



The effectiveness of (non-)monetary bonus rewards on employees' extrinsic motivation

Master Thesis

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Abstract

This thesis investigates which bonus type is most effective in increasing employees' extrinsic motivation. More specifically, it explores if non-monetary bonus rewards result in higher motivational levels compared to monetary bonus rewards. In order to investigate this, a questionnaire survey was conducted. The valid sample consisted of 81 subjects. The main finding of this study is that only activity invitations (e.g., outdoor activities, theatre shows, soccer matches) are more powerful in increasing extrinsic motivation in comparison to monetary bonus compensation. None of the other bonus reward types used in this study provide similar effects. The results of the additional tests show that intangible non-monetary bonus rewards (recognition, promotion and schooling opportunity) are the most highly valued bonus category among employees. These findings have some implications for practice. Managers who have to design the bonus compensation scheme should consider to incorporate alternative types of bonus rewards into the bonus plan, next to monetary bonus rewards. The results suggest that activity invitations and intangible non-monetary bonus rewards can be valuable additions to bonus reward systems which already include cash bonuses.

Keywords:

Bonus rewards, extrinsic motivation, job performance, targets, incentives.

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Preface

This research has been conducted in order to complete the Master program Accounting, Auditing and Control (with specialization Accounting and Finance) at the Erasmus University Rotterdam. The thesis aims to investigate the relation between (non-)monetary bonus rewards and extrinsic motivation. Thus, the study concerns the field of management accounting.

I would like to express my gratitude to my supervisor Dr. Alex Klein. Thanks to his knowledge and expertise, I was able to conduct the research in this way. His comments triggered me to think more deeply about specific aspects of my study and this resulted in more clear explanations and a structured thesis. Moreover, whenever I got stuck, his input and suggestions made sure I got back on the right track.

Also, I would like to thank my parents and partner for supporting me through my entire study period and especially during the thesis process. Moreover, they were a great help in distributing my survey to their colleagues.

Last but not least, I want to thank everyone who was willing to help me with my research by completing the questionnaire.

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1. Introduction

Frequently, people have to make decisions regarding compensation. Appropriate compensation differs between situations and the associated perspectives (Heyman & Ariely, 2004).

From an economic perspective, one could say that every good has a price. Thus, you have to offer monetary compensation in order to buy products.

From a social perspective, it is not always easy to assign values to certain goods. In this view, social interaction plays a key role and reciprocation motives are often times the main source of effort provided. Compensation in this context will rather be a gift than some amount of money. So it seems that both monetary and non-monetary compensation play a role in the decision-making process.

In the working environment, employers encounter a lot of situations in which they have to determine which compensation scheme will result in the highest amount of effort. This thesis specifically investigates how different bonus compensation types affect the employees' decision to provide effort.

1.1. Research Question

The purpose of this thesis is to examine the relation between (non-)monetary bonus rewards and employees' extrinsic motivation. More specifically, the thesis will investigate if non-monetary bonus rewards have a greater impact on employees' extrinsic motivation compared to monetary bonus rewards and thus attempts to answer the following research question:

RQ: Do non-monetary bonus rewards have a stronger effect on employees' extrinsic motivation compared to monetary bonus rewards?

The following sub-questions are formulated to support and further specify the research question:

- 1) Do significant differences exist between the non-monetary bonus rewards concerning their effects on extrinsic motivation?*
- 2) Which specific bonus compensation type is most highly valued by employees?*

Providing an answer to this research question and the sub-questions is important, because it may change the way in which bonus rewards are organized.

Usually, bonus rewards are monetary, providing an extra amount of money to employees who achieve their target. This works as an incentive system, because it is used to increase the extrinsic motivation of the employees to do their task. But what happens to employees' extrinsic motivation to achieve a certain target when non-monetary bonus rewards (e.g., promotions, schooling opportunities, presents) are provided instead of monetary rewards?

1.2. Motivation

The results of this thesis should be of relevance to managers who design reward systems and specifically to those who need information about the best way to compose a bonus reward. Bonus rewards are part of the control system of an organization. Developing an efficient control system still seems to be a difficult task for managers. However, the results of this thesis provide evidence on how to structure bonus rewards, as part of the organizations' control system.

A bonus reward is an important factor in motivating employees. Motivation is one of the main problems organizations encounter (Watson, 1994). Thus, bonus rewards should be designed carefully. This study provides insights into the effectiveness of using (non-)monetary bonus rewards as an incentive system and in this way enables managers to make better decisions regarding this issue.

1.3. Research Design

This study explores which bonus type (monetary or non-monetary) is most effective in increasing employees' extrinsic motivation to do their task.

The research method that will be used is conducting a questionnaire survey. As this study focuses on the individual level of analysis, a survey is the best method to conduct this research. In order to construct a representative sample, subjects from different organizations will be approached. The data will be divided into two groups. One group consists of employees who do have experience in receiving bonus rewards while the other group consists of employees who do not have any experience in receiving bonus rewards.

The predictive validity framework ("Libby boxes"), which is presented in Figure 1, shows how the relation examined in this thesis will be operationalized. This relation will be further specified later in the thesis.

The control variables that will be used are chosen in accordance with Wiley (1997).

Wiley (1997) compares multiple surveys over the past 40 years about “what motivates employees to do their best work”. Besides, she conducted a questionnaire to find the causes of employees’ motivation as well.

Because this thesis investigates ‘extrinsic motivation’, which is a part of ‘motivation’, similar control variables as in Wiley (1997) are used. However, minor changes have been made. Section 3 will explain the control variables in more detail.

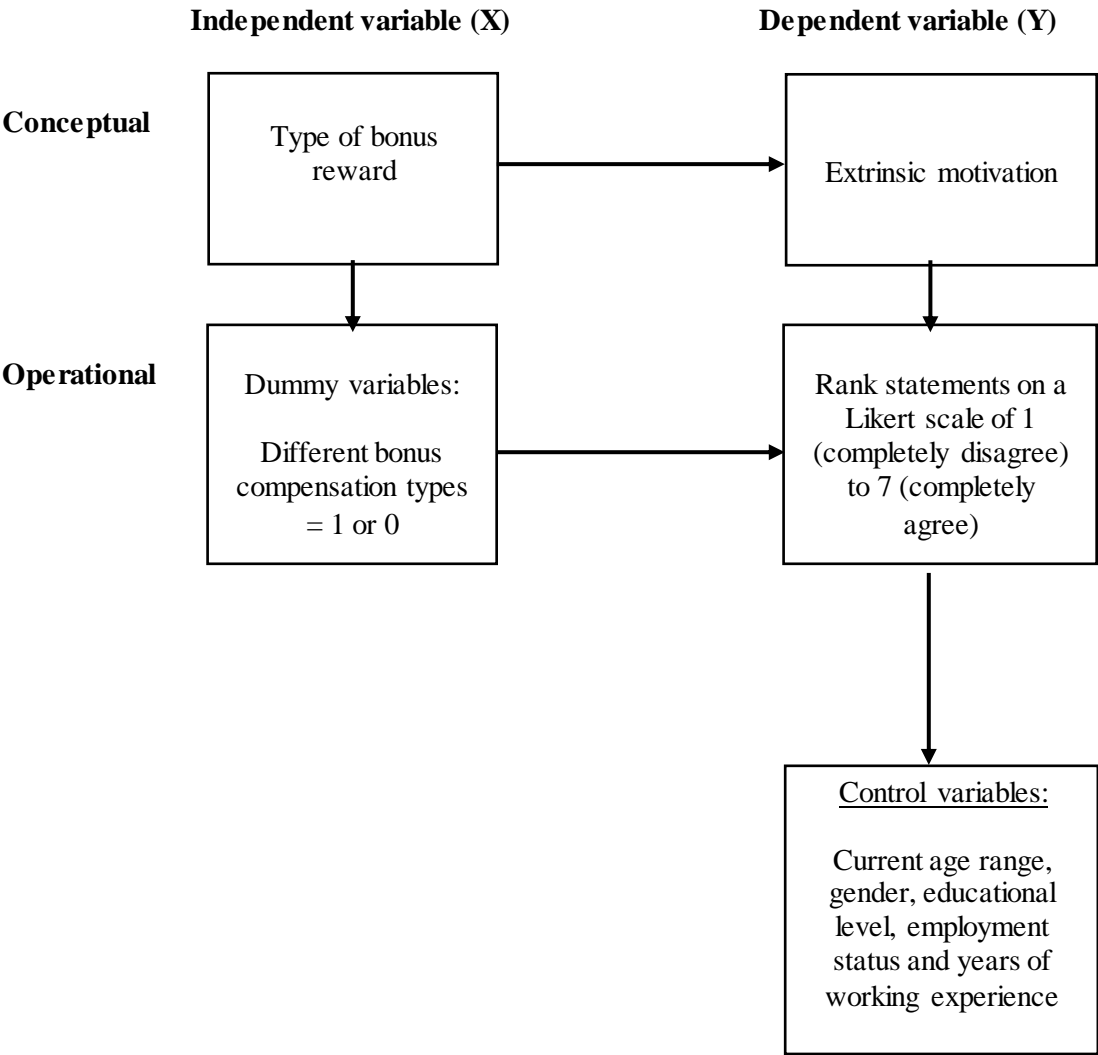


Figure 1: Libby boxes

1.4. Findings

This thesis compares non-monetary bonus rewards with monetary bonus rewards concerning their effects on extrinsic motivation. In order to provide an answer to the research question and its sub-questions (which were developed in section 1.1.), multiple linear regressions and two additional tests have been conducted.

The results of the multiple linear regressions demonstrate that there is only a stronger, positive effect of activity invitations on extrinsic motivation, while controlling for monetary bonus compensation and some other relevant variables. The remaining non-monetary bonus types focused on in this study do not provide similar effects. This indicates that non-monetary bonus rewards do not have a stronger, positive effect on employees' extrinsic motivation compared to monetary bonus rewards, except for activity invitations. From this follows logically that there do not exist any significant differences between the non-monetary bonus rewards concerning their effects on extrinsic motivation.

The results of the additional tests show that 'recognition' is the bonus type which is most highly valued by employees. More generally, all intangible non-monetary bonus rewards (recognition, promotion and schooling opportunity) are preferred over monetary compensation and tangible non-monetary bonus rewards (activity invitation, present, food/drinks).

1.5. Contribution

This study advances the body of knowledge in literature in two ways.

Firstly, the thesis contributes to literature concerning motivational theories. The current debate is between the expected utility theory/agency theory and the cognitive evaluation theory. The expected utility theory mainly focuses on extrinsic motivation, while the cognitive evaluation theory concentrates on intrinsic motivation. There exist a lot of academic articles that support the expected utility theory (Alchian & Demsetz, 1972; Jensen & Meckling, 1976; Fama & Jensen, 1983; Lazear, 2000; Frey & Jegen, 2001). On the other hand, also the cognitive evaluation theory gets a lot of attention and confirmation in literature (Lepper et al., 1973; Deci & Ryan, 1985; Frey & Jegen, 2001; Christ et al., 2012; Maas & van Rinsum, 2013). This thesis exclusively focuses on extrinsic motivation; thus it aims to provide evidence for the expected utility theory.

Secondly, the thesis contributes to literature regarding rewards. However, studies investigating particular reward forms show mixed evidence considering their effectiveness. Some studies show the usefulness of monetary rewards (Locke et al., 1980; Guzzo et al., 1985; Stajkovic & Luthans, 2001; Rynes et al., 2004). However, other research provides evidence of negative effects of monetary rewards (Kohn, 1993; Vohs et al., 2006; Aguinis et al., 2013; Maas & van Rinsum, 2013). Besides, a lot of studies propose to incorporate non-monetary reward types into the compensation scheme (Lindner, 1998; Sprinkle, 2003; Jeffrey, 2004; Hannan, 2005; Aguinis et al., 2013).

Thus, there is no agreement in literature about the effects of different reward types and there exists no consensus on how to most efficiently design the compensation scheme. This study will provide more insights on this issues by investigating both monetary and non-monetary rewards. However, the thesis only considers a specific part of the compensation scheme, namely bonus rewards.

The main results of this study show that non-monetary bonus rewards do not have stronger, positive effects on extrinsic motivation in comparison to monetary bonus rewards, apart from activity invitations. Thus, monetary rewards seem to play a dominant role in the bonus plan. This finding is in accordance with Locke et al. (1980) and Guzzo et al. (1985). These studies investigate the effects of different incentive plans on productivity. They both find that monetary incentives are highly effective in increasing the productivity of employees.

Moreover, Gneezy and Rustichini (2000) and Stajkovic and Luthans (2001) show that monetary compensation leads to higher performance levels. These results correspond to the results in this thesis.

Furthermore, Jensen (1994) and Long and Shields (2010) show that monetary incentives can satisfy primary needs, but also higher-ranked needs. Accordingly, employees can decide for themselves how they want to spend the monetary reward because it generates purchasing power for the employee. Money seems to be one of the leading motivators for the majority of people (Rynes et al., 2004). These findings provide possible explanations for the results in this thesis.

The additional results of this study show that intangible non-monetary rewards are the most highly valued bonus category. More specifically, ‘recognition’ receives the highest rank. Likewise, Hannan (2005) finds that reciprocity plays an important role in motivating employees. Regarding this, he proposes to introduce behavioral factors into reward contracts, next to economic factors. Similarly, Sprinkle (2003) and Aguinis et al. (2013) suggest to use monetary and non-monetary rewards simultaneously.

Thus, the findings of this thesis enlarge literature that provides evidence of the effectiveness of using monetary rewards to motivate employees. However, like many other studies, the findings also suggest to take intangible non-monetary rewards into account.

1.6. Implications

This thesis also has some findings beyond the academic literature. The main results show that only activity invitations have a stronger, positive effect on extrinsic motivation in comparison to monetary bonus rewards.

This indicates that employees place great importance on joining certain events and shows. The other bonus types used in this study do not have likewise effects.

The additional results show that the intangible non-monetary bonus category (recognition, promotion and schooling opportunity) is most highly appreciated among employees. Especially 'recognition' seems to be important to employees. This implies that for example compliments and praise can already stimulate employees to perform better.

Overall, these results suggest that cash bonuses play a key role in the bonus rewarding process, however, also other bonus types should be considered. Managers should take the results of this study into account while designing the bonus compensation plan. Activity invitations and intangible non-monetary rewards like recognition, promotions and schooling opportunities should be evaluated carefully as potential additions to the bonus reward scheme.

1.7. Structure

The rest of the paper is organized as follows. Section 2 presents the literature review and defines the important concepts used in this thesis. Also, the hypotheses will be developed. Section 3 explains the research design and gives a description of the sample set that is used in this thesis. Section 4 reports the empirical results from the data analyses. Finally, section 5 summarizes the economic intuitions behind the results and concludes. Additionally, the limitations of this research and suggestions for future research will be mentioned.

2. Literature Review

This chapter discusses relevant literature concerning motivation and rewards. Literature in this area examines how and why employees respond to different forms of incentives.

Firstly, an introduction about management control is provided. This introduction will make clear why controls and incentives are necessary in an organization.

Next, the term ‘motivation’ will be defined and some relevant motivation theories will be explained. These theories are an important starting point, because they provide different views regarding the link between incentives and motivation. Also, the terms ‘intrinsic motivation’ and ‘extrinsic motivation’ will be specified.

Hereafter, the concept ‘rewards’ will be discussed. In this respect, monetary bonus rewards and non-monetary bonus rewards will be defined. Moreover, evidence from academic research regarding the effects of (non-)monetary rewards on effort and motivation will be provided.

Lastly, the hypotheses will be developed and motivated, using the theory and insights provided by literature.

2.1. Management Control

Why are controls necessary in an organization? If the principal and the agent have the same interests, no control is needed (Merchant, 1982). However, usually individuals are unable or reluctant to behave in line with the organization’s interests. This can be due to personal limitations (e.g., people do not understand their task or are subject to cognitive biases), a lack of goal congruence or motivational problems. If this is the case, the agent has incentives to behave in a way which is not aligned with the principal’s interests. Merchant (1982) proposes several solutions for this problem. Firstly, the control problem can be eliminated entirely. This means there is no room for inappropriate behavior because the process is automated or centralized for example. Secondly, it is possible to control certain actions. These controls are used to make sure that employees take specific actions that are beneficial to the organization. Thirdly, control of results can be implemented. This form of control focuses only on results and holds the employees accountable for their performance. Lastly, an organization could carry out personnel controls. This control design relies on the employees’ ability to act in the organization’s best interests and supports the employees if needed.

The classic paper of Kerr (1975) indicates that in multiple cases “wrong” behavior is rewarded. This means that instead of rewarding “good” behavior, actually inappropriate behavior is rewarded.

The cause of this is the focus on the “ends” rather than on the “means to an end”. There is an overemphasis on for example objective performance criteria, which are easy to measure and/or easy to observe. According to Kerr (1975), solutions for these kind of problems are implementing more personnel controls (e.g., training, selection) and creating better action and results controls (develop performance measures in accordance with strategy).

Designing effective control systems is still a relevant and challenging task for organizations these days.

2.2. Motivation

How “much” motivation is enough to state that someone is motivated? According to Deci and Ryan (2000, p.54), “to be motivated means to be moved to do something”. This general definition of motivation is used throughout this thesis.

The contrary of motivation is amotivation, which refers to falling short of an intention to provide effort.

Deci and Ryan (2000) conclude that motivation is not a uniform occurrence. Motivation differs in levels and in orientation. The level of motivation concerns the amount of motivation that is present. The orientation of motivation is related to the primary reasons for providing effort. Regarding the orientation, there is usually a distinction made between *intrinsic* and *extrinsic* motivation, which will both be explained in detail later in this chapter.

In literature, the term motivation is further specified, but differs according to the particular perspectives used in motivational theories. Motivational theories concern the link between motivation and incentives. Comparing these different theories makes clear there is no agreement in literature about the motives for employees to provide effort.

Most of these motivation theories have their origins in either economics or psychology. The main debate regarding motivation and incentives between these two sciences is expressed in the expected utility theory/agency theory (economics) and the cognitive evaluation theory (psychology). Next to the cognitive evaluation theory, there exist many other psychological motivation theories. The most important ones will be discussed in this chapter. Regarding this, the structure of session 3 of the Seminar Management Control is followed. In this session, the most relevant psychological motivation theories were selected and examined.

Thus, the following motivation theories will be discussed: the expected utility theory/agency theory, the cognitive evaluation theory, Maslow’s hierarchy of needs theory, the dual factor theory, the expectancy theory and the equity theory.

After discussing the different motivation theories, the terms ‘intrinsic motivation’ and ‘extrinsic motivation’ will be defined. The focus will be on ‘extrinsic motivation’, because this is the main concept of motivation in this thesis.

2.2.1. Expected Utility Theory/Agency Theory

Agency theory concerns the principal-agent relationship, in which the agent is authorized to make decisions on behalf of the principal. As described previously, the interests of the agent and principal generally deviate from each other. Jensen and Meckling (1976) state that the principal can align his interests with the agent’s interests by providing proper incentives to the agent and by incorporating monitoring tools into the working environment. Following Alchian and Demsetz (1972), measuring and monitoring the productivity of employees will boost performance by causing a higher marginal cost on shirking (or put differently: by increasing the marginal gain available). Hence, the decision to provide effort is a rational decision.

The most important characteristics of the ‘rational economic agent’ (Homo Economicus) are (1) they are self-interested; (2) they maximize their utility function; (3) they are fully rational (i.e., they make no mistakes) and (4) they have independent preferences (Doucouliagos, 1994). Individuals try to maximize their utility and thus, if the expected benefits of the incentive are higher than the expected costs, they will increase their effort and consequently their performance. As a result, most organizational firms limit the risks associated with delegated decision-making by promising fixed payoffs or by providing payoffs which are dependent on the performance of the agents (Fama & Jensen, 1983). Agency theory states that the incentives of the employer and the employee are best aligned in the latter case, when there is a pay-for-performance system in place (Frey & Jegen, 2001). In this respect, Lazear (2000) shows that shifting from hourly wages to a piece-rate system is accompanied with large productivity effects. Furthermore, Lazear (2000, p. 1347) states that: “Claims by sociologists and others that monetizing incentives may actually reduce output are unambiguously refuted by the data”.

2.2.2. Cognitive Evaluation Theory

In contrast to the agency theory, the cognitive evaluation theory starts from the assumption that humans are intrinsically motivated. Following Deci (1975), “intrinsic motivation is an energizing of behavior that comes from within the individual, out of will and interest for the activity at hand”. This concept will be further specified later in this chapter.

Thus, if people have intrinsic motivation, they do not need incentives to motivate them to provide effort.

The cognitive evaluation theory, developed by the two psychologists Deci and Ryan (1985), suggests that incentives undermine intrinsic motivation. In this respect, Christ et al. (2012) find that preventive controls reduce intrinsic motivation due to the loss of autonomy.

The “crowding out” effect of intrinsic motivation can be traced back to two psychological concepts, namely self-determination and self-esteem. Incentive systems are forms of control and restrict employees’ autonomy to a certain extent, because they push the employee to take actions in a particular direction. This may lead to impaired self-determination, because employees like to have some power in decision-making. Moreover, incentive systems can lead to trust issues, because the employee feels his involvement in the task is not appreciated. This leads to impaired self-esteem, which in turn has a negative effect on the willingness of employees to exert effort. Adversely, when employees feel the incentive as supportive, their willingness to exert effort will increase and thus the external intervention will crowd in intrinsic motivation (Frey & Jegen, 2001). These different effects are also known as the Motivation Crowding Theory, which identifies under what circumstances crowding-out and crowding-in effects of intrinsic motivation appear.

Lepper et al. (1973) provide evidence of the “crowding out” effect of intrinsic motivation. They conducted a drawing experiment with two groups of children. In the first task, one group received a medal for the drawing while the other group did not receive anything. In the second task, both groups did not receive anything for the drawing. The results show that the formerly rewarded group was significantly less interested during the second task, compared to the other group, which showed unchanged or even greater enthusiasm while drawing. These results suggest that incentive systems possibly harm the intrinsic motivation to do a task.

In line with the cognitive evaluation theory, Maas and van Rinsum (2013) show that people not only care about themselves when making a decision (in contrast to the ‘Homo Economicus’). They reveal that managers actually feel bad if their decisions negatively affect others and this indicates that social preferences also play a role in the decision-making process.

2.2.3. Maslow’s Hierarchy of Needs Theory

Maslow stated that the motivation of employees is not linked to benefits or desires. Instead, he explained that human motivation is determined by the fulfillments that people seek and their personal growth developments (McLeod, 2014). In his view, employees are motivated because they want to satisfy their needs. This follows a hierarchical order, when one need is satisfied, people want to fulfill the next one.

Maslow's hierarchy of needs pyramid consists of five stages in the following order: physiological needs (e.g., air, food, drinks), safety needs (e.g., protection, security, law), social/love needs (e.g., friendship, love), self-esteem needs (e.g., achievement, independence) and self-actualization needs (e.g., personal growth, self-fulfillment) (Maslow, 1943). Thus, one must first satisfy physiological needs in order to satisfy safety needs.

The five-stage pyramid can be broken down into basic needs and growth needs. Basic needs consist of the physiological, safety, social/love and self-esteem needs. Accordingly, growth needs contain the self-actualization needs.

Oftentimes, the process to reach the highest level (self-actualization) is disturbed, because of life experiences (e.g., divorce, loss of job) (McLeod, 2014).

2.2.4. Dual Factor Theory

Herzberg et al. (1959) developed the dual-factor theory (also called Motivation-Hygiene Theory), which states that the things that motivate and satisfy people are different from the things that demotivate and dissatisfy them. Thus, the determinants of job satisfaction are inconsistent with the determinants of job dissatisfaction. This implies that job satisfaction and job dissatisfaction are not the contrary of each other (Herzberg, 1968).

Herzberg proposes that "good feelings" are associated with for instance: challenging work, recognition, responsibility and personal/growth advancement. The theory suggests that these factors are *intrinsic* to the job, because they stimulate personal growth and determine job satisfaction. They are the so called "motivators" or "growth factors". If these factors are widely present and the employee perceives them as positive, they will lead to a high job satisfaction level. If not, they will not lead to a significantly low job satisfaction level, but rather to *no* job satisfaction.

Next, "bad feelings" are associated with for example: company policies, salary, working conditions, incentives and supervision. These determinants are *extrinsic* to the job, because those are external factors which are used to avoid unhappiness at the job. They are called "Hygiene factors" or "Kick In The Ass Factors". These job environment factors will lead to job dissatisfaction if they negatively affect employees' mood. However, if the employee perceives them as positive, they will not lead to job satisfaction, but rather to *no* job dissatisfaction.

Thus, this theory suggests that the motivators will lead to job satisfaction (if the employee perceives them as positive) and the hygiene factors in turn will lead to job dissatisfaction (if the employee perceives them as negative).

2.2.5. Expectancy Theory

The expectancy theory is developed by Vroom (1964). It involves a framework consisting of cognitive variables and the different relations between them.

The expectancy theory is based on the idea that employees will be motivated if they perceive there is a strong link between their effort level and their performance level. In turn, the performance level should be highly related to the amount of rewards. In this way, it is different from the needs theories of Maslow and Herzberg, which propose explicitly what motivates people to do their job (Lunenburg, 2011).

Vroom states that motivation is a function of the multiple of expectancy, instrumentality and valence. Thus, the expectancy theory can simply be revealed in the following equation:

$$\text{Motivation} = \text{Expectancy} \times \text{Instrumentality} \times \text{Valence}$$

Expectancy is the degree to which a person believes effort will result in task performance. The expectancy ranges between 0 and 1, depending on the employees' perception of the strength of the effort-performance relation.

Instrumentality is a person's belief that task performance will lead to the desired outcome. Similar to the expectancy, instrumentality ranges from 0 to 1. Again, the degree depends on the strength of the performance-reward relation.

Lastly, valence is the value a person attaches to a certain outcome. More precisely, it indicates how strongly the employee prefers or dislikes the specific reward. Because valence can be either positive or negative, its range is between -1 and 1 (Lunenburg, 2011).

This model implies that adjusting the different relations (effort-to-performance and performance-to-reward) and reward valences will result in different motivation levels.

2.2.6. Equity Theory

The equity theory, developed by Adams (1965), proposes that the fairness of payment is at least as important as the height of payment in motivating employees. The theory states that compensation should be distributed in proportion to effort provided. This is essential for an organization, because employees highly value fairness in the working environment and it will keep them motivated to do their task.

Individuals calculate a ratio of how much effort they put into the job and how much they get out of it. They compare this ratio with the ratios of other employees and if there are differences, they will change their effort level accordingly, because they believe they are not treated fairly.

In line with the equity theory, Herpen et al. (2005) find that the perceived fairness of the monetary compensation system and the promotion opportunities have a significant effect on extrinsic motivation.

2.2.7. Intrinsic Motivation

In order to fully understand the concept 'extrinsic motivation', it is important to have some knowledge of the concept 'intrinsic motivation', which is shortly discussed previously.

Intrinsic motivation represents the type of motivation that originates from inherent pleasures and not from external factors (Deci & Ryan, 2000). Deci and Ryan (2000) emphasize that humans have a natural tendency, that comes from within, to learn and develop themselves. People do not need extrinsic incentives to motivate them. Thus, an intrinsically motivated person performs certain actions simply for his own enjoyment and development rather than to achieve specific results.

Besides the definition of intrinsic motivation of Deci and Ryan (2000), there exist plenty in literature. For instance, Skinner (1953) states that all behavior is rewarded in a particular way. Hence, in his view, intrinsically motivated actions are rewarded by the activity itself. This indicates that people will be intrinsically motivated if the task is attractive to them. In contrast, Hull (1943) defines intrinsic motivation as the type of motivation that fulfills psychological needs. This definition concerns the needs that are satisfied by means of the intrinsically motivated actions. Furthermore, Amabile (1993, p.188) explains that "individuals are intrinsically motivated when they seek enjoyment, interest, satisfaction of curiosity, self-expression, or personal challenge in the work".

To summarize, intrinsic motivation arises from within an individual and not from external factors. Thus, people accomplish certain tasks for the inherent enjoyment/satisfaction of the activity, to develop/challenge themselves or to satisfy particular needs.

2.2.8. Extrinsic Motivation

Despite the fact that intrinsic motivation is important, most people perform certain actions not because they are *intrinsically* motivated, but because they are *extrinsically* motivated (Deci & Ryan, 2000). Extrinsic motivation refers to motivation that comes from outside an individual. More precisely, "the term extrinsic motivation refers to the performance of an activity in order to attain some separable outcome, and, thus, contrasts with intrinsic motivation, which refers to doing an activity for the inherent satisfaction of the activity itself" (2000, p.71).

Extrinsic motivation differs widely in the level of autonomy. According to Deci and Ryan (2000), extrinsic motivation can be divided into four categories related to the level of autonomy: external regulation, introjected regulation, identification and integration.

External regulation contains the lowest amount of autonomy. This form of extrinsic motivation contrasts the most with intrinsic motivation. Employees only provide effort in order to gain an external reward or to fulfill an external need. They perceive their actions as highly controlled.

Next, introjected regulation is a form of extrinsic motivation that still contains a lot of controls, but less than in the external regulation form. Employees carry out certain actions because they feel forced to do so or because they want to prevent feelings of guilt. This kind of behavior still has an external focus.

Subsequently, the identification type has a higher level of autonomy. The employee recognizes the personal value of his behavior and thereby acknowledges the regulation as his own.

Lastly, integration is the form of extrinsic motivation with the greatest level of autonomy. Integration takes place when the recognized regulations are completely incorporated by the individual. This means that the regulations are in line with the individual's needs and values. This form of extrinsic motivation comes close to the definition of *intrinsic* motivation, because of the high degree of autonomy. Nonetheless, it is still a type of extrinsic motivation due to the external reasons that initially drive the actions of the individual.

Next to the definition of extrinsic motivation of Deci and Ryan (2000), there exist many more definitions in literature. For example, Touré-Tillery and Fishbach (2014) state that extrinsic motivation is the type of motivation that originates from the external benefits that are associated with achieving a certain target. Moreover, Teo et al. (1999) define extrinsic motivation as carrying out a certain action because it helps realizing desired outcomes that are different from the task itself. Likewise, Covington and Müeller (2001) describe extrinsic motivation as executing a particular action, not because of the inherent enjoyment of the activity, but in order to receive extrinsic rewards. Lastly, also Amabile (1993) states that humans are extrinsically motivated if they perform tasks in order to reach specific goals which are unrelated to the task itself.

These descriptions of extrinsic motivation are almost identical to each other. Taking together the definitions, extrinsic motivation in this thesis is defined as follows: “the performance of an action, not because of the built-in satisfaction of doing the activity, but only in order to obtain external rewards”.

This thesis focuses solely on the extrinsic motivation of employees. Regarding the external rewards, this thesis only considers bonus rewards, which will be explained in detail later in this section.

There exist different ways to measure extrinsic motivation.

Touré-Tillery and Fishbach (2014) suggest several tools to measure ‘outcome-focused motivation’ (i.e.: extrinsic motivation). For example, they state that ‘speed’ is very useful to measure the motivation to finish a task in order to obtain external rewards. Other behavioral measures that could be used are; ‘performance’ and ‘choice’. However, the optimal measure depends on the design of the experiment and the dimension of motivation that it tries to capture. McCord and Matusovich (2013) measure extrinsic motivation by conducting a survey. In this survey, they use three different statements to measure the same construct: extrinsic motivation. These statements were rated on a 7-point Likert scale which goes from not true at all (1) to very true (7). The survey instrument that they use in their research is the Motivated Strategies for Learning Questionnaire (MSLQ). This instrument is designed to evaluate students’ motivational directions and their use of various learning methods (Pintrich et al., 1991). The validity of the MSLQ measure is proven by means of confirmatory factor analyses. The results of these analyses show that the instrument consists of solid structures which in turn provide evidence for the factor validity. Also, the internal reliability of the instrument is confirmed (Pintrich et al., 1991). However, using an existing survey instrument in other contexts may undermine the validity and reliability of the measure (McCord & Matusovich, 2013).

Guay et al. (2000) also use a survey instrument to measure extrinsic motivation, namely the Situational Motivation Scale (SIMS). This instrument is developed to evaluate motivation at the situational level. It consists of sixteen statements created to measure the constructs of intrinsic motivation, identification, external regulation and amotivation (Standage et al., 2003). Thus, Guay et al. (2000) investigated two dimensions of extrinsic motivation (external regulation and identification), which are both explained in detail previously. Subjects ranked four different statements concerning external regulation and four different statements concerning identification on a 7-point Likert scale which goes from 1 (not at all in agreement) to 7 (completely in agreement). The statements are part of the Situational Motivation Scale (SIMS) and are all answers to the question: *Why are you currently engaged in this activity?* The construct validity of the SIMS measure is proven by different analyses. Guay et al. (2000) performed five studies in order to establish and validate this instrument. For example, one study verified the construct validity by carrying out multiple correlational analyses.

2.3. Rewards

Rewards are an important tool for creating incentives for employees to provide effort and to behave in the organization's best interests. Aguinis (2013, p.1/8) states that "a reward system is the set of mechanisms for distributing both tangible and intangible returns as part of an employment relationship".

In this thesis, the focus is on bonus rewards, which are the rewards that are associated with achieving a certain target and thus are not part of the usual pay scheme. Bonus rewards work as an incentive system, because they are used to increase the extrinsic motivation of employees to do their task.

Bonus rewards can be divided into monetary bonus rewards and non-monetary bonus rewards. Monetary bonus rewards provide an extra amount of money to employees who achieve their target. Accordingly, non-monetary bonus rewards provide tangible or intangible benefits to employees who accomplish their goal. Non-monetary bonus rewards differ in a wide variety of dimensions. The two types of bonus rewards will be further specified in this chapter.

2.3.1. Monetary Rewards

Following Aguinis (2013), monetary rewards consist of base pay, cost-of-living adjustments, short-term incentives and long-term incentives. Those are all cash compensation plans. His definition is used for the monetary bonus rewards¹ in this thesis. Hence, monetary bonus rewards consist of all cash based bonus forms provided to employees.

Jensen (1994) states that the primary advantage of monetary incentives is that they generate purchasing power and thus these incentives are highly valued. Individuals can decide for themselves whether they are going to spend the monetary reward and how. In this respect, Long and Shields (2010) state that monetary rewards can satisfy an individual's primary needs and sometimes higher-ranked needs.

Another advantage is that monetary incentives can simply be tied to performance results (Jensen, 1994). However, it is difficult to tie monetary incentives to other dimensions of performance (e.g., how well you can cooperate in a team).

¹ The terms (non)-monetary rewards, (non)-monetary incentives and (non)-monetary compensation are used interchangeably.

A lot of studies highlight the importance of using monetary rewards in motivating employees. Locke et al. (1980) provide evidence of a significant increase (~30%) in employee productivity after the launching of incentive pay systems. Moreover, Guzzo et al. (1985) study the effects of different incentive plans on productivity and find that financial incentives have the greatest effect on output. Likewise, Stajkovic and Luthans (2001) show that monetary incentive programs result in greater performance improvements compared to a social recognition plan or a performance feedback plan.

In addition, Gneezy and Rustichini (2000) reveal that higher monetary compensation leads to higher performance levels. However, when no compensation is offered at first, the launching of a compensation system may actually lower performance.

Lastly, Rynes et al. (2004) state that money is one of the most influential motivators for the majority of people.

However, monetary incentive systems are also associated with negative consequences. Aguinis et al. (2013) report that monetary rewards do not always provide desired results. Monetary rewards are not able to increase job-specific knowledge or capabilities. However, performance is a combination of motivation and capabilities. Thus, if the cause of poor performance is the absence of certain abilities, performance will not automatically improve when pay is increased.

Maas and van Rinsum (2013) also provide evidence of some negative effects of monetary incentives. They show that managers whose payoff is dependent on their performance have incentives to be dishonest about their performance level. The magnitude of this misreporting effect depends on the form of the organization's control system. The authors illustrate that the misreporting of performance is higher when this increases the monetary payoff of their colleagues and lower when there exists an open information policy (in which all disclosed performance levels are made public).

Kohn (1993) asserts that monetary incentives discourage risk-taking behavior, because there is a strong focus on compliance with the performance targets. This results in significantly less creativity in the working environment.

Moreover, Vohs et al. (2006) show that money reminders, as opposed to non-money reminders, decrease the willingness to help others and thus create an environment where everyone only takes care of themselves.

Thus, studies investigating how monetary incentives influence individual performance show mixed evidence considering their effectiveness.

Because of the disparate effects on effort and performance, Bonner and Sprinkle (2002) developed a conceptual framework to understand the impact of monetary incentives on individual effort by incorporating moderating variables.

In this framework, they show that monetary incentives have a positive impact on effort. However, this relation is influenced by cognitive and motivational mechanisms and by accounting-related variables (person, task, environmental and incentive scheme variables).

Subsequently, a higher amount of effort will result in higher task performance, but this relation is also affected by accounting-related variables. In this respect, Bailey et al. (1998) show the importance of the role of skill in attenuating the incentive-induced effort-performance relation. Likewise, Awasthi and Pratt (1990) demonstrate that monetary incentives are effective in increasing the effort provided by employees. However, they show that to make sure performance also increases, employees should have the required skills.

To summarize, monetary bonus rewards in this thesis are defined as all bonus rewards that consist of cash based compensation. Furthermore, this part has made clear that monetary rewards can have positive and negative effects on a wide variety of factors.

Bonner and Sprinkle (2000) developed a framework which provides the relation between monetary incentives and effort as well as the relation between effort and task performance. This framework includes moderating variables and shows in which way they affect the different relations.

In the next subsection, non-monetary bonus rewards will be defined. Moreover, this part will describe the specific non-monetary bonus rewards used in this thesis.

2.3.2. Non-Monetary Rewards

According to Jensen (1994), monetary rewards are not naturally the best method to motivate employees. Oftentimes, non-monetary rewards are chosen, because it is sometimes hard to find the appropriate performance measure while using monetary rewards.

Merchant and van der Stede (2007) list several examples of non-monetary rewards, e.g., autonomy, power, recognition, promotions, company cars and retirement plans.

Covington and Müller (2001) give praise as an example of a non-monetary reward.

Moreover, Condly et al. (2003) divide non-monetary rewards in intangible rewards and tangible rewards. Examples of intangible rewards are positive ratings, employee recognition and praise. Examples of tangible rewards are gifts and vacations.

Morrell (2011) also gives some examples of non-monetary incentives, namely: employment security, learning opportunities, praise, recognition and status.

Silverman (2004) divides non-financial recognition schemes into two categories. The first category is called: 'acknowledging the efforts of the employee'. This category contains for example: appreciation, recognition and the manager saying 'thank you'. The second category is labeled: 'giving the employee a present'. Among other things, the author lists as examples: retail or travel vouchers, meals, theatre tickets and day trips. Furthermore, he states that the most extensively used non-financial recognition schemes are: praise, vouchers and nomination-based schemes.

In this thesis, non-monetary bonus rewards are defined as all bonus reward types that do not contain any cash compensation. Regarding this, it is important to note that the non-monetary bonus rewards can have financial value (but not in the form of cash).

Following Condly et al. (2003), the non-monetary bonus rewards in this thesis are divided in intangible and tangible rewards. Because there exist many different types of non-monetary bonus rewards, the focus in this thesis is on the most common forms. Thus, three types of 'intangible' and three types of 'tangible' non-monetary bonus rewards will be considered.

Firstly, the intangible bonus rewards will be described. Employee recognition, appreciation and praise are combined into one category, labeled 'recognition', because their definitions are very similar (Covington & Müeller, 2001; Condly et al., 2003; Silverman, 2004; Morrell, 2011). Furthermore, promotions are used as a bonus reward, because promotions are an important stimulus for employees to achieve their goal (Merchant & van der Stede, 2007). Additionally, schooling opportunities are included, because a lot of employees want to develop themselves and improve their skills (Morrell, 2011).

Secondly, 'tangible' bonus rewards are considered. This category consists mainly of 'gifts' and is broken down into three groups: food and drinks, presents (e.g., flowers, gift cards) and invitations to freely join activities (e.g., outdoor activities, theatre shows, soccer matches). These 'tangible' bonus rewards are based on the rewards used in Condly et al. (2003) and Silverman (2004).

To summarize, the non-monetary bonus rewards used in this thesis are: recognition, promotions, schooling opportunities, food/drinks, presents and activity invitations.

Plenty of studies highlight the importance of the usefulness of socially mediated rewards in motivating and controlling employees. For example, Hannan (2005) finds that reciprocity can play an important role in motivating employees and this finding calls for integration of behavioral factors, next to economic factors, in the design of efficient contracts. Also, Aguinis et al. (2013) suggest to use monetary and non-monetary rewards simultaneously. They state that incentive pay does not increase employees' willingness to acquire job-specific knowledge. However, specific non-monetary rewards do encourage employees to improve their skills and capabilities.

Sprinkle (2003) states that it is important to investigate non-pecuniary preferences because they may temper the need for certain managerial accounting practices that are used to motivate employees.

Lindner (1998) studies the ranked preferences of employees for ten different motivational factors and shows that "interesting work" is higher valued than "good pay". This result indicates that not only money plays a role as a motivational factor.

Jeffrey (2004) discusses in his paper several reasons why employees might be more motivated when tangible non-monetary incentives are in place instead of cash awards. He uses several psychological mechanisms to explain this. For example, the author mentions the psychological concept 'justifiability', which states that an employee usually does not justify the purchase of luxury goods. However, when luxury goods are provided as a reward, the employee is able to acquire these rewards without paying and thus maintains his justification standards. Hence, this makes the employee possibly more motivated than in the case where only a certain cash amount is available.

Summarizing, non-monetary bonus rewards in this thesis are defined as all rewards that do not consist of any cash compensation. Because this is a broad definition, this thesis specifically focuses on a few different forms. The non-monetary bonus rewards used in this thesis are the following: recognition, promotions, schooling opportunities, food/drinks, presents and activity invitations.

This subsection also discussed academic evidence that emphasizes the usefulness of incorporating non-monetary rewards into the working environment (Lindner, 1998; Sprinkle, 2003; Jeffrey, 2004; Hannan, 2005; Aguinis et al., 2013).

The last part of this chapter will describe the hypothesis development. The formulation of the hypotheses will take into account all the theory and insights provided by the previously discussed literature.

2.4. Hypothesis Development

In order to provide an answer to the research question, some hypotheses are developed. These hypotheses will compare the effects of monetary and non-monetary bonus rewards on employees' extrinsic motivation.

Taking into account the previously discussed literature, there is no clear expectation of which type of reward is most effective in increasing the extrinsic motivation of employees. Some studies suggest monetary incentives are the best way to motivate employees, while others propose to incorporate non-monetary incentives into the reward schemes.

Because money/cash is already provided as base pay, it is expected that bonus rewards which do not contain cash have a greater effect on employees' extrinsic motivation. In other words, since bonus rewards should provide an extra incentive for employees to perform well, this thesis predicts that monetary bonus rewards are less effective than non-monetary bonus rewards, because the latter ones introduce new types of rewards that are not also part of the usual pay scheme.

Hence, the first hypothesis is formulated as follows:

H1: Compared with monetary bonus rewards, non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.

In order to get a better understanding of the different effects of the various non-monetary bonus rewards on extrinsic motivation, the first hypothesis is broken down and two new hypotheses are developed. These new hypotheses focus on intangible and tangible non-monetary bonus rewards respectively. Besides, the sub hypotheses further specify the two categories by comparing the different forms of (in)tangible non-monetary bonus rewards with monetary bonus rewards. In this way, the results will provide a clear overview of the specific effects of different in(tangible) non-monetary bonus rewards on extrinsic motivation (in comparison to monetary bonus rewards).

Accordingly, the second hypothesis and sub hypotheses are formulated as follows:

H2: Compared with monetary bonus rewards, intangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.

H2a: Compared with a monetary bonus reward, recognition as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.

H2b: Compared with a monetary bonus reward, a promotion as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.

H2c: Compared with a monetary bonus reward, a schooling opportunity as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.

Similarly, the third hypothesis and sub hypotheses are formulated as follows:

H3: Compared with monetary bonus rewards, tangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.

H3a: Compared with a monetary bonus reward, food/drinks as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.

H3b: Compared with a monetary bonus reward, a present as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.

H3c: Compared with a monetary bonus reward, an activity invitation as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.

Finally, this study will investigate which type (tangible or intangible) of non-monetary bonus rewards has the strongest, positive effect on employees' extrinsic motivation.

It is not an easy task for organizations to find the most appropriate tangible non-monetary reward (Silverman, 2004). To find the optimal one, organizations should have knowledge of employees' preferences, tastes, available time and their opportunity to spend/use the tangible reward. Due to this challenging task, it is expected that intangible non-monetary bonus rewards have a greater positive effect on employees' extrinsic motivation in comparison to tangible non-monetary bonus rewards.

Moreover, the employee possibly values intangible rewards higher than tangible rewards, because the intangible rewards are more personal (recognition) or provide him/her with development opportunities (promotions, schooling opportunities).

Thus, the fourth hypothesis is formulated as follows:

H4: Compared with tangible non-monetary bonus rewards, intangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.

3. Research Design

In this chapter, the design of the research will be described.

Firstly, the specific research method will be discussed. This part will make clear why this method is chosen and why it is most appropriate for this research.

Hereafter, the collection of the data will be explained. More specifically, this subsection shows how the subjects are approached and what information is given to them about the survey.

After this, the questionnaire design will be described. In this part, the theoretical constructs will be operationalized.

Subsequently, also the control variables that are included in the regression models will be considered. This part will give an explanation of the necessity to add these variables to the models.

Next, the sample details will be discussed. This discussion includes an examination of the demographic statistics of the sample.

Also, the regression models that will be tested will be presented. The link between these models and the hypotheses will be explained.

Finally, two supplementary tests which will be conducted will be described and explained.

3.1. Research Method

This study explores which bonus type (monetary or non-monetary) is most effective in increasing employees' extrinsic motivation to do their task. Concerning the non-monetary rewards, it distinguishes between intangible non-monetary rewards (recognition, promotion, schooling opportunity) and tangible non-monetary rewards (food/drinks, present, activity invitation).

The research method that will be used in this thesis is conducting a questionnaire survey. As this study focuses on the individual level of analysis, a survey is the best method to conduct this research.

A well-known problem with surveys is that there could be a low response rate, thus the sample size is a crucial element. A large sample size will make the inference of the results stronger. Because there is access to a lot of participants from which it is expected that they are willing to fill out the survey, minor challenges exist in gathering enough subjects.

Besides, there could be a non-response bias. This bias exists if the individuals that return the questionnaire differ systematically from the individuals who do not.

In order to minimize the non-response bias, van der Stede et al. (2005) suggest to use follow-ups or offer monetary incentives. Thus, the subjects are provided with the opportunity to win a gift card from bol.com with a value of €25. This gift card will be randomly issued.

3.2. Data Collection

The population to which the main results will be generalized consists of employees who have experience in receiving bonus rewards at their job. In order to get a representative and widely varied sample (e.g., in terms of age, gender, nationality, educational level), employees from various industries and different firms located in the Netherlands are contacted. The snowball sampling method is used to gain more subjects. Thomson (1997) explains this method as a technique that uses the contacts of verified participants with the objective to enlarge the group of subjects.

The subjects are approached during the period of 18 July 2016 to 26 July 2016. They are contacted using e-mail and social media. While doing this, it was emphasized that participation is completely voluntary and that there is a chance to earn a reward (bol.com gift card) for filling out the questionnaire. Furthermore, the importance of this study was highlighted without revealing the specific research interests. Lastly, it was also made clear that the survey is anonymous and that the results will only be used for the purpose of this thesis.

A reminder e-mail was sent once to remember the invited participants to fill out the questionnaire. Finally, 89 subjects took part in the survey, which indicates a response rate of approximately 15%. The statistical program SPSS will be used to process the collected data and analyze the obtained results.

3.3. Questionnaire Design

The questionnaire will consist of two types of questions. Firstly, some demographic questions (concerning the control variables) need to be answered. These control variables will be explained in more detail later in this chapter. Also, participants have to indicate whether they have experience in receiving bonus rewards at their current job and, if so, which specific types they received.

The second type of questions consists of ‘ranking’ questions. At first, participants have to rank the different bonus types used in this thesis on a Likert scale which goes from 1 (not important at all) to 7 (extremely important). These rankings will show which specific bonus type is most highly appreciated.

The following subset of ranking questions is used to examine the hypotheses. Hence, these questions are supposed to measure ‘extrinsic motivation’. Participants have to evaluate on a Likert scale which goes from 1 (completely disagree) to 7 (completely agree) how much they agree with the given statements. In order to support the reliability of the construct ‘extrinsic motivation’, multiple statements and different contexts are used.

The following statements are developed:

- 1: *‘The targets in my job stimulate me to do the best I can.’*
- 2: *‘I am less incentivized to work efficiently if my supervisor does not (often) monitor me/my performance.’*
- 3: *‘My job encourages me to deliver great job performance.’*
- 4: *‘I do not want to put extra effort into a certain task when it does not provide me any special benefits.’*
- 5: *‘If my supervisor asks me to support him/her with a particular project, I am excited to help him/her.’*
- 6: *‘The working environment in my organization triggers me to achieve excellent results.’*
- 7: *‘On overall, I feel motivated to accomplish my job task as well as possible.’*

These developed statements are based on the instruments used in McCord and Matusovich (2013) and Guay et al. (2000), who provide evidence of the validity of these instruments. Accordingly, this method of using a Likert scale with various statements is in line with previous research.

The multiple statements form a scale and are supposed to measure ‘extrinsic motivation’. To check whether this is true, Cronbach’s alpha is used. This is the most common measure of scale reliability (Field, 2013). In order to have a reliable scale, the value of Cronbach’s alpha should be at least 0.7. However, the alpha was deemed to be 0.63, which indicates the scale is not sufficiently reliable. After deleting the statements 2 and 4, the Cronbach’s alpha increased to 0.814, which indicates good reliability. Thus, these two items have to be dropped. Moreover, a reliable scale also requires that every statement correlates with the total. The correlations should be at least 0.3 (Field, 2013). The five valid statements all have correlations higher than 0.4, which also implies a high reliability level.

The last subset of questions is specifically related to bonus rewards. This small subset consists of two questions. In the first question, individuals indicate their level of agreement with the given statement. In this way, they show their preference for either monetary or non-monetary bonus rewards. The last question reveals which specific category (intangible or tangible) of non-monetary bonus rewards is most highly valued.

A small pilot test is conducted to guarantee that the questionnaire is understandable and straight-forward. Nine persons took part in the pilot study. The individuals were asked to critically evaluate the survey. This evaluation includes for example: the understandability of the questions, the structure of the survey, the formulation of the questions and judgments on how interesting the survey is. Also, the individuals came up with some suggestions to improve the questionnaire. The points of improvement that were mentioned can be found in Appendix A.

Finally, the complete and revised questionnaire is included in Appendix B.

3.4. Control Variables

As mentioned previously, control variables are added to the regression models (which will be explained in detail in section 3.6). These control variables are factors that possibly correlate with employees' extrinsic motivation to do their task.

Wiley (1997) conducted a survey in order to investigate the sources of employees' motivation. This thesis also investigates the motivation of employees and, thus, similar control variables are used. However, some changes have been made, which will be explained in more detail. Accordingly, the following control variables are added to the regression models: current age range, gender, educational level, employment status (part-time, full-time or unemployed) and years of working experience.

Current age range

The current age range is added as a control variable, because people in different stages of their life may have different incentives to provide effort. Following Inceoglu et al. (2012), this depends on the job features. Inceoglu et al. (2012) suggest that older people are not less motivated than younger people, but that they are motivated by different incentives. For example, the authors state that older employees perceive material rewards as less motivating than autonomy, in contrast to younger employees.

Moreover, it is probable that young employees are more motivated because they want to prove themselves in the beginning of their career, while older ones are less concerned about this.

In this thesis, the age factor is classified into the following groups: under 26 years, 26-34 years, 35-44 years, 45-54 years and 55 years or older.

Gender

Gender is also included as a control variable, because males and females have different preferences which possibly correlate with the amount of effort they want to provide (Wiley, 1997). Wiley (1997) finds that men perceive “interesting work” as more important than women, while women value “appreciation” and “good working conditions” higher than men do.

Educational level

The control variable ‘annual income’ is removed, because some respondents may not feel comfortable with answering this question, even though the survey is anonymous. The ‘annual income’ is replaced by the ‘educational level’. Ashenfelter and Rouse (1999) provide evidence of a link between education and income, which is not caused by the omitted variable ‘ability’. This indicates that the educational level is a good proxy for the annual salary.

Including this control variable is important, because the educational level may possibly influence the willingness to provide effort to achieve a certain objective.

The educational factor consists of the following levels: High school, MBO, HBO and WO.

Employment status

Employment status is also incorporated as a control variable, because part-time workers possibly have less incentives to achieve a particular target than full-time workers. In this respect, Lee and Johnson (1991) show that part-time workers are less committed to the organization than full-time workers (if they both work a preferred schedule).

The ‘employment status’ factor is sorted into four groups: full-time (35 hours or more), part-time (12-34 hours), side-job (less than 12 hours) and unemployed.

Years of working experience

Also, the control variable ‘occupational category’ is excluded and replaced by the control factor ‘years of working experience’.

It is more appropriate to include this latter factor as a control variable, because during your working experience you might encounter different preferences for certain rewards at different points in time. Also, the amount of working experience might influence the motivation of employees to achieve their goal.

Furthermore, the control variable 'occupational category' includes too many categories to divide among a few groups, therefore this variable is dropped from the analysis.

The 'years of working experience' factor includes the following categories: less than 10 years, 10-20 years, 21-30 years and more than 30 years.

All the control factors could have an impact on extrinsic motivation and thus can bias the results if they are not added to the model.

3.5. Sample

The sample of the survey consists of 89 subjects. However, 8 out of the 89 subjects are unemployed. Those will be excluded from the data analysis, because this thesis and accordingly the (sub-)hypotheses specifically focus on employees and the practices at their current job. Due to the exclusion of the unemployed participants, the total valid data for the analysis will consist of 81 subjects.

Moreover, some of the respondents did not respond to every question. Thus, there are a few missing values in the dataset. However, the statistical program SPSS automatically recognizes these values as "missing" and does not take them into account while conducting the analyses. Thus, only valid answers will be used in the tests.

The details of the sample are listed in Table 1.

The sample consists of 33 males and 48 females. Most of the participants are younger than 26 years. From this logically follows that more than half of the participants have less than 10 years of working experience.

Regarding the educational level, 73 percent of the sample is highly educated (HBO or WO). Besides, almost half of the participants works full-time.

Lastly, the experience in bonus rewards is equally distributed. 40 subjects do have experience in receiving bonus rewards, while 41 subjects do not have any experience in receiving bonus rewards.

Table 1: Sample Details

Variable	Category	Frequency (N)	Percentage (%)
Age	Under 26 years	44	54.3
	26-34 years	15	18.5
	35-44 years	8	9.9
	45-54 years	9	11.1
	55 years or older	5	6.2
Gender	Male	33	40.7
	Female	48	59.3
Educational level	High school	6	7.4
	MBO	16	19.8
	HBO	32	39.5
	WO	27	33.3
Employment status	Full-time (35 hours or more)	37	45.7
	Part-time (12-34 hours)	28	34.6
	Side-job (less than 12 hours)	16	19.8
Years of working experience	Less than 10 years	51	63.0
	10-20 years	15	18.5
	21-30 years	9	11.1
	More than 30 years	6	7.4
Bonus rewards experience	Yes	40	49.4
	No	41	50.6

Table 2 provides detailed information about the 40 subjects who have experience in receiving bonus rewards. Recognition is the most frequent form of bonus rewards, followed by monetary compensation. Food/Drinks, presents and schooling opportunities are also common bonus reward types. Activity invitations and promotions are less often used. One subject received a different bonus reward, namely shares.

Table 2: Bonus Rewards

Bonus reward type	Frequency (N)	Percentage(%)
Monetary Compensation	25	19.4
Recognition	28	21.7
Promotion	9	7.0
Schooling Opportunity	17	13.2
Food/Drinks	20	15.5
Present	19	14.7
Activity Invitation	10	7.8
Other	1	0.8
Total	129	100

3.6. Regression Models

To be able to test the different hypotheses, several regression models are developed. The ‘multiple linear regression’ method is used to assess the effects of the independent variables (the bonus reward types and the control variables) on the dependent variable (extrinsic motivation).

The control variables remain the same in all regressions. The dependent variable ‘extrinsic motivation’ is represented by the five different statements, which are explained previously. The independent variables are treated like dummy variables. In this way, the effects of the different bonus rewards and the control variables can be compared against a reference category. As a result, it is possible to answer the (sub-)hypotheses and (sub-)research question(s).

In order to test the first hypothesis, the following regression model is estimated:

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{NonMonetaryCompensation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

Hypothesis 1 predicts that the coefficients β_1 and β_2 are both positive, but that β_2 will be stronger. By analyzing these coefficients, it is possible to determine whether non-monetary bonus rewards are indeed most powerful in increasing employees’ extrinsic motivation.

Accordingly, to test the second and third hypothesis, the following regression model is estimated:

$$\begin{aligned} \text{Extrinsic motivation} = & \alpha + \beta_1 \text{MonetaryCompensation} + \\ & \beta_2 \text{IntangibleNonMonetaryCompensation} + \beta_3 \text{TangibleNonMonetaryCompensation} + \beta_4 \text{Age} + \\ & \beta_5 \text{Gender} + \beta_6 \text{Education} + \beta_7 \text{EmploymentStatus} + \beta_8 \text{YearsOfWorkingExperience} + \epsilon \end{aligned}$$

Hypothesis 2 predicts that the coefficients β_1 and β_2 are both positive, but that β_2 will be stronger. Similarly, Hypothesis 3 predicts that the coefficients β_1 and β_3 are both positive, but that β_3 will be stronger.

The produced coefficients will reveal if intangible and tangible non-monetary bonus rewards are more efficient than monetary bonus rewards in increasing employees' extrinsic motivation.

In order to more specifically test Hypothesis 2 and Hypothesis 3, some sub hypotheses were developed. The following regression model is estimated to test the sub hypotheses:

$$\begin{aligned} \text{Extrinsic motivation} = & \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{Recognition} + \beta_3 \text{Promotion} + \\ & \beta_4 \text{SchoolingOpportunity} + \beta_5 \text{FoodDrinks} + \beta_6 \text{Present} + \beta_7 \text{ActivityInvitation} + \beta_8 \text{Age} + \\ & \beta_9 \text{Gender} + \beta_{10} \text{Education} + \beta_{11} \text{EmploymentStatus} + \beta_{12} \text{YearsOfWorkingExperience} + \epsilon \end{aligned}$$

Sub hypotheses 2a, 2b and 2c predict that the coefficients β_1 , β_2 , β_3 and β_4 are all positive, but that β_1 is weaker than the other coefficients.

Correspondingly, sub hypotheses 3a, 3b and 3c predict that the coefficients β_1 , β_5 , β_6 and β_7 are all positive, but that β_1 is again weaker than the other coefficients.

By considering the different non-monetary bonus types separately, it is possible to more specifically determine the individual effects of each bonus type. Thus, the results of these particular regressions will show the differences in effect between the various non-monetary bonus rewards and furthermore which specific bonus type is most effective in increasing employees' extrinsic motivation.

Finally, to test the fourth hypothesis, the following regression model is estimated:

$$\begin{aligned} \text{Extrinsic motivation} = & \alpha + \beta_1 \text{TangibleNonMonetaryCompensation} + \\ & \beta_2 \text{IntangibleNonMonetaryCompensation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \\ & \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon \end{aligned}$$

Hypothesis 4 predicts that the coefficients β_1 and β_2 are both positive, but that β_2 will be stronger. By analyzing these coefficients, it is possible to determine whether there is a difference in effect between intangible non-monetary bonus rewards and tangible non-monetary bonus rewards on employees' extrinsic motivation. Hence, the results will show which of the two non-monetary bonus categories is the most adequate one to use to boost extrinsic motivation.

3.7. Supplementary Tests

Besides the regression analysis, two small supplementary tests will be conducted.

The first small test will compare the means of the importance ratings related to the different bonus rewards. More specifically, this test will indicate which specific bonus type will result in the highest motivation rate and which one in the lowest. For this test, the results from questions 8 to 14 are used.

The second small test will show which categories of bonus rewards are most highly valued. In this test, the results of questions 22 and 23 will be used to determine which category is preferred. More precisely, a cash bonus will be compared with non-monetary bonus rewards (in general) and the tangible non-monetary bonus category will be compared with the intangible non-monetary bonus category.

In these supplementary tests, all participants are included. Thus, the results are not only based on real experiences, but also on imaginable situations. Accordingly, these small tests will provide solely the *expected* effects of the different bonus categories on extrinsic motivation.

4. Empirical Results

This chapter will report the results of the data analysis.

At first, the descriptive statistics will be shown. These statistics will describe the basic features of the collected data in this study.

Hereafter, several correlation tables will be presented to discuss different correlations between variables.

Subsequently, the statistical tests and results will be explained in detail. The reported results will be used to answer the hypotheses. This will make clear if the results are in line with the expectations.

Finally, the results of the supplementary tests will be demonstrated.

4.1. Descriptive Statistics

The descriptive statistics provide a summary of the measurement 'extrinsic motivation'. Hence, the five valid statements concerning 'extrinsic motivation' are included and described. The descriptive statistics are shown in Table 3 in Appendix C. The table contains the mean, median, standard deviation, skewness and kurtosis for each rated statement. The statements were evaluated by the participants on a Likert scale which goes from 1 (completely disagree) to 7 (completely agree).

The table shows that there exist minor differences between the statements. The means, medians and standard deviations are quite similar. More important to notice are the values for the skewness and kurtosis. Values close to zero indicate a normal distribution.

Common thresholds for skewness are the values 1 and -1. If the skewness is greater than 1 or less than -1, the distribution is not symmetrical (Field, 2013). In Table 3, the values of the skewness are all negative, with two of them less than -1. Thus, the distributions for statements 3 and 5 are considered unsymmetrical. More specifically, the negative values imply a pile-up on the right, which means the distribution is concentrated on the higher values of the Likert scale.

The kurtosis value differs widely among the different statements, with three of them being negative and two of them being positive. The negative values indicate a light-tailed distribution, while the positive values imply a heavy-tailed distribution (Field, 2013). Important to note is the high, positive value of 1.773 for statement 3, which is far away from zero. This may indicate that the data for this statement are not normally distributed, because the distribution has many scores in the tails.

4.2. Correlations

In order to compute the correlations between different variables, possible sources of bias need to be analyzed. Regarding this, the normality of the sample needs to be checked. The central limit theorem asserts that a sample size of 30 is big enough to obtain a sampling distribution that approximates normality (Field, 2013). As the sample in this study contains 81 subjects, normality should be approximated. However, because some of the skewness and kurtosis values are extreme (see Table 3), the distribution might slightly differ from normality.

Because some of the variables are measured on an ordinal scale, the use of the Pearson correlation coefficients is not justified (Field, 2013). Thus, Spearman correlation coefficients are used. Spearman correlations compute the Pearson correlations for variables that are transformed into ranks. The coefficient can take values ranging from -1 to 1.

The correlation matrix presented in Table 4 in Appendix D shows the Spearman correlation coefficients. The first 12 variables in this table are the independent variables (control variables and experienced bonus reward types). The remaining variable is the dependent variable, which consists of the first statement used to measure 'extrinsic motivation'. Accordingly, Tables 5-8 (also included in Appendix D) show the Spearman correlations between the independent variables and the statements 3, 5, 6 and 7 respectively.

The significant correlation effects between the independent variables and the dependent variables will be explained. However, correlation does not imply causation, as there may exist confounding variables that possibly bias the relation.

Table 4 shows that *ActivityInvitation* is positively associated with *Statement1* ($r=0.440$, $p<0.01$). This means that participants who received an activity invitation as a bonus reward are significantly more extrinsically motivated than participants who did not receive this.

Table 5 reveals that *Age* is positively related to *Statement3* ($r=0.368$, $p<0.01$). This indicates that older people are significantly more extrinsically motivated than younger ones. Also, *EmploymentStatus* has a weak, positive relation with *Statement3* ($r=0.281$, $p<0.05$). This suggests that people who work more hours in a week are more extrinsically motivated than people who work less hours in a week. In addition, also *WorkingExperience* has a strong, positive correlation with *Statement3* ($r=0.353$, $p<0.01$). This implies that employees with more years of working experience possess higher extrinsic motivation levels in comparison to employees with minor years of working experience.

Subsequently, Table 6 does not include any significant correlations.

Lastly, Tables 7 and 8 share similar significant associations. As in Table 5, both *Age* ($r= 0.261$, $r=0.265$) and *WorkingExperience* ($r=0.281$, $r=0.309$) are positively related to extrinsic motivation. However, the relations are less strong ($p<0.05$).

4.3. Hypothesis Testing

In order to test the hypotheses and sub hypotheses, several steps will be taken.

Firstly, simple linear regressions will be conducted. The results of these regressions will show the individual effects of the main independent variables (the different bonus reward types) on the five dependent variables (which measure extrinsic motivation). Thus, any significant effects between two single variables can be determined.

Hereafter, multiple linear regressions will be conducted. These regressions are an extension of the simple linear regressions, because multiple predictors are used instead of one. The multiple linear regressions will present the effects of the independent variables (main variables and control variables) on the five dependent variables. By using dummy variables, the regressions can be performed in the correct manner. In this way, the hypotheses can be tested.

Finally, factor analysis will be performed. This approach is used to recognize clusters of variables (Field, 2013). Accordingly, the factor scores obtained from the factor analysis will be used to redo some of the multiple linear regressions.

4.3.1. Simple Linear Regression

As mentioned previously, the simple linear regressions will present the individual effects of the different bonus reward types on extrinsic motivation. Extrinsic motivation consists of five variables, each representing a different statement. The statements are considered separately and thus are not combined, because, by taking the mean of the five statements, some significant relations might disappear.

The results of the simple linear regressions are shown in Tables 9-18. Each table represents a different bonus reward type. The relevant tables are included in the main text. The remaining tables can be found in Appendix E.

In Table 15, there is a positive, significant result of *ActivityInvitation* on *Statement1* ($p < 0.05$). This result indicates that employees who receive an activity invitation as a bonus reward score approximately 1.353 points higher on the motivation scale than employees who do not receive this bonus reward. Thus, they are more extrinsically motivated.

Table 15: Activity invitation

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{ActivityInvitation} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	4.347***	5.091***	5.582***	4.875***	5.673***
Activity invitation	1.353*	0.309	-0.082	0.425	0.427
Adjusted R ²	8.8%	-0.8%	-1.5%	-0.2%	0.2%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Moreover, in Table 17, *IntangibleNonMonetaryCompensation* has a positive, significant effect on *Statement5* ($p < 0.05$). This effect implies that employees who obtain one or more of the intangible non-monetary bonus rewards (recognition, promotion, schooling opportunity) are more extrinsically motivated in comparison to employees who do not receive any of these intangible non-monetary bonus rewards. They score on average 0.909 points higher on the motivation scale.

Table 17: Intangible non-monetary compensation

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{IntangibleNonMonetaryCompensation} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.800***	4.800***	4.833***	4.167***	5.167***
Intangible non-monetary compensation	0.959	0.490	0.909*	0.995	0.833
Adjusted R ²	0.6%	-0.8%	8.7%	5.7%	6.0%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Lastly, Table 18 includes a positive, significant effect of *TangibleNonMonetaryCompensation* on *Statement1* ($p < 0.05$). This outcome shows that employees who receive one or more of the tangible non-monetary bonus rewards (food/drinks, present, activity invitation) are more motivated (extrinsically) than employees who do not obtain this type of bonus rewards. In fact, they have a motivation score which is in general 1.442 points higher.

Table 18: Tangible non-monetary compensation

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{TangibleNonMonetaryCompensation} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.600***	4.909***	5.583***	4.833***	5.750***
Tangible non-monetary compensation	1.442*	0.451	0.017	0.247	0.170
Adjusted R ²	10.9%	0.2%	-2.9%	-2.0%	-2.3%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

However, the results of the simple linear regressions should be interpreted with caution. Firstly, these regressions do not include any control variables. Thus, if there exist other variables that have significant effects on extrinsic motivation, the results are biased.

Secondly, the identified significant effects only occur once in each of the associated tables. If the significant effects were observed in combination with multiple statements, the inference of the results would have been stronger.

4.3.2. Multiple Linear Regression

Next, multiple linear regressions will be conducted. These regressions are used to test the hypotheses by using dummy variables. By applying this approach, the effects of the independent variables (main variables and control variables) on extrinsic motivation can be determined. Again, the dependent variables (measuring extrinsic motivation) will be examined separately. The most important tables from the multiple linear regressions are included in the main text, the remaining tables are presented in Appendix F.

The first hypothesis predicts that non-monetary bonus rewards will have a stronger, positive impact on extrinsic motivation in comparison to monetary bonus rewards.

To be able to test this hypothesis, the new variable '*NonMonetaryCompensation*' was created. This variable took the value 1 for subjects who have experience in receiving one or more of the non-monetary bonus rewards (focused on in this study) and value 0 for the subjects who do not have experience in receiving non-monetary bonus compensation at all.

The results are provided in Table 19. Both *MonetaryCompensation* and *NonMonetaryCompensation* do not have any significant effects on the dependent variable *ExtrinsicMotivation*. This indicates that the results do not support Hypothesis 1.

The control variables *26-34Years* and *MBO* do have significant effects on *Statement5* (both $p < 0.05$). Employees whose age is between 26 and 34 years score approximately 1.718 points higher on the motivation scale than employees who are younger than 26 years. Thus, they are more extrinsically motivated. Moreover, people who obtained a MBO degree score on average 1.778 points lower on the motivation scale in comparison to people who obtained a university degree. This indicates they are less extrinsically motivated.

The second hypothesis states that intangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation compared to monetary bonus rewards. The new variable '*IntangibleNonMonetaryCompensation*' was constructed to include all subjects who have experience in receiving recognition, a promotion and/or a schooling opportunity as a bonus reward.

Table 20 presents the obtained results from the regression. No significant results were identified, thus there is no support for Hypothesis 2.

Again, the control variable *MBO* has a significantly negative effect (1.501 points) on *Statement5* ($p < 0.05$). This effect has been explained previously.

The sub hypotheses from Hypothesis 2 consider the intangible non-monetary bonus rewards separately. Hence, the variables *Recognition*, *Promotion* and *SchoolingOpportunity* are individually compared with *MonetaryCompensation*. The results of these regressions are presented in Tables 21-23, respectively. The tables do not include any significant effects of the main independent variables on *ExtrinsicMotivation*. Thus, there is no support for the sub hypotheses 2a, 2b and 2c.

In Table 21, the control variable *26-34Years* has a significantly positive effect (1.012 points) on *Statement5* ($p < 0.05$). This effect has been explained before.

The third hypothesis predicts that tangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation in comparison to monetary bonus rewards. The variable '*TangibleNonMonetaryCompensation*' was created to capture all employees who have experience in receiving food/drinks, a present and/or an activity invitation as a bonus reward. The results are shown in Table 24. Both *MonetaryCompensation* and *TangibleNonMonetaryCompensation* do not have any significant effects on *ExtrinsicMotivation*. This indicates that the results do not support Hypothesis 3. Again, the control variables *26-34Years* and *MBO* do have a positive (1.770 points) and negative (1.793 points) significant effect on *Statement5*, respectively (both $p < 0.05$).

The sub hypotheses from Hypothesis 3 consider each tangible non-monetary bonus reward separately. The variables *FoodDrinks*, *Present* and *ActivityInvitation* are individually compared with *MonetaryCompensation*. The results of these regressions are included in Tables 25-27. Tables 25 and 26 do not include any significant effects. This indicates there is no support for sub hypotheses 3a and 3b. However, in Table 27, there is a positive, significant effect of *ActivityInvitation* on *Statement1*. This implies that an activity invitation is a more powerful tool to use to motivate employees than using a monetary bonus reward. In fact, employees who receive an activity invitation as a bonus reward score approximately 1.587 points higher on the motivation scale in comparison to employees who only receive monetary bonus compensation. Thus, there is support for sub hypothesis 3c. Besides, the adjusted R^2 in this model is 19.1%. This value indicates that approximately 19% of the variation in this model is explained by the independent variables that affect the dependent variable. Moreover, Table 27 also includes a negative, significant effect of *Sidejob* on *Statement6* ($p < 0.05$). This means that people who work less than 12 hours are less motivated (extrinsically) in comparison to people who work full-time. In fact, they score 1.292 points lower on the motivation scale.

Table 27: Hypothesis 3C

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{ActivityInvitation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	4.156***	4.963***	4.922***	4.769***	5.354***
Monetary compensation	0.131	-0.266	0.226	-0.295	0.112
Activity invitation	1.587*	0.534	-0.189	0.723	0.465
26-34 years	0.803	0.087	0.874	-0.045	0.264
35-44 years	0.209	0.316	0.505	-0.117	-0.385
45-54 years	-2.292	-0.063	0.356	-0.910	-0.132
55 years or older	-1.800	-0.575	-1.931	-1.641	-0.390
Female	0.922	0.411	0.338	0.776	0.427
HBO	-0.592	0.026	-0.048	-0.451	-0.080
MBO	-0.195	-0.474	-0.336	-0.508	-0.560
High school	-0.461	-0.339	0.515	-0.024	-0.314
Part-time (12-34 hours)	-0.070	-0.077	0.385	-0.106	0.053
Side-job (less than 12 hours)	-1.346	-1.166	0.637	-1.292*	-0.544
10-20 years of working experience	-0.542	0.099	-0.239	0.558	0.612
21-30 years of working experience	1.504	0.987	0.347	1.644	0.919
More than 30 years of working experience	3.088	1.395	1.395	2.388	0.854
Adjusted R ²	19.1%	0.2%	1.5%	3.5%	-6.7%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

The fourth hypothesis states that intangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation than tangible non-monetary bonus rewards will have. The results of this regression are provided in Table 28. No significant results were included, thus there is no support for Hypothesis 4.

(Sub) Hypothesis	Result
H1: Compared with monetary bonus rewards, non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.	Reject
H2: Compared with monetary bonus rewards, intangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.	Reject
<i>H2a: Compared with a monetary bonus rewards, recognition as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.</i>	Reject
<i>H2b: Compared with a monetary bonus reward, a promotion as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.</i>	Reject
<i>H2c: Compared with a monetary bonus reward, a schooling opportunity as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.</i>	Reject
H3: Compared with monetary bonus rewards, tangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.	Reject
<i>H3a: Compared with a monetary bonus reward, food/drinks as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.</i>	Reject
<i>H3b: Compared with a monetary bonus reward, a present as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.</i>	Reject
<i>H3c: Compared with a monetary bonus reward, an activity invitation as a bonus reward will have a stronger, positive effect on employees' extrinsic motivation.</i>	Accept (p<0.05)
H4: Compared with tangible non-monetary bonus rewards, intangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.	Reject

Figure 2: Summary hypothesis results multiple linear regression

4.3.3. Factor Analysis

Finally, two factor analyses will be conducted. These analyses will be carried out in order to classify variables in certain groups that measure the same construct. Thus, the purpose of factor analysis is to reduce a set of variables into a smaller set of factors. Moreover, factor analysis solves the problem of multicollinearity (Field, 2013). After the factor analyses are conducted, some of the multiple linear regressions will be redone using the obtained factor scores.

The relevant tables from the factor analyses are included in the main text, the remaining tables are shown in Appendix G.

The first factor analysis investigates the five dependent variables that measure extrinsic motivation by doing a principal component analysis (PCA). Together, these five variables produced a Cronbach's alpha of 0.814 (see section 3), which indicates they are allowed to be included in the factor analysis.

Firstly, the correlation matrix in Table 29 is investigated. All statements correlate well with each other and none of the correlations is too high (greater than 0.9). Moreover, there is only one correlation smaller than 0.3.

The determinant takes a value of 0.151, which is higher than the necessary value of 0.00001 (Field, 2013).

To summarize, on the basis of the correlation matrix, there is no need to eliminate any variable from the analysis.

Next, Figure 3 shows the results of the KMO and Bartlett's Test.

The value of the KMO statistic is 0.780, which is higher than the minimum criterion of 0.5. This implies that the sample size is considered sufficient for the factor analysis (Field, 2013).

Bartlett's Test shows if the correlation matrix is significantly different from an identity matrix. The significance level takes a value of 0.000, which indicates that the correlations are significantly different from zero. A non-significant value would indicate problems (Field, 2013).

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.780
Bartlett's Test of Sphericity	Approx. Chi-Square	102.997
	df	10
	Sig.	0.000

Figure 3: KMO and Bartlett's Test

Table 30 shows the communalities before and after extraction. The communalities after extraction reflect how much of the variance in each variable can be explained by the factor model (Field, 2013). The table does not show any particularly low values, which means that much of the variance in the variables is explained by the model.

Subsequently, Table 31 presents the main results of the factor analysis. The factors with eigenvalues greater than 1 are extracted. Thus, as the table shows, one component is constructed. This component explains 58.84% of the variance.

Table 31: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.942	58.840	58.840	2.942	58.840	58.840
2	0.759	15.182	74.023			
3	0.627	12.534	86.556			
4	0.407	8.136	94.692			
5	0.265	5.308	100.000			

Lastly, Table 32 shows the component matrix. It contains the correlations between the variables and the constructed component (Field, 2013). All statements have high factor loadings, which implies they are highly correlated with the produced factor.

Table 32: Component Matrix

	Component
Statement 7	0.861
Statement 3	0.821
Statement 6	0.814
Statement 1	0.665
Statement 5	0.650

Hence, one factor is constructed and each of the variables has high correlations with this factor. This indicates that the five dependent variables measure the same construct, namely extrinsic motivation.

The second factor analysis investigates the non-monetary bonus rewards (independent variables) by conducting a principal component analysis (PCA). Thus, six variables are examined. These variables produced a Cronbach's alpha of 0.796, which indicates they are allowed to be used for factor analysis.

The correlation matrix is presented in Table 33. In general, the correlations are not very high. However, important to note is that the correlations between the intangible rewards (recognition, promotion and schooling opportunity) and the correlations between the tangible rewards (food/drinks, present an activity invitation) are sufficiently high. The correlations within the two groups are higher than 0.3 and smaller than 0.9.

Additionally, the determinant has a value of 0.101, which is higher than the required value of 0.00001.

Taking these details into account, there is no need to eliminate any variables.

Figure 4 demonstrates the results of the KMO and Bartlett's Test.

The KMO statistic has a value of 0.666, which is sufficient (required value is 0.5). This implies that the sample size is adequate.

Moreover, Bartlett's Test is highly significant, which means that the correlations are significantly different from zero (Field, 2013).

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.666
Bartlett's Test of Sphericity	Approx. Chi-Square	176.907
	df	15
	Sig.	0.000

Figure 4: KMO and Bartlett's Test

The communalities are presented in Table 34. The column 'Extraction' does not include any surprisingly low values, which implies that the factor model explains much of the variance in each variable.

The most important results are included in Table 35. This table shows that two components (with eigenvalues greater than 1.0) are constructed out of the six variables. The components explain together 68.769% of the variance.

Table 35: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2.992	49.871	49.871	2.991	49.871	49.871	2.532
2	1.134	18.898	68.769	1.134	18.898	68.769	2.324
3	0.752	12.527	81.296				
4	0.547	9.111	90.407				
5	0.390	6.493	96.900				
6	0.186	3.100	100.000				

Finally, Table 36 provides more details about the two constructed components. The pattern matrix shows the factor loadings on the two components. Component 1 is mainly loaded on the tangible non-monetary bonus rewards (food/drinks, present and activity invitation). Accordingly, component 2 is mainly loaded on the intangible non-monetary bonus rewards (promotion, schooling opportunity and recognition).

Table 36: Pattern Matrix

	Component 1	Component 2
Food/Drinks	0.936	
Present	0.929	
Activity invitation	0.507	
Promotion		0.932
Schooling opportunity		0.817
Recognition		0.527

Thus, the two components measure different constructs, which logically follows from the distinction between tangible and intangible non-monetary bonus rewards.

The last part of the factor analysis consists of redoing some of the multiple linear regressions using the obtained factor scores. The factor score from the first analysis will serve as the dependent variable ‘extrinsic motivation’. The two factor scores retrieved from the second analysis will represent tangible non-monetary bonus rewards and intangible non-monetary bonus rewards.

Because the six non-monetary bonus rewards are now clustered into two variables (tangible and intangible bonus rewards), only the following hypotheses (excluding sub hypotheses) will be retested: H2, H3 and H4.

Tables 37, 38 and 39 present the results of the multiple linear regressions using the obtained factor scores. None of the tables includes any significant results. As follows, there is no support for H2, H3 and H4. This is in accordance with the results of the general multiple linear regressions, which were presented in the previous section.

(Sub) Hypothesis	Result
H2: Compared with monetary bonus rewards, intangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.	Reject
H3: Compared with monetary bonus rewards, tangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.	Reject
H4: Compared with tangible non-monetary bonus rewards, intangible non-monetary bonus rewards will have a stronger, positive effect on employees' extrinsic motivation.	Reject

Figure 5: Summary hypothesis results multiple linear regression using factor scores

4.4. Supplementary Tests

In this section, the two supplementary tests will be carried out. These tests serve as additional analyses, but do not provide any significance levels. Moreover, all subjects are included in the two tests. This implies that the results are based on subjects who do have experience in receiving bonus rewards, but also on subjects who do not have any experience in receiving bonus rewards. Thus, the results of these tests are used to give extra insights into the preferences of employees for certain types and categories of bonus rewards.

The first supplementary test compares the means of the importance ratings, which are related to the specific bonus types. The test provides a ranked order from highest valuation to lowest valuation. The results are presented in Table 40. The table shows that *Recognition* is most highly valued, with a value close to 6 (=very important). Also, *Promotion*, *SchoolingOpportunity* and *MonetaryCompensation* have high means with values around 5 (=important). *ActivityInvitation* and *Present* obtain lower valuations of around 3 (=slightly important) and 4 (=moderately important). Lastly, *Food/Drinks* receives the lowest valuation with a rating of 2.74.

Noteworthy is that the intangible bonus rewards (recognition, promotion and schooling opportunity) gain the highest importance ratings, while the tangible bonus rewards (activity invitation, present and food/drinks) receive the lowest. This indicates that employees prefer to receive intangible bonus rewards instead of monetary bonus compensation or tangible bonus rewards. Furthermore, the employees value monetary bonus compensation higher than tangible bonus rewards.

Table 40: Means comparison importance ratings

Bonus reward	Mean	Valid N	Std. Deviation
Recognition	5.82	68	1.092
Promotion	5.22	68	1.244
Schooling Opportunity	5.16	67	1.310
Monetary Compensation	4.75	68	1.480
Activity Invitation	3.52	69	1.686
Present	3.19	67	1.362
Food/Drinks	2.74	69	1.400

1=not important at all, 2=low importance, 3=slightly important, 4=moderately important, 5=important, 6=very important, 7=extremely important.

The second supplementary test will not consider the specific bonus types, but will only compare the bonus categories (monetary or non-monetary, tangible or intangible).

Firstly, monetary bonus compensation will be compared with non-monetary bonus compensation. The results of this comparison are provided in Table 41. Subjects were instructed to indicate their level of agreement with the given statement. The mean takes a value of 3.31, which is close to the option 'slightly disagree'. This indicates that employees slightly prefer to receive monetary bonus compensation instead of non-monetary bonus compensation. However, the evidence is not persuasive, because the value of 3.31 also approximates the value 4, which is the neutral option. Thus, this comparison does not provide any explicit results.

Table 41: Comparison monetary and non-monetary bonus compensation

	Mean	Valid N	Std. Deviation
<i>'I prefer to receive non-monetary bonus rewards instead of a cash bonus.'</i>	3.31	65	1.402

1=completely disagree, 2=disagree, 3=slightly disagree, 4=neither agree nor disagree, 5=slightly agree, 6=agree, 7=completely agree.

Secondly, the intangible bonus category will be compared with the tangible bonus category. Table 42 exhibits the results. Subjects had to indicate which bonus category they prefer. The table shows that the intangible category of bonus rewards is selected most often (78.5%). In contrast, the tangible category of bonus rewards is less frequently chosen (18.5%). Moreover, 3.1% of the sample is unable to choose between the two categories.

The results of this table correspond with the results of the first supplementary test (Table 40). Both tables show a clear preference for the intangible bonus category (which consists of: recognition, promotion and schooling opportunity).

Table 42: Comparison intangible and tangible bonus compensation

	Frequency (N)	Percentage (%)
The intangible category	51	78.5
The tangible category	12	18.5
I don't know	2	3.1
Total	65	100

5. Conclusion

This chapter will provide the conclusions and discussion of the research.

Firstly, the results will be summarized and described concisely.

Hereafter, the contribution of this research to literature will be explained. More specifically, this part will describe how the thesis contributes to the existing body of knowledge in literature.

Next, the contribution to practice will be described. This part explains which implications the thesis and its findings have for practice.

Lastly, the limitations of the research will be provided. Suggestions for future research will be mentioned as well.

5.1. Main Results

The following research question was formulated in the introduction:

RQ: Do non-monetary bonus rewards have a stronger effect on employees' extrinsic motivation compared to monetary bonus rewards?

Moreover, two sub-questions were developed in order to specify and support the main research question:

- 1) Do significant differences exist between the non-monetary bonus rewards concerning their effects on extrinsic motivation?*
- 2) Which specific bonus compensation type is most highly valued by employees?*

The obtained results will be used to provide an answer to this central question and the sub questions.

The results of the simple linear regressions show that receiving an activity invitation has a significantly positive effect on the extrinsic motivation level. Moreover, also the categories 'intangible non-monetary bonus rewards' and 'tangible non-monetary bonus rewards' appear to have similar effects on the extrinsic motivation level of employees. This indicates that people who receive one or more of the intangible non-monetary bonus rewards (used in this study) are more extrinsically motivated than people who do not receive these type of bonus rewards. The same conclusion holds for the tangible non-monetary bonus rewards.

However, the multiple linear regressions, which control for a lot of variables (including monetary compensation), only show a positive, significant effect of activity invitation on extrinsic motivation. None of the other non-monetary bonus reward types has a stronger effect on extrinsic motivation in comparison to a monetary bonus reward.

The factor analysis confirms that the five dependent variables measure the same construct: extrinsic motivation. Likewise, it verifies the separation of the two non-monetary bonus groups: intangible bonus rewards and tangible bonus rewards. Consequently, the obtained factor scores were used to redo some of the multiple linear regressions. Still, no significant relations were revealed. Thus, non-monetary bonus rewards do not have a stronger effect on employees' extrinsic motivation compared to monetary bonus rewards. Moreover, no significant differences exist between the non-monetary bonus rewards concerning their effects on extrinsic motivation. The only exception seems to be activity invitations, which do have a stronger, positive effect on the extrinsic motivation level in comparison to monetary bonus rewards.

In addition, two supplementary tests were conducted. The results of these tests show that intangible non-monetary bonus rewards are preferred over monetary bonus compensation and tangible non-monetary bonus rewards. More specifically, 'recognition' is the bonus compensation type which is most highly valued. Food/Drinks has received the lowest importance ratings.

5.2. Contribution to Literature

The findings of the thesis contribute in several ways to the existing body of knowledge in literature.

The results of this study show that non-monetary bonus rewards do not have stronger, positive effects on extrinsic motivation in comparison to monetary bonus rewards, apart from activity invitations. Thus, monetary rewards still seem to be an essential part of the bonus compensation scheme. This result is in accordance with Locke et al. (1980) and Guzzo et al. (1985). Both studies investigate the effects of incentive pay plans on productivity. Locke et al. (1980) show a significant increase in productivity after the introduction of incentive pay schemes. Moreover, Guzzo et al. (1985) provide evidence that financial incentives are most effective in increasing the productivity of employees.

Stajkovic and Luthans (2001) also compare monetary incentives with non-monetary rewards. More specifically, they compare monetary compensation with a social recognition plan and a performance feedback plan. The authors show that monetary incentives have the greatest effect on performance. Additionally, Gneezy and Rustichini (2000) report that higher monetary compensation leads to a higher performance level. These results correspond to the results in this thesis.

Jensen (1994) states that monetary incentives are popular because they generate purchasing power and thus are highly valued. Accordingly, employees can decide for themselves in which way they spend the monetary reward. Concerning this, Long and Shields (2010) show that monetary incentives can satisfy primary needs, but also higher-ranked needs. Money seems to be one of the most influential motivators for the majority of people (Rynes et al., 2004). These findings provide possible explanations for the results in this thesis.

The additional results of this study show that intangible rewards are the most highly valued bonus category. More specifically, recognition receives the highest rating. Likewise, Hannan (2005) finds that reciprocity plays an important role in motivating employees. With this finding, he suggests to incorporate behavioral factors into efficient contracts, in addition to economic factors. Moreover, also Aguinis et al. (2013) and Sprinkle (2003) propose to use monetary and non-monetary rewards simultaneously. In particular, Aguinis et al. (2013) state that certain non-monetary rewards stimulate employees to acquire job-specific knowledge. Sprinkle (2003) asserts that non-pecuniary preferences should be investigated because they may temper the need for certain managerial accounting practices that are used to motivate employees. Furthermore, Linder (1998) finds that “interesting work” is preferred over “good pay”. These results indicate that non-monetary rewards are valuable additions to the pay scheme. This is in accordance with the supplementary results of this thesis.

Thus, the findings of this thesis expand literature that provides evidence of the effectiveness of using monetary rewards to motivate employees. In addition, it also adds to literature that proposes to take intangible non-monetary rewards into account.

5.3. Contribution to Practice

The implications of this study and its findings for key stakeholders will now be described.

This study explored if non-monetary bonus types are more effective in increasing the extrinsic motivation of employees in comparison to monetary bonus rewards. The main results show that only activity invitations (e.g., outdoor activities, theatre shows, soccer matches) are a more powerful tool to use than monetary bonus rewards. Moreover, the results of the additional tests show that employees place great importance on intangible non-monetary bonus rewards (recognition, promotions and schooling opportunities). These results have implications for the key stakeholders concerning the rewarding issue: managers.

The most important finding for managers is that they should not only consider cash bonuses while developing a bonus reward system. Rewarding employees in the most efficient manner is a difficult task. This study supports managers in designing bonus reward systems and making better decisions. Even though monetary rewards are regarded important, managers should take a broader view and also incorporate alternatives. From the results, it is clear that activity invitations should be considered by managers as part of the bonus reward system. Apparently, employees like to receive tickets/invitations for certain events. Jeffrey (2004) uses the concept 'justifiability' to explain this. Employees might normally not justify the purchase of certain tickets for events. However, when those tickets are provided as a reward, the employee can obtain them without paying and in this way maintains his justification standards.

Furthermore, employees highly value the intangible non-monetary bonus category. More specifically, it seems that employees place a lot of emphasis on 'recognition'. This indicates that only giving praise to someone who accomplished his/her task may already result in increasing motivation levels. Thus, managers should also pay attention to intangible bonus rewards.

To conclude, managers should carefully evaluate which bonus types to include in the reward system. Monetary bonus rewards seem to continue to play a central role in the rewarding process. However, these monetary rewards should be considered in combination with other bonus reward types, like activity invitations and intangible rewards, to attain the most effective bonus compensation scheme.

5.4. Limitations and Suggestions for Future Research

In this subsection, the limitations of the research and the suggestions for future research will be described.

One of the main concerns of this study is that most of the participants are younger than 26 years. In fact, this group represents 54.3% of the sample, which is a large amount. Hence, the results of the other age groups are based on a small number of participants. The same holds true for the 'years of working experience'. Because the sample consists mainly of young employees, most of the participants do not have a lot of working experience.

This possibly results in a bias if there actually exist large differences between specific age groups (or amounts of working experience) and their relation to extrinsic motivation. Future research can overcome this problem by approaching more different age groups, which results in a better diversified sample.

Moreover, the control variable 'annual income' was replaced by 'educational level', because some respondents may not feel comfortable by providing their annual salary. However, the educational level does not always have to be highly related to the income level. A better approximation to use in future research might be the 'monthly salary'. In this case, participants do not have to provide their yearly income. The monthly salary consists of a considerably smaller amount; thus employees might be more willing to reveal it. Nonetheless, also with 'monthly salary' the possibility exists that employees do not want to share it.

Another limitation is that this thesis measures extrinsic motivation in a different context than the ones used in previous research. Moreover, the statements used to measure extrinsic motivation are considerably different. As a result of this adaptations, it is possible that there is a lower validity. Future research could use similar statements as in this research to verify the validity and reliability of the statements.

In addition, this thesis only examined a few bonus types and their effects on extrinsic motivation. However, there exist many more bonus types in the working environment. Future research could study other types of bonus rewards and/or other dimensions of motivation.

Furthermore, the sample used in this study is not a random sample. The subjects were approached personally and using the snowball sampling method. Thus, they were not selected randomly from the population. Moreover, the sample consists only of the subjects who did respond. Hence, there may be a sample selection bias. This lowers the external validity of the study.

Lastly, surveys do not measure actions, they only measure judgments and beliefs. However, actions and judgments/beliefs do not always correspond. Moreover, questions can be mistaken or interpreted differently by different persons (Keusch, 2015). This may result in biased outcomes.

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7. Appendix

7.1. Appendix A: Points of Improvement

- Remove 'below' in question 3. In the Netherlands high school is mandatory, so the highest level of education cannot be 'below high school'.
- Question 3 was not well enough formulated. Make clear if the highest level of education is the one which is completed or the one which you are currently enrolled in.
- Concerning question 4, add the option 'unemployed'.
- Specify and explain the concept 'working experience' in question 5.
- Regarding question 8 up to and including question 14, replace 'very important' with 'important' (scale number 6).
- Concerning question 23, replace the 7-point scale with multiple choice options. This makes the question clearer.
- Mention in the introduction how much time it will take to complete the survey.
- At the end of the survey, remind the participants to press the button 'Send'.

7.2. Appendix B: Questionnaire

This questionnaire is about different bonus reward systems in organizations. It is a major part of my Master thesis at the Erasmus University Rotterdam. I would appreciate it if you would help me with my research by filling out this questionnaire. The questionnaire consists of 23 multiple-choice questions. It will take less than five minutes to complete it. Participation is voluntary. If you complete the survey, you have the chance to win a bol.com gift card with a value of €25. The survey is completely anonymous and the answers will only be used for the purpose of this research project.

Note: The term ‘bonus rewards’ refers to rewards that are offered as an extra incentive to motivate employees to achieve their target and/or to compensate them for delivering good job performance. Thus, bonus rewards in this survey are defined as all additional rewards employees receive besides their usual pay scheme and which are related to job performance. For example, you can think of: a cash bonus, a box of chocolates, a promotion, a gift card, appreciation/compliments from your supervisor, etc.

Q1: What is your age?

- Under 26 years
- 26-34 years
- 35-44 years
- 45-54 years
- 55 years or older

Q2: What is your gender?

- Male
- Female

Q3: What is the highest level of education you have completed? *(If you are currently enrolled, please choose the one you are enrolled in.)*

- High school
- MBO
- HBO
- WO

Q4: What is your employment status?

- Full-time (35 hours or more)
- Part-time (12-34 hours)
- Side-job (less than 12 hours)
- Unemployed

Q5: How many years of working experience do you have? *Working experience consists of all jobs in which you signed a contract with a particular company (side-job, part-time and/or full-time.)*

- Less than 10 years
- 10-20 years
- 21-30 years
- More than 30 years

The following questions are about bonus rewards. The term ‘bonus rewards’ refers to rewards that are offered as an extra incentive to motivate employees to achieve their target and/or to compensate them for delivering good job performance. Thus, bonus

rewards in this survey are defined as all additional rewards employees receive besides their usual pay scheme and which are related to job performance. For example, you can think of: a cash bonus, a box of chocolates, a promotion, a gift card, appreciation/compliments from your supervisor, etc.

Q6: Do you have experience in receiving ‘bonus rewards’ at your current job?

- Yes → Q7
- No → Q8

Q7: Which of the following bonus rewards did you receive at your current job? (more than one answer possible)

- Monetary compensation (in other words: cash bonus)
- Recognition from your supervisor (also includes: appreciation, praise and compliments)
- Promotion
- Schooling opportunity (e.g., courses, work-related events)
- Food/Drinks (e.g., bottle of wine, chocolates, dinner card)
- Present (e.g., flowers, gift card, book)
- Activity invitation (e.g., outdoor activities, theatre shows, soccer matches)
- Other, namely...

Please indicate for the following bonus rewards on the 7-point scale how important they are to you or would be to you in case you receive them (1=not important at all, 2=low importance, 3=slightly important, 4=moderately important, 5=important, 6=very important, 7=extremely important).

Q8: Monetary compensation (in other words: cash bonus):

Not important at all

Extremely important

1 2 3 4 5 6 7

Q9: Recognition from your supervisor (also includes: appreciation, praise and compliments):

Not important at all

Extremely important

1 2 3 4 5 6 7

Q10: Promotion:

Not important at all

Extremely important

1 2 3 4 5 6 7

Q11: Schooling opportunity (e.g., courses, work-related events):

Not important at all

Extremely important

1 2 3 4 5 6 7

Q12: Food/Drinks (e.g., bottle of wine, chocolates, dinner card):

Not important at all

Extremely important

1 2 3 4 5 6 7

Q13: Present (e.g., flowers, gift card, book):

Not important at all

Extremely important

1 2 3 4 5 6 7

Q14: Activity invitation (e.g., outdoor activities, theatre shows, soccer matches):

Not important at all

Extremely important

1 2 3 4 5 6 7

Please choose for the following statements a point on the 7-point scale that is most appropriate in describing you at your current job (1=completely disagree, 2=disagree, 3=slightly disagree, 4=neither agree nor disagree, 5=slightly agree, 6=agree, 7=completely agree, NA=not applicable).

Q15: ‘*The targets in my job stimulate me to do the best I can.*’

Completely disagree

Completely agree

1 2 3 4 5 6 7 NA

Q16: ‘*I am less incentivized to work efficiently if my supervisor does not (often) monitor me/my performance.*’

Completely disagree

Completely agree

1 2 3 4 5 6 7 NA

Q17: ‘*My job encourages me to deliver great job performance.*’

Completely disagree

Completely agree

1 2 3 4 5 6 7 NA

Q18: ‘*I do not want to put extra effort into a certain task when it does not provide me any special benefits.*’

Completely disagree

Completely agree

1 2 3 4 5 6 7 NA

Q19: Suppose the supervisor (or manager) of your department is very busy with a lot of projects and he/she is afraid that the projects will not be completed in time. Thus, he/she asks specifically for your help with a particular task.

‘If my supervisor asks me to support him/her with a particular project, I am excited to help him/her.’

Completely disagree

Completely agree

1 2 3 4 5 6 7 NA

Q20: *‘The working environment in my organization triggers me to achieve excellent results.’*

Completely disagree

Completely agree

1 2 3 4 5 6 7 NA

Q21: *‘On overall, I feel motivated to accomplish my job task as well as possible.’*

Completely disagree

Completely agree

1 2 3 4 5 6 7 NA

Q22: *‘I prefer to receive non-monetary bonus rewards instead of a cash bonus.’*

Completely disagree

Completely agree

1 2 3 4 5 6 7 NA

Q23: Assume you (as an employee) may choose between two categories of non-monetary bonus rewards: intangible or tangible rewards. The intangible category consists of: recognition, a promotion and a schooling opportunity. The tangible category consists of: food/drinks, a present and an activity invitation. You can only choose the category, but not the specific reward type. Which category would you choose?

- The intangible category
- The tangible category
- I don't know

Q24: I would like to thank you for helping me with my research by completing this questionnaire. Please fill in your e-mail address in the box below if you want to get a chance to win the bol.com gift card. The winner will be randomly selected and contacted when the required results are obtained and the questionnaire is closed.

Q25: If you have any questions or comments regarding the research, please leave them in the box below.

Thank you for filling out this questionnaire! Do not forget to press the button ‘Send’! :)

7.3. Appendix C: Descriptive Statistics

Table 3: Descriptive Statistics

Statement	Valid N	Mean	Median	Standard Deviation	Skewness	Kurtosis
<i>'The targets in my job stimulate me to do the best I can.'</i>	59	4.58	5	1.589	-0.491	-0.562
<i>'My job encourages me to deliver great job performance.'</i>	65	5.14	5	1.298	-0.221	-0.935
<i>'If my supervisor asks me to support him/her with a particular project, I am excited to help him/her.'</i>	65	5.57	6	1.104	-1.225	1.773
<i>'The working environment in my organization triggers me to achieve excellent results.'</i>	66	4.94	5	1.311	-0.350	-0.738
<i>'On overall, I feel motivated to accomplish my job task as well as possible.'</i>	65	5.74	6	1.163	-1.004	0.802

Note: 1=completely disagree, 2=disagree, 3=slightly disagree, 4=neither agree nor disagree, 5=slightly agree, 6=agree, 7=completely agree.

7.4. Appendix D: Correlation Tables

Table 4: Spearman Correlations (including statement 1)

	1.Age	2.Gender	3.Education	4.EmpStat	5.WorkingExp	6.MonComp	7.Rec	8.Promo	9.SchoolOpp	10.FoDr	11.Present	12.ActInv	13.Statement1
1	1												
2	-0.202	1											
3	-0.085	-0.141	1										
4	0.514**	-0.288**	-0.327**	1									
5	0.847**	-0.189	-0.100	0.455**	1								
6	0.281	-0.234	0.060	0.149	0.227	1							
7	0.113	-0.175	0.015	0.083	0.207	-0.169	1						
8	0.274	-0.247	0.209	0.191	0.224	0.294	0.222	1					
9	0.322*	-0.269	-0.049	0.192	0.255	0.353*	0.121	0.506**	1				
10	-0.302	0.201	-0.023	0.045	-0.234	-0.052	0.000	0.060	0.051	1			
11	0.007	0.146	-0.030	0.099	-0.014	-0.090	-0.033	-0.033	0.094	0.651**	1		
12	-0.069	-0.058	-0.183	-0.175	-0.003	0.089	0.000	0.104	0.321*	0.346*	0.145	1	
13	0.180	0.106	-0.147	0.211	0.172	0.173	0.024	0.166	0.313	0.268	0.095	0.440**	1

** . Significant at the 1%-level (2-tailed).

* . Significant at the 5%-level (2-tailed).

Table 5: Spearman Correlations (statement 3)

	1.Age	2.Gender	3.Education	4.EmpStat	5.WorkingExp	6.MonComp	7.Rec	8.Promo	9.SchoolOpp	10.FoDr	11.Present	12.ActInv	13.Statement3
13	0.368**	0.014	0.008	0.281*	0.353**	0.158	-0.019	0.103	0.064	0.003	0.179	0.069	1

** . Significant at the 1% -level (2-tailed).

* . Significant at the 5% -level (2-tailed).

Table 6: Spearman Correlations (statement 5)

	1.Age	2.Gender	3.Education	4.EmpStat	5.WorkingExp	6.MonComp	7.Rec	8.Promo	9.SchoolOpp	10.FoDr	11.Present	12.ActInv	13.Statement5
13	0.094	0.179	0.091	-0.105	0.012	0.028	0.160	0.249	0.198	0.011	0.208	-0.052	1

** . Significant at the 1% -level (2-tailed).

* . Significant at the 5% -level (2-tailed).

Table 7: Spearman Correlations (statement 6)

	1.Age	2.Gender	3.Education	4.EmpStat	5.WorkingExp	6.MonComp	7.Rec	8.Promo	9.SchoolOpp	10.FoDr	11.Present	12.ActInv	13.Statement6
13	0.261*	0.151	-0.038	0.228	0.281*	0.013	0.183	0.146	0.191	-0.003	-0.021	0.136	1

** . Significant at the 1% -level (2-tailed).

* . Significant at the 5% -level (2-tailed).

Table 8: Spearman Correlations (statement 7)

	1.Age	2.Gender	3.Education	4.EmpStat	5.WorkingExp	6.MonComp	7.Rec	8.Promo	9.SchoolOpp	10.FoDr	11.Present	12.ActInv	13.Statement7
13	0.265*	0.069	0.004	0.163	0.309*	0.045	0.175	0.159	0.205	-0.098	0.025	0.166	1

** . Significant at the 1% -level (2-tailed).

* . Significant at the 5% -level (2-tailed).

7.5. Appendix E: Simple Linear Regression

Table 9: Monetary compensation

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	4.459***	5.023***	5.548***	4.907***	5.619***
Monetary compensation	0.313	0.340	0.061	0.093	0.337
Adjusted R ²	-0.8%	0.0%	-1.5%	-1.4%	0.4%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 10: Recognition from your supervisor

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{Recognition} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	4.529***	5.105***	5.500***	4.821***	5.579***
Recognition from your supervisor	0.111	0.080	0.167	0.291	0.384
Adjusted R ²	-1.6%	-1.5%	-1.0%	-0.3%	1.1%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 11: Promotion

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{Promotion} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	4.480***	5.107***	5.518***	4.895***	5.679***
Promotion	0.631	0.226	0.371	0.327	0.433
Adjusted R ²	0.4%	-1.2%	-0.2%	-0.8%	0.1%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 12: Schooling opportunity

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{SchoolingOpportunity} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	4.349***	5.083***	5.521***	4.837***	5.604***
Schooling opportunity	0.839	0.211	0.185	0.399	0.513
Adjusted R ²	3.9%	-1.1%	-1.0%	0.3%	2.3%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 13: Food/Drinks

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{FoodDrinks} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	4.325***	5.111***	5.600***	4.913***	5.711***
Food/Drinks	0.780	0.089	-0.100	0.087	0.089
Adjusted R ²	3.7%	-1.5%	-1.4%	-1.5%	-1.5%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 14: Present

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{Present} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	4.488***	5.043***	5.543***	4.936***	5.696***
Present	0.290	0.325	0.088	0.011	0.146
Adjusted R ²	-1.0%	-0.2%	-1.5%	-1.6%	-1.2%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 16: Non-monetary compensation

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{NonMonetaryCompensation} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.000*	5.500***	5.000***	4.000***	5.667***
Non-monetary compensation	1.719	-0.294	0.647	1.088	0.216
Adjusted R ²	2.2%	-2.6%	0.4%	2.7%	-2.5%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

7.6. Appendix F: Multiple Linear Regression

Table 19: Hypothesis 1

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{NonMonetaryCompensation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.818	6.239***	5.810***	4.202***	6.059***
Monetary compensation	0.173	-0.104	-0.313	-0.311	-0.009
Non-monetary compensation	0.400	-0.156	0.376	1.211	0.618
26-34 years	2.839	-0.206	1.718*	-0.316	0.461
35-44 years	0.926	-0.186	0.491	-0.714	-0.893
45-54 years	-1.624	0.203	0.432	-0.625	0.387
55 years or older	-1.771	-0.514	-1.497	-1.330	-0.438
Female	1.280	-0.076	0.606	0.442	-0.237
HBO	-0.775	-0.667	-0.342	-0.813	-0.814
MBO	-0.763	-1.282	-1.778*	-1.239	-1.449
High school	0.079	-1.184	0.093	-0.596	-1.474
Part-time (12-34 hours)	0.309	-0.747	-0.725	-0.195	-0.238
Side-job (less than 12 hours)	-1.373	-0.862	-0.460	-0.543	-0.561
10-20 years of working experience	-1.328	-0.183	-0.571	0.948	0.413
21-30 years of working experience	0.682	0.206	-0.365	1.612	0.225
More than 30 years of working experience	3.727	1.560	0.430	2.894	0.997
Adjusted R ²	-12.9%	-13.3%	6.4%	-5.8%	-17.6%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 20: Hypothesis 2

$$\begin{aligned} \text{Extrinsic motivation} &= \alpha + \beta_1 \text{MonetaryCompensation} + \\ &\beta_2 \text{IntangibleNonMonetaryCompensation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \\ &\beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon \end{aligned}$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.904*	5.943***	5.538***	4.519***	5.955***
Monetary compensation	0.256	-0.086	-0.173	-0.158	0.135
Intangible non-monetary compensation	0.257	0.138	0.591	0.739	0.636
26-34 years	2.780	-0.264	1.507	-0.478	0.263
35-44 years	0.904	-0.159	0.446	-0.799	-0.950
45-54 years	-1.714	0.290	0.402	-0.966	0.267
55 years or older	-1.833	-0.443	-1.511	-1.542	-0.509
Female	1.322	-0.100	0.631	0.637	-0.164
HBO	-0.759	-0.664	-0.308	-0.709	-0.760
MBO	-0.623	-1.218	-1.501*	-0.892	-1.150
High school	0.101	-1.222	0.044	-0.466	-1.472
Part-time (12-34 hours)	0.309	-0.713	-0.691	-0.311	-0.247
Side-job (less than 12 hours)	-1.310	-0.798	-0.299	-0.457	-0.421
10-20 years of working experience	-1.358	-0.178	-0.572	0.956	0.415
21-30 years of working experience	0.679	0.164	-0.402	1.699	0.223
More than 30 years of working experience	3.734	1.478	0.319	2.938	0.930
Adjusted R ²	-12.9%	-13.2%	11.2%	-14.4%	-8.3%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 21: Hypothesis 2A

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{Recognition} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.935***	5.032***	4.717***	4.558***	5.209***
Monetary compensation	0.456	-0.048	0.050	-0.191	0.173
Recognition	0.234	-0.256	0.553	0.341	0.244
26-34 years	0.767	-0.003	1.012*	0.019	0.311
35-44 years	-0.177	0.044	0.832	-0.107	-0.366
45-54 years	-2.746	-0.354	0.771	-0.860	-0.084
55 years or older	-3.651	-1.103	-1.754	-2.378	-0.864
Female	0.754	0.302	0.442	0.752	0.416
HBO	-0.316	0.147	-0.174	-0.377	-0.037
MBO	0.214	-0.352	-0.383	-0.328	-0.445
High school	0.112	-0.292	0.569	0.199	-0.166
Part-time (12-34 hours)	0.153	-0.028	0.426	0.011	0.131
Side-job (less than 12 hours)	-0.835	-1.060	0.666	-1.042	-0.380
10-20 years of working experience	-0.174	0.335	-0.550	0.555	0.598
21-30 years of working experience	1.552	1.229	-0.153	1.399	0.740
More than 30 years of working experience	4.917	1.921	1.194	3.119	1.324
Adjusted R ²	7.2%	-0.9%	6.6%	1.4%	-7.7%

***. Significant at the 0.1% -level (2-tailed).

**. Significant at the 1% -level (2-tailed).

*. Significant at the 5% -level (2-tailed).

Table 22: Hypothesis 2B

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{Promotion} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.806***	4.994***	4.866***	4.666***	5.260***
Monetary compensation	0.305	-0.046	0.108	-0.140	0.186
Promotion	0.857	-0.280	0.324	0.125	0.198
26-34 years	0.701	0.065	0.871	-0.066	0.248
35-44 years	-0.435	0.221	0.494	-3.03	-0.523
45-54 years	-3.587	0.024	0.164	-1.180	-0.393
55 years or older	-3.643	-1.126	-1.720	-2.363	-0.846
Female	0.815	0.313	0.390	0.712	0.399
HBO	-0.108	0.054	-0.025	-0.298	0.038
MBO	0.399	-0.405	-0.322	-0.304	-0.407
High school	0.139	-0.255	0.467	0.142	-0.204
Part-time (12-34 hours)	0.148	-0.009	0.374	-0.023	0.110
Side-job (less than 12 hours)	-0.756	-1.056	0.618	-1.077	-0.390
10-20 years of working experience	0.033	0.188	-0.256	0.730	0.733
21-30 years of working experience	2.324	0.831	0.532	1.776	1.077
More than 30 years of working experience	4.913	1.940	1.172	3.114	1.311
Adjusted R ²	9.8%	-1.3%	2.1%	0.0%	-8.3%

***. Significant at the 0.1% -level (2-tailed).

**. Significant at the 1% -level (2-tailed).

*. Significant at the 5% -level (2-tailed).

Table 23: Hypothesis 2C

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{SchoolingOpportunity} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.909***	4.945***	4.933***	4.659***	5.279***
Monetary compensation	-0.064	-0.020	0.115	-0.296	0.085
Schooling opportunity	1.076	-0.195	0.144	0.402	0.316
26-34 years	0.520	0.092	0.853	-0.128	0.200
35-44 years	-0.307	0.187	0.537	-0.305	-0.509
45-54 years	-3.539	-0.044	0.303	-1.377	-0.473
55 years or older	-3.693	1.067	-1.768	-2.459	-0.926
Female	0.919	0.320	0.373	0.746	0.416
HBO	-0.214	0.103	-0.082	-0.314	0.007
MBO	0.199	-0.350	-0.387	-0.330	-0.448
High school	-0.197	-0.201	0.411	0.051	-0.281
Part-time (12-34 hours)	-0.002	0.005	0.360	-0.038	0.094
Side-job (less than 12 hours)	-0.873	-1.032	0.582	-1.071	-0.395
10-20 years of working experience	-0.129	0.227	-0.294	0.688	0.691
21-30 years of working experience	2.462	0.888	0.416	1.942	1.144
More than 30 years of working experience	4.913	1.892	1.215	3.180	1.370
Adjusted R ²	12.1%	-1.4%	1.4%	1.2%	-7.6%

***. Significant at the 0.1% -level (2-tailed).

**. Significant at the 1% -level (2-tailed).

*. Significant at the 5% -level (2-tailed).

Table 24: Hypothesis 3

$$\begin{aligned} \text{Extrinsic motivation} &= \alpha + \beta_1 \text{MonetaryCompensation} + \\ &\beta_2 \text{TangibleNonMonetaryCompensation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \\ &\beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon \end{aligned}$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.581*	5.514***	6.045***	4.955***	6.307***
Monetary compensation	0.018	-0.266	-0.342	-0.407	-0.083
Tangible non-monetary compensation	1.000	0.798	0.146	0.475	0.444
26-34 years	2.615	-0.153	1.770*	-0.150	0.545
35-44 years	0.685	-0.040	0.487	-0.727	-0.885
45-54 years	-2.289	0.162	0.261	-1.175	0.084
55 years or older	-2.590	-0.675	-1.639	-1.788	-0.731
Female	1.048	-0.256	0.649	0.581	-0.222
HBO	-0.749	-0.694	-0.321	-0.748	-0.796
MBO	-0.899	-1.367	-1.793*	-1.287	-1.494
High school	0.188	-1.124	0.189	-0.288	-1.318
Part-time (12-34 hours)	0.351	-0.588	-0.768	-0.333	-0.257
Side-job (less than 12 hours)	-1.137	-0.571	-0.464	-0.552	-0.489
10-20 years of working experience	-0.964	-0.109	-0.558	0.992	0.488
21-30 years of working experience	1.716	0.793	-0.190	2.179	0.661
More than 30 years of working experience	4.391	1.743	0.562	3.318	1.267
Adjusted R ²	-5.6%	-2.5%	5.6%	-10.8%	-16.4%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 25: Hypothesis 3A

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{FoodDrinks} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.831***	4.887***	4.890***	4.674***	5.295***
Monetary compensation	0.230	-0.154	0.120	-0.136	0.215
Food/Drinks	0.545	0.072	0.138	0.056	0.033
26-34 years	0.910	0.095	0.929	-0.042	0.264
35-44 years	-0.003	0.234	0.635	-0.246	-0.470
45-54 years	-2.815	-0.167	0.452	-1.069	-0.235
55 years or older	-3.394	-1.066	-1.650	-2.334	-0.836
Female	0.642	0.341	0.340	0.693	0.375
HBO	-0.247	0.116	-0.085	-0.321	0.002
MBO	0.217	-0.342	-0.381	-0.326	-0.444
High school	0.175	-0.217	0.471	0.146	-0.206
Part-time (12-34 hours)	0.208	0.003	0.392	-0.015	0.111
Side-job (less than 12 hours)	-0.703	-0.995	0.624	-1.074	-0.403
10-20 years of working experience	-0.101	0.201	-0.311	0.709	0.710
21-30 years of working experience	1.942	1.033	0.355	1.709	0.959
More than 30 years of working experience	4.813	1.904	1.145	3.103	1.314
Adjusted R ²	9.0%	-1.7%	1.5%	0.0%	-8.6%

***. Significant at the 0.1% -level (2-tailed).

**. Significant at the 1% -level (2-tailed).

*. Significant at the 5% -level (2-tailed).

Table 26: Hypothesis 3B

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{Present} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	4.018***	4.874***	4.897***	4.718***	5.299***
Monetary compensation	0.484	-0.168	0.128	-0.089	0.220
Present	0.127	0.176	0.208	-0.092	0.040
26-34 years	0.719	0.095	0.907	-0.077	0.258
35-44 years	-0.340	0.188	0.545	-0.283	-0.491
45-54 years	-2.989	-0.247	0.341	-1.058	-0.258
55 years or older	-3.694	-1.104	-1.726	-2.374	-0.855
Female	0.693	0.333	0.336	0.708	0.375
HBO	-0.295	0.101	-0.103	-0.313	-0.001
MBO	0.204	-0.345	-0.387	-0.328	-0.446
High school	0.049	-0.224	0.444	0.135	-0.211
Part-time (12-34 hours)	0.162	0.022	0.404	-0.044	0.111
Side-job (less than 12 hours)	-0.857	-0.989	0.611	-1.109	-0.407
10-20 years of working experience	-0.045	0.199	-0.304	0.730	0.713
21-30 years of working experience	1.838	1.106	0.430	1.653	0.973
More than 30 years of working experience	4.962	1.931	1.193	3.125	1.326
Adjusted R ²	6.9%	-1.3%	2.0%	0.0%	-8.6%

***. Significant at the 0.1% -level (2-tailed).

**. Significant at the 1% -level (2-tailed).

*. Significant at the 5% -level (2-tailed).

Table 28: Hypothesis 4

$$\begin{aligned} \text{Extrinsic motivation} = & \alpha + \beta_1 \text{TangibleNonMonetaryCompensation} + \\ & \beta_2 \text{IntangibleNonMonetaryCompensation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \\ & \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon \end{aligned}$$

	Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Variable	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
Constant	3.551*	5.358***	5.382***	4.203***	5.887***
Tangible monetary compensation	0.998	0.737	-0.012	0.296	0.346
Intangible non-monetary compensation	0.045	0.061	0.656	0.730	0.512
26-34 years	2.608	-0.334	1.385	-0.593	0.354
35-44 years	0.691	-0.181	0.364	-0.877	-0.889
45-54 years	-2.281	0.133	0.381	-1.046	0.216
55 years or older	-2.581	-0.699	-1.528	-1.667	-0.617
Female	1.050	-0.248	0.636	0.569	-0.250
HBO	-0.743	-0.691	-0.301	-0.723	-0.790
MBO	-0.892	-1.244	-1.411	-0.851	-1.267
High school	0.189	-1.235	-0.021	-0.530	-1.425
Part-time (12-34 hours)	0.345	-0.539	-0.657	-0.207	-0.193
Side-job (less than 12 hours)	-1.134	-0.516	-0.247	-0.307	-0.349
10-20 years of working experience	-0.961	-0.048	-0.525	1.036	0.420
21-30 years of working experience	1.713	0.761	-0.402	1.944	0.490
More than 30 years of working experience	4.381	1.649	0.257	2.972	1.079
Adjusted R ²	-5.6%	-3.8%	10.5%	-7.4%	-12.2%

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

7.7. Appendix G: Factor Analysis

Factor analysis dependent variables:

Table 29: Correlation Matrix

		Statement 1	Statement 3	Statement 5	Statement 6	Statement 7
Correlation	Statement 1	1.000	0.402	0.280	0.481	0.449
	Statement 3	0.402	1.000	0.353	0.639	0.671
	Statement 5	0.280	0.353	1.000	0.382	0.552
	Statement 6	0.481	0.639	0.382	1.000	0.568
	Statement 7	0.449	0.671	0.552	0.568	1.000
Sig. (1-tailed)	Statement 1		0.001	0.017	0.000	0.000
	Statement 3	0.001		0.003	0.000	0.000
	Statement 5	0.017	0.003		0.002	0.000
	Statement 6	0.000	0.000	0.002		0.000
	Statement 7	0.000	0.000	0.000	0.000	

a. Determinant=0.151

Table 30: Communalities

	Initial	Extraction
Statement 1	1.000	0.442
Statement 3	1.000	0.674
Statement 5	1.000	0.442
Statement 6	1.000	0.663
Statement 7	1.000	0.740

Factor analysis independent variables:

Table 33: Correlation Matrix

		Recognition	Promotion	Schooling opportunity	Food/Drinks	Present	Activity invitation
Correlation	Recognition	1.000	0.404	0.454	0.427	0.394	0.280
	Promotion	0.404	1.000	0.590	0.253	0.175	0.226
	Schooling opportunity	0.454	0.590	1.000	0.338	0.359	0.452
	Food/Drinks	0.427	0.253	0.338	1.000	0.764	0.481
	Present	0.394	0.175	0.359	0.764	1.000	0.324
	Activity invitation	0.280	0.226	0.452	0.481	0.324	1.000
	Sig. (1-tailed)	Recognition		0.000	0.000	0.000	0.000
Promotion		0.000		0.000	0.011	0.059	0.021
Schooling opportunity		0.000	0.000		0.001	0.001	0.000
Food/Drinks		0.000	0.001	0.001		0.000	0.000
Present		0.000	0.001	0.001	0.000		0.002
Activity invitation		0.006	0.000	0.000	0.000	0.002	

a. Determinant=0.101

Table 34: Communalities

	Initial	Extraction
Recognition	1.000	0.512
Promotion	1.000	0.774
Schooling opportunity	1.000	0.752
Food/Drinks	1.000	0.857
Present	1.000	0.805
Activity invitation	1.000	0.427

Table 37: Hypothesis 2

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{MonetaryCompensation} + \beta_2 \text{IntangibleNonMonetaryCompensation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

Extrinsic motivation	
Variable	Coefficient (t-statistic)
Constant	-0.494
Monetary compensation	0.001
Intangible non-monetary compensation (factor score)	0.149
26-34 years	0.348
35-44 years	0.013
45-54 years	-0.727
55 years or older	-1.602
Female	0.631
HBO	-0.141
MBO	-0.223
High school	-0.011
Part-time (12-34 hours)	0.166
Side-job (less than 12 hours)	-0.467
10-20 years of working experience	0.216
21-30 years of working experience	1.201
More than 30 years of working experience	2.127
Adjusted R ²	-3.1%

a. Dependent Variable: Factor score extrinsic motivation

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 38: Hypothesis 3

$$\begin{aligned} \text{Extrinsic motivation} &= \alpha + \beta_1 \text{MonetaryCompensation} + \\ &\beta_2 \text{TangibleNonMonetaryCompensation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \\ &\beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon \end{aligned}$$

Extrinsic motivation	
Variable	Coefficient (t-statistic)
Constant	-0.467
Monetary compensation	0.107
Tangible non-monetary compensation (factor score)	0.058
26-34 years	0.393
35-44 years	0.029
45-54 years	-0.530
55 years or older	-1.608
Female	0.534
HBO	-0.192
MBO	-0.278
High school	-0.001
Part-time (12-34 hours)	0.207
Side-job (less than 12 hours)	-0.478
10-20 years of working experience	0.240
21-30 years of working experience	1.074
More than 30 years of working experience	2.161
Adjusted R ²	-4.6%

a. Dependent Variable: Factor score extrinsic motivation

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).

Table 39: Hypothesis 4

$$\text{Extrinsic motivation} = \alpha + \beta_1 \text{TangibleNonMonetaryCompensation} + \beta_2 \text{IntangibleNonMonetaryCompensation} + \beta_3 \text{Age} + \beta_4 \text{Gender} + \beta_5 \text{Education} + \beta_6 \text{EmploymentStatus} + \beta_7 \text{YearsOfWorkingExperience} + \epsilon$$

Extrinsic motivation	
Variable	Coefficient (t-statistic)
Constant	-0.498
Tangible non-monetary compensation (factor score)	0.035
Intangible non-monetary compensation (factor score)	0.136
26-34 years	0.366
35-44 years	0.037
45-54 years	-0.697
55 years or older	-1.555
Female	0.624
HBO	-0.154
MBO	-0.233
High school	-0.014
Part-time (12-34 hours)	0.178
Side-job (less than 12 hours)	-0.459
10-20 years of working experience	0.204
21-30 years of working experience	1.196
More than 30 years of working experience	2.088
Adjusted R ²	-3.0%

a. Dependent Variable: Factor score extrinsic motivation

***. Significant at the 0.1%-level (2-tailed).

**. Significant at the 1%-level (2-tailed).

*. Significant at the 5%-level (2-tailed).