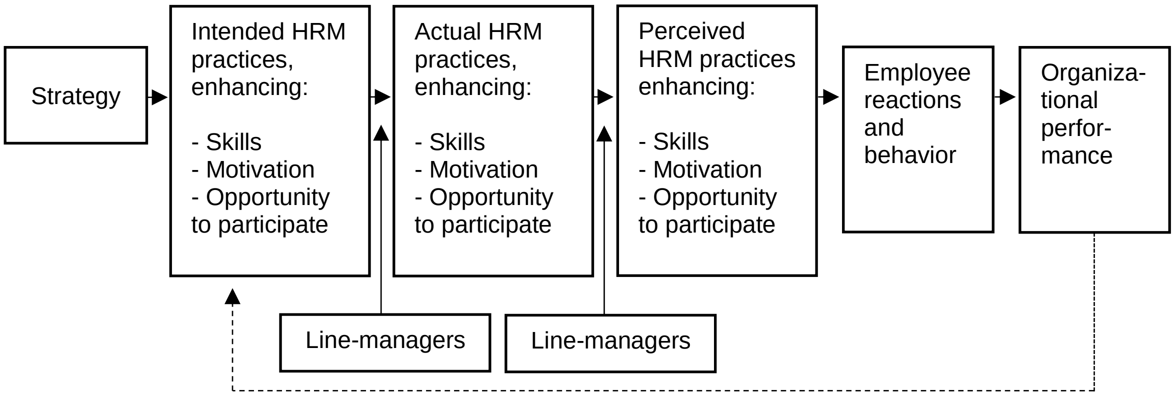

Figure 11. HRM and performance link model (Adapted from Savaneviciene et al. 2012)

The hypothesized association between HRM and firm performance has been tested in several empirical studies and majority of the studies confirm the hypothesized positive association. In their study on the impact of people management to firm performance of 12 companies Purcell et al. (2003) for example found out that human resources can indeed make an impact on firm performance. According to them HR can make an impact by leading or contributing to the development and successful implementation of high performance work practices (HPWP's). With HPWP's they mean especially those HRM practices that are concerned with job and work design, flexible working, recruitment and selection, talent management, employee development, rewards, and giving employees a voice. Another thing they see as equally important is defining and implementation of a clear company vision, culture and a set of company values. This they name as "the big idea". Lastly, they mention that it is vital to support and advice managers on their role in implementing the HR policies and practices. (Purcell et al. 2003)

In addition to Purcell et al. (2003) also Huselid (1995), Patterson et al. (1997), Thompson (1998) and Guest et al. (2000) all have found evidence which suggests that HRM is associated with firm performance. The above-mentioned studies and their outcomes are briefly summarized in table 2 below.

Table 2. Summary of empirical studies on the link between HR and performance

Researcher(s)	Methodology	Outcomes
Huselid (1995)	Analysis of the responses of 968 US firms to a survey exploring the use of HPWP's, the development of synergies between them and the alignment of these practices with the competitive strategy.	Productivity is influenced by employee motivation; financial performance is influenced by employee skills, motivation and organizational structures.
Patterson et al. (1997)	Examination of the link between business performance and organizational culture and the use of several different HR practices.	HR practices explained significant variations in profitability and productivity (19% and 18% respectively). The acquisition and development of employee skills and job design (flexibility, responsibility, variety and team working) were found especially important.
Thompson (1998)	A study of the impact of HPWP's (team working, appraisal, job rotation, grade & pay structures and sharing of business information) in 623 UK aerospace organizations.	The number of HR practices and the proportion of employees they covered were the key that differentiated the more and less successful firms.
Guest et al. (2000)	835 private sector firms were surveyed and interviews were carried out with 610 HR professionals and 462 chief executives.	A greater use of HR practices was associated with higher level of employee commitment and contribution which in turn were linked with higher levels of productivity and quality of services, and ultimately financial performance.
Purcell et al. (2003)	A longitudinal study of 12 companies to establish how people management impacts on organizational performance.	The most successful companies had a clear vision and set of integrated values which were embedded, measured and managed. Clear association existed between positive attitudes towards HR policies and practices, levels of satisfaction, motivation, commitment and operational performance.

3 Great Place to Work

The thesis relies on the “Best Companies to Work for in Finland” workplace ranking (published by Great Place to Work Institute) as the data source for companies with better than average level of employee satisfaction. For this reason, this chapter is dedicated to Great Place to Work. The chapter presents Great Place to Work Institute in more detail and introduces the way how the ranking is formed. Additional details are also found in Appendices 1 and 2.

Great Place to Work institute was founded in 1991 in the United States and its first annual “100 Best Companies to Work for” workplace rankings were published in the Fortune magazine in the United States and in Exame in Brazil in 1997. The inspiration for Great Place to Work Institute was a book called 100 Best Companies to Work for in America by Robert Levering and Milton Moskowitz that was published in 1984. Since then the operations have gradually expanded and in 2015 Great Place to Work Institute published “Best Companies to Work for” workplace rankings in over 50 countries. (GPW 2016)

The first “Best Companies to Work for in Finland” ranking was published in 2002. Unlike the original 100 best list, the ranking in Finland is divided into three categories according to the number of employees. Small firms’ category has firms with 15-49 employees, medium 50-499 employees and the large firms’ category 500 or more employees. The large companies’ category contains five firms, the medium size 30 firms and the small 15 firms. About 150 firms take part in the evaluation annually and of those the best one third is recognized in the public rankings (GPW 2014). The evaluation is based on employees’ opinions about their employer and the company’s management and leadership practices. Employee opinions are examined via an employee survey known as the Trust Index Survey. The management practices are also evaluated via a survey which is called the Culture Audit Survey. This is filled by the management or the people responsible for the human resources agenda of the company. Two thirds of the total points which affect the place in the ranking come from the Trust Index employee survey and the remaining one third from the Culture Audit Survey. (GPW 2016; GPW 2016b)

The Trust Index employee survey questions are divided under five dimensions that are further categorized under three sub-dimensions. The main dimensions are credibility, respect, fairness, pride and camaraderie. The sub-dimensions and more detailed definitions can be seen in table 3 below. The survey presents in total about 60 statements related to these five dimensions and employees must evaluate them on scale one to five depending on how much they agree or disagree with the statement. The dimensions are related to the relationships between employees and management (credibility, respect and fairness), employees and their jobs/company (pride) and employees and other employees (camaraderie) (GPW 2011). For more information regarding the Trust Index Survey and an example survey see Appendix 1.

Table 3. Trust Index Survey dimensions & sub-dimensions. (adapted from GPW 2011)

Dimension	Sub-dimension
Credibility	• Communication are open and accessible • Competence in coordinating human and material resources • Integrity in carrying out vision with consistency
Measures the extent to which employees see management as credible (believable, trustworthy), by assessing employees' perceptions of management's communication practices, competence and integrity.	
Respect	• Supporting prefessional development & showing appreciation • Collaborating with employees in relevant desicions • Caring for employees as individuals with personal lives
Measures the extent to which employees feel respected by management, by assessing the levels of support, collaboration and caring employees see expressed through management's actions toward them.	
Fairness	• Equity - balanced treatment for all in terms of rewards • Impartiality - abcence of favoritism in hiring and promotion • Justice - lack of discrimination and process for appeals
Measures the extent to which employees feel that management practices are fair, by assessing the equity, impartiality, and justice employees perceive in the workplace.	
Pride	• In personal job, individual contribution • In work produced by one's team or work group • In the organization's products and standing in the community
Measures employees' sense of pride in their work by assessing the feelings employees have toward their jobs, team or work group and the Company.	
Camaraderie	• Ability to be oneself • Socially friendly and welcoming atmosphere • Sense of "family" or "team"
Measures employees' sense of camaraderie in the workplace by assessing the quality of the intimacy, hospitality, and community within the workplace.	

The Culture Audit survey contains a list of open-ended questions regarding the following nine broad themes related to company's management practices: Hiring, inspiring, listening, thanking, developing, supporting, celebrating and rewarding. According to Great Place to Work Institute these nine areas form the base on which the management can build a great workplace. In a great workplace, organizational goals are achieved by means of inspiring, speaking and listening. They have employees who give their best by thanking, developing and caring, and work together as a team by hiring, celebrating and sharing. The main aim of the Culture Audit is to describe and define literally the processes how the company's top management builds and maintains the company's management practices and company culture. After all the questions are answered (usually by the top management together with human resource experts) the answers form a document which is sent to Great Place to Work for evaluation. (GPW 2016c; GPW 2014) For more details regarding the Culture Audit see Appendix 2 which contains the questions from 2013's Culture Audit in Finland. Some of the Culture Audit documents are also visible online. For example, Futurice (an online and mobile software developer) which was ranked number one in the 2013 Best Companies to Work for in Finland in the medium size firms' category, published its 73-page 2013 Culture Audit document online (see Futurice 2013).

In conclusion, it can be stated that many of the factors that Great Place to Work is evaluating and inspecting in their Trust Index and Culture Audit surveys are related to the high performance HRM practices that were mentioned for example in studies by Purcell et al. (2003) and Thompson (1998). Presumably, the successful implementation of these practices is associated with higher quality of services and productivity and firm financial performance.

4 Methodology

This chapter provides clarification to the research methodology used in the empirical part of this thesis. Furthermore, the financial ratios used to measure profitability are presented. Also, the data sources used in the research as well as the sample group are introduced in more detail.

4.1 Research method

The empirical research is based on data collected from Great Place to Work's ranking of 2011 Best medium size companies to work for in Finland and Voitto+ financial information database. The sample group of companies with better than average level of employee satisfaction is constructed from Great Place to Work's ranking. The 2011 ranking of 30 best medium size companies is divided into top 10 performers and bottom 10 performers based on their position in the ranking. The split into top 10 and bottom 10 is done because of the uncertainty whether all the firms in the ranking have a significantly better than average level of employee satisfaction or not. The uncertainty arises from the small number of firms that participated to the evaluation. The assumption is that at least the top 10 firms certainly have a significantly better than average level of employee satisfaction. The bottom 10 firms, on the contrary, might have only marginally better than average level of employee satisfaction. Because of this uncertainty the top 10 and bottom 10 firms are compared separately to maximize the validity of the results.

The profitability of the top 10 firms and the bottom 10 firms are compared individually firm by firm with their respective industry median (see table 4 below) to see how they perform against the average firms on the same industry. The analysis is done for year 2011 and the next four consecutive years from 2012 until 2015. The (one-tailed) paired sample t-test is used to determine the statistical significance of the differences between firm and industry profitability. The p-value of the t-test discloses the probability that the differences between firm profitability and industry means occur due to sampling error. P-value less than 5% (0,05) is selected as sufficient level of risk to display that the differences in firm profitability and industry means are statistically significant. The selected time frame is five years because of the possible time lag between management's actions for increasing employee satisfaction and the effects those have on financial profitability (as suggested by Bernhardt et al. 2000). In addition, the expenses that arise from the actions to raise employee satisfaction can be fully visible during the first year and thus may even lower the profitability during the first year.

Table 4. Analysis 1

2011: Top10 firms vs. Industry median	Bottom 10 firms. vs. Industry median
2012: Top10 firms vs. Industry median	Bottom 10 firms. vs. Industry median
2013: Top10 firms vs. Industry median	Bottom 10 firms. vs. Industry median
2014: Top10 firms vs. Industry median	Bottom 10 firms. vs. Industry median
2015: Top10 firms vs. Industry median	Bottom 10 firms. vs. Industry median

In the second analysis, the top 10 firms are formed into group A and the bottom 10 firms into group B and average profitability ratios are calculated for both groups. The average profitability ratios of groups A and B are then compared against each other to see how the level of employee satisfaction among the firms with better than average level of employee satisfaction affects profitability (see table 5 below). In this case (one-tailed) independent sample t-test is used to determine the statistical significance of the differences between the top and bottom firms' profitability. Again, p-value less than 5% (0,05) is selected as sufficient level of risk to display that the difference between top and bottom firms' profitability is statistically significant. Like in the first analysis, the average profitability ratios are calculated and analyzed for each year from 2011 until 2015.

Table 5. Analysis 2

2011: Group A (top10) vs. Group B (bottom10)
2012: Group A (top10) vs. Group B (bottom10)
2013: Group A (top10) vs. Group B (bottom10)
2014: Group A (top10) vs. Group B (bottom10)
2015: Group A (top10) vs. Group B (bottom10)

4.2 Profitability indicators

The profitability ratios that are used in both analysis are earnings before interest and taxes % (EBIT) and return on investment % (ROI). These were selected because of their availability in Voitto+ database but also because they both are important indicators of financial profitability. Similar ratios were used for example by Chi et al. (2008) to assess the financial performance of firms in hospitality industry.

Return on investment (ROI) %

The ratio compares company's earnings before taxes and financing costs in relation to the income/interest bearing capital invested in it. Return on investment is a ratio that measures company's profitability and it disregards any effect of tax payment policy to profitability. The ratio measures company's ability to generate income for the total interest-bearing assets that have been invested into it. (Yritystutkimus Ry 2015)

$$ROI = \frac{Net\ profit + financing\ costs + income\ taxes}{Average\ total\ assets - non\ interest\ bearing\ debts}\ x\ 100$$

Net profit reflects the amount of total revenue that remains after all the expenses have been deducted. Financing costs refer to any interest expenses incurred and foreign exchange losses. The average total assets are calculated as the average of the opening and ending balances of the fiscal year's assets. (Yritystutkimus Ry 2015)

The following general ratings presented in table 6 may be given to return on investment and the ratio can be used to follow the profitability of an individual company and as well as to compare the profitability of companies between different industries (Yritystutkimus Ry 2015).

Table 6. General ratings for ROI (Yritystutkimus Ry 2015)

Excellent	over 15%
Good	10 – 15%
Satisfying	6 – 10%
Passable	3 – 6%
Bad	under 3%

Earnings before interest and taxes (EBIT) margin

EBIT margin is a profitability ratio that reflects company's earnings before taxes and financing costs (i.e. operating profit) in relation to its turnover. Operating profit is the first subtotal that is presented in the financial statements. It reflects how much of the company's total revenue is left after everything else except taxes and financing costs have been deducted. (Yritystutkimus Ry 2015)

$$EBIT\ margin = \frac{Operating\ profit}{Turnover}\ x\ 100$$

The following general ratings presented in table 7 can be given to EBIT margin and the ratio can be used to monitor the profitability of an individual company and also to compare the profitability of companies even between different industries (Yritystutkimus Ry 2015).

Table 7. General ratings for EBIT margin (Yritystutkimus Ry 2015)

Good	over 10%
Average	5 – 10%
Bad	under 5%

4.3 Data sources

Two different data sources were used in this research. The companies with better than average level of employee satisfaction were gathered from the 2011 Best medium size companies to work for in Finland. This ranking is published annually by the research and consultation firm Great Place to Work Institute. The 2011 ranking was selected because it provides fairly new and up to date data and by using companies from 2011 rankings it was possible to follow-up their performance for the next four years from 2012 until 2015. The 2011 ranking of Best medium size companies to work for in Finland is visible online on Great Place to Work's website.

The financial ratios for the selected companies from 2011 until 2015 were gathered from Voitto+ database. Voitto+ contains financial information for roughly 200 000 Finnish companies. It contains financial data such as balance sheet and profit and loss, financial ratios related to companies' profitability, solvency and liquidity, as well as industries and industry benchmarks for all ratios. In Voitto+ it is also possible to group companies into sample groups and compare the average or median financial ratios of the sample groups against each other. The database is maintained by Suomen Asiakastieto Oy and updated each year with latest data. As a student of LUT the access to the database is free of charge but normally a fee must be paid for Suomen Asiakastieto Oy.

4.4 Sample group

The 2011 ranking of Best medium size companies to work for in Finland contained 30 companies which were ranked from 1st/top to 30th/bottom based on an employee survey and evaluation of their management practices. According to Great Place to Work about one third of the companies that took part in the evaluation are recognized in the public ranking so based on this nearly a hundred companies took part in 2011 and the best 30 were published in the ranking. The full 2011 list of 30 companies (and their industries) ranked from top to bottom is presented in table 8 below.

Table 8. Best medium size companies to work for in Finland in 2011

1.	Reaktor	Information technology | IT-consultation
2.	Futurice Oy	Information technology | Software
3.	Pipelife Finland Oy	Production industry | Rubber and plastic
4.	Management Events	Consultation services
5.	Microsoft Oy	Information technology | Software
6.	Fondia Oy	Consultation services | Legal services
7.	Novia Finland Oy	Consultation services | Customer service/telemarketing
8.	Mars Finland Oy	Production industry | Foodstuff
9.	Oulun työterveys	Healthcare
10.	FIM	Financing and insurance services
11.	Enfo Oyj	Information technology
12.	Affecto Finland Oy	Information technology
13.	3 Step IT Oy	Consultation services
14.	Solita Oy	Information technology | IT-consultation
15.	Newsec	Building and property
16.	Scandinavian Marketing Gainer	Consultation services | service desk/telemarketing
17.	SBS Finland Oy	Media | Radio
18.	Mandatum Life	Financing and insurance services
19.	SAS Institute Oy	Information technology | Software
20.	Bonnier Publications Oy	Media | Publishing and printing
21.	Vahanen-yhtiöt	Building and property
22.	Mepco Oy	Information technology | Software
23.	Descom Oy	Information technology
24.	Clas Ohlson	Retail
25.	Kauppalehti Oy	Media | Publishing and printing
26.	OK Perintä Oy	Financing and insurance services
27.	Kehitysvammaliitto ry	Social services | Government agency
28.	Boehringer Ingelheim Finland	Bio technology | Software
29.	Sininen Meteoriitti Oy	Information technology | Software
30.	Novartis Finland Oy	Bio technology | Medicine

As previously mentioned, this group was divided into top 10 performers and bottom 10 performers based on their ranking. Certain companies had to be omitted because there was not sufficient financial data available for them for the full five-year period from 2011 until 2015. The bottom group was harder to compile because of missing financial data for several companies. In the end that group only contains nine companies and of those, two have financial data for only four years from years 2011 until 2014. The top 10 group has ten companies and financial data was available for all five years from 2011 until 2015. The top 10 and bottom 10 sample groups and the firms' TOL-classifications are presented in tables 9 and 10 below.

Table 9. Sample group A: The top performers from 2011 Best companies to work for ranking

Ranking	Company	TOL
1	Reaktor Innovations Oy	63110 Data processing, hosting and related activities
2	Futurice Oy	62010 Computer programming activities
3	Pipelife Finland Oy	22230 Manufacture of builders' ware of plastic
4	Managements Events International Oy Ltd	82990 Other business support service activities n.e.c
5	Microsoft Oy	62010 Computer programming activities
6	Fondia Oy	69102 Legal advisory activities
7	Novia Finland Oy	82200 Activities of call centres
8	Mars Finland Oy	46390 Non-specialised wholesale of food, beverages and tobacco
11	Enfo Oyj	63110 Data processing, hosting and related activities
12	Affecto Finland Oy	62020 Computer consultancy activities

Table 10. Sample group B: The bottom performers from 2011 Best companies to work for ranking

Ranking	Company	TOL
19	SAS Institute Oy	46510 Wholesale of computers, computer peripheral equipment and software
20	*Bonnier Publications Oy	58142 Publishing of journals and periodicals
22	Mepco Oy	62090 Other information technology and computer service activities
23	Descom Oy	62010 Computer programming activities
24	Clas Ohlson	47599 Retail sale of household equipment n.e.c.
26	OK Perintä Oy	82910 Activities of collection agencies and credit bureaus
28	*Boehringer Ingelheim Finland	46461 Wholesale of drugs
29	Sininen Meteoriitti Oy	62010 Computer programming activities
30	Novartis Finland Oy	46461 Wholesale of drugs

** 2015 financial data missing*

As can be seen from the TOL-classification these companies are from varied sectors but the biggest majority of them is either from 62-group of computer programming, consultancy and related activities or from 63 information service activities. In terms of size their (average) balance sheet total assets in year 2011 range from 2259 (in thousands of €) to 72396, turnover from 6464 (in thousands of €) to 113282 and number of employees from 47 to 346. For a detailed list regarding the size of the companies see table 11 below.

Table 11. Size of the companies in sample groups A and B

		2011	2011	2011
GROUP A: TOP 10 FIRMS		Total assets	Turnover	Employees
1	Reaktor Innovations Oy	10 329	19 568	144
2	Futurice Oy	5 456	9 783	114
3	Pipelife Finland Oy	20 841	36 363	55
4	Managements Events International Oy Ltd	7 110	8 182	82
5	Microsoft Oy	26 811	59 549	224
6	Fondia Oy	2 619	8 105	74
7	Novia Finland Oy	2 259	7 463	160
8	Mars Finland Oy	16 091	56 857	47
11	Enfo Oyj	72 396	89 993	346
12	Affecto Finland Oy	26 318	39 221	301

GROUP B: BOTTOM 10 FIRMS		Total assets	Turnover	Employees
19	SAS Institute Oy	12 006	21 111	83
20	Bonnier Publications Oy	3 362	6 464	N/A
22	Mepco Oy	5 170	12 132	108
23	Descom Oy	9 054	19 031	164
24	Clas Ohlson	20 458	57 225	199
26	OK Perintä Oy	10 528	18 577	109
28	Boehringer Ingelheim Finland	17 354	41 278	77
29	Sininen Meteoriitti Oy	2 666	11 261	89
30	Novartis Finland Oy	36 470	113 282	153

5 Empirical evidence from Finnish medium size firms

This chapter contains the empirical part of the thesis. Here the empirical findings regarding the relationship between employee satisfaction and profitability of Finnish medium size companies are presented. It is based on the data and methods which were presented in chapter four. The main aim is to provide supporting evidence and test whether higher than average level of employee satisfaction is related to firm profitability, especially among Finnish firms. The secondary goal is to test whether the position in the best companies to work for ranking is related to firm profitability.

5.1 Results and analysis

Results of the research are presented and analyzed in the following chapters. Chapter 5.1.1 contains the results regarding firm by firm comparison of firms in 2011 Best medium size companies to work for in Finland versus their respective industry median during a 5-year period from 2011 until 2015. Chapter 5.1.2 contains the top 10 and the bottom 10 firms' comparison against each other during the same period. Lastly, the results are summarized in chapter 5.2. For a full detailed table of the results see Appendix 3.

5.1.1 Comparison with industry medians

The results are presented in tables 12-15 in the following pages. The first column shows the firms' position in the 2011 Best medium size companies to work for ranking. The second column shows each firm's EBIT (or ROI), and the third column the respective industry median. These are presented separately for each year from 2011 until 2015. Below the company and industry medians are the calculated means of the firms' and their respective industries' EBIT or ROI for each year. These are followed by standard deviations and the (one-tailed) paired sample t-test p-values.

The paired sample t-test has two competing hypotheses, the null hypothesis and the alternative hypothesis. The null hypothesis H0 assumes that the mean difference between companyEBIT and industryEBIT (or companyROI and industryROI) is zero, i.e. that firm profitability is less or equal to industry profitability. The alternative hypothesis H1 assumes that the difference is not zero, i.e. that firm profitability is higher than industry profitability.

H0: CompanyEBIT ≤ IndustryEBIT or CompanyROI ≤ IndustryROI
H1: CompanyEBIT > IndustryEBIT or CompanyROI > IndustryROI

The p-value of the paired sample t-test gives the probability for observing results that would verify the null hypothesis. Thus, the lower the p-value the lower the possibility for the null hypothesis to be valid. The commonly used cutoff point of 5% (0,05) is used to determine the statistical significance of the results. Therefore, if the p-value is less than 5% (0,05), the null hypothesis is rejected and thus company EBIT or ROI is statistically significantly higher than industry EBIT or ROI.

The tables 12 and 13 below show the results for the comparison of company EBIT and industry EBIT, and company ROI and industry ROI among the top performing firms in Great Place to Work's ranking. As a reminder, according to the general ratings for EBIT and ROI (Yritystutkimus Ry 2015) an EBIT more than 10 is good, between 5-10 is average and less than 5 is bad. Respectively a ROI more than 15 is excellent, 10-15 good, 6-10 satisfying, 3-6 passable, and less than 3 bad.

Table 12. Company EBIT vs. industry EBIT among the top firms

2011			2012			2013			2014			2015		
Rank	Company EBIT2011	Industry EBIT2011	Rank	Company EBIT2012	Industry EBIT2012	Rank	Company EBIT2013	Industry EBIT2013	Rank	Company EBIT2014	Industry EBIT2014	Rank	Company EBIT2015	Industry EBIT2015
1	18,3	4,1	1	12,3	3,1	1	15,4	4,3	1	16,0	2,0	1	20,3	3,8
2	6,7	4,2	2	9,2	4,1	2	8,6	3,4	2	9,7	4,1	2	9,9	3,8
3	5,7	5,2	3	4,2	4,3	3	3,8	6,0	3	5,1	3,0	3	5,4	3,8
4	27,1	2,8	4	17,8	3,8	4	8,8	0,7	4	-6,7	1,4	4	-2,6	1,5
5	18,1	4,2	5	20,1	4,1	5	24,5	3,4	5	24,2	4,1	5	16,0	3,8
6	8,1	10,2	6	4,5	12,9	6	5,6	10,4	6	6,9	11,4	6	13,4	13,4
7	0,8	0,3	7	-52,8	2,7	7	2,0	0,2	7	5,5	1,1	7	-5,2	1,5
8	12,7	2,1	8	15,6	1,9	8	17,2	1,5	8	17,5	2,2	8	16,5	2,7
11	3,9	4,1	11	9,7	3,1	11	7,1	4,3	11	6,9	2,0	11	8,5	3,8
12	12,2	8,4	12	14,2	6,9	12	11,9	4,9	12	10,5	6,3	12	5,8	5,9
Mean	11,36	4,56	Mean	5,48	4,69	Mean	10,49	3,91	Mean	9,56	3,76	Mean	8,80	4,40
Std dev	8,00	2,89	Std dev	21,14	3,18	Std dev	6,88	2,95	Std dev	8,40	3,11	Std dev	8,25	3,41
p-value	0,0167		p-value	0,4541		p-value	0,0136		p-value	0,0321		p-value	0,0532	

Table 13. Company ROI vs. industry ROI among the top firms

2011			2012			2013			2014			2015		
Rank	Company ROI2011	Industry ROI2011	Rank	Company ROI2012	Industry ROI2012	Rank	Company ROI2013	Industry ROI2013	Rank	Company ROI2014	Industry ROI2014	Rank	Company ROI2015	Industry ROI2015
1	72,1	2,8	1	84,4	1,9	1	90,0	4,2	1	80,8	0,5	1	88,9	3,0
2	21,9	5,2	2	36,7	4,1	2	34,8	1,5	2	42,5	2,1	2	45,0	1,7
3	26,7	8,6	3	9,3	8,0	3	6,6	6,8	3	6,4	4,2	3	5,2	3,1
4	217,6	5,8	4	204,7	4,6	4	169,8	0,0	4	81,2	0,0	4	28,7	0,0
5	36,2	5,2	5	112,4	4,1	5	136,4	1,5	5	105,2	2,1	5	59,8	1,7
6	56,2	9,2	6	25,3	11,5	6	26,1	10,4	6	31,4	9,0	6	52,1	9,4
7	4,7	0,0	7	-153,5	10,5	7	6,8	0,0	7	8,4	1,4	7	-10,0	6,9
8	65,1	5,3	8	121,9	3,2	8	85,8	3,2	8	54,5	6,1	8	35,8	7,4
11	8,6	2,8	11	20,1	1,9	11	12,0	4,2	11	8,6	0,5	11	8,9	3,0
12	41,7	10,4	12	59,0	8,9	12	47,0	5,0	12	37,7	6,4	12	19,7	7,1
Mean	55,08	5,53	Mean	52,03	5,87	Mean	61,53	3,68	Mean	45,67	3,23	Mean	33,41	4,33
Std dev	61,41	3,20	Std dev	93,67	3,55	Std dev	57,13	3,23	Std dev	34,48	3,05	Std dev	29,36	3,11
p-value	0,0151		p-value	0,0807		p-value	0,0062		p-value	0,0021		p-value	0,0067	

As can be seen from table 12, the company EBIT mean is higher than the industry EBIT mean for each year from 2011 until 2015 among the top performing firms. In 2011 company EBIT mean is 11,36 whereas industry EBIT mean is only 4,56. In 2012, the same figures are 5,48 and 4,69 respectively, in 2013 10,49 and 3,91, in 2014 9,56 and 3,76, and lastly in 2015 8,80 and 4,40. The differences between the means are statistically significant for years 2011, 2013 and 2014 due to less than 0,05 p-values during those years. In relation to the EBIT general ratings the company EBIT means are good (the highest grade) in 2011 and 2013, and average in 2012, 2014 and 2015.

The company ROI mean is also higher than industry ROI mean for each year from 2011 until 2015 among the top performing firms (see table 13). In 2011 company

ROI mean is 55,08 whereas industry ROI mean is only 5,53. In 2012 the same figures are 52,03 and 5,87 respectively, in 2013 61,53 and 3,68, in 2014 45,67 and 3,23, and lastly in 2015 33,41 and 4,33. The differences are statistically significant for all years except 2012 due to less than 0,05 p-values. In relation to the ROI general ratings the company ROI means are excellent (the highest grade) each year between 2011-2015.

The tables 14 and 15 below show the results for the comparison of company EBIT and industry EBIT, and company ROI and industry ROI among the bottom performing firms in Great Place to Work's ranking.

Table 14. Company EBIT vs. industry EBIT among bottom firms

2011			2012			2013			2014			2015		
Rank	Company EBIT2011	Industry EBIT2011	Rank	Company EBIT2012	Industry EBIT2012	Rank	Company EBIT2013	Industry EBIT2013	Rank	Company EBIT2014	Industry EBIT2014	Rank	Company EBIT2015	Industry EBIT2015
19	3,3	4,4	19	-2,5	2,1	19	-12,8	1,9	19	-3,3	2,5	19	-1,3	2,6
20	-2,3	1,9	20	6,3	0,5	20	2,3	1,9	20	-20,7	2,2	20	N/A	N/A
22	11,7	6,5	22	10,0	4,4	22	4,0	5,5	22	14,1	4,6	22	12,8	4,1
23	10,4	4,2	23	3,5	4,1	23	8,6	3,4	23	4,0	4,1	23	8,5	3,8
24	2,4	2,0	24	2,1	1,4	24	2,2	0,9	24	2,4	0,9	24	3,1	1,0
26	16,3	11,9	26	15,7	15,7	26	12,1	6,5	26	11,7	9,2	26	17,0	6,6
28	3,9	4,4	28	3,0	3,4	28	5,5	3,4	28	4,0	4,1	28	N/A	N/A
29	2,5	4,2	29	4,1	4,1	29	4,1	3,4	29	1,6	4,1	29	-4,6	3,8
30	3,5	4,4	30	1,8	3,4	30	4,0	3,4	30	3,5	4,1	30	7,6	4,3
Mean	5,74	4,88	Mean	4,89	4,34	Mean	3,33	3,37	Mean	1,92	3,98	Mean	6,16	3,74
Std dev	5,80	2,97	Std dev	5,28	4,46	Std dev	6,83	1,76	Std dev	9,96	2,31	Std dev	7,64	1,70
p-value	0,2426		p-value	0,3169		p-value	0,4935		p-value	0,2526		p-value	0,1873	

Table 15. Company ROI vs. industry ROI among bottom firms

2011			2012			2013			2014			2015		
Rank	Company ROI2011	Industry ROI2011	Rank	Company ROI2012	Industry ROI2012	Rank	Company ROI2013	Industry ROI2013	Rank	Company ROI2014	Industry ROI2014	Rank	Company ROI2015	Industry ROI2015
19	15,6	8,3	19	-11,3	5,9	19	-72,8	3,0	19	-39,8	5,3	19	-8,0	4,5
20	-7,1	7,7	20	17,0	1,7	20	6,3	3,5	20	-14,5	2,6	20	N/A	N/A
22	74,7	5,7	22	51,0	4,5	22	19,8	4,8	22	90,5	1,5	22	84,1	3,0
23	80,7	5,2	23	23,7	4,1	23	80,3	1,5	23	60,2	2,1	23	230,0	1,7
24	7,1	2,7	24	8,7	2,0	24	8,1	0,4	24	10,0	1,3	24	15,2	0,0
26	40,7	9,1	26	41,2	20,0	26	34,6	8,4	26	21,1	3,0	26	23,4	7,1
28	37,4	16,2	28	25,9	12,0	28	40,7	14,9	28	20,8	18,0	28	N/A	N/A
29	15,2	5,2	29	25,7	4,1	29	20,6	1,5	29	9,7	2,1	29	-25,0	1,7
30	22,7	16,2	30	12,0	12,0	30	35,3	14,9	30	42,7	18,0	30	32,9	15,0
Mean	31,89	8,48	Mean	21,54	7,37	Mean	19,21	5,88	Mean	22,30	5,99	Mean	50,37	4,71
Std dev	29,76	4,78	Std dev	18,20	6,07	Std dev	41,00	5,62	Std dev	38,78	6,91	Std dev	86,37	5,08
p-value	0,0249		p-value	0,0201		p-value	0,1731		p-value	0,1237		p-value	0,1080	

Among the bottom performers of Great Place to Work's ranking the company EBIT mean is higher than the industry EBIT mean in 2011, 2012 and 2015 but lower in

2013 and 2014 (see table 14). In 2011 the company EBIT mean is 5,74 whereas the industry EBIT mean is 4,88. In 2012 the same figures are 4,89 and 4,34 respectively, and in 2015 6,16 and 3,74. In 2013 and 2014, on the contrary, the company EBIT's are lower than the industry EBIT's by 3,33 to 3,37 in 2013 and 1,92 to 3,98 in 2014. None of the differences are statistically significant due to higher than 0,05 p-values. In relation to the EBIT general ratings the company EBIT means are average in 2011 and 2015, and bad in 2012, 2013 and 2014.

Regarding ROI, the company ROI mean is higher than industry ROI mean for each year from 2011 until 2015 among the bottom performers of Great Place to Work's ranking (see table 15). In 2011 company ROI mean is 31,89 whereas the industry ROI mean is only 8,48. In 2012 the figures are 21,54 and 7,37 respectively, in 2013 19,21 and 5,88, in 2014 22,30 and 5,99, and lastly in 2015 50,37 and 4,71. However, the differences are statistically significant only during years 2011 and 2012 due to less than 0,05 p-values for those years (0,0249 and 0,0201 respectively). In relation to the ROI general ratings the company ROI means are excellent each year between 2011-2015.

5.1.2 Comparison between top and bottom groups

The results of the comparison between top and bottom groups are presented in tables 16-17 below. The first column shows the group (either top or bottom) where the firm belongs to, the second column shows to firm's ranking, and the third column shows the firm's EBIT or ROI. These are presented separately for each year from 2011 until 2015. Below them are the calculated means of the top and bottom groups, standard deviations, and the (one-tailed) independent sample t-test p-values.

Once again, the independent sample t-test has two competing hypotheses, the null hypothesis H0 and the alternative hypothesis H1. The null hypothesis assumes that the mean difference between TopCompanyEBIT and BottomCompanyEBIT (or Top-CompanyROI and BottomCompanyROI) is zero, i.e. that profitability of the top firms is less or equal to the profitability of the bottom firms. The alternative hypothesis assumes that the difference is not zero, i.e. that top firms' profitability is higher than bottom firms' profitability.

H0: TopCompanyEBIT or ROI ≤ BottomCompanyEBIT or ROI

H1: TopCompanyEBIT or ROI > BottomCompanyEBIT or ROI

The p-value of the independent sample t-test gives the probability for observing results that would verify the null hypothesis. Thus, the lower the p-value the lower the possibility for the null hypothesis to be correct. The commonly used cutoff point of 5% (0,05) is used to determine the statistical significance of the results. Therefore, if the p-value is less than 5% (0,05), the null hypothesis is rejected and thus top firms' EBIT or ROI is statistically significantly higher than bottom firms' EBIT or ROI.

Table 16. Top firms' EBIT vs. bottom firms' EBIT

2011		
Group	Rank	Company EBIT2011
Top	1	18,3
Top	2	6,7
Top	3	5,7
Top	4	27,1
Top	5	18,1
Top	6	8,1
Top	7	0,8
Top	8	12,7
Top	11	3,9
Top	12	12,2
Bottom	19	3,3
Bottom	20	-2,3
Bottom	22	11,7
Bottom	23	10,4
Bottom	24	2,4
Bottom	26	16,3
Bottom	28	3,9
Bottom	29	2,5
Bottom	30	3,5

Mean (Top)	11,36
Mean (Bottom)	5,74
Std dev (Top)	8,00
Std dev (Bottom)	5,80
p-value	0,0482

2012		
Group	Rank	Company EBIT2012
Top	1	12,3
Top	2	9,2
Top	3	4,2
Top	4	17,8
Top	5	20,1
Top	6	4,5
Top	7	-52,8
Top	8	15,6
Top	11	9,7
Top	12	14,2
Bottom	19	-2,5
Bottom	20	6,3
Bottom	22	10,0
Bottom	23	3,5
Bottom	24	2,1
Bottom	26	15,7
Bottom	28	3,0
Bottom	29	4,1
Bottom	30	1,8

Mean (Top)	5,48
Mean (Bottom)	4,89
Std dev (Top)	21,14
Std dev (Bottom)	5,28
p-value	0,4668

2013		
Group	Rank	Company EBIT2013
Top	1	15,4
Top	2	8,6
Top	3	3,8
Top	4	8,8
Top	5	24,5
Top	6	5,6
Top	7	2,0
Top	8	17,2
Top	11	7,1
Top	12	11,9
Bottom	19	-12,8
Bottom	20	2,3
Bottom	22	4,0
Bottom	23	8,6
Bottom	24	2,2
Bottom	26	12,1
Bottom	28	5,5
Bottom	29	4,1
Bottom	30	4,0

Mean (Top)	10,49
Mean (Bottom)	3,33
Std dev (Top)	6,88
Std dev (Bottom)	6,83
p-value	0,0182

2014		
Group	Rank	Company EBIT2014
Top	1	16,0
Top	2	9,7
Top	3	5,1
Top	4	-6,7
Top	5	24,2
Top	6	6,9
Top	7	5,5
Top	8	17,5
Top	11	6,9
Top	12	10,5
Bottom	19	-3,3
Bottom	20	-20,7
Bottom	22	14,1
Bottom	23	4,0
Bottom	24	2,4
Bottom	26	11,7
Bottom	28	4,0
Bottom	29	1,6
Bottom	30	3,5

Mean (Top)	9,56
Mean (Bottom)	1,92
Std dev (Top)	8,40
Std dev (Bottom)	9,96
p-value	0,0458

2015		
Group	Rank	Company EBIT2015
Top	1	20,3
Top	2	9,9
Top	3	5,4
Top	4	-2,6
Top	5	16,0
Top	6	13,4
Top	7	-5,2
Top	8	16,5
Top	11	8,5
Top	12	5,8
Bottom	19	-1,3
Bottom	20	N/A
Bottom	22	12,8
Bottom	23	8,5
Bottom	24	3,1
Bottom	26	17,0
Bottom	28	N/A
Bottom	29	-4,6
Bottom	30	7,6

Mean (Top)	8,80
Mean (Bottom)	6,16
Std dev (Top)	8,25
Std dev (Bottom)	7,64
p-value	0,2541

Table 17. Top firms' ROI vs. bottom firms' ROI

2011		
Group	Rank	Company ROI2011
Top	1	72,1
Top	2	21,9
Top	3	26,7
Top	4	217,6
Top	5	36,2
Top	6	56,2
Top	7	4,7
Top	8	65,1
Top	11	8,6
Top	12	41,7
Bottom	19	15,6
Bottom	20	-7,1
Bottom	22	74,7
Bottom	23	80,7
Bottom	24	7,1
Bottom	26	40,7
Bottom	28	37,4
Bottom	29	15,2
Bottom	30	22,7

Mean (Top)	55,08
Mean (Bottom)	31,89
Std dev (Top)	61,41
Std dev (Bottom)	29,76
p-value	0,1533

2012		
Group	Rank	Company ROI2012
Top	1	84,4
Top	2	36,7
Top	3	9,3
Top	4	204,7
Top	5	112,4
Top	6	25,3
Top	7	-153,5
Top	8	121,9
Top	11	20,1
Top	12	59,0
Bottom	19	-11,3
Bottom	20	17,0
Bottom	22	51,0
Bottom	23	23,7
Bottom	24	8,7
Bottom	26	41,2
Bottom	28	25,9
Bottom	29	25,7
Bottom	30	12,0

Mean (Top)	52,03
Mean (Bottom)	21,54
Std dev (Top)	93,67
Std dev (Bottom)	18,20
p-value	0,1689

2013		
Group	Rank	Company ROI2013
Top	1	90,0
Top	2	34,8
Top	3	6,6
Top	4	169,8
Top	5	136,4
Top	6	26,1
Top	7	6,8
Top	8	85,8
Top	11	12,0
Top	12	47,0
Bottom	19	-72,8
Bottom	20	6,3
Bottom	22	19,8
Bottom	23	80,3
Bottom	24	8,1
Bottom	26	34,6
Bottom	28	40,7
Bottom	29	20,6
Bottom	30	35,3

Mean (Top)	61,53
Mean (Bottom)	19,21
Std dev (Top)	57,13
Std dev (Bottom)	41,00
p-value	0,0399

2014		
Group	Rank	Company ROI2014
Top	1	80,8
Top	2	42,5
Top	3	6,4
Top	4	81,2
Top	5	105,2
Top	6	31,4
Top	7	8,4
Top	8	54,5
Top	11	8,6
Top	12	37,7
Bottom	19	-39,8
Bottom	20	-14,5
Bottom	22	90,5
Bottom	23	60,2
Bottom	24	10,0
Bottom	26	21,1
Bottom	28	20,8
Bottom	29	9,7
Bottom	30	42,7

Mean (Top)	45,67
Mean (Bottom)	22,30
Std dev (Top)	34,48
Std dev (Bottom)	38,78
p-value	0,0929

2015		
Group	Rank	Company ROI2015
Top	1	88,9
Top	2	45,0
Top	3	5,2
Top	4	28,7
Top	5	59,8
Top	6	52,1
Top	7	-10,0
Top	8	35,8
Top	11	8,9
Top	12	19,7
Bottom	19	-8,0
Bottom	20	N/A
Bottom	22	84,1
Bottom	23	230,0
Bottom	24	15,2
Bottom	26	23,4
Bottom	28	N/A
Bottom	29	-25,0
Bottom	30	32,9

Mean (Top)	33,41
Mean (Bottom)	50,37
Std dev (Top)	29,36
Std dev (Bottom)	86,37
p-value	0,3163

In relation to EBIT (see table 16), the top group's EBIT mean is higher than the bottom group's EBIT mean for each year from 2011 until 2015. In 2011 the top group's EBIT mean is 11,36 whereas the bottom group's EBIT mean is 5,74. In 2012 the figures are 5,48 and 4,89 respectively, in 2013 10,49 and 3,33, in 2014 9,56 and 1,92, and lastly in 2015 8,80 and 6,16. The differences between the means are statistically significant for years 2011, 2013 and 2014 due to less than 0,05 p-values (0,0482, 0,0182 and 0,0485 respectively).

As for ROI (see table 17), the top group's ROI mean is higher than the bottom group's ROI mean for the first four years from 2011 until 2014 but lower in 2015. In 2011 the top group's ROI mean is 55,08 whereas to bottom group's ROI mean is 31,89. In 2012 the figures are 52,03 and 21,54 respectively, in 2013 61,53 and 19,21, and in 2014 45,67 and 22,03. In 2015, on the contrary, the top group's ROI mean is lower by 33,41 to 50,37. The differences are statistically significant only for year 2013 due to lower than 0,05 p-value (0,0399).

5.2 Summary and discussion

The results of the research are summarized in table 18 on page 52. The average EBIT's and ROI's of the top 10 firms in Great Place to Work's ranking are higher for each year from 2011 until 2015 when compared with average industry profitability. In addition, in 2011, 2013 and 2014 the EBIT's of the top 10 firms are statistically significantly higher than industry benchmarks. The ROI's of the top 10 firms are statistically significantly higher than industry benchmarks in 2011, 2013, 2014 and 2015. The results suggest that the top performers of the ranking are indeed significantly and statistically more profitable than average Finnish firms.

For the bottom performers of Great Place to Work's ranking the results are not so obvious. The average EBIT's of the bottom performers are higher than the EBIT's of firms in the same industry in 2011, 2012 and 2015 but then again lower in 2013 and 2014. None of the differences are statistically significant. The average ROI's are higher each year between 2011-2015 but however the differences are statistically significant only in 2011 and 2012. The results suggest that the bottom performers of the ranking are marginally more profitable than average Finnish firms but the difference is statistically insignificant.

Regarding the profitability between the top and bottom companies of Great Place to Work's ranking the results indicate that on average the top firms are more profitable than the bottom firms each year in relation to EBIT and each year except 2015 in relation to ROI. However, the differences are statistically significant only in 2012, 2013 and 2014 in relation to EBIT, and in 2013 in relation to ROI. This suggests that the top performers of the ranking are more profitable on average than the bottom performers but the difference is generally statistically insignificant.

In relation to the service profit chain (by Heskett et al. 1994) and the models linking HRM practices and firm performance (by Guest 1997, Wright et al. 2006, and Savaneviciene et al. 2012) the results provide additional evidence in support of these theories. According to the results and theories a high level of employee satisfaction achieved by efficient HRM practices seems to have a positive effect on firm profitability, presumably (though not analyzed in this research) intermediated by increased customer satisfaction and employee productivity. The results are also in line with previous empirical studies (e.g. Schneider et. al. 2003, Fulmer et al. 2003, Keiningham et al. 2005, and Yee et al. 2008) which have found the relationship between employee satisfaction and firm profitability to be positive.

Presumable the previous conflicting results for example by Tornow et al. (1991) and Silvestro and Cross (2000) are either due to small sample sizes or cross-sectional data used in the research. As suggested by Bernhardt et al. (2000) the true relationship between employee satisfaction and profitability may be masked by a number of reasons if the data is taken and analyzed from one point in time only.

Table 18. Summary of the results

TOP 10 FIRMS			
	Mean	CompanyEBIT > IndustryEBIT	Statistically significant
Company EBIT2011	11,36	YES	YES
Industry EBIT2011	4,56		
Company EBIT2012	5,48	YES	NO
Industry EBIT2012	4,69		
Company EBIT2013	10,49	YES	YES
Industry EBIT2013	3,91		
Company EBIT2014	9,56	YES	YES
Industry EBIT2014	3,76		
Company EBIT2015	8,80	YES	NO
Industry EBIT2015	4,40		

TOP 10 FIRMS			
	Mean	CompanyROI > IndustryROI	Statistically significant
Company ROI2011	55,08	YES	YES
Industry ROI2011	5,53		
Company ROI2012	52,03	YES	NO
Industry ROI2012	5,87		
Company ROI2013	61,53	YES	YES
Industry ROI2013	3,68		
Company ROI2014	45,67	YES	YES
Industry ROI2014	3,23		
Company ROI2015	33,41	YES	YES
Industry ROI2015	4,33		

BOTTOM 10 FIRMS			
	Mean	CompanyEBIT > IndustryEBIT	Statistically significant
Company EBIT2011	5,74	YES	NO
Industry EBIT2011	4,88		
Company EBIT2012	4,89	YES	NO
Industry EBIT2012	4,34		
Company EBIT2013	3,33	NO	NO
Industry EBIT2013	3,37		
Company EBIT2014	1,92	NO	NO
Industry EBIT2014	3,98		
Company EBIT2015	6,16	YES	NO
Industry EBIT2015	3,74		

BOTTOM 10 FIRMS			
	Mean	CompanyROI > IndustryROI	Statistically significant
Company ROI2011	31,89	YES	YES
Industry ROI2011	8,48		
Company ROI2012	21,54	YES	YES
Industry ROI2012	7,37		
Company ROI2013	19,21	YES	NO
Industry ROI2013	5,88		
Company ROI2014	22,30	YES	NO
Industry ROI2014	5,99		
Company ROI2015	50,37	YES	NO
Industry ROI2015	4,71		

	Mean	TopCompanyEBIT > BottomCompanyEBIT	Statistically significant
Top EBIT2011	11,36	YES	YES
Bottom EBIT2011	5,74		
Top EBIT2012	5,48	YES	NO
Bottom EBIT2012	4,89		
Top EBIT2013	10,49	YES	YES
Bottom EBIT2013	3,33		
Top EBIT2014	9,56	YES	YES
Bottom EBIT2014	1,92		
Top EBIT2015	8,80	YES	NO
Bottom EBIT2015	6,16		

	Mean	TopCompanyROI > BottomCompanyROI	Statistically significant
Top ROI2011	55,08	YES	NO
Bottom ROI2011	31,89		
Top ROI2012	52,03	YES	NO
Bottom ROI2012	21,54		
Top ROI2013	61,53	YES	YES
Bottom ROI2013	19,21		
Top ROI2014	45,67	YES	NO
Bottom ROI2014	22,30		
Top ROI2015	33,41	NO	NO
Bottom ROI2015	50,37		

6 Conclusions

The main aim of this research was to study the relationship between employee satisfaction and firm financial profitability by analyzing the profitability of Finnish medium size companies that were included in the 2011 Best medium size companies to work for in Finland ranking conducted by Great Place to Work. The ranking contains firms that have a higher than average level of employee satisfaction. Financial profitability ratios of the firms included in the 2011 ranking were compared with industry averages during a five-year period from 2011 until 2015. In addition, the top performers of the ranking were compared with the bottom performers to see if the position in the ranking has any effect on profitability.

The service profit chain model (Heskett et al. 1994) establishes causal relationships between firm profitability, customer satisfaction and loyalty, employee satisfaction, loyalty and productivity. In theory, the relationship between employee satisfaction and firm profitability should be positive because satisfied employees should be more productive, innovative and do their job with higher quality which all increase customer satisfaction and loyalty, and thus in the end positively affect firm competitiveness and financial performance. Employee satisfaction in return is linked with human resource management. According to Guest (1997) human resource practices are in key role in increasing employee satisfaction and thus increasing productivity and quality of goods and services which are the main drivers for firm financial performance.

The main research question of this study was that *"Are firms with high level of employee satisfaction more profitable?"* The results of this research suggest that at least the firms with a very high level of employee satisfaction are indeed statistically significantly more profitable than average firms. In relation to EBIT and ROI the top firms in Great Place to Work's ranking were on average more profitable than industry benchmarks every year between 2011-2015 and in most of the years the differences were statistically significant. In any single year the differences might had been caused by random events but the time series analysis for the period of five years provides strong proof that firms with high level of employee satisfaction are indeed more profitable. The results are in line with previous research by e.g. Schneider et. al. (2003), Yee et al. (2008) and Fulmer et al. (2003) who all have found evidence that employee satisfaction is positively connected with firm profitability.

The first sub-question of the main research brought into focus the Finnish medium size firms with higher than average level of employee satisfaction. The sub-question thus was that *“Are Finnish medium size firms with a high level of employee satisfaction more profitable than the average Finnish firms?* The profitability ratios (ROI and EBIT) of Finnish medium size firms included in 2011 Best medium size companies to work for in Finland were compared with industry average profitability ratios. The results suggest that especially the top performers of the ranking indeed seem to be more profitable than the average Finnish firms. For the bottom performers of the ranking the results were not as clear. The top firms were, on average, more profitable than average Finnish firms every year between 2011-2015 in terms of EBIT and ROI. In terms of EBIT the differences were statistically significant in three out of five years and in terms of ROI four out of five years. The bottom firms were, on average, more profitable in terms of EBIT in three out five years and in terms of ROI five out five years. However, the differences were statistically significant only in two out five years in terms of ROI and never in terms of EBIT. Thus, the results suggest that the Finnish medium size firms with a very high level of employee satisfaction are statistically significantly more profitable than average Finnish. However, regarding the Finnish medium size firms with only marginally better than average level of employee satisfaction the relationship between employee satisfaction and profitability seems to be statistically insignificant.

The second sub-question of the main research question was related to the profitability among the firms in the best companies to work for ranking. *“Of those firms with better than average level of employee satisfaction, are the firms on the top third more profitable than the firms on the bottom third?”* The results suggest that the level of employee satisfaction even among the firms with already better than average level of employee satisfaction seems to matter in terms of profitability. The top firms in Great Place to Work’s ranking were, on average, more profitable than the bottom firms every year between 2011-2015 in terms of EBIT, and every year except 2015 in terms of ROI. The differences were statistically significant in three out five years in terms if EBIT and one out five years in terms of ROI. These results suggest that the level of employee satisfaction must be extremely high for it to have a significantly positive effect on firm profitability.

6.1 Reliability and validity

There are three factors affecting the reliability of this research and the validity of the results. These are sample size, the issue of great place to work ranking as an indicator for employee satisfaction, and lastly, the multitude of drivers affecting firm profitability. The sample size of 19 companies used in the research is fairly small which limits the generalizability and validity of the results. On the other hand, the profitability of the sample was monitored during a five-year period which in turn increases validity. The analysis of time series data should create more reliable results than analysis of cross sectional data. If only cross-sectional data was used the results would have been easily blurred by random events affecting the profitability of the sample. Nonetheless, the small sample size remains as a problem.

The second factor affecting reliability and validity is the use of Great Place to Work's best companies to work for ranking as a data source for companies with better than average level of employee satisfaction. The ranking does not contain the ultimate best Finnish companies but only the best of those that wanted to participate to the evaluation process. In 2011 this was about 150 firms and of those about 100 were in the medium size category. Because of the small number of participants, it remains difficult to accurately say whether the firms in the ranking actually have better than average level of employee satisfaction or not. Another issue is the fact that participating to the evaluation is not free of charge for the firms which may cause only profitable firms to take part and thus distort the results.

Lastly, it is important to remember that there are always multiple factors affecting firm profitability. Employee satisfaction is among them but whether it is the main source behind higher profitability remains unclear. This research only studies the connection between employee satisfaction and profitability but likewise there are connections between customer satisfaction and profitability, or human resource practices and profitability. Thus, in real life things may not be so black and white although the results of this research may look conclusive.

6.2 Implications and future research proposals

As the results of this and many of the earlier research imply, employee satisfaction is important and can provide competitive advantage and direct economic gains to a company. Thus, companies and managers should take employee satisfaction into consideration on their business planning and pay more attention to it. Human resource management practices are important in increasing employee satisfaction but it is crucial to remember that the outcome is not only dependent on that. What matters most is how those practices are taken into use, monitored and how well they are perceived by the employees. Thus, HRM practices and the promotion of employee satisfaction should be deeply rooted into companies' strategies, processes and daily activities. The promotion of those activities, and the promotion of wellbeing, should be connected to management and the structure of personnel administration. In the end, it is the line managers that are responsible for the practical implementation of HRM practices. Without efficient implementation, the intended HR practices do not have the desired effect. Only when the intention is perceived and understood by employees will it turn into actuality and provide desired results.

Limited research is available regarding the content of HRM practices that are most effective in increasing employee satisfaction and thus firm performance. The identification of the exact hands-on HRM practices that are linked with firm performance still seem to be a question mark. Thus, an in-depth future research on this topic would be highly necessary and provide useful results for many companies, business leaders and managers worldwide.

References

Anderson, E. W., Fornell, C., Lehmann, D. R. (1994) Customer satisfaction, market share, and profitability: Findings from Sweden. Journal of Marketing 58 (3), 53-66.

Armstrong, M. (2006) A handbook of human resource management practice. 10th edition. United Kingdom. Cambridge University Press.

Babakus, E., Bienstock, C.C., Scotter, J., R., V. (2004) Linking perceived quality and customer satisfaction to store traffic and revenue growth. Decision Sciences 35 (4), 713-737.

Bernhardt, K., L., Donthu, N., Kenneth, P., A. (2000) A longitudinal analysis of satisfaction and profitability. Journal of Business Research 47, 161-171

Chambers, E., G., Foulon, M., Handfield-Jones, H., Hankin, S., M. and Michaels III, E., G. (1998). The War for Talent. [Online] Available at: http://www.executivesondemand.net/managementsourcing/images/stories/artigos_pdf/gestao/The_war_for_talent.pdf [Accessed 28.9.2016].

Chi, C. G., Gursoy, D. (2009) Employee satisfaction, customer satisfaction, and financial performance: An empirical study. International Journal of Hospitality Management 28, 245-253.

Elinkeinoelämän keskusliitto (2016) Työaikakatsaus 2014. [Online] Available at: http://www.ek.fi/wp-content/uploads/Tyoaikakatsaus-2014.pdf [Accessed 18.9.2016]

Fulmer, S., I., Gerhart, B. and Scott, S. K. (2003) Are the 100 best better? An empirical investigation of the relationship between being a “Great Place to Work” and firm performance. Personal Psychology 56, 965-993.

Futurice (2013) Culture Audit Document 2013. [Online] Available at: https://fl-cdn.scdn1.secure.raxcdn.com/files/1992/futurice_cultureaudit_gptw2013--uevvpfg3hl.pdf [Accessed 4.10.2016]

Gelade, G., A., Young, S. (2005) Test of a service profit chain model in the retail banking sector. Journal of Occupational and Organizational Psychology 78, 1-22.

GPW (2011) Example Trust Index Survey for ABC company. [Online] Available at: http://www.greatplaceitservices.com/files/BenchmarkReport.pdf [Accessed 3.10.2016]

GPW (2014) Culture Audit pintaa syvemmältä. [Online] Available at: http://www.greatplacetowork.fi/julkaisut-ja-tapahtumat/blogit-ja-uutiset/738-sadat-sivut-yhdeksi-listaksi-culture-auditc-pintaa-syvemmaeltae [Accessed 3.10.2016]

GPW (2016) Historia. [Online] Available at: http://www.greatplacetowork.fi/tietoja-meistae/historiamme [Accessed 3.10.2016]

GPW (2016b) Miten osallistua Suomen parhaat työpaikat -tutkimukseen. [Online] Available at: http://www.greatplacetowork.fi/best-companies/about-applying-to-best-companies-lists/how-to-participate#Assessment [Accessed 3.10.2016]

GPW (2016c) Millainen on hyvä työpaikka? [Online] Available at: http://www.great-placetowork.fi/toimintatapamme/millainen-on-hyvae-tyoepaikka [Accessed 3.10.2016]

Gronholdt, L., Martense, A., Kristensen, K. (2000) The relationship between customer satisfaction and loyalty: Cross-industry differences. Total Quality Management 11 (8), 509-514.

Guest, D., E. (1997) Human resource management and performance: a review and research agenda. The International Journal of Human Resource Management 8 (3), 263-276.

Guest, D., E., Michie, J., Sheehan, M., Metochi, M. (2000) Effective people management: Initial findings of the future of work survey. London. Institute of Personnel and Development.

Hatfield, E., Cacioppo, J., T., Rapson, R., L. (1992) Emotional contagion. Current Directions in Psychology Science 2, 96-99.

Heskett, J. L., Jones, T. O., Loveman, G. W., Earl Sasser, W., Jr., and Schlesinger, L. A. (1994) Putting the Service Profit Chain to Work. Harvard Business Review. [Online] Available at: https://hbr.org/2008/07/putting-the-service-profit-chain-to-work [Accessed 8.9.2016].

Howard, D., J., Gengler, C. (2001) Emotional contagion effects on product attitudes. Journal of Consumer Research 28 (2), 189-201.

Huselid, M., A. (1995) The impact of human resource management; An agenda for the 1990s. The International Journal of Human Resource Management 1 (1), 17-43.

Keiningham, T., L., Aksoy, L., Daly, R., M. and Perrier, K. (2005) Reexamining the link between employee satisfaction and store performance in a retail environment. International Journal of Service Industry Management 17, 51-57.

Loveman, G., W. (1998) Employee satisfaction, customer loyalty, and financial performance: An empirical examination of the service profit chain in retail banking. Journal of Service Research 1 (1), 18-31.

Nelson, E., C., Rust, R., T., Zahorik, A., Rose, R., L., Batalden, P., Siemanski, B., A. (1992) Do patient perceptions of quality relate to hospital financial performance? Journal of Health Care Marketing, 6-13.

Otala, L. & Ahonen, G. (2003) Työhyvinvointi tuloksen tekijänä. Helsinki, WSOY.

Patterson, M., G., West, M., A., Lawthom, R., Nickell, S. (1997) Impact of people management practices on business performance. London. Institute of Personnel and Development.

Purcell, J., Kinnie, N., Hutchinson S., Rayton B., and Swart, J. (2003). Understanding the people and performance link: unlocking the black box. London, CIPD.

Savaneviciene, A., Stankeviciute, Z. (2012) Human resource management and performance: From practices towards sustainable competitive advantage. Globalization – Education and Management Agendas, Chapter 8. Intech.

Schneider, B. (1991) Service quality and profits: Can you have your cake and eat it too? Human Resource Planning 14, 151-157.

Schneider, B., Hanges, P., J., Smith, B., Salvaggio, A., N. (2003) Which comes first: employee attitudes or organizational financial and market performance? Journal of Applied Psychology 88 (5), 836-851.

Silvestro, R., Cross, S. (2000) Applying the service profit chain in a retail environment: Challenging the “satisfaction mirror”. International Journal of Service Industry Management Vol. 11 (3), 244-268.

Tornow, W., W., Wiley, J., W. (1991) Service quality and management practices: A look at employee attitudes, customer satisfaction, and bottom-line consequences. Human Resource Planning 14, 105–115.

Warr, P. (2002) Psychology at Work. Pakefield, Penguin Books.

Weiss, H., M. (2002) Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. Human Resource Management Review 12, 173-194.

Wright, P., M., Nishii, L., H. (2006) Strategic HRM and organizational behavior: Integrating multiple levels of analysis. CARHS Working Paper Series 06-05, 1-26.

Yee, R. W.Y., Yeung, A. C.L., Cheng, E. T.C. (2008) The impact of employee satisfaction on quality and profitability in high-contact service industries. Journal of Operations Management 26, 651-668.

Yoon, M., H., Su, J. (2003) Organizational citizenship behaviors and service quality as external effectiveness of contact employees. Journal of Business Research 56 (8), 597-611.

Yritystutkimus Ry (2015) Yritystutkimuksen tilinpäätösanalyysi. Helsinki, Gaudeamus.

Appendices

Appendix 1. GPW Trust Index Survey statements per dimension

(GPW, 2011)

Credibility
Two-way communication: • Management keeps me informed about important issues and changes. • Management makes its expectations clear. • I can ask management any reasonable question and get a straight answer. • Management is approachable, easy to talk with. *Competence:* • Management is competent at running the business. • Management hires people who fit in well here. • Management does a good job of assigning and coordinating people. • Management trusts people to do a good job without watching over their shoulders. • People here are given a lot of responsibility. • Management has a clear view of where the organization is going and how to get there. *Integrity:* • Management delivers on its promises. • Management's actions match its words. • I believe management would lay people off only as a last resort. • Management is honest and ethical in its business practices.

Respect
Support • I am offered training or development to further myself professionally. • I am given the resources and equipment to do my job. • Management shows appreciation for good work and extra effort. • Management recognizes honest mistakes as part of doing business. *Collaboration:* • Management genuinely seeks and responds to suggestions and ideas. • Management involves people in decisions that affect their jobs or work environment. *Caring:* • This is a physically safe place to work. • This is a psychologically and emotionally healthy place to work. • Our facilities contribute to a good working environment. • People are encouraged to balance their work life and their personal life. • Management shows a sincere interest in me as a person, not just an employee. • We have special and unique benefits here. • I am able to take time off from work when I think it's necessary.

Fairness
Equity: • People here are paid fairly for the work they do. • I feel I receive a fair share of the profits made by this organization. • Everyone has an opportunity to get special recognition. • I am treated as a full member here regardless of my position. *Impartiality:* • Promotions go to those who best deserve them. • Managers avoid playing favourites. • People avoid politicking and backstabbing as ways to get things done. *Justice:* • People here are treated fairly regardless of their age. • People here are treated fairly regardless of their race/ethnicity. • People here are treated fairly regardless of their sex. • If I am unfairly treated, I believe I'll be given a fair hearing if I appeal.

Pride
Personal job: • I feel I make a difference here. • My work has special meaning: this is not 'just a job'. *Team:* • When I look at what we accomplish, I feel a sense of pride. • People here are willing to give extra to get the job done. *Company:* • I want to work here for a long time. • I'm proud to tell others I work here. • People look forward to coming to work here. • I feel good about the ways we contribute to the society.

Camaraderie
Intimacy: • I can be myself around here. • People celebrate special events around here. • People care about each other here. *Hospitality:* • This is a friendly place to work. • This is a fun place to work. • When you join the organization, you are made to feel welcome. • When people change jobs or work units, they are made to feel right at home. *Community:* • There is a "family" or "team" feeling here. • We're all in this together • You can count on people to cooperate.

Appendix 2. GPW Culture Audit questions in Finland in 2013

(translated from Finnish) (Futurice, 2013)

1. Background information

Describe shortly the operations of your organization including your industry, products/services and major customers and competitors.

2. Employee hiring and orientation

2a. What are the qualities you seek from your potential future employees except the skills needed in the job? How does your selection process (recruiting, interview practices etc.) ensure the candidate's suitability to your company culture?

2b. How are the new employees welcomed in your organization and how are they oriented into your organizational culture?

3. Inspiring

How do you create an inspiring work environment where the employees feel that their work matters and they do not feel like they "just work here"?

On your answer, you may tell for example about the following topics:

• Practices that have been designed to strengthen your company's values, mission, vision etc.
• Practices that are designed to communicate to employees the value of their work to customers and to society.
• Stories shared internally that strengthen the feeling of pride among your employees.

4. Communication

In which different ways does your organization's top management and especially the executives share information to employees and strengthen the transparency regarding your organization's operations.

5. Listening

5a. What are the ways for employees to ask questions, give feedback or in general communicate with your organization's top management and especially with the executives?

5b. What are the ways for employees to make suggestions and/or to participate in decision making regarding issues which affect their work, work environment or the general direction where the whole company is heading?

5c. What are the ways for employees to bring up unfavorable situations at the workplace or solve conflicts with their managers?

6. Thanking

How does your organization give recognition for job well-done and extra hard work or other achievements? If these recognitions include rewards (for example money, gifts, holidays) tell about them in more detail and provide a list how many employees receive such awards annually.

7. Developing

How does your organization help your employees to find and develop their skills, challenge themselves professionally, promote career growth and/or strengthen their personal growth?

8. Caring

8a. How does your organization help employees in balancing work, family and other areas of life? Describe shortly the solutions that your company offers regarding work flexibility, holidays, health and wellbeing, services offered at the workplace etc.

8b. How does your organization support employees in significant life events (personal crises, family member sickness, birth of a child, getting married etc.)? In addition to presenting your current practices, you may also give examples and tell individual stories.

9. Celebrating

How is your organization trying to make work more fun and promote a sense of community? Tell how individual teams' and/or whole company's success is celebrated in your organization?

10. Distribution of success

10a. How does your organization promote fair treatment? We are especially interested about the following:

• Reward practices that employees think are unique or special (for example result based bonuses, profit distribution or bonus programs, employee share programs).
• Principles and practices which promote equal treatment of employees and superiors/management.

10b. Describe your company's voluntary-, environment- or other programs related to corporate social responsibility – tell especially about employees' participation in these programs and/or share insight about the value your employees feel they receive from these programs.

OPTIONAL QUESTIONS:

We ask you to please answer the following two additional questions. These answers are excluded from the evaluation and preparation of the ranking.

11. Organizational culture and financial success.

11a. Do you have evidence (either numerical or practical examples) regarding the effect of your organizational culture to your company’s financial success?

Appendix 3. Results

2011		
Rank	Company EBIT2011	Industry EBIT2011
1	18,3	4,1
2	6,7	4,2
3	5,7	5,2
4	27,1	2,8
5	18,1	4,2
6	8,1	10,2
7	0,8	0,3
8	12,7	2,1
11	3,9	4,1
12	12,2	8,4
Mean	11,36	4,56
Std dev	8,00	2,89
p-value	0,0167	

2012		
Rank	Company EBIT2012	Industry EBIT2012
1	12,3	3,1
2	9,2	4,1
3	4,2	4,3
4	17,8	3,8
5	20,1	4,1
6	4,5	12,9
7	-52,8	2,7
8	15,6	1,9
11	9,7	3,1
12	14,2	6,9
Mean	5,48	4,69
Std dev	21,14	3,18
p-value	0,4541	

2013		
Rank	Company EBIT2013	Industry EBIT2013
1	15,4	4,3
2	8,6	3,4
3	3,8	6,0
4	8,8	0,7
5	24,5	3,4
6	5,6	10,4
7	2,0	0,2
8	17,2	1,5
11	7,1	4,3
12	11,9	4,9
Mean	10,49	3,91
Std dev	6,88	2,95
p-value	0,0136	

2014		
Rank	Company EBIT2014	Industry EBIT2014
1	16,0	2,0
2	9,7	4,1
3	5,1	3,0
4	-6,7	1,4
5	24,2	4,1
6	6,9	11,4
7	5,5	1,1
8	17,5	2,2
11	6,9	2,0
12	10,5	6,3
Mean	9,56	3,76
Std dev	8,40	3,11
p-value	0,0321	

2015		
Rank	Company EBIT2015	Industry EBIT2015
1	20,3	3,8
2	9,9	3,8
3	5,4	3,8
4	-2,6	1,5
5	16,0	3,8
6	13,4	13,4
7	-5,2	1,5
8	16,5	2,7
11	8,5	3,8
12	5,8	5,9
Mean	8,80	4,40
Std dev	8,25	3,41
p-value	0,0532	

2011		
Rank	Company ROI2011	Industry ROI2011
1	72,1	2,8
2	21,9	5,2
3	26,7	8,6
4	217,6	5,8
5	36,2	5,2
6	56,2	9,2
7	4,7	0,0
8	65,1	5,3
11	8,6	2,8
12	41,7	10,4
Mean	55,08	5,53
Std dev	61,41	3,20
p-value	0,0151	

2012		
Rank	Company ROI2012	Industry ROI2012
1	84,4	1,9
2	36,7	4,1
3	9,3	8,0
4	204,7	4,6
5	112,4	4,1
6	25,3	11,5
7	-153,5	10,5
8	121,9	3,2
11	20,1	1,9
12	59,0	8,9
Mean	52,03	5,87
Std dev	93,67	3,55
p-value	0,0807	

2013		
Rank	Company ROI2013	Industry ROI2013
1	90,0	4,2
2	34,8	1,5
3	6,6	6,8
4	169,8	0,0
5	136,4	1,5
6	26,1	10,4
7	6,8	0,0
8	85,8	3,2
11	12,0	4,2
12	47,0	5,0
Mean	61,53	3,68
Std dev	57,13	3,23
p-value	0,0062	

2014		
Rank	Company ROI2014	Industry ROI2014
1	80,8	0,5
2	42,5	2,1
3	6,4	4,2
4	81,2	0,0
5	105,2	2,1
6	31,4	9,0
7	8,4	1,4
8	54,5	6,1
11	8,6	0,5
12	37,7	6,4
Mean	45,67	3,23
Std dev	34,48	3,05
p-value	0,0021	

2015		
Rank	Company ROI2015	Industry ROI2015
1	88,9	3,0
2	45,0	1,7
3	5,2	3,1
4	28,7	0,0
5	59,8	1,7
6	52,1	9,4
7	-10,0	6,9
8	35,8	7,4
11	8,9	3,0
12	19,7	7,1
Mean	33,41	4,33
Std dev	29,36	3,11
p-value	0,0067	

2011			2012			2013			2014			2015		
Rank	Company EBIT2011	Industry EBIT2011	Rank	Company EBIT2012	Industry EBIT2012	Rank	Company EBIT2013	Industry EBIT2013	Rank	Company EBIT2014	Industry EBIT2014	Rank	Company EBIT2015	Industry EBIT2015
19	3,3	4,4	19	-2,5	2,1	19	-12,8	1,9	19	-3,3	2,5	19	-1,3	2,6
20	-2,3	1,9	20	6,3	0,5	20	2,3	1,9	20	-20,7	2,2	20	N/A	N/A
22	11,7	6,5	22	10,0	4,4	22	4,0	5,5	22	14,1	4,6	22	12,8	4,1
23	10,4	4,2	23	3,5	4,1	23	8,6	3,4	23	4,0	4,1	23	8,5	3,8
24	2,4	2,0	24	2,1	1,4	24	2,2	0,9	24	2,4	0,9	24	3,1	1,0
26	16,3	11,9	26	15,7	15,7	26	12,1	6,5	26	11,7	9,2	26	17,0	6,6
28	3,9	4,4	28	3,0	3,4	28	5,5	3,4	28	4,0	4,1	28	N/A	N/A
29	2,5	4,2	29	4,1	4,1	29	4,1	3,4	29	1,6	4,1	29	-4,6	3,8
30	3,5	4,4	30	1,8	3,4	30	4,0	3,4	30	3,5	4,1	30	7,6	4,3
Mean	5,74	4,88	Mean	4,89	4,34	Mean	3,33	3,37	Mean	1,92	3,98	Mean	6,16	3,74
Std dev	5,80	2,97	Std dev	5,28	4,46	Std dev	6,83	1,76	Std dev	9,96	2,31	Std dev	7,64	1,70
p-value	0,2426		p-value	0,3169		p-value	0,4935		p-value	0,2526		p-value	0,1873	

2011			2012			2013			2014			2015		
Rank	Company ROI2011	Industry ROI2011	Rank	Company ROI2012	Industry ROI2012	Rank	Company ROI2013	Industry ROI2013	Rank	Company ROI2014	Industry ROI2014	Rank	Company ROI2015	Industry ROI2015
19	15,6	8,3	19	-11,3	5,9	19	-72,8	3,0	19	-39,8	5,3	19	-8,0	4,5
20	-7,1	7,7	20	17,0	1,7	20	6,3	3,5	20	-14,5	2,6	20	N/A	N/A
22	74,7	5,7	22	51,0	4,5	22	19,8	4,8	22	90,5	1,5	22	84,1	3,0
23	80,7	5,2	23	23,7	4,1	23	80,3	1,5	23	60,2	2,1	23	230,0	1,7
24	7,1	2,7	24	8,7	2,0	24	8,1	0,4	24	10,0	1,3	24	15,2	0,0
26	40,7	9,1	26	41,2	20,0	26	34,6	8,4	26	21,1	3,0	26	23,4	7,1
28	37,4	16,2	28	25,9	12,0	28	40,7	14,9	28	20,8	18,0	28	N/A	N/A
29	15,2	5,2	29	25,7	4,1	29	20,6	1,5	29	9,7	2,1	29	-25,0	1,7
30	22,7	16,2	30	12,0	12,0	30	35,3	14,9	30	42,7	18,0	30	32,9	15,0
Mean	31,89	8,48	Mean	21,54	7,37	Mean	19,21	5,88	Mean	22,30	5,99	Mean	50,37	4,71
Std dev	29,76	4,78	Std dev	18,20	6,07	Std dev	41,00	5,62	Std dev	38,78	6,91	Std dev	86,37	5,08
p-value	0,0249		p-value	0,0201		p-value	0,1731		p-value	0,1237		p-value	0,1080	

2011		
Group	Rank	Company EBIT2011
Top	1	18,3
Top	2	6,7
Top	3	5,7
Top	4	27,1
Top	5	18,1
Top	6	8,1
Top	7	0,8
Top	8	12,7
Top	11	3,9
Top	12	12,2
Bottom	19	3,3
Bottom	20	-2,3
Bottom	22	11,7
Bottom	23	10,4
Bottom	24	2,4
Bottom	26	16,3
Bottom	28	3,9
Bottom	29	2,5
Bottom	30	3,5

Mean (Top)	11,36
Mean (Bottom)	5,74
Std dev (Top)	8,00
Std dev (Bottom)	5,80
p-value	0,0482

2012		
Group	Rank	Company EBIT2012
Top	1	12,3
Top	2	9,2
Top	3	4,2
Top	4	17,8
Top	5	20,1
Top	6	4,5
Top	7	-52,8
Top	8	15,6
Top	11	9,7
Top	12	14,2
Bottom	19	-2,5
Bottom	20	6,3
Bottom	22	10,0
Bottom	23	3,5
Bottom	24	2,1
Bottom	26	15,7
Bottom	28	3,0
Bottom	29	4,1
Bottom	30	1,8

Mean (Top)	5,48
Mean (Bottom)	4,89
Std dev (Top)	21,14
Std dev (Bottom)	5,28
p-value	0,4668

2013		
Group	Rank	Company EBIT2013
Top	1	15,4
Top	2	8,6
Top	3	3,8
Top	4	8,8
Top	5	24,5
Top	6	5,6
Top	7	2,0
Top	8	17,2
Top	11	7,1
Top	12	11,9
Bottom	19	-12,8
Bottom	20	2,3
Bottom	22	4,0
Bottom	23	8,6
Bottom	24	2,2
Bottom	26	12,1
Bottom	28	5,5
Bottom	29	4,1
Bottom	30	4,0

Mean (Top)	10,49
Mean (Bottom)	3,33
Std dev (Top)	6,88
Std dev (Bottom)	6,83
p-value	0,0182

2014		
Group	Rank	Company EBIT2014
Top	1	16,0
Top	2	9,7
Top	3	5,1
Top	4	-6,7
Top	5	24,2
Top	6	6,9
Top	7	5,5
Top	8	17,5
Top	11	6,9
Top	12	10,5
Bottom	19	-3,3
Bottom	20	-20,7
Bottom	22	14,1
Bottom	23	4,0
Bottom	24	2,4
Bottom	26	11,7
Bottom	28	4,0
Bottom	29	1,6
Bottom	30	3,5

Mean (Top)	9,56
Mean (Bottom)	1,92
Std dev (Top)	8,40
Std dev (Bottom)	9,96
p-value	0,0458

2015		
Group	Rank	Company EBIT2015
Top	1	20,3
Top	2	9,9
Top	3	5,4
Top	4	-2,6
Top	5	16,0
Top	6	13,4
Top	7	-5,2
Top	8	16,5
Top	11	8,5
Top	12	5,8
Bottom	19	-1,3
Bottom	20	N/A
Bottom	22	12,8
Bottom	23	8,5
Bottom	24	3,1
Bottom	26	17,0
Bottom	28	N/A
Bottom	29	-4,6
Bottom	30	7,6

Mean (Top)	8,80
Mean (Bottom)	6,16
Std dev (Top)	8,25
Std dev (Bottom)	7,64
p-value	0,2541

2011			2012			2013			2014			2015		
Group	Rank	Company ROI2011	Group	Rank	Company ROI2012	Group	Rank	Company ROI2013	Group	Rank	Company ROI2014	Group	Rank	Company ROI2015
Top	1	72,1	Top	1	84,4	Top	1	90,0	Top	1	80,8	Top	1	88,9
Top	2	21,9	Top	2	36,7	Top	2	34,8	Top	2	42,5	Top	2	45,0
Top	3	26,7	Top	3	9,3	Top	3	6,6	Top	3	6,4	Top	3	5,2
Top	4	217,6	Top	4	204,7	Top	4	169,8	Top	4	81,2	Top	4	28,7
Top	5	36,2	Top	5	112,4	Top	5	136,4	Top	5	105,2	Top	5	59,8
Top	6	56,2	Top	6	25,3	Top	6	26,1	Top	6	31,4	Top	6	52,1
Top	7	4,7	Top	7	-153,5	Top	7	6,8	Top	7	8,4	Top	7	-10,0
Top	8	65,1	Top	8	121,9	Top	8	85,8	Top	8	54,5	Top	8	35,8
Top	11	8,6	Top	11	20,1	Top	11	12,0	Top	11	8,6	Top	11	8,9
Top	12	41,7	Top	12	59,0	Top	12	47,0	Top	12	37,7	Top	12	19,7
Bottom	19	15,6	Bottom	19	-11,3	Bottom	19	-72,8	Bottom	19	-39,8	Bottom	19	-8,0
Bottom	20	-7,1	Bottom	20	17,0	Bottom	20	6,3	Bottom	20	-14,5	Bottom	20	N/A
Bottom	22	74,7	Bottom	22	51,0	Bottom	22	19,8	Bottom	22	90,5	Bottom	22	84,1
Bottom	23	80,7	Bottom	23	23,7	Bottom	23	80,3	Bottom	23	60,2	Bottom	23	230,0
Bottom	24	7,1	Bottom	24	8,7	Bottom	24	8,1	Bottom	24	10,0	Bottom	24	15,2
Bottom	26	40,7	Bottom	26	41,2	Bottom	26	34,6	Bottom	26	21,1	Bottom	26	23,4
Bottom	28	37,4	Bottom	28	25,9	Bottom	28	40,7	Bottom	28	20,8	Bottom	28	N/A
Bottom	29	15,2	Bottom	29	25,7	Bottom	29	20,6	Bottom	29	9,7	Bottom	29	-25,0
Bottom	30	22,7	Bottom	30	12,0	Bottom	30	35,3	Bottom	30	42,7	Bottom	30	32,9

	2011	2012	2013	2014	2015
Mean (Top)	55,08	52,03	61,53	45,67	33,41
Mean (Bottom)	31,89	21,54	19,21	22,30	50,37
Std dev (Top)	61,41	93,67	57,13	34,48	29,36
Std dev (Bottom)	29,76	18,20	41,00	38,78	86,37
p-value	0,1533	0,1689	0,0399	0,0929	0,3163