

ERASMUS UNIVERSITY ROTTERDAM



Master Thesis

Wage reductions during recessions

The effect of fairness and the exemplary role of managers on
wage reductions

MSc. Economics and Business
Behavioural Economics

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Abstract

This masters thesis is intended to plug the gap in data on the opinions of employees on wage reductions, where most literature is based on qualitative research with managers. A survey was undertaken among 233 Dutch employees who were all members of the RMU, a social union. Results show that the exemplary role of managers has a significant effect on the acceptance of wage reductions. Furthermore, the importance of fairness in the procedure of pay cuts is consistent with the existing empirical research. I found no support for theories and models about the rigidity of wages. Finally, I conclude with the implications of this research and discuss some interesting directions for future research.

Keywords: Wage reduction, Pay cut, Wage rigidity, Wage stickiness, Fairness, Reciprocity, Layoffs, Employees, Managers.

Acknowledgements

This thesis is the keystone of my study of Economics & Business Economics and denotes the end of my studies in Behavioral Economics. Within this thesis, I have chosen to the track Economics of Management and Organization. In this research I applied insights from Behavioral Economics to an actual, and very sensitive issue for organizations.

First, I would like to thank my supervisor Dr. Rohde. This thesis would not have been completed without your help. Thanks for your meetings, motivation, useful feedback and infinite enthusiasm.

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1. Introduction

This study was motivated by a newspaper article dated 7 January 2013 about wage reduction in the large IT and consultancy firm Capgemini (Leupen, 2013). They asked 400 of the older employees to accept a voluntary, structural wage reduction up to more than 10%. The employees did not accept the wage reduction. The purpose of the wage reduction was to save money, create a better match between performance and wage, and to avoid mass redundancies. Capgemini addressed concerns with a problem which also plays a role in many other companies.

Wage reductions are a hot item nowadays. It is a difficult and complex issue, involving diverse interests and divided opinions. Unions are strongly opposed to pay cuts while employers are in favour of this move. This research is important because it gives an answer to how employers can make wage reductions more acceptable amongst their employees. It will benefit employers and the management of companies who are considering several ways to reduce costs while continuing their businesses. To make the best choice(s) it is of great importance to know more about the framing and consequences of wage reductions. In that way this research may be of value as it shows how we can use concepts from behavioral economics to increase the acceptance of wage reductions.

The literature on wage reductions is mainly written during and after the Oil Crises in the 1970s. First, economists tried to explain wage rigidity and the involuntary unemployment with economic models and theories (Bewley, 1998; Campbell III & Kamlani, 1997). However, there was no public data available to test these models and theories. Therefore, many researchers filled this gap with gathering their own data through conducting surveys and interviews (Bewley, 2004). Today, we again see an interest in pay cuts, wage structures, and unemployment. There is however no public data available on the opinions of employees regarding wage reductions. In this research I gathered my own data on the opinions of employees on wage reductions. I link the results of this data to the existing models and theories and compare it with the empirical evidence of previous studies.

The aim of this study is to get an insight into the opinions of employees on wage reductions and wage structures, and see if we can use concepts from behavioral economics to increase the acceptance of wage reductions among employees. This research will address the following research question:

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Can we increase the acceptability of voluntary wage reductions by using concepts from behavioral economics?

This is a normative study that is limited to the behavioral effects on the acceptance of wage reductions. It does not address to the legal possibilities and difficulties to wage reductions and other labor laws. It also ignores the fact that many mechanisms (e.g. mortgages) are partly based on expected wage increase.

The remainder of this paper is structured as follows. In Chapter 2 I will discuss all relevant literature. Next, all research hypotheses are addressed. Chapter 4 describes the research method and data statistics. Chapter 5 presents the statistically tested results and other relevant findings. Chapter 6 comprises discussion, limitations and suggestions for further research. Finally, the conclusion is provided in chapter 7.

2. Literature review

The literature on the sources of wage rigidity began in the 1970s and 1980s. The world economy was in a downturn due to Oil Crisis I and II in the seventies. During this time, one of the great contributions of economics was the explanation of macroeconomic phenomena such as wage structures, wage rigidity, involuntary unemployment and variations in employment. The literature review is divided into two parts. In the first part of the literature I give an overview of all relevant theories and models, based on Table II in the paper of Campbell III and Kamlani (Campbell III & Kamlani, 1997, page 760), which explains the rigidity of wages. In the second part, I will discuss some important empirical evidence on wage reductions.

2.1 Theories of wage rigidity

2.1.1 Contract theory

Long-term contracts between employers and employees set wages in advance. These wages are based on a staggered basis. Fischer (1977) argues that employers use long-term contracts to avoid transaction costs such as wage setting and contract negotiations. This leads to rigidity in wage structures. Fischer concludes that these long-term contracts are preferred by economic agents since they provide a stabilizing role for monetary policy.

2.1.2 Implicit contract theory

Economists in the seventies wondered why employers laid off unneeded employees while they did not cut wages during recessions. This phenomenon is also known as the layoff puzzle. According to traditional economics, employer and employee negotiate on the labor contract where the wage is determined by the market. We expect that the wages will rise during times of economic growth and fall during recessions because of the variations in the demand for labor. However, economists found that most of the companies did layoff unnecessary employees in times of recession and did not change the wage of the rest of their employees (Azariadis, 1975). The implicit contract theory explains why employers prefer layoffs to cutting wages.

In the implicit contract theory (Azariadis, 1975; Gordon, 1971; Neil, 1974), the employer and employee have a long-term relationship where they implicitly set some commitments. These long-term commitments provide certainty to both the employer and the employee. The employer is assured of labor hours for a longer period and the employee gets compensated for

these hours. The implicit contract can be compared to insurance where it reduces the variability in income for the employee and the available labor hours for the employer. In a market with such long-term contracts the wages will be sticky because no party will breach the contract in the absence of external factors. The employee will only renegotiate the contract to get a higher wage or better working conditions, and is not willing to voluntarily accept a wage reduction during recessions. The consequence of this is that we see involuntary layoffs rather than voluntary wage reductions.

The key element of the implicit contract theory is the risk-neutrality of employers and risk-aversion of employees. The two groups differ in their ability to bear risks. The employers are better able and more experienced in managing their risks. They reduce the risks of their portfolios by diversifying their holdings. The difference of risk-bearing between both parties enables risk-sharing, where the firm acts as an employer and an insurer at the same time. The employer is willing to reduce the risk of the employee by offering employment and an insurance (financial compensation). This reduces the uncertainty of income on the side of the employee. This is a cheap and profitable method for the employer to attract a certain group of people and has an important impact on wages, variations in employment, and the probability of unemployment. This explains the wage rigidity of existing employees. The wages of the newest employees will fluctuate with the market conditions, where they will be cheapest during a recession.

2.1.3 Efficient wage theory

The efficiency wage theory states that there is a positive relationship between productivity and wage (Solow, 1979). Managers pay wages above market-clearing levels to increase the productivity and efficiency of their employees. Employees are willing to exert more effort for the sake of a high wage. Below, I will discuss four theories on efficiency wages.

2.1.3.1 The shirking model

The shirking model of Shapiro and Stiglitz (1984) is based on the following thoughts. In a market with no unemployment, workers receive the market-clearing wage. The worker has to decide whether to work or to shirk, with the chance of getting caught and being fired when shirking. Since the worker can immediately find a new job in the market, shirking is costless. Therefore, employers pay a wage in excess of the market-clearing level to induce workers not to shirk. The excess in wage becomes a penalty when the worker shirks. If one firm raises its wage, all other firms also have an incentive to raise their wages. The average wage will increase

and labor becomes more expensive. Therefore the demand for labor will decrease with unemployment as a result. It is more difficult for workers to find a new job in a market with unemployment. The incentive of shirking will reduce when the unemployment rate is sufficiently large.

2.1.3.2 Gift-exchange model

The gift-exchange model of Akerlof (1982, 1984) divides the market in two parts: the primary market and the secondary market. In the primary market the wages are above the market-clearing level while in the secondary market they are at the market-wage. The excess of wages in the primary market are the result of a partial gift-exchange between workers and employers. On the one hand workers exert more effort and work more labor hours than the minimum standard. On the other hand the firm pays a wage in excess of the market-clearing wage. The key element in the model is the loyalty of the worker to the objectives of the firm (Akerlof, 1984) but only where this loyalty is reciprocated by the firm through a higher wage.

2.1.3.3 Adverse selection model

The adverse selection model of Weiss (1980) consists of two versions: the quits and the hiring one. Managers prefer layoffs in the quits version because of the control over the workforce. They have control over the selection of workers that must leave the firm. A wage reduction leads to the risk that the more able and valuable workers will leave, which has a detrimental effect on the firm.

In the hiring version firms select workers by setting a wage where there are two types of workers: low ability and high ability. The high ability workers are only willing to work for a high wage firm. Firms that offer low wages will only attract the low ability workers whereas the high wage firms will attract workers of both abilities. With paying a high wage they get, on average, more high ability workers. This theory assumes that firms are not able to screen job seekers, while in practice, they have plenty of tools to reveal the true characteristics of the job seeker.

2.1.3.4 Turnover model

Another theory explains the effect of labor turnover on wage rigidity. Attracting new workers or replacing workers does involve certain costs: turnover costs. These costs consist of training, recruiting, hiring, and searching, but also include those of lower productivity during these processes. Employers off-set these costs by offering a wage in excess of the market-clearing

level so that the employees are less inclined to leave the firm. This is effective when the turnover costs are higher than the costs of the higher wage. In a market with all identical firms, this strategy leads to a general increase of the market wage, and in a firm with high wages, the employee is not inclined to leave. The theory also explains the existence of the dual labor market. Stiglitz (1974) makes a distinction in his model between the urban sector and the rural sector where he assumes that the turnover costs in the urban sector are higher than in the rural sector. Firms in the urban sector will therefore pay a higher wage than those in the rural sector. Salop (1979) divides the markets into two types of workers: experienced and inexperienced. The turnover costs of experienced workers are higher because they add more value to the firm than the inexperienced. The turnover model gives an explanation as to why we see a general increasing in wages and therefore also explains the downward rigidity of wages.

2.1.4 Fair-wage hypothesis

Akerlof and Yellen (1988, 1990) introduced the fair-wage hypothesis that is based on the perceived fairness of wages. The hypothesis is stated as follows:

$$e = \min(w/w^*, 1)^1,$$

Where e is the effort denoted in units produced by the worker, w is the actual wage, w^* is the fair wage, and 1 is the units of normal effort. The worker will minimize effort proportionate to the ratio of w/w^* if the actual wage is lower than the fair wage. Notions of fairness are subjectively determined by workers. It could be that workers with the same job differ in their determination of a fair wage. Many factors play a role in the individual process of determining the fair wage. There are firm specific factors like profitability, culture, and working conditions, but individual and external factors also play an important role.

2.1.5 Insider-outsider theory

This theory is similar to the labor turnover model. The key element of this theory is the turnover costs of new employees. Firms can choose to dismiss 'expensive' insiders and hire some new outsiders at a lower wage. However firms are reluctant to act in this way because of the turnover costs incurred when attracting outsiders. This ensures that the insiders have considerable power in setting their own wage (Lindbeck & Snower, 2002). The insider-outsider theory is quite similar to the turnover model. The key difference with the labor turnover model is the following:

¹ (Akerlof & Yellen, 1990)

- In the turnover model the firms are afraid that workers will leave in order to get a better job outside. The firm has to pay turnover costs when attracting new employees. It is therefore better to pay a higher wage when it outweighs the turnover costs.
- In the insider-outsider theory, the insiders know that firms are reluctant to replace insiders for outsiders because of the turnover costs. This gives the insiders a strong negotiation position when bargaining for their wages.

The first theory is looked at from the perspective of the employer, while the latter looks from the perspective of the worker. Lindbeck and Snower (2002) also shows this distinction between their insider-outsider theory and other efficiency wage theories concerning turnover costs.²

2.2 Empirical evidence

The above mentioned theories and models give possible explanations of wage rigidity but without empirical evidence. There was no public data available to test these theories. Therefore economists, psychologists and sociologists conducted surveys, interviews and experiments to gather their own unique data. I will give an overview of the major conclusions drawn from this data.

2.2.1 Resistance to pay cuts

Truman Bewley (2004) interviewed 246 managers and 19 labor leaders in the 1990s. The economy was in a recession and the unemployment rate was high. All the interviewees were located in the Northeast of the United States.

One of his interesting findings was that the main resistance to wage reductions did not come from the side of the employees, but from the management itself. Managers were afraid that wage reductions would hurt morale and would have a negative impact on productivity. In his book “Why wages don’t fall during a recession” he gives a definition of morale (Bewley, 1999):

“Morale meant emotional attitudes toward work, co-workers, and the organization. Good morale meant a sense of common purpose consistent with company goals and meant cooperativeness, happiness or tolerance of unpleasantness, and zest for the job.”

Bewley divides morale further into three components (Bewley, 2004). One is the identification with the company and the internalization of its objectives. Another is the trust that loyalty to

² See footnote 7, page 5 (Lindbeck & Snower, 2002)

the firm or colleagues will be reciprocated, explicitly or implicitly. And the last one is the mood that will foster good work. Job satisfaction and happiness are now synonyms of morale. A short general and commonly used definition of morale is the ‘acceptance of and willingness to voluntarily make sacrifices to the company and colleagues’.

Many factors have an influence on morale, such as working conditions, trust, fairness, atmosphere, wage structures, and so on. Companies can influence these factors to achieve good morale. Morale has a lot to do with the behaviour and mood of employees. Good morale means that workers are willing to exert more effort; to work harder during peak periods; help their colleagues; promote the company, and come up with suggestions for improvement. This is good for the firm, the colleagues and the atmosphere on the work floor. On the other hand, bad morale will have the opposite effect. Managers are mainly concerned about lower productivity and the performance of their employees but the effect is difficult to measure. Another consequence of bad morale is the effect on labor turnover. Dissatisfied employees will complain about their employers and resign as soon as possible when they find a new job. It is difficult to recruit new employees when others complain about the company.

Bewley (1999) interviewed 151 businesses and asked about their arguments against cutting base pay. He did not suggest arguments so that all given arguments came from the side of the employers. Table 1 shows the result.

Table 1 | Arguments against cutting base pay (applies 151 businesses)

Arguments	Number of businesses	Percentage of businesses
Pay cuts hurt morale and demotivate workers	104	69%
Because of lower living standards	38	25%
Because they are insulting	26	17%
Pay cuts hurt productivity	63	42%
Pay cuts increase turnover	62	41%
Employees would leave slowly or at the onset of the next boom	45	30%

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The best employees would leave	18	12%
Employees would quit out of rage	5	3%
It is hard to convince workers that a pay cut is needed to save their jobs	11	7%
Pay cuts invite sabotage	8	5%
Pay cuts invite unionization	7	5%
Unions resist pay cuts	4	3%
Managers do not want to cut their own pay	5	3%

The three main concerns with cutting pay are the negative effect on morale, productivity, and the increase in staff turnover. More than two-thirds (69%) of employers agree that pay cuts hurt morale and leads to lower motivation in employees. Only 42% indicate that productivity will decrease.

The previously mentioned results by Bewley are in line with the results of surveys done by other economists. Campbell and Kamlani (1997) interviewed 186 managers of American firms on theories of downward wage rigidity. They found that the main arguments against wage reductions were the fear that the best workers would leave the firm and have a negative effect on effort. In the 19 interviews with American managers, Blinder & Choi (1990) found that pay cuts damage morale and productivity. The different studies all report the same findings.

2.2.2 Pay cuts versus layoffs

The title of Bewley's (1999) work, "Why wages don't fall during a recession", implies that employers take other measures than pay cuts to steer the company through the a recession. Some theories explain why managers prefer layoffs to wage reductions. The implicit contract theory assumes that employees will not accept a voluntary wage reduction because of the implicit long-term contract. Workers will only breach the contract to negotiate for better working conditions. From the adverse selection model we also know that managers have a preference for layoffs. In the procedure of layoffs managers have the power to select the people that must leave the firm. So they can filter out the less productive workers. This is one of the reasons given by employers for preferring layoffs over pay cuts (Table 2).

Bewley (1999) asked 32 businesses for their opinion on a choice between layoffs and pay cuts. The results are shown in Table 2.

Table 2 | Why not cut pay rather than lay off workers? (applies 32 businesses)

Reason	Number of businesses	Percentage of businesses
Pay cuts would not save or create jobs	18	56%
Pay cuts would hurt morale and productivity more than layoffs would	14	44%
Layoffs give better control over who leaves	9	28%
Layoffs save more money than do pay cuts	8	25%

2.2.3 Social preferences

Standard economic models and theories are based on the theory *homo economicus*. One of the underlying assumptions of *homo economicus* is that he is motivated by pure self-interest.

Behavioral economics assumes that agents do not always act out of self-interest, but also consider the effect of their behaviour on others (Wilkinson, 2008). One of the findings of the empirical literature on wage rigidity and pay cuts is the important role of social preferences in organizations. Below, I discuss two social preferences: fairness and reciprocity.

Fairness

Bewley’s (2004) discussion paper contains a review of empirical work and further research carried out on the subject of wage rigidity. The most striking conclusion from all the analyzed papers is the major importance of fairness to labor performance. However, the authors of all the papers do not have a clear and unambiguous definition of the concept fairness. It is difficult to discuss what is fair and what is unfair. Fairness can be explained by the approach of Kahneman, Knetsch, and Thaler (1986). The key element of fairness is dual entitlement, meaning that certain considerations are entitled to both parties in a transaction. Dual entitlement can be separated into three elements:

1. Reference point. A notion of fairness depends on the reference point. Possible reference points for wages are the past wage, the wage of colleagues, and the wage of employees outside

the firm. People mainly refer their wage to their past wage or wage of others with the same job qualifications.

2. *Outcome to the employee.* The outcome of wage structures and wage changes, have an effect on the perception of fairness. People are, for example, happy with a 5% increase in their salary, but are furious when they find out that a colleague has been given an increase of 10%. Not paying a bonus to employees is seen as more fair than cutting their wages by the same amount.

3. *Circumstances of changing conditions.* Changing conditions can be caused by controllable and uncontrollable factors, where a recession (uncontrollable factor) can be seen as a fair reason to cut pay.

Many factors could have an influence on the conceptions of fairness. Managers must take the conception of fairness into consideration when deciding about wage policies. Pay cuts are seen as more fair when it saves a lot of jobs, or when the managers also cut their own wages (Bewley, 2004). A feeling of fairness in organizations will thus increase the acceptance of pay cuts.

Reciprocity

Reciprocity refers to responding to actions with a similar action. It can be both positive and negative. In the first, people help others who have helped them and in the latter people hurt others who have hurt them. Good work or loyalty can be rewarded by an increase in pay and a pay cut can be reciprocated by a lower productivity or performance by the employee. Campbell and Kamlani (1997) asked compensation executives about the effect of a change in wage on effort. Half of the executives were asked the question:

1. Suppose you were to raise wages by 10%. By approximately what percentage (if at all) would you expect workers' effort to rise as a result of the wage increase?

The other half answered the following question:

2. Suppose you were to cut wages by 10%. By approximately what percentage (if at all) would you expect workers' effort to fall as a result of this cut in wages?

The respondents expected an overall expected raise of 6,6% in question 1. The expected fall off in effort in question 2 was 15,4%. The average response was not significantly different between the two questions. Executives were, however, afraid that the retaliation for a negative action is greater than the reward for a positive action.

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In conclusion, employees will reciprocate good for good and bad for bad. The pervasiveness of negative reciprocity probably explains why managers are reluctant to reduce pay.

3. Research method

3.1 Purpose

I surveyed employees in the Dutch labor market. The purpose of the survey is to get an insight into the opinions of Dutch employees on wage changes and the effect of social preferences on these changes. Surveys are mainly used for two purposes: description and explanation. My survey serves both purposes. Some parts of the survey are related to available literature and are used to test and explain theories on social preferences and wage reductions. The other parts have a descriptive purpose to get more insight into the opinions of Dutch employees on several relevant topics related to wage fluctuations. Apart from this purpose, it is proposed that the survey will fill the gap in data on this topic as there is, currently, no public data available on this sensitive issue. With this survey I have my own unique dataset.

3.2 Design

The survey has a cross-sectional design. It provides data from one specific point in time when the respondents had the chance to fill in the survey, namely from June the 6th to June the 15th of 2013.

The year 2013 is a year of economic uncertainty in the Eurozone where governments face budget deficits, companies have to cut costs, and the unemployment rates are high. There is little hope for economic growth in the coming periods.³ The common feature of this crisis, with respect to most of the literature on downward wage rigidity, is the high unemployment rate. Most of the literature on downward wage rigidity started during the oil crises in the 1970s in order to explain why wages did not fall during a recession. We see the same happening in 2013 when we observe wage reductions only rarely, while there are many redundancies.

3.3 Population and sample

The target population for this study consists of Dutch employees. I will make generalizations about this group. The downward rigidity of wage is not linked to specific companies, sectors, or specific employees. The problem does concern the whole labor market and I have therefore chosen a broad spectrum of the population.

³ http://www.europa-nu.nl/id/vhrtcvh0wnip/economische_crisis

The next step was to select a sample of respondents. The definition of a representative sample is “a subset of the population that closely resembles the population on key characteristics” (Van der Stede, Young, & Chen, 2005, page 666).

It was a challenge to find a way to reach respondents who are a representative of the population. Most master students gather their data by interviewing or taking questionnaires among other students at the university. However, students are not employees and therefore not part of my population. Besides that, I had to take into account the fact that the response rate is in general about 10% (Maas, 2011). To get 100 responses, it is necessary to reach about 1,000 respondents. I was thinking about an umbrella union or social union that has access to a lot of employees. I discussed it with my grandfather and he informed me that he had worked for such a social union: the RMU⁴. The RMU is a Reformatory Social Union with approximately 16,000 members (90% employees, 10% employers). The union wants to be an association for both employers and employees and defends the interests of both parties. The members are divided into the following sectors:

- Civil servants;
- Construction industry;
- Healthcare and well-being;
- Trade and services;
- Industry, transport, and engineering;
- Agriculture and fishery;
- Education;
- Police and judicial authorities.

I got in touch with the RMU through my grandfather. The RMU was also interested in the research and was willing to send the questionnaire to a pool of RMU members in exchange for the results. They send an email (Appendix 2.1), with a cover letter from me (Appendix 2.2), to 2,000 members. The RMU explicitly supported my research in their email.

The sample of 2,000 members is selected as follows:

- All are Dutch employees;
- From all sectors;
- No pensioners;

⁴ Reformatorisch Maatschappelijke Unie

- No people entitled to benefit;
- Both men and women;

The sample is selected in such a way that it is still a representative subset of the population on key characteristics. There are some small differences between RMU- members and other Dutch employees.

- Religion: RMU-members are all reformatory Christians.
- Geographical distribution: RMU-members mainly live in the Bible belt (Appendix 3).

3.4 Survey

I conducted my survey on the website of ThesisTools⁵, in order to create a high quality survey. To guarantee the quality, the survey had to comply with some minimum requirements. The survey, and the questions posed, must satisfy the following conditions (Maas, 2011):

- Understandable / feasible;
- Unambiguous: every question asks for only one thing;
- The questions should be asked in a neutral way;
- All answers are possible;
- The questions should produce some variation;
- It does not require any foreknowledge;
- There are no right or wrong answers.

See Appendix 1 for the complete survey. There are both a Dutch and an English versions of the survey shown at Appendix 1.1 and 1.2 respectively.

The survey started with the following introduction:

Dear respondent,

I am Cristian Plomp, master student of Economics & Business Economics at the Erasmus University of Rotterdam. This survey is part of my master thesis and is intended to gain insight in your opinion about wage changes.

The survey will take about 7 minutes of your time and is completely anonymous. There are no right or wrong answers. The answers will be treated confidentially and will not be used for other purposes than this study.

⁵ www.thesistools.nl

For every survey that is filled in completely, I donate €2,- to charity. In the last question of the survey you can choose which charity you prefer.

Important! You will see an asterisk after each question. This means that it is compulsory to answer the question.

You can run the survey in the browsers of Internet Explorer and Mozilla Firefox. For questions, comments or problems with completing the survey you can e-mail to cristianplomp@hotmail.com.

Thank you for your co-operation!

I tried to make the introduction as understandable as possible, mentioned that there are no right or wrong answers, gave some tips for web browsers, indicate the time needed, and gave them the opportunity to e-mail me when facing problems with completing the survey. I did not mention the exact purpose of the study but used the general terms: “gain insights in your opinion about wage changes”. The paragraph on the web browsers was added after I received an email from one of the respondents that the survey did not work. That was the only question I received.

The asterisk after each question meant that it was compulsory to answer the question. If a respondent forgot to fill in a question, a message appeared with a reminder to fill in the unanswered questions. Normally, it is not possible to finish a survey that is not completely filled in. However, this was possible in this survey. ThesisTools confirmed the problem but they could not fix it. The consequence of this is that respondents could have finished the survey without filling in each question. This causes *response errors* that means that respondents responded incompletely (Van der Stede et al., 2005).

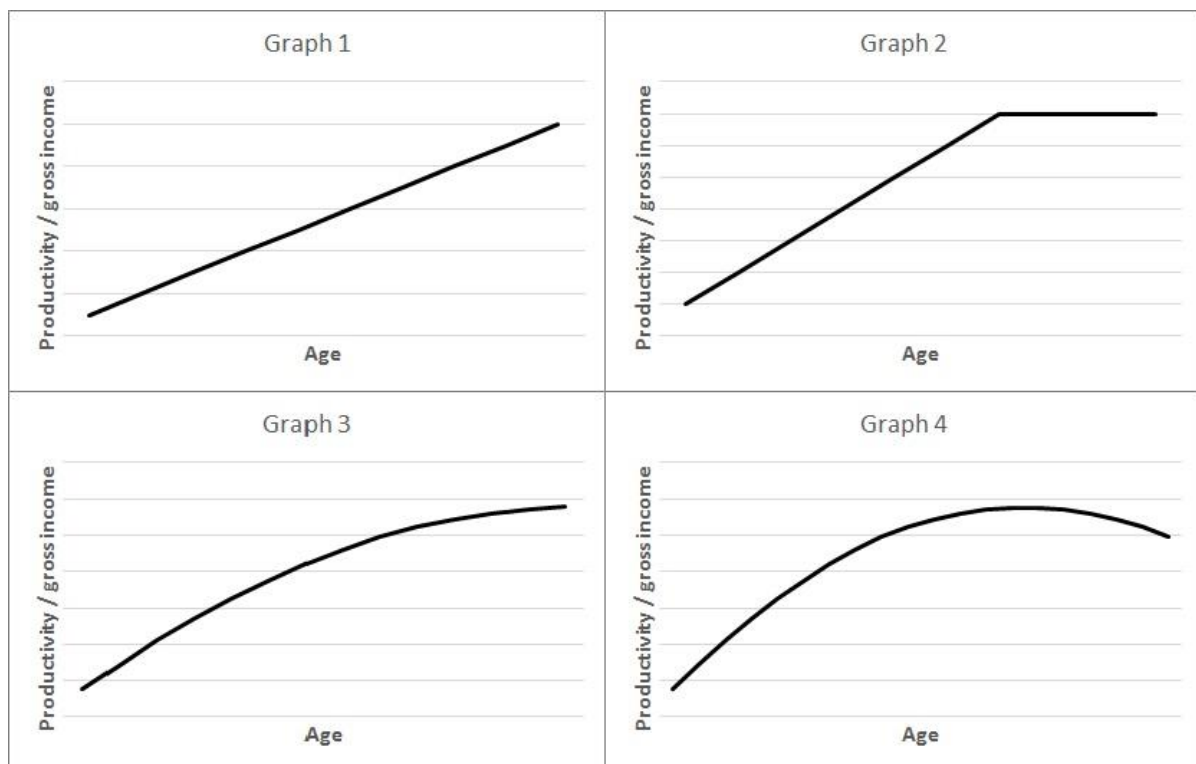
3.5 Survey questions

The survey is divided in several parts. Questions on the same subtopic or with the same purpose are put together. The first part represents my original research concept. Respondents were asked to read two cases which represented their company struggling during the current recession. In the first case, the management asks all their employees to accept a wage reduction of 5% to cut labor costs. Respondents had to indicate whether they would be willing to accept the wage reduction dependent upon the information given on the wage reduction of the management (0%, 5%, or 10%). This is repeated in the second case. The only difference between the cases is the addition, in the second case, that the probability of layoff increases from 0% to 10% if the respondent is not willing to accept the wage reduction. This creates

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more pressure on the employee. Thereafter I asked whether the acceptance of a wage reduction is related more to a sense of fairness or reciprocity where I translated the concept fairness into ‘an equal distribution’ and the concept reciprocity into ‘if I do something for you, you will do something back to me’. I did this because the Dutch definitions of fairness and reciprocity do not mean exactly the same. The third section reveals the expected effect of a wage reduction on the productivity of the employee and the atmosphere on the work floor. Part four of the survey extracts information on the influence of the factors age, experience, position, and productivity on a wage increase in the current situation. To get more insight into the opinions of the respondents on the relation between age-productivity and age-gross I created several graphs in part five. The respondents had to indicate which graph they believed to be most applicable to their careers. Visual representation was easiest method for understanding for both myself and the respondents. The graphs for the relations age-productivity and age-gross income are exactly the same and are shown below. I therefore entered ‘productivity/gross income’ on the vertical axis. These graphs show, in my opinion, the four most likely relationships between age and productivity/gross income.

Graphs belonging to questions 16 and 17 of the survey



You can see the linear relationship between age and productivity/gross income in graph 1. Graph 2 also has a linear growth which stops at a certain age. The third graph shows a decreasing growth of productivity/gross income and the fourth graph is the only graph with a

decrease shown after a certain point in the career. Using these graphs I wanted to reveal any relationship between productivity and gross income. In the sixth part I asked respondents under what conditions they would accept a wage reduction if they are over 50 years old. Possible conditions are a demotion, lower work load, and less responsibility. The seventh part contains questions about general information for the respondent and the company he/she works for. The final question is about the preference to which charity the donation should go to. The final question is asking the respondents which charity they would prefer their donation to be made to.

An overview of the different parts of the survey is given in the following table.

Table 3 | Description of the different parts of the survey

Part	Question	Description
1	1-6	These questions are based on two cases and each question asks whether the respondent is willing to accept a wage reduction of 5%. The two cases are slightly different. Before each question, there is given some additional information about the wage reductions of board members.
2	7	Reveals whether respondents link the acceptance of a wage reduction to fairness or reciprocity.
3	8-11	Respondents must indicate to what extent they agree with the statements about the expected effect of a wage reduction on productivity and atmosphere. The statements focuses on the effect of a wage reduction during a recession.
4	12-15	Questions about factors that may affect a wage increase in the current situation. Respondents have to specify their beliefs about the influence of each factor on a wage increase.
5	16-17	The two questions show graphs of the relation between age-productivity and age-gross income. Respondents must choose the graph that, in their opinion, best fits their expected own career.
6	18	Respondents have to answer the question under what conditions they think they would accept a wage reduction if they are over 50 years old.

7	19-25	Questions to get some more information about the respondent and the company he/she works for.
8	26	Respondents can state their preference to which charity the donation should go to.

After the completion of the survey, respondents had the opportunity to indicate whether they want to receive a report of the research. This service is provided by ThesisTools.

3.6 Incentive

To encourage people to fill out the survey, I promised to donate €2,- to charity for each completed filled-out survey. To further increase the commitment of the respondent, they could choose which of the three charities they prefer (question 26). Two of the three charities are Christian organizations that are known to all RMU members. The other is a well-known non-Christian organization. 93% of the respondents had a preference for the Christian charities.

3.7 Pilot test

I carried out a pilot test before sending the survey to the actual respondents. Fellow students and family filled out drafts of the survey. I discussed the survey with both employers and employees and received a lot of comments and useful information for improvements. The survey has been tested several times. All the respondents indicated that they found the subject and the survey itself very interesting.

3.8 Sample data

The response rate of the survey is 11,65% and counts 233 valid responses. I deleted all the error responses (respondents who failed to respond in full) and the responses from employers.

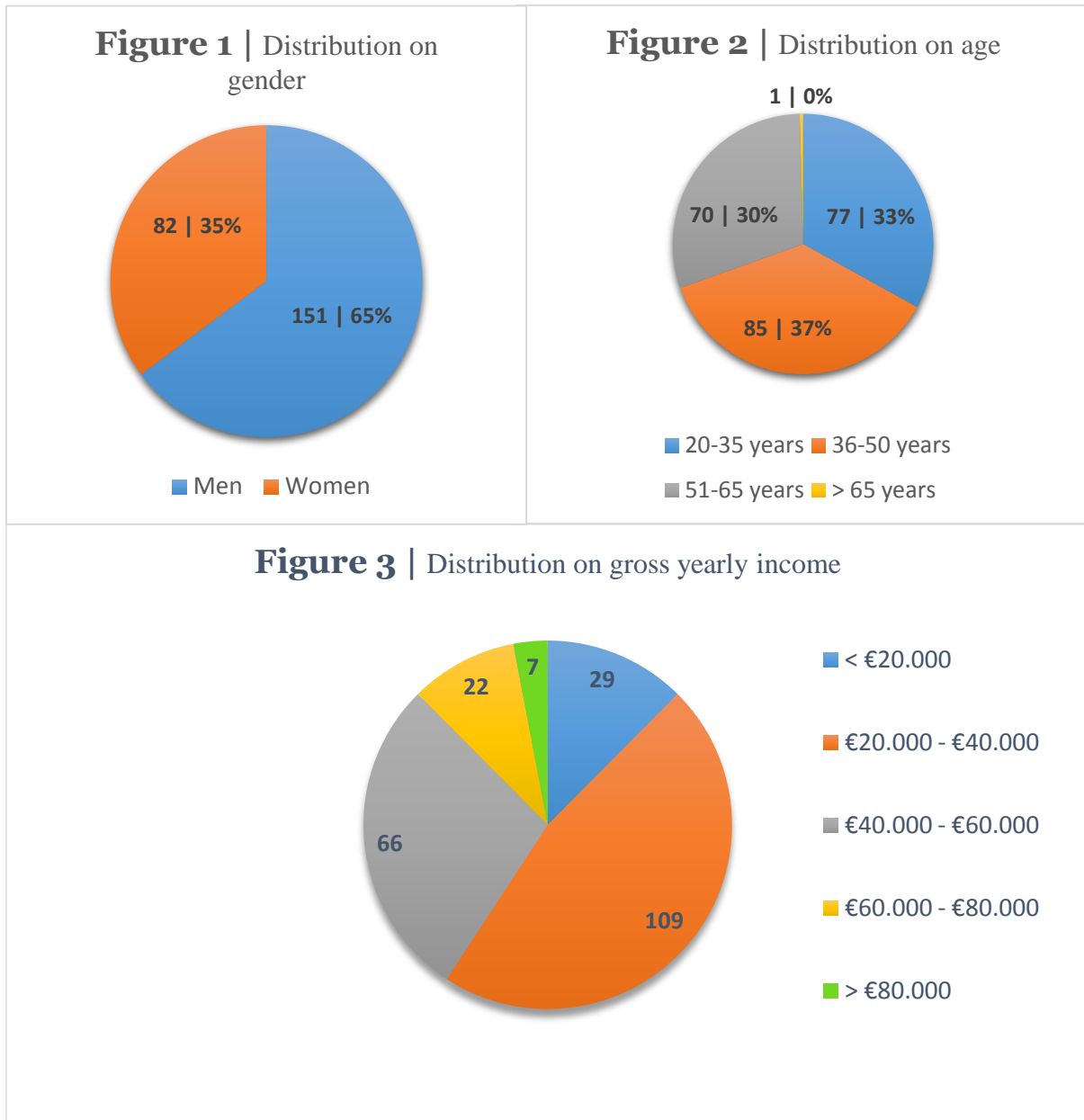
Table 4 | Data description

Sample size	± 2,000
Responses	284
Useless responses	51
Error responses	48
Employers	3
Useful responses	233

Response rate

11.65%

The figures below show the distribution of the sample based on gender, age, and income. One of the respondents is older than 65 (Figure 2). This is possible due to the increased state pension age to 65 years and 1 month in 2013.



4. Research hypotheses

The preceding literature says nothing about the role of the management in the process of pay cuts, nor did I find literature on this subject. However, I expect that the role of management is of major importance when they ask their employees to voluntarily accept a wage reduction. Management must frame it in such a way that all the employees will support the wage reductions. We know from literature that managers must take concerns about fairness into account when setting wage policies. They have an exemplary role in the organization and therefore they should lead by example. That means, in my opinion, that they must first apply a wage reduction to themselves. The first three hypotheses, with each three sub hypotheses, are based on the first six questions of the survey (Appendix 1). To make it easier to see the difference between these questions and cases, I translated the first six questions which you can read below.

Case 1

Suppose the company you work for finds itself in economically heavy weather. The management needs to reduce the costs of employing people to ensure the continuity of the company. Therefore, the management asks you and all the other employees to voluntarily accept a structural wage reduction of 5%. This means that your gross earnings will decrease immediately by 5%.

Question 1

Suppose that the management did not reduce their wages.

Would you voluntary accept a wage reduction of 5%?

- Yes
- No

Question 2

Suppose the management firstly apply a wage reduction of 5% to themselves.

Would you voluntary accept a wage reduction of 5%?

- Yes
- No

Question 3

Suppose the management firstly apply a wage reduction of 10% to themselves.

Would you voluntary accept a wage reduction of 5%?

- Yes
- No

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Case 2

Suppose the company you work for finds itself in economically heavy weather. The management needs to reduce the costs of employing people to ensure the continuity of the company. They can choose from two options: wage reductions or layoffs. In the end, they ask you and all the other employees to voluntarily accept a structural wage reduction of 5%. This means that your gross earnings will decrease immediately by 5%. The probability of layoff increases from 0% to 10% if you are not willing to accept the wage reduction.

Question 4

Suppose that the management did not reduce their wages.

Would you voluntary accept a wage reduction of 5%?

- Yes
- No

Question 5

Suppose the management firstly apply a wage reduction of 5% to themselves.

Would you voluntary accept a wage reduction of 5%?

- Yes
- No

Question 6

Suppose the management firstly apply a wage reduction of 10% to themselves.

Would you voluntary accept a wage reduction of 5%?

- Yes
- No

Based on these questions I developed the following hypotheses.

Hypothesis 1: the proportion of employees who accept a wage reduction increases if the management also applies a wage reduction to themselves (case 1: questions 1 to 3).

Hypothesis 1a: $P_{\text{question2}} > P_{\text{question1}}$

Hypothesis 1b: $P_{\text{question3}} > P_{\text{question1}}$

Hypothesis 1c: $P_{\text{question3}} > P_{\text{question2}}$

Hypothesis 2: the proportion of employees who accept a wage reduction increases if the management also applies a wage reduction to themselves (case 2: questions 4 to 6).

Hypothesis 2a: $P_{\text{question5}} > P_{\text{question4}}$

Hypothesis 2b: $P_{\text{question6}} > P_{\text{question4}}$

Hypothesis 2c: $P_{\text{question6}} > P_{\text{question5}}$

Hypothesis 3 is based on the difference between case 1 and case 2. I expect that the proportions of employees who accept a wage reduction is higher in case 2 than in case 1 because of the addition in case 2 that the alternative for a wage reduction is a layoff. This could create a higher pressure at the side of the employees to accept the wage reduction.

Hypothesis 3: the proportion of employees who accept wage reductions is higher in case 2 than in case 1.

Hypothesis 3a: $P_{\text{question4}} > P_{\text{question1}}$

Hypothesis 3b: $P_{\text{question5}} > P_{\text{question2}}$

Hypothesis 3c: $P_{\text{question6}} > P_{\text{question3}}$

Hypothesis 4 is related to the literature on fairness and reciprocity. The importance of fairness in literature is more emphasized than reciprocity. Therefore, I expect that more employees link the acceptance of a wage reduction more to fairness than to reciprocity.

Hypothesis 4 is linked to the following question:

Question 7

The acceptance of a wage reduction has most to do with a sense of ...

- An equal distribution
- If I do something for you, you will do something back to me

The first option ('an equal distribution') is a description of fairness and the second option ('if I do something for you, you will do something back to me') a description of reciprocity.

Hypothesis 4: employees link the acceptance of a wage reduction more to fairness than to reciprocity ($P_{\text{fairness}} > P_{\text{reciprocity}}$).

5. Results

5.1 The effect of setting a good example

To test whether the proportions differ significantly, I used the independent samples t-test. The t-test assumes normality of the data but can be used when $n > 100$ according to the rule of thumb. With the proportion, I mean the proportion of respondents that accepted the wage reduction of 5%. To run a test on proportions, I translated the data into zeros and ones (where 0 = reject; 1 = accept). The means of the test can be read as the proportion. Figure 4 shows the proportion, for each question, of respondents that accepted the wage reduction and Table 5 shows the p-values of the independent samples t-test test on all the sub hypotheses. The p-values are one-sided, because I did a one-sided test.

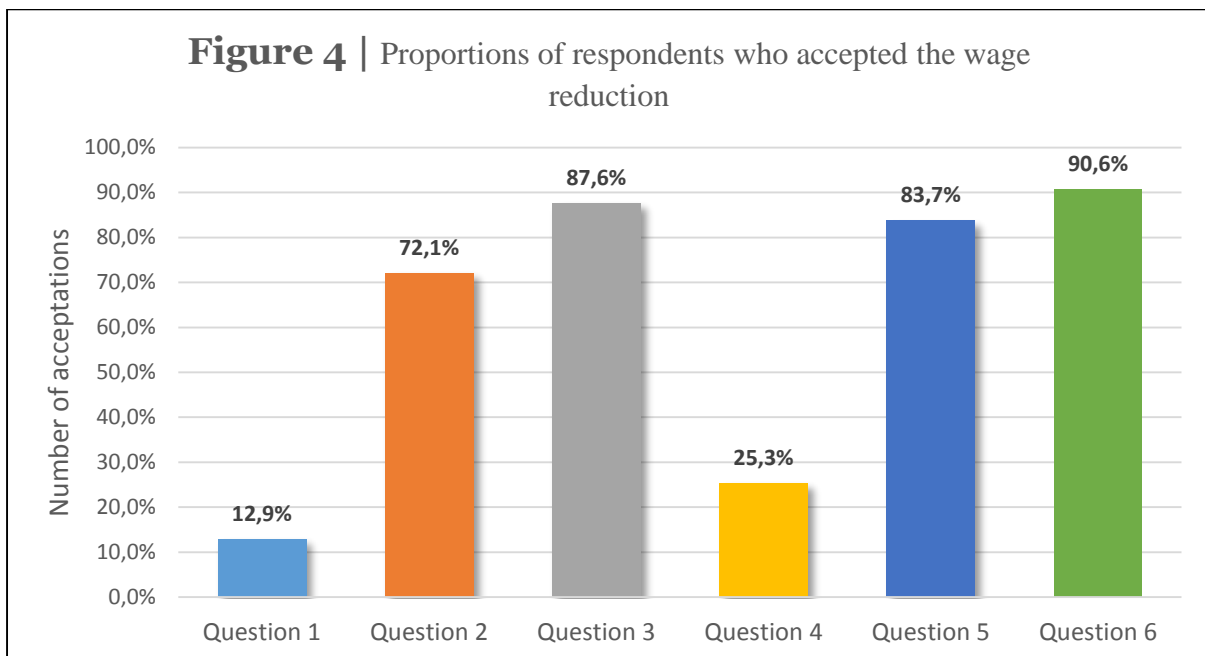


Table 5 | P-values hypotheses 1 and 2

Hypothesis	H_0	H_a	Difference in proportion	p-values (one-tailed)
1a	$P2 - P1 = 0$	$P2 - P1 > 0$.5922	.000
1b	$P3 - P1 = 0$	$P3 - P1 > 0$.7467	.000
1c	$P3 - P2 = 0$	$P3 - P2 > 0$.1545	.000
2a	$P5 - P4 = 0$	$P5 - P4 > 0$.5837	.000

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2b	$P6 - P4 = 0$	$P6 - P4 > 0$.6524	.000
2c	$P6 - P5 = 0$	$P6 - P5 > 0$.0687	.014

As shown in Table 5, the difference in proportions for all sub hypotheses of 1 and 2 are significant at a 0.025 confidence level. This means that there is a significant increase in employees that may accept a wage reduction if the management decides to apply a wage reduction to themselves too, independently of whether it is a reduction of 5% or 10%. The results hold for both case 1 and case 2. From these results we can argue that the management has an important exemplary role in the company. Their employees are more likely to accept a wage reduction if the management sets a good example. It could be that this also has to do with a sense of fairness where it is seen as more fair when the management sets a good example.

We can see from hypotheses 1c and 2c that relativity also plays a significant role. Significantly more employees accept a wage reduction if the management reduce their own wages by more in relative terms (10%) than that of the employees (5%). One argument for this is that the management bears more responsibility than employees.

5.2 Differences in framing

Hypothesis 3 tests the difference in framing between case 1 and case 2. Case 2 has the addition that the alternative for a wage reduction is a layoff. The probability of a layoff increases from 0% to 10% if the employee rejects the wage reduction.

Table 6 | P-values hypothesis 3

Hypothesis	H_0	H_a	Difference in proportion	p-values (one-tailed)
3a	$P4 - P1 = 0$	$P4 - P1 > 0$.1244	.001
3b	$P5 - P2 = 0$	$P5 - P2 > 0$.1159	.002
3c	$P6 - P3 = 0$	$P6 - P3 > 0$.0301	.150

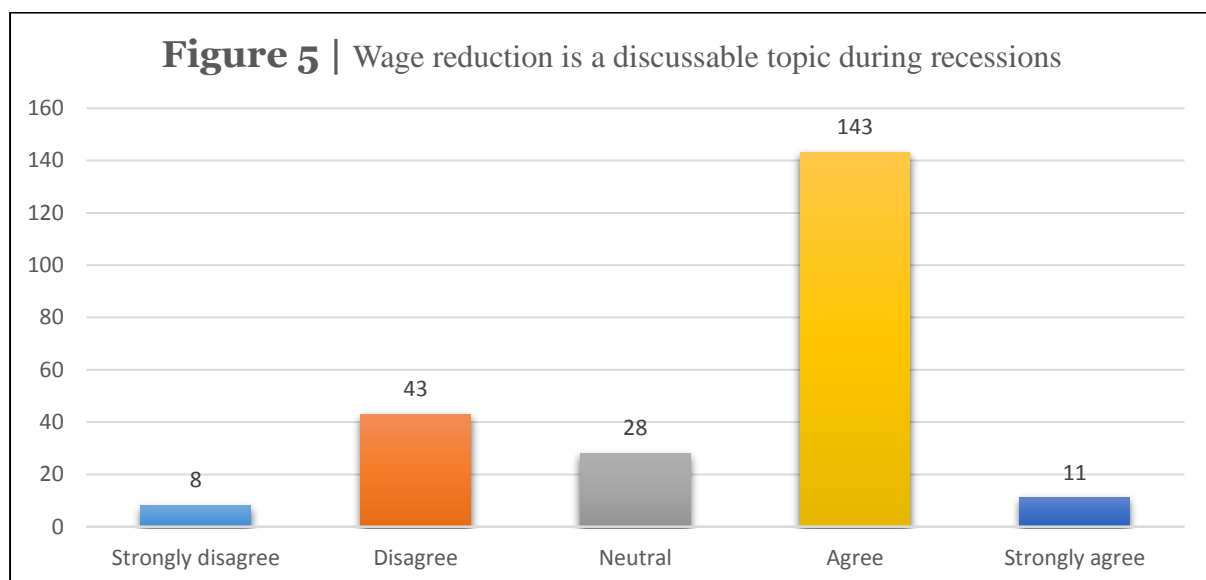
We can see from Table 6 that the difference between the proportions of hypotheses 3a and 3b are significant at a 0.025 confidence level. Hypothesis 3c is not significant ($p = .15$). Thus the difference in framing only has an effect if the management did not reduce their own wages or reduce their own wages by 5%.

5.3 Fairness versus reciprocity

Question 7 asks whether the respondents link the acceptance of a wage reduction to fairness or to reciprocity and is related to Hypothesis 4. I used a single sample t-test and found a significant effect, with fairness receiving a significant higher proportion than reciprocity ($p < .001$). This result is in line with the discussed literature about the importance of fairness in organizations (Bewley, 2004).

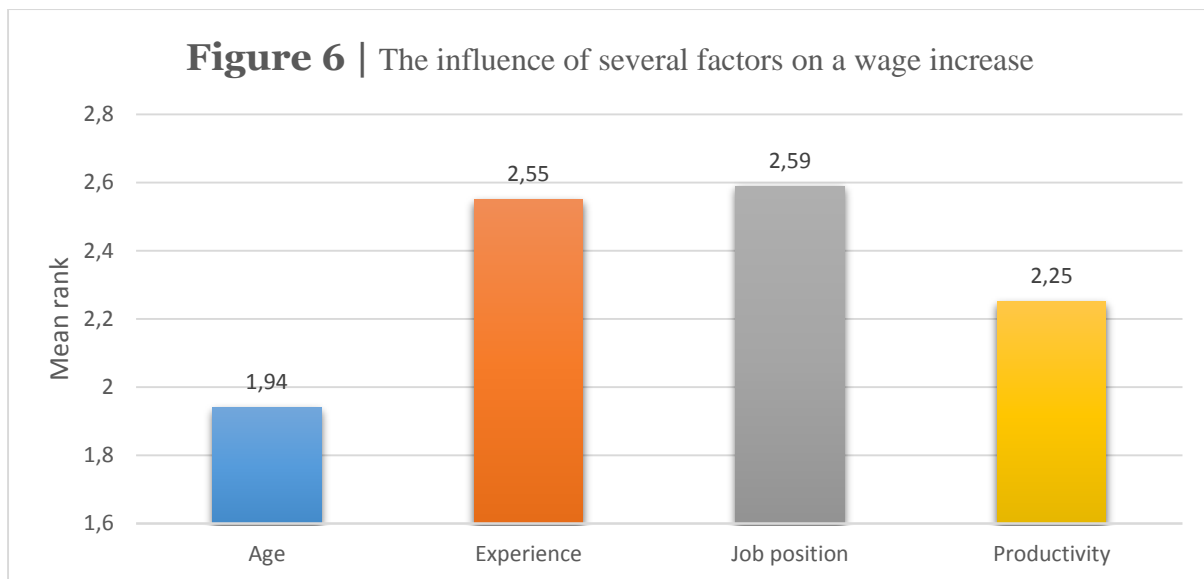
5.4 Discussable topic

The results of question 8 show how discussable a wage reduction is during recessions. We can see from Figure 5 that most respondents find a wage reduction a discussable topic in times of recession where two third (66%) agree or strongly agree with the statement. It is thus not strange if managers address the issue of a wage reduction among employees during an economic downturn.



5.5 The influence of factors on a wage increase

Figure 6 shows the believes of the employees about the expected influence of the factors age, experience, job position, and productivity on a wage increase of the employee. The mean ranks are measured on a scale from 1 (no influence) to 4 (large influence). Please note that the vertical axis starts at point 1,6 so we can better see the differences between the factors. The most influencing factors are the job position and the experience of the employee.



5.6 Productivity and atmosphere

5.6.1 Productivity

Empirical evidence shows that one of the reasons that managers do not reduce wages is the negative effect on morale and productivity (Bewley, 2004; Blinder & Choi, 1990; Campbell III & Kamlani, 1997). They all interviewed managers. I was interested in the answers of the employees on the expected effect of a wage reduction on their productivity. Table 7 shows results.

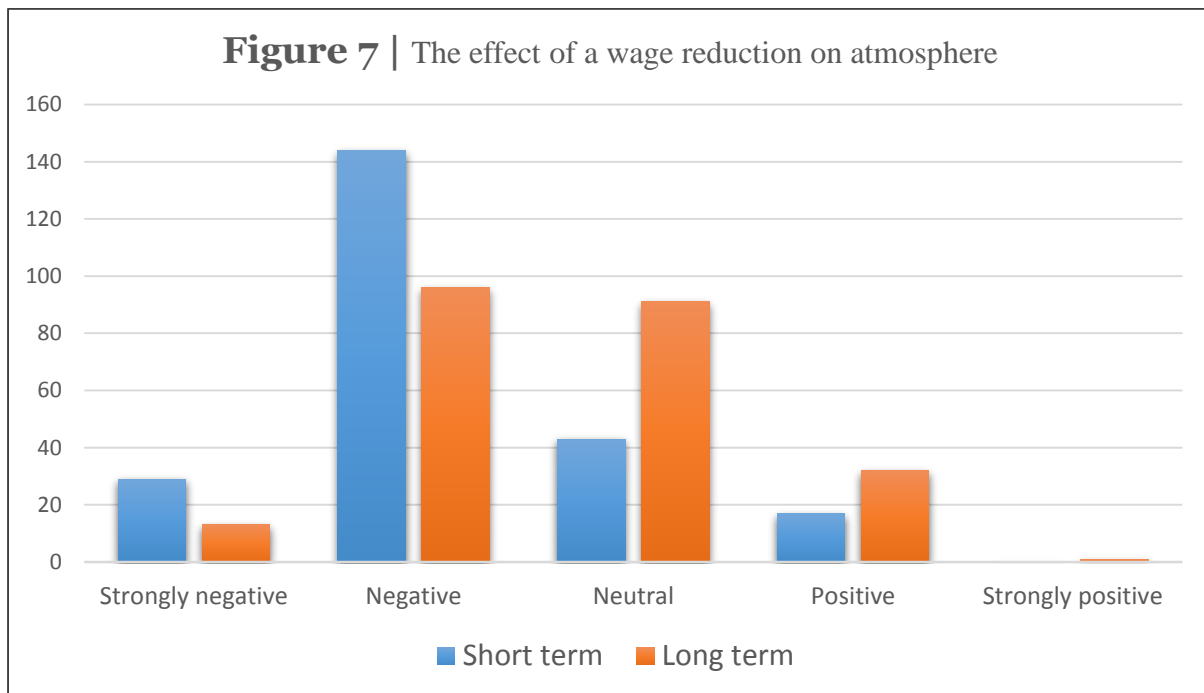
Table 7 | The effect of a wage reduction on productivity

Answer	Frequencies	Percentage
Strongly negative	4	1,7%
Negative	45	19,3%
Neutral	177	76%
Positive	7	3%
Strongly positive	0	0%

Most respondents (76%) state that a wage reduction will have no effect on their productivity. Less than 25% expected that a wage reduction has a negative or strongly negative effect on their productivity. However, one sampled t-test shows that the expected effect of a wage reduction on productivity is significant negative with mean = $-.20$, and $p = ,000$, where the effect is measured on a scale from -2 (strongly negative) to 2 (strongly positive) (Appendix 4.2.1).

5.6.2 Atmosphere

Bewley (Bewley, 2004) found that managers prefer layoffs because of the short-term damage to morale. The workers that leave the firm cannot damage the morale anymore. Data from my survey shows how Dutch employees believe a wage reduction would affect the atmosphere in the workplace (Figure 7). We can see that there is a shift to a more neutral effect in the long run. Some respondents state that a wage reduction will have a positive effect on the atmosphere. It could be that during hard times there is more teamwork and a feeling of ‘we have to do it all together’.



I ran one sample t-test to test whether the expected effect of a wage reduction has a negative impact on the atmosphere at the workplace. This test showed that a wage reduction causes a significant negative effect on the atmosphere, both in the short term and in the long term, with p-values ,000 (Appendix 4.2.2).

Table 8 provides information from the independent samples t-test on the comparison of the short term and long term effect where it is measured on a five points scale (-2, -1, 0, 1, 2), with -2 meaning strongly negative and 2 meaning strongly positive. We can see from the table that 109 respondents have a higher score for the long term than for the short term. Thirty two (32) have a higher score for the short term, and 92 respondents have the same score for both terms. Results of the test conclude that there is a statistically less negative effect of a wage reduction on the atmosphere in the long run with $p = ,000$ (Appendix 4.2.3).

Table 8 | The effect of a wage reduction on the atmosphere in the short and long term

Descriptives	Term	Mean
	Short term	-,79
	Long terms	-,38
Ranks*	Long term – short term	N
	Negative ranks	32
	Positive ranks	109
	Ties	92
Test statistics	Asymp. Sig. (1-tailed)	,000

* The ranks are performed with a Wilcoxon Signed Ranks Test

5.7 Productivity versus gross income

Questions 16 and 17 of the survey revealed which of the graphs best fitted the productivity and income curve of the respondent. The results are shown in the cross table below.

Cross table	Question 17				Total
	1	2	3	4	
1	5	4	6	2	17
2	1	28	13	5	47
Question 16 3	5	39	33	8	85
4	4	45	23	12	84
Total	15	116	75	27	233

It is interesting that only 27 of the respondents choose graph 4 in question 17. Thus only a small percentage (11,65%) of the employees believe, or actually experienced, that their gross income (will) decrease(d) after a certain point in their career. On the other hand, there is an even smaller number of respondents (15) who believe, or actually experience, their gross income increased linearly until the end of their career. The other 191 (116 + 75) chose graph 2 and 3 which means that they believe that the increase in their income will stop at a certain point (graph 2) or there is a decreasing growth of income (graph 3).

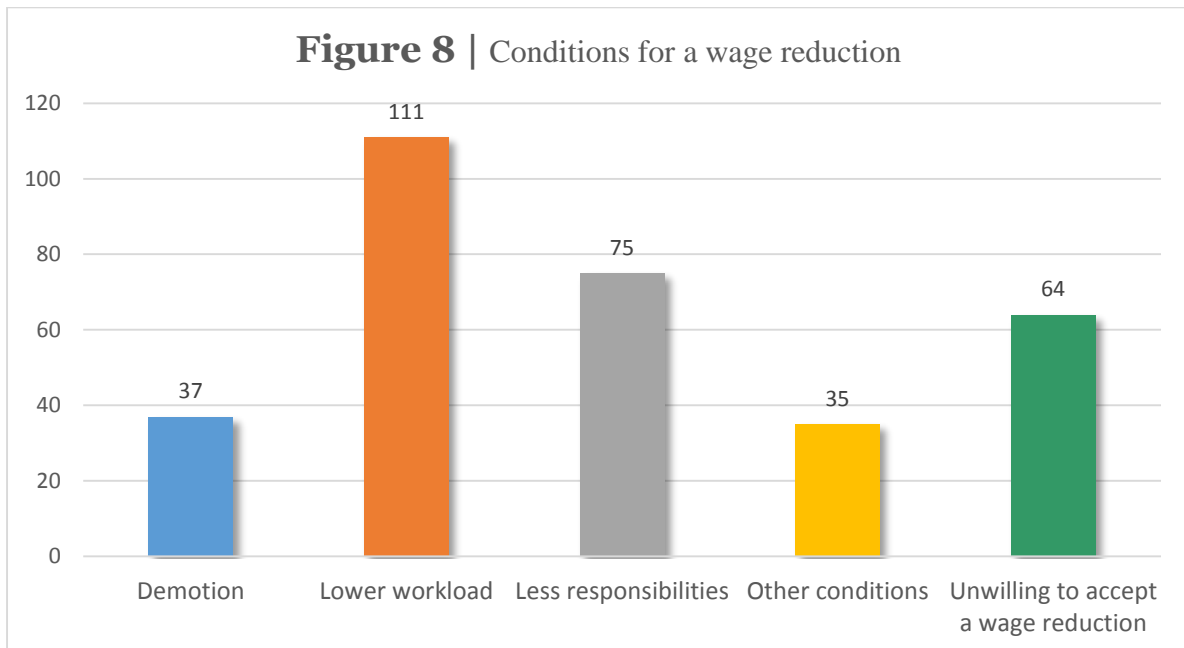
I was interested whether there was a clear relationship between productivity and gross income. I therefore expected that most respondents would choose the same graphs for both question 16

and 17. However, only 33% of the respondents actually chose the same graph with the other 66% choosing different graphs. We can relate this to the results in section 5.5 where we see that job position and experience have more influence on a wage increase than productivity. It is therefore not surprising that we see no clear relationship between productivity and gross income during the entire career.

5.8 Conditions for a pay cut

Many of the older unemployed people face problems with finding a new job. Firms prefer to employ younger people as they cost less. Can we keep the older employees at work? I asked respondents under which conditions they would accept a wage reduction when they reached 50 years of age (Figure 8).

The most popular conditions are a ‘lower workload’ and ‘less responsibilities’. Older employees are definitely interested in a lower wage under certain conditions. Respondents could indicate alternative conditions in the category ‘other conditions’. Of these 35 alternatives, 19 were related to less work and more leisure.



5.9 Donations

Finally, the results of the donations are represented in the table below.

Table 9 Donations		
Charity	Frequency	Euro
Artsen zonder Grenzen	16	€32,-
Woord & Daad	89	€178,-
MAF (Mission Aviation Fellowship)	128	€256,-
Total	233	€466,-

6. Interpretation

In this section I will give an overview of the interpretations of the this research.

Results indicated that the exemplary role of the management has a significant effect on the employees' acceptance of a pay cut. The acceptance rate increases by almost 60% in both case 1 and case 2 if the management first applied a wage reduction of 5% to themselves. The acceptance rate also increases significantly if the management contributes relatively more (10%), than their employees (5%), towards the cost cutting measures.

Hypothesis 3 examined whether a difference in framing the question increased the number of respondents who accepted the wage reduction. Case 2 put more pressure on the employee as I added a possibility of layoff (with probability 10%) as the alternative of a wage reduction. The difference in framing only has a significant effect when the management did not reduce their own wages or only reduced their own wages by 5%. The effect is not significant in the case of a wage reduction of 10%. This may be due to the saturation of the acceptance rates (87,55% and 90,56% respectively case 1 and case 2).

Furthermore, we can conclude from Hypothesis 4 that a significant majority (78%) linked the acceptance of a wage reduction to the social preference of fairness and thus a significant minority to reciprocity (hypothesis 4). This is in line with the literature discussing the importance of fairness in organizations (Bewley, 2004). I chose fairness and reciprocity because the other social preferences such as altruism and inequity aversion are not discussed in literature.

In addition to the hypotheses, I derived some other interesting findings from the survey.

I found support for the empirical evidence of the negative effect on productivity (Bewley, 2004; Campbell & Kamlani, 1997; Blinder & Choi, 1990). However, more than three-quarters of the respondents stated that a wage reduction would not affect their productivity. The expected effect on the working atmosphere is on average negative in the short run and shifts to more neutral in the long run. However, the average working atmosphere, in the long run, is still negative. This corresponds to the empirical evidence of Bewley (2004) who found that managers prefer layoffs because of the long term damage to morale when wage reductions are applied.

In the media we only hear about the strong resistance to wage cuts (also mentioned in the introduction). However, two thirds of the respondents to my survey stated that they agree or strongly agree with the statement that wage reductions are a discussable topic during recessions. This conflicts with results that we see in the media which may be because the media focuses its attention mainly on negative news, or only the negative news comes out. It could be that there are many examples of successful pay cuts (like the one in Appendix 5), but where we hear nothing about these. Management might be concerned with the vision created by the media, but my results show that managers not need to be too concerned about pay cuts in their company.

There are several factors influencing a wage increase. The most important factors are job position and experience. A new job position is usually accompanied by promotion, and promotion is again accompanied by a higher wage. Experience is the other factor that plays the second most important role in a wage increase. The remaining factors were productivity and age. We have to keep in mind that these factors may be related to each other. For example, you get more experienced or become more productive if you get older, and the more experience or the higher your productivity, the greater the chance of a promotion.

The expected impact of a wage reduction on the productivity of the employee and the atmosphere at the workplace for both the short and the long term are significantly negative. The expected effect on atmosphere is less negative in the long term than in the short term. My results are in line with the literature about the negative effect of pay cuts on productivity and morale (Bewley, 2004; Blinder & Choi, 1990; Campbell III & Kamlani, 1997). It is therefore not unexpected that these effects deter managers from implementing wage reductions in their companies.

Furthermore, I did not find a clear relationship between the graph of productivity and gross income during the entire career of an employee. This could be due to the other results showing that productivity is not the most influential factor in the wage structure. Job position and experience play a more important role.

Finally, older employees are willing to accept a lower wage in exchange for other employment considerations. A 'lower workload' and 'less responsibilities' are the most popular conditions. This may correspond with a physical decline or the desire to slow down and spend more time on leisure or with family.

7. Discussion

Although this research is carefully prepared, I am still aware of unavoidable limitations.

This is a normative study that is limited to the behavioral effects on the acceptance of wage reductions. It does not address the legal challenges and difficulties which might come with wage reductions or with other labor laws. The employment contract can only be changed if both employer and employee agree to the proposed changes. I therefore asked respondents if they were willing to accept a wage reduction. Both parties could come to an agreement if the employee voluntarily accepted the reduction.

It is difficult to reveal the exact preferences of the respondents in a survey. This can give a distorted view of the results. Respondents may behave differently if their employer actually asked them to accept a wage reduction. However, respondents had no reason to respond differently since there are no correct or incorrect answers and the survey is anonymous. Additionally, I gave them an incentive to complete the survey.

The sample did not fully reflect the survey population. I discussed the differences between the sample and population in Chapter 4.

Firstly, religion could play a role. All respondents are religious and mainly belong to the Reformed Church. There is no reason to expect that religion would have a significant effect on the survey, since there is no statistical and empirical evidence that the labor morale of members of the Reformed Church differs considerably from other religious and non-religious groups. I believe any effects would be negligible.

The second point is the geographical distribution of the respondents in the Netherlands. Members of the Reformed Church mainly live in the Bible Belt. The Bible Belt covers 5 of the 12 provinces from the south west to the east of the Netherlands. There are both rural and urban areas and there are both small and large cities located in the belt. In spite of the geographical distribution, the sample still includes all sectors of the labor market. This geographical concentration, does not, therefore ignored any sectors of the targeted market. However, it could be that within the sample only the people from cities, specific sectors, or certain provinces responded to the survey. However, it is difficult to avoid these problems and it may also occur with other and larger geographical distributions. I do not have the data to check whether these

problems actually happened or not. It may therefore have an effect on the generalizations drawn on this point.

The possible limitations of religion and geographical distribution could be overcome in future research by selecting a broader sample including Non-Christians and reflecting the whole country. It would also be of interest to select a sample with only Non-Christians and compare those results with the results of this study to see if there are differences between members of the Reformed Church and Non-Christians.

8. Conclusion

Conclusion

Literature on wage reductions started in the 1970s during the economic recession accompanied by high unemployment. Today, we face a financial world crisis with similar high unemployment rates, government deficits, and stagnation in demand. It is not just a financial crisis, but also a crisis in confidence. Less confidence ensures that banks give less credit, companies are reluctant to invest, and consumers delay purchases and wait for better times. A lack of confidence affects the quality of relationships. Trust is hard to gain but easy to lose. Thus, it will take a long time to come out of this crisis of confidence.

Firms facing lower demand have to cut their costs to keep their heads above water. One way to make substantial savings is to cut labor costs by laying off workers or reducing wages. In this study I examined the last option. The aim was to answer the following research question:

Can we use fairness to increase the acceptability of voluntary wage reductions?

An economic survey was performed among 233 employees to get insights into their opinion on wage reductions. The aim was achieved by examination of four hypotheses. The first two test the effect of the exemplary role of the management. The third hypothesis examined the effect of a difference in the framing of the requested wage reduction. The last looks at which social preference plays the main role when accepting a wage reduction.

I found that the exemplary role of managers has a significant effect on the acceptance of wage reductions. Employees will be more likely to follow the management of the company if the managers set a good example. Managers can further increase the acceptance rate by framing the wage reduction and setting alternatives. Furthermore, the importance of fairness in the procedure of pay cuts is consistent with the existing empirical research. Also consistent with literature are the findings of the expected negative of wage reductions on productivity and morale at the side of the employees. The last interesting finding is the willingness of older employees to accept a wage reduction in exchange for changes in other conditions such as a lower workload and fewer responsibilities.

Implications

This study has several contributions to practice. Firstly, it shows the importance of the exemplary role of the management within organizations. Managers must lead by example in

both good and bad times. They have to keep this in mind when considering ways to cut costs. A wage reduction is seen as more fair when the management first reduce their wages. This seems very logical, but we see in practice that the directors and board members retain their high earnings and bonuses. This creates a feeling of unfairness among the employees and therefore employees are less willing to accept a pay cut. The framing of the wage reduction can further increase the acceptance rate. They can increase the pressure, to accept a wage cut, by adding the alternative or consequence if the employee does not accept the reduction. In short, managers must choose a fair procedure and be as transparent as possible while explaining the consequences and alternatives. Furthermore, the negative impact of a wage reduction, on morale and productivity, must be taken into account by management.

The other interesting implication is the willingness of older employees to accept a lower wage, even during economic booms. Nowadays, older people are the most expensive employees and have difficulty in finding alternative employment. Firms prefer to employ cheaper, younger employees. However, older employees are still of value because they are more experienced. Firms can retain these older workers in exchange for alternative employment conditions such as a lower workload and less responsibility. This may also be an interesting topic for future research.

Further research

There are some interesting directions for future research that emerged from this study.

Follow up studies could focus more on the shortening of working hours in relation to wage reductions. Firms face a lower demand during a recession and therefore need fewer labor hours. It is therefore logical to ask for a wage reduction in exchange for less labor hours. One of the respondents sent me an e-mail about reorganization in his business in 2013. Due to the economic crises, the management asked their employees to accept a wage reduction of 10% in exchange for a 10% less labor hours (Appendix 5.1). An overwhelming majority (97%) of the employees were willing to participate in the scheme (Appendix 5.2). About one third of the Dutch employees are ready to lose money to save their jobs and the jobs of colleagues. Of the other two-thirds, 25% are willing to sacrifice holidays (Boogaard & Vogels, 2013). These are interesting topics for future research.

Another suggestion for future research is the ratio between the highest earning and lowest earning within a company. The RMU recommends that the highest earning is not more than 8

to 10 times the lowest earning (Anonymous, 2013). Such a standardization should ensure a better wage ratio within companies and prevent future discrepancies in wage structures.

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Appendices

Appendix 1 – Survey

1.1 Dutch version

Vragenlijst betreffende loonsveranderingen

Beste respondent ,

Mijn naam is Cristian Plomp, masterstudent Economie & Bedrijfseconomie aan de Erasmus Universiteit Rotterdam. Deze enquête is onderdeel van mijn scriptie en is bedoeld om inzicht te krijgen in uw mening over loonsveranderingen.

De enquête is volledig anoniem en kost ongeveer 7 minuten van uw tijd. Er zijn geen goede of fout e antwoorden. Uw antwoorden zullen vertrouwelijk worden behandeld en niet worden gebruikt voor andere doeleinden dan dit onderzoek.

Voor elke volledig ingevulde enquête zal ik 2 euro doneren aan een goed doel. In de laatste vraag kunt u aangeven welk goed doel uw voorkeur heeft .

Let op! Het sterretje achter elke vraag geeft aan dat antwoorden verplicht is.

De enquête werkt in ieder geval in de browsers van Mozilla Firefox en Internet Explorer. Voor vragen, opmerkingen of problemen bij het invullen van de enquête kunt u mailen naar cristanplomp@hotmail.com.

Alvast bedankt voor uw medewerking!

BIJ DE VRAGEN 1 T/M 3 HOORT DE VOLGENDE CASUS.

Casus

Stel dat het bedrijf waar u werkt in zwaar weer verkeert door de economische crisis. Om de continuïteit van het bedrijf te waarborgen is de directie genoodzaakt om op de korte termijn in de loonkosten te snijden. De directie besluit u, en alle andere werknemers, te vragen of u bereid bent structureel 5% van uw brutoloon in te leveren. Dit betekent dat uw brutoloon per direct met 5% afneemt.

Vraag 1

Stel dat de directie bij zichzelf geen loonsverlaging toepast .

Zou u bereid zijn 5% van uw brutoloon in te leveren?*

- Ja
- Nee

Vraag 2

Stel dat de directie bij zichzelf een loonsverlaging van 5% toepast. Daarna vraagt zij u om een loonsverlaging te accepteren.

Zou u bereid zijn 5% van uw brutoloon in te leveren?*

- Ja
- Nee

Vraag 3

Stel dat de directie bij zichzelf een loonsverlaging van 10% toepast. Daarna vraagt zij u om een loonsverlaging te accepteren.

Zou u bereid zijn 5% van uw brutoloon in te leveren?*

- Ja
- Nee

BIJ DE VRAGEN 4 T/M 6 HOORT DE VOLGENDE CASUS.

Casus

Stel dat het bedrijf waar u werkt in zwaar weer verkeert door de economische crisis. De directie is genooddaakt om op de korte termijn in de loonkosten te snijden en kan kiezen uit twee opties: loonsverlagingen of ontslagen. De directie besluit u, en alle andere werknemers, te vragen of u bereid bent structureel 5% van uw brutoloon in te leveren. Dit betekent dat uw brutoloon per direct met 5% afneemt. Als u niet bereid bent om 5% van uw brutoloon in te leveren neemt uw kans op ontslag toe van 0% naar 10%.

Vraag 4

Stel dat de directie bij zichzelf geen loonsverlaging toepast.

Zou u bereid zijn 5% van uw brutoloon in te leveren?*

- Ja
- Nee

Vraag 5

Stel dat de directie bij zichzelf een loonsverlaging van 5% toepast. Daarna vraagt zij u om een loonsverlaging te accepteren.

Zou u bereid zijn 5% van uw brutoloon in te leveren?*

- Ja
- Nee

Vraag 6

Stel dat de directie bij zichzelf een loonsverlaging van 10% toepast. Daarna vraagt zij u om een loonsverlaging te accepteren.

Zou u bereid zijn 5% van uw brutoloon in te leveren?*

- Ja
- Nee

Vraag 7

Het accepteren van een loonsverlaging heeft voor mij het meest te maken met een gevoel van...*

- Een gelijke verdeling
- Als ik wat doe voor jou, doe jij wat terug voor mij

GA ER BIJ VRAAG 8 VAN UIT DAT ER SPRAKE IS VAN EEN ECONOMISCH ZWARE TIJD.

Geef aan in hoeverre u het eens bent met de volgende stelling.

Vraag 8

Loonsverlaging is voor mij een bespreekbaar onderwerp in economisch zware tijden.*

- Sterk mee oneens
- Mee oneens
- Neutraal
- Mee eens
- Sterk mee eens

GA ER BIJ DE VRAGEN 9 T/M 11 VAN UIT DAT ER SPRAKE IS VAN EEN ECONOMISCH ZWARE TIJD.

Geef bij de volgende stellingen aan wat er volgens u moet worden ingevuld op de stippellijn.

Vraag 9

Een door de directie gevraagde loonsverlaging heeft een op mijn arbeidsproductiviteit .*

- Sterk negatieve invloed
- Negatieve invloed
- Geen invloed
- Positieve invloed
- Sterk positieve invloed

Vraag 10

Een door de directie gevraagde loonsverlaging heeft op de kort de termijn een op de sfeer binnen het bedrijf.*

- Sterk negatieve invloed
- Negatieve invloed
- Geen invloed
- Positieve invloed
- Sterk positieve invloed

Vraag 11

Een door de directie gevraagde loonsverlaging heeft op de lange termijn een op de sfeer binnen het bedrijf.*

- Sterk negatieve invloed
- Negatieve invloed
- Geen invloed
- Positieve invloed
- Sterk positieve invloed

DE VRAGEN 12 T/M 15 GAAN OVER EEN LOONSVERHOOGING. GA BIJ DE VRAGEN 12 T/M 15 UIT VAN UW HUIDIGE SITUATIE.

Hierna volgen enkele factoren die van invloed kunnen zijn op een loonstijging in uw huidige situatie. Geef aan hoe groot de invloed van elke factor is.

Vraag 12

Leeftijd*

- Geen invloed
- Weinig invloed
- Redelijke invloed
- Grote invloed

Vraag 13

Ervaring*

- Geen invloed

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- Weinig invloed
- Redelijke invloed
- Grote invloed

Vraag 14

Functie*

- Geen invloed
- Weinig invloed
- Redelijke invloed
- Grote invloed

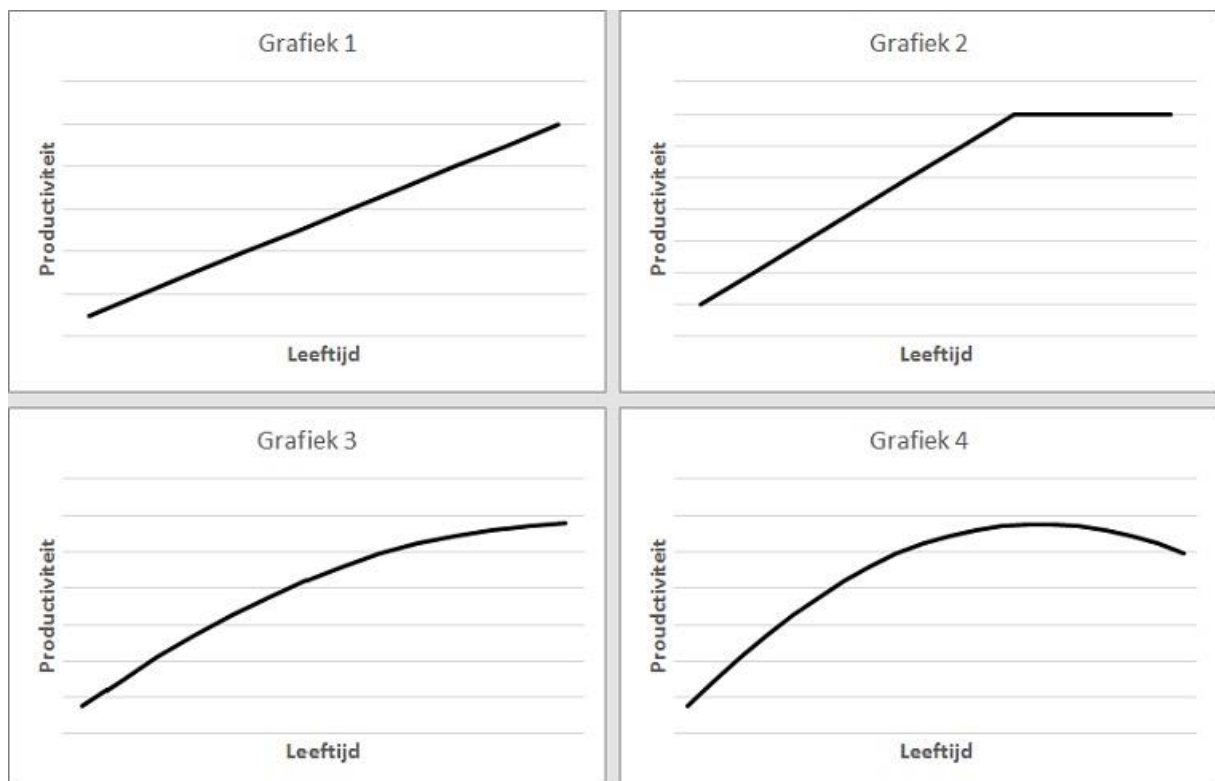
Vraag 15

Arbeidsproductiviteit *

- Geen invloed
- Weinig invloed
- Redelijke invloed
- Grote invloed

DE VRAGEN 16 T/M 18 ZIJN VAN ALGEMENE AARD EN GAAN OVER DE ARBEIDSPRODUCTIVITEIT EN HET BRUTOLOON OVER UW GEHELE ARBEIDSLOOPBAAN.

In de onderstaande grafieken wordt de productiviteit van een werknemer weergegeven over zijn gehele arbeidsloopbaan. Bekijk de grafieken en beantwoord daarna vraag 16.



Vraag 16

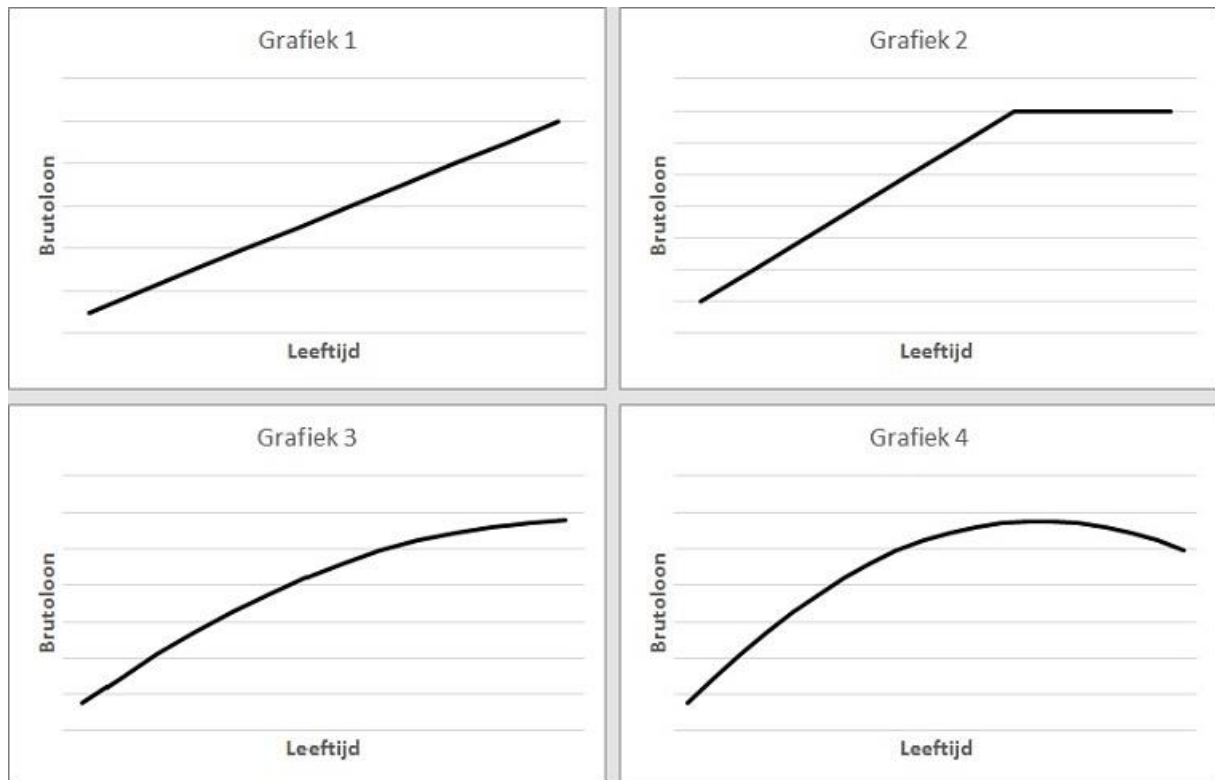
Welke van de bovenstaande grafieken geeft volgens u het beste uw (verwachte) arbeidsproductiviteit

The Effect of Fairness and the Exemplary Role of Managers on Wage Reductions

weer over uw gehele arbeidsloopbaan?*

- Grafiek 1
- Grafiek 2
- Grafiek 3
- Grafiek 4

In de onderstaande grafieken wordt het brutoloon van een werknemer weergegeven tijdens zijn arbeidsloopbaan. Bekijk de grafieken en beantwoord daarna vraag 17.



Vraag 17

Welke van de bovenstaande grafieken geeft volgens u het best e uw (verwachte) brutoloon weer over uw gehele arbeidsloopbaan?*

- Grafiek 1
- Grafiek 2
- Grafiek 3
- Grafiek 4

Vraag 18

Stel dat u de 50 bent gepasseerd (of u bent reeds ouder dan 50). Tegen welke voorwaarde(n) bent u bereid een loonsverlaging te accepteren?

Let op: er zijn meerdere antwoorden mogelijk.

- Demotie: lagere functie
- Lagere werkdruk
- Minder verantwoordelijkheden
- Anders, namelijk:
- Ik ben niet bereid om loon in te leveren tegen bovenstaande voorwaarden

TEN SLOTTE VOLGEN ER NOG ENKELE ALGEMENE VRAGEN. GA UIT VAN UW HUIDIGE SITUAT IE.

Vraag 19

Ik ben een...*

- Werknemer
- Werkgever

Vraag 20

Wat is uw leeftijd?*

- < 20 jaar
- 20-35 jaar
- 36-50 jaar
- 51-65 jaar
- > 65 jaar

Vraag 21

Wat is uw geslacht?*

- Man
- Vrouw

Vraag 22

Binnen welke inkomenscategorie valt uw brutoloon?*

- Minder dan €20.000
- €20.000 - €40.000
- €40.000 - €60.000
- €60.000 - €80.000
- €80.000 - €100.000
- Meer dan €100.000

Vraag 23

Hoeveel werknemers telt het bedrijf waar u werkt?*

- < 10
- 11 – 50
- 51- 250
- > 250

Vraag 24

Hoe is uw huidige relatie met de directie in het bedrijf waar u werkt?*

- Slecht
- Matig
- Neutraal
- Goed
- Zeer goed

Vraag 25

De sfeer binnen het bedrijf waar ik werk is het best te omschrijven als...*

- Formeel
- Collegiaal/sociaal
- Ieder voor zich

Vraag 26

Voor elke volledig ingevulde enquête doneer ik €2,- aan een goed doel. Dit gaat naar de organisatie van uw voorkeur. Welke organisatie heeft uw voorkeur?*

- Artsen zonder Grenzen: verleent medische noodhulp in crisisgebieden.
- Woord & Daad: verbindt vanuit Bijbels perspectief mensen over de hele wereld in hun strijd tegen armoede.
- MAF (Mission Aviation Fellowship): door middel van vliegtuigen en communicatiemiddelen maakt MAF mensen in afgelegen gebieden bereikbaar voor hulp en het Evangelie.

Hartelijk dank voor het invullen van de enquête!

1.2 English version

Survey on wage changes

Dear respondent,

I am Cristian Plomp, master student of Economics & Business Economics at the Erasmus University of Rotterdam. This survey is part of my master thesis and is intended to gain insight in your opinion about wage changes.

The survey will take about 7 minutes of your time and is completely anonymous. There are no right or wrong answers. The answers will be treated confidentially and will not be used for other purposes than this study.

For every survey that is filled in completely, I donate €2,- to charity. In the last question of the survey you can choose which charity you prefer.

Important! You will see an asterisk after each question. This means that it is compulsory to answer the question.

You can run the survey in the browsers of Internet Explorer and Mozilla Firefox. For questions, comments or problems with completing the survey you can e-mail to cristianplomp@hotmail.com.

Thank you for your co-operation!

QUESTIONS 1 TO 3 BELONG TO THE FOLLOWING CASE.

Case 1

Suppose the company you work for finds itself in economically heavy weather. The management needs to reduce the costs of employing people to ensure the continuity of the company. Therefore, the management asks you and all the other employees to voluntarily accept a structural wage reduction of 5%. This means that your gross earnings will decrease immediately by 5%.

Question 1

Suppose that the management did not reduce their wages.

Would you voluntarily accept a wage reduction of 5%?

- Yes
- No

Question 2

Suppose the management firstly apply a wage reduction of 5% to themselves.

Would you voluntarily accept a wage reduction of 5%?

- Yes
- No

Question 3

Suppose the management firstly apply a wage reduction of 10% to themselves.

Would you voluntarily accept a wage reduction of 5%?

- Yes
- No

QUESTIONS 4 TO 6 BELONG TO THE FOLLOWING CASE.

Case 2

The Effect of Fairness and the Exemplary Role of Managers on Wage Reductions

Suppose the company you work for finds itself in economically heavy weather. The management needs to reduce the costs of employing people to ensure the continuity of the company. They can choose from two options: wage reductions or layoffs. In the end, they ask you and all the other employees to voluntarily accept a structural wage reduction of 5%. This means that your gross earnings will decrease immediately by 5%. The probability of layoff increases from 0% to 10% if you are not willing to accept the wage reduction.

Question 4

Suppose that the management did not reduce their wages.

Would you voluntarily accept a wage reduction of 5%?

- Yes
- No

Question 5

Suppose the management firstly apply a wage reduction of 5% to themselves.

Would you voluntarily accept a wage reduction of 5%?

- Yes
- No

Question 6

Suppose the management firstly apply a wage reduction of 10% to themselves.

Would you voluntarily accept a wage reduction of 5%?

- Yes
- No

Question 7

The acceptance of a wage reduction has most to do with a sense of ...

- An equal distribution
- If I do something for you, you will do something back to me

ASSUME FOR THE FOLLOWING QUESTION THAT THE ECONOMY IS IN A RECESSION.

Please indicate to what extent you agree with the following statement.

Question 8

For me, a wage reduction is a topic for discussion during recessions.*

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

ASSUME FOR THE QUESTIONS 9 TO 11 THAT THE ECONOMY IS IN A RECESSION.

Indicate for the following statements what would be entered on the dotted line.

Question 9

A wage reduction requested by the management has a on my productivity .*

- Strong negative influence
- Negative influence
- No influence
- Positive influence

The Effect of Fairness and the Exemplary Role of Managers on Wage Reductions

- Strong positive influence

Question 10

A wage reduction requested by the management has in the short term a on the atmosphere at the workplace .*

- Strong negative influence
- Negative influence
- No influence
- Positive influence
- Strong positive influence

Question 11

A wage reduction requested by the management has in the long term a on the atmosphere at the workplace .*

- Strong negative influence
- Negative influence
- No influence
- Positive influence
- Strong positive influence

QUESTIONS 12 TO 15 ARE ABOUT A WAGE INCREASE. ASSUME YOUR CURRENT SITUATION.

Here are some factors that may affect a wage increase in your current situation. Indicate the influence of each factor.

Question 12

Age*

- No influence
- Little influence
- Reasonable influence
- Strong influence

Question 13

Experience*

- No influence
- Little influence
- Reasonable influence
- Strong influence

Question 14

Job position*

- No influence
- Little influence
- Reasonable influence
- Strong influence

Vraag 15

Productivity *

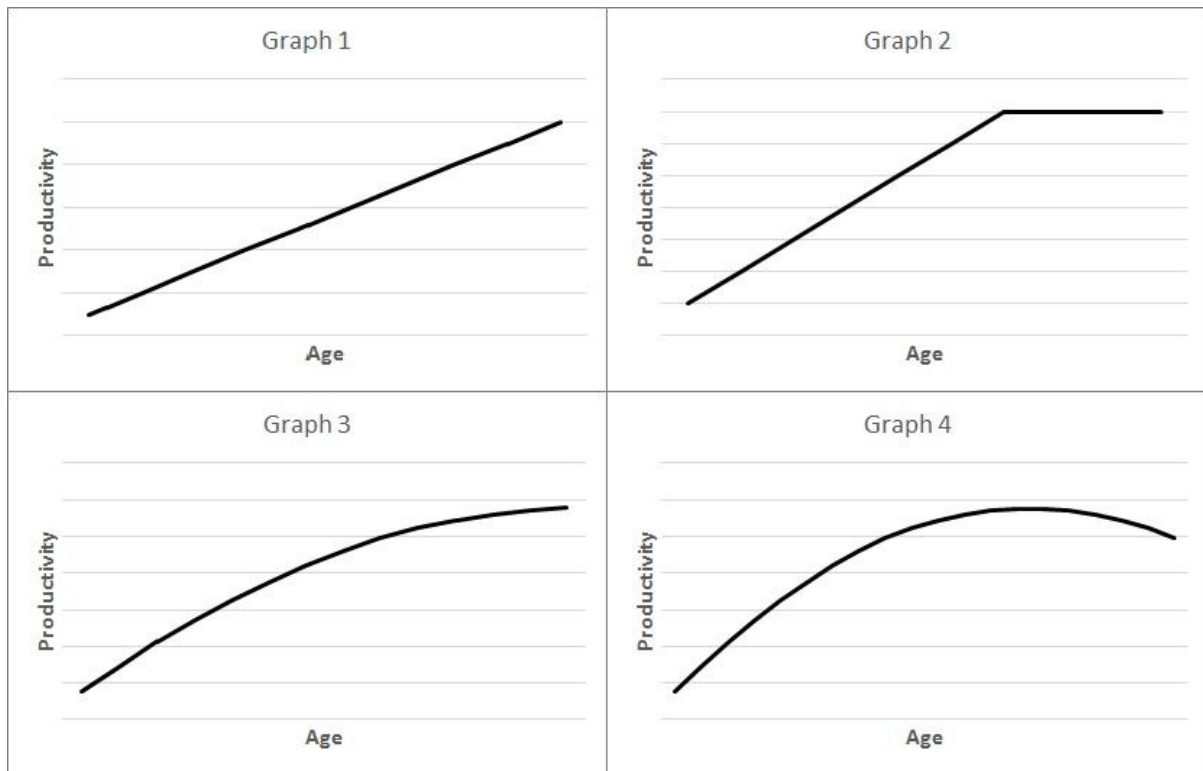
- No influence

The Effect of Fairness and the Exemplary Role of Managers on Wage Reductions

- Little influence
- Reasonable influence
- Strong influence

QUESTIONS 16 TO 18 ARE OF GENERAL NATURE AND ARE ABOUT PRODUCTIVITY AND GROSS INCOME IN YOUR CAREER.

In the graphs below show the productivity of an employee during his entire working career. Have a look at the graphs and then answer question 16.



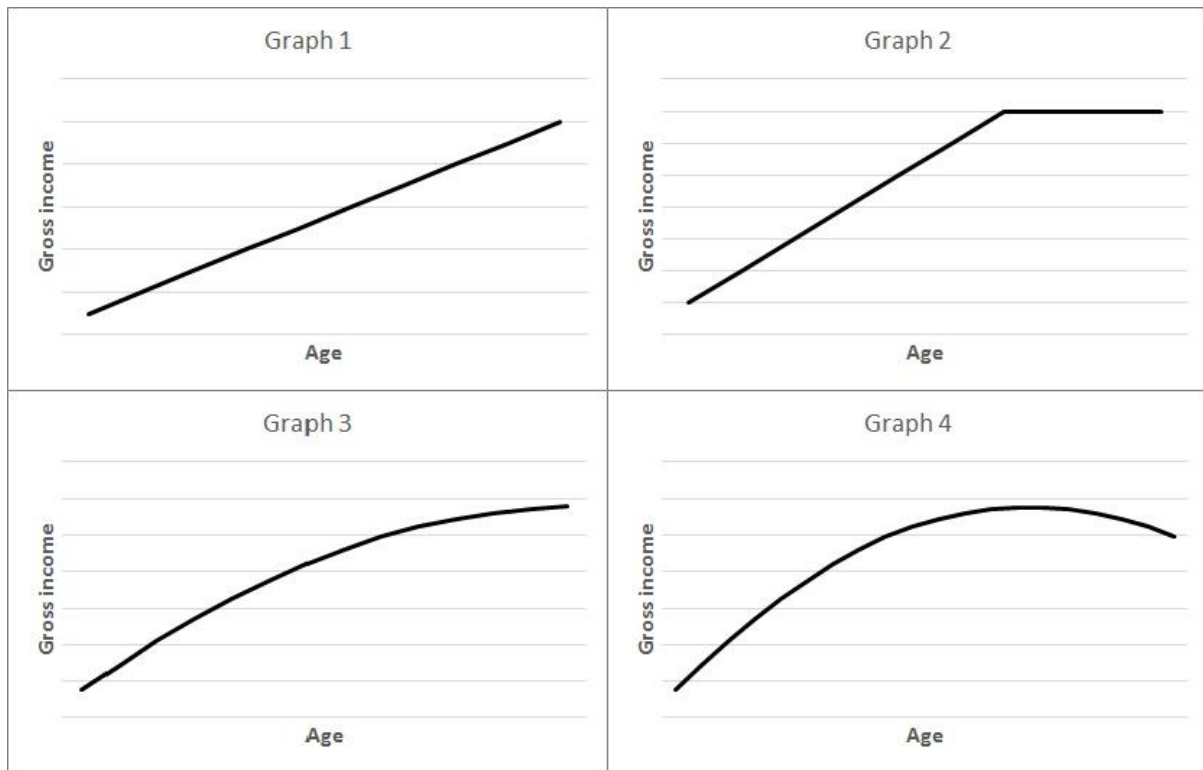
Question 16

Which of the graphs above best suits your (expected) productivity during your entire working career?*

- Graph 1
- Graph 2
- Graph 3
- Graph 4

In the graphs below show the gross income of an employee during his entire working career. Have a look at the graphs and then answer question 17.

The Effect of Fairness and the Exemplary Role of Managers on Wage Reductions



Question 17

Which of the graphs above best suits your (expected) gross income during your entire working career?*

- Graph 1
- Graph 2
- Graph 3
- Graph 4

Question 18

Suppose you are older than 50 (or you are already older than 50). At what condition(s) are you willing to accept a pay cut?

Please note that there are several possible answers.

- Demotion
- Lower workload
- Less responsibilities
- Otherwise, namely:
- I am not willing to accept a wage reduction against above mentioned conditions.

FINALLY, THERE FOLLOW SOME GENERAL QUESTIONS. ASSUME YOUR CURRENT SITUATION.

Question 19

I am a...*

- Employee
- Employer

Question 20

What is your age?*

- < 20 years
- 20-35 years

The Effect of Fairness and the Exemplary Role of Managers on Wage Reductions

- 36-50 years
- 51-65 years
- > 65 years

Question 21

What is your gender?*

- Male
- Female

Question 22

To which category belongs your yearly gross income?*

- Less than €20.000
- €20.000 - €40.000
- €40.000 - €60.000
- €60.000 - €80.000
- €80.000 - €100.000
- More than €100.000

Question 23

How many employees has the company you work for?*

- < 10
- 11 – 50
- 51- 250
- > 250

Question 24

How is your current relationship with the management in the company you work for?*

- Extremely unlikely
- Unlikely
- Neutral
- Likely
- Extremely likely

Question 25

The atmosphere within the company can be best described as...*

- Formal
- Collegiate/social
- Individually

Question 26

For every survey that is filled in completely, I donate €2,- to charity. This goes to the organization of your preference. Which of the following charities do you prefer?

- Artsen zonder Grenzen: provide emergency medical care in crisis areas.
- Woord & Daad: connects from a Biblical perspective people around the world in their fight against poverty.
- MAF (Mission Aviation Fellowship): Sharing the love of Jesus Christ through aviation and technology so that isolated people may be physically and spiritually transformed!

Thank you for completing the survey!

Appendix 2 – Cover mail and letter

2.1 Cover mail from RMU

Hierbij treft u aan een enquête van Cristian Plomp, student Erasmus Universiteit Rotterdam. De RMU is terughoudend in het op verzoek van derden versturen van enquêtes naar (een deel van) onze leden. Toch heeft de RMU gemeend hierin in dit geval te bewilligen aangezien het een voor de RMU commissie Arbeidsvoorwaardenbeleid interessant deel van een onderzoek is op het gebied van arbeidsvoorwaardenontwikkeling. Daarom beveel ik u van harte dit onderzoek aan, temeer de heer Plomp de bereidheid uitgesproken heeft, dat de uitslag van het onderzoek en zijn scriptie ter beschikking wordt gesteld van de RMU.

2.2 Cover letter

Best RMU-lid,

Mijn naam is Cristian Plomp, masterstudent Economie & Bedrijfseconomie aan de Erasmus Universiteit Rotterdam. Momenteel ben ik bezig met mijn scriptie betreffende loonsveranderingen. Onderdeel van deze scriptie is een enquête die bedoeld is om inzicht te krijgen in meningen van medewerkers over loonsveranderingen. Met instemming van de RMU verspreid ik deze onder leden van de RMU, aangezien bij deze organisatie veel werknemers zijn aangesloten die doelgroep zijn van de enquête. Ik verzoek u vriendelijk te helpen bij mijn onderzoek door de enquête uiterlijk 15 juni in te vullen via de volgende link:

<http://www.thesistools.com/web/?id=352701>

De resultaten van deze enquête zullen strikt vertrouwelijk worden behandeld en niet worden gebruikt voor andere doeleinden dan dit onderzoek.

Per volledig ingevulde enquête doneer ik € 2,- over naar een door u op te geven goed doel. In de laatste vraag van de enquête kunt u aangeven voor welk goed doel u kiest.

Hartelijk bedankt voor uw medewerking!

Cristian Plomp

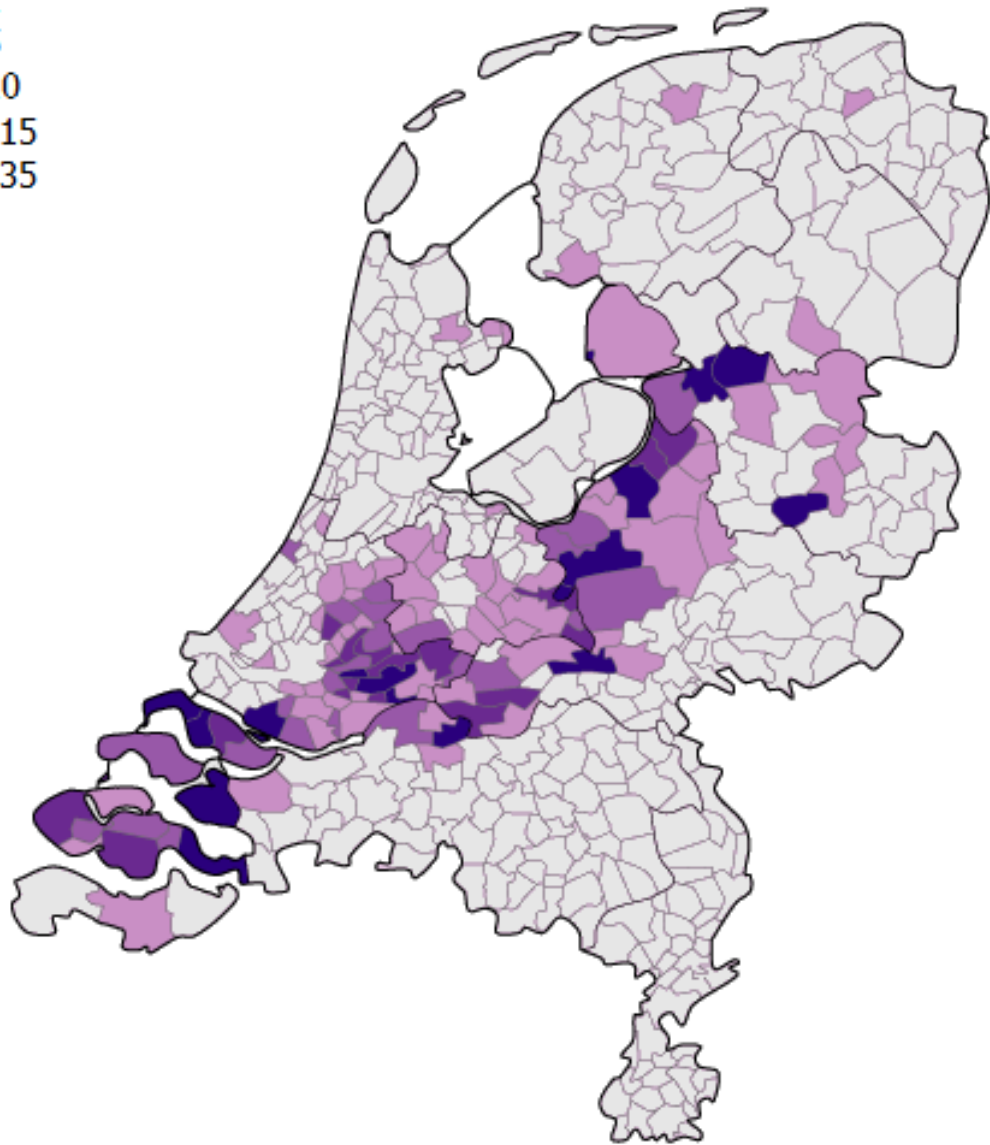
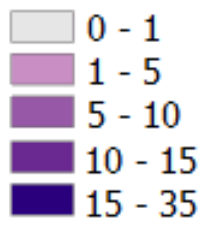
Tweede Moordrechtse Tiendeweg 22

2809 NC GOUDA

cristianplomp@hotmail.com

Appendix 3 – Bible Belt

Percentage van het aantal kiesgerechtigden



Appendix 4 – SPSS results

4.1 Hypotheses 1 to 4

Hypothesis 1a

Group Statistics

Question	N	Mean	Std. Deviation	Std. Error Mean
Proportion answer 'yes'	233	,1288	,33565	,02199
	233	,7210	,44946	,02944

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	72,620	,000	-16,117	464	,000	-,59227	,03675	-,66449	-,52006
Equal variances not assumed			-16,117	429,380	,000	-,59227	,03675	-,66451	-,52004

Hypothesis 1b

Group Statistics

Question	N	Mean	Std. Deviation	Std. Error Mean
Proportion answer 'yes'	233	,1288	,33565	,02199
	233	,8755	,33082	,02167

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	,077	,781	-24,188	464	,000	-,74678	,03087	-,80745	-,68611
Equal variances not assumed			-24,188	463,903	,000	-,74678	,03087	-,80745	-,68611

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Hypothesis 1c

Group Statistics					
	Question	N	Mean	Std. Deviation	Std. Error Mean
Proportion answer 'yes'	2	233	,7210	,44946	,02944
	3	233	,8755	,33082	,02167

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	78,232	,000	-4,226	464	,000	-,15451	,03656	-,22635	-,08266
Equal variances not assumed			-4,226	426,337	,000	-,15451	,03656	-,22637	-,08264

Hypothesis 2a

Group Statistics					
	Question	N	Mean	Std. Deviation	Std. Error Mean
Proportion answer 'yes'	4	233	,2532	,43579	,02855
	5	233	,8369	,37024	,02426

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	23,772	,000	-15,581	464	,000	-,58369	,03746	-,65731	-,51007
Equal variances not assumed			-15,581	452,195	,000	-,58369	,03746	-,65731	-,51007

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Hypothesis 2b

Group Statistics

	Question	N	Mean	Std. Deviation	Std. Error Mean
Proportion answer 'yes'	4	233	,2532	,43579	,02855
	6	233	,9056	,29304	,01920

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	97,326	,000	-18,962	464	,000	-,65236	,03440	-,71997	-,58475
Equal variances not assumed			-18,962	406,193	,000	-,65236	,03440	-,71999	-,58473

Hypothesis 2c

Group Statistics

	Question	N	Mean	Std. Deviation	Std. Error Mean
Proportion answer 'yes'	5	233	,8369	,37024	,02426
	6	233	,9056	,29304	,01920

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	20,404	,000	-2,220	464	,027	-,06867	,03093	-,12946	-,00788
Equal variances not assumed			-2,220	440,751	,027	-,06867	,03093	-,12947	-,00787

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Hypothesis 3a

Group Statistics

	Question	N	Mean	Std. Deviation	Std. Error Mean
Proportion answer 'yes'	1	233	,1288	,33565	,02199
	4	233	,2532	,43579	,02855

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	50,885	,000	-3,454	464	,001	-,12446	,03604	-,19528	-,05365
Equal variances not assumed			-3,454	435,604	,001	-,12446	,03604	-,19529	-,05364

Hypothesis 3b

Group Statistics

	Question	N	Mean	Std. Deviation	Std. Error Mean
Proportion answer 'yes'	2	233	,7210	,44946	,02944
	5	233	,8369	,37024	,02426

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	38,302	,000	-3,038	464	,003	-,11588	,03815	-,19085	-,04091
Equal variances not assumed			-3,038	447,588	,003	-,11588	,03815	-,19085	-,04091

Hypothesis 3c

Group Statistics

	Question	N	Mean	Std. Deviation	Std. Error Mean
Proportion answer 'yes'	3	233	,8755	,33082	,02167
	6	233	,9056	,29304	,01920

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	4,341	,038	-1,038	464	,300	-,03004	,02895	-,08694	,02685
Equal variances not assumed			-1,038	457,341	,300	-,03004	,02895	-,08694	,02685

Hypothesis 4

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Question 7	233	,78	,417	,027

One-Sample Test

	Test Value = 0.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Question 7	10,127	232	,000	,277	,22	,33

4.2 Remaining results

4.2.1 Productivity

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Question 9	233	-,20	,504	,033

One-Sample Test

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	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Question 9	-5,980	232	,000	-,197	-,26	-,13

4.2.2 Atmosphere

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Question 10	233	-,79	,749	,049
Question 11	233	-,38	,806	,053

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Question10	-16,184	232	,000	-,794	-,89	-,70
Question11	-7,152	232	,000	-,378	-,48	-,27

4.2.3 Atmosphere – Short versus long term

Group Statistics

Question	N	Mean	Std. Deviation	Std. Error Mean
Answer 10	233	-,79	,749	,049
Answer 11	233	-,38	,806	,053

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	10,769	,001	-5,775	464	,000	-,416	,072	-,558	-,275
Equal variances not assumed			-5,775	461,505	,000	-,416	,072	-,558	-,275

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Ranks

	N	Mean Rank	Sum of Ranks
Negative Ranks	32 ^a	70,59	2259,00
Positive Ranks	109 ^b	71,12	7752,00
Ties	92 ^c		
Total	233		

- a. Question 11 < Question 10
- b. Question 11 > Question 10
- c. Question 11 = Question 10

Appendix 5 – Reorganization in a company

5.1 Reorganization letter

Beste medewerker,

Het zal geen nieuws voor je zijn dat we nog steeds midden in een economische crisis verkeren. Dat daar voorlopig nog geen verbetering in verwacht wordt, is je vast ook bekend. Bij Bedrijfsnaam zijn de gevolgen van deze crisis inmiddels duidelijk zichtbaar in de cijfers van het eerste kwartaal van dit jaar. De omzet blijft beduidend achter bij dat wat we gebudgetteerd en vorig jaar omgezet hebben.

Omdat we een gezond bedrijf zijn, is dit echter geen reden tot paniek. Wel om met elkaar in gesprek te gaan hoe we deze periode zonder al te veel kleerscheuren doorkomen. Het BT heeft diverse scenario's onderzocht om dit te kunnen bereiken. Een reorganisatie met gedwongen ontslagen, zoals een aantal jaar geleden, willen we zien te voorkomen. Daarom is het nodig andere maatregelen te treffen. Eén van deze maatregelen is het volgende:

Wij doen een dringend beroep op je om met ingang van 1 mei 2013 tot en met 31 december 2013 10% van je bruto maandsalaris in te leveren. Als compensatie hiervoor krijg je elke week een equivalent van de werktijd vrij of om de week het dubbele daarvan. Dus met een arbeidscontract van 40 uur per week, betekent dit 4 uur vrij per week of 8 uur per 2 weken. Deze zal in overleg met je manager worden ingedeeld. Nuttig is het om te melden dat de afdrachten met betrekking tot pensioen en dergelijke wel volledig doorlopen.

Je ontvangt een uitnodiging voor een gesprek met je afdelingsmanager op donderdag 18 of vrijdag 19 april a.s. in dit gesprek zullen de details van deze maatregel verder besproken worden en kun je vragen en opmerkingen kwijt.

In de bijlage bij deze brief staat de regeling verder uitgewerkt. Deze bijlage kun je uiterlijk woensdag 24 april a.s. voor akkoord ondertekend inleveren bij je afdelingsmanager.

Vanzelfsprekend is dat voor bovenstaande genoeg draagvlak binnen de organisatie moet zijn om het te laten slagen. Is dit er niet, of onvoldoende, dan valt een "normale" reorganisatie niet uit te sluiten. De leden van het BT hebben in ieder geval al unaniem toegezegd mee te werken aan deze regeling.

Natuurlijk hopen we dat de situatie dit jaar toch zal verbeteren. Daar zullen we met elkaar alles aan moeten doen wat binnen ons vermogen ligt. Zodra de resultaten het toelaten, zullen we deze arbeidstijdverkorting opheffen.

Het is jammer dat we geen betere boodschap hebben, maar rekenen desondanks wel op jullie medewerking.

Namens het BT,

Algemeen Directeur

5.2 Result reorganization

Beste collega's,

Hierbij wil ik jullie op de hoogte brengen over de stand van zaken met betrekking tot de 10% regeling.

Allereerst wil ik jullie allemaal hartelijk bedanken voor jullie begrip en luisterend oor. Ik ben er trots op om te melden dat minimaal 97% van ons allen bereid is om mee te werken aan deze regeling!

Ik wist natuurlijk wel dat we een gemotiveerd en betrokken team hadden en hebben, maar dit overtreft zelfs die verwachting, nogmaals dank daarvoor.

Deze week zal het BT de laatste details uitwerken en zullen we jullie de details doen toekomen.

Met vriendelijke groet,

Algemeen Directeur