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Pay factors, employee satisfaction and motivation:

A survey on the influence of pay factors and
character traits on perceived reward satisfaction
and motivation

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Abstract

Pay is an important job attribute (Jurgensen, 1978) and greater job satisfaction results, inter alia, from job rewards (Rusbult and Farrell, 1983; Anderson, Jerman and Constantin, 1979). Through the use of hypothetical job situations, this study will focus on how different pay factors influence the perceived employee reward satisfaction and motivation, both generally and in combination with character traits, and on how these two perceptions relate.

Using policy capturing data obtained from 26 students, this study finds a positive relation between satisfaction and motivation. Furthermore, employee reward satisfaction and motivation are not strongly related to the manner of payment. This study also finds that the character traits risk aversion, self-efficacy and locus of control, mostly do not seem to influence the preference regarding either performance based pay or fixed pay, tangible rewards or non tangible rewards, skill based pay or job based pay and rigid benefits or flexible benefits.

Keywords

Policy capturing, pay types, job reward satisfaction, expectancy theory, motivation, satisfaction, employees, risk aversion, self-efficacy, locus of control

Contents

1 Introduction	5
2 Literature review.....	8
2.1 Pay Factors	8
2.1.1 Fixed Pay and Performance Based Pay	8
2.1.2 Tangible and Non Tangible Rewards.....	10
2.1.3 Flexible and Rigid Benefit plans	11
2.1.4 Skill Based and Job Based Pay Systems.....	12
2.2 Character traits	13
2.2.1 Risk Aversity	13
2.2.2 Self-Efficacy	14
2.2.3 Locus of Control	15
2.3 Employee Job Satisfaction and Motivation.....	16
2.3.1 Employee Job Satisfaction	16
2.3.2 Employee Motivation.....	18
3 Relations and Hypotheses.....	21
3.1 Relation Satisfaction and Motivation.....	21
3.2 Relation Fixed/Performance Based Pay, Character Traits and Satisfaction/Motivation	22
3.3 Relation Tangible/Non Tangible Rewards, Character Traits and Satisfaction/Motivation.....	26
3.4 Relation Flexible/Rigid Benefit Plans, Character Traits and Satisfaction/Motivation	28
3.5 Relation Skill Based/Job Based Pay Systems, Character Traits and Satisfaction/Motivation	29
3.6 Overview Hypotheses	31
4 Research Design	32
4.1 Predictive Validity Framework.....	32
4.2 Data and Research Method	36
4.3 Other Control Variables	40
4.4 Overall Descriptive Statistics.....	41
5 Results	43
5.1 Relation Satisfaction and Motivation.....	43
5.2 General Relation Pay Factors and Perceived Satisfaction/Motivation	43

5.3 Character specific relation pay factors and satisfaction	47
5.4 Overview of supported and rejected hypotheses	51
6 Contributions, Limitations & Strengths and Future Research	52
7 References	56
8 Appendix	61

1 Introduction

Pay is an important job attribute (Jurgensen, 1978) and greater job satisfaction results, inter alia, from job rewards (Rusbult and Farrell, 1983; Anderson, Jerman and Constantin, 1979). A sound compensation system has the ability to attract the right kinds of people (Rynes, 1987). This study will focus on how different pay factors influence the perceived employee reward satisfaction and motivation and on how these two perceptions relate. As the fit between individual personality traits and compensation system characteristics are proven to be important (Cable and Judge, 1994), not only will I look at the general influence of pay factors, I will also examine how character traits affect the preferences of employees. The distinguished pay factors are fixed pay and performance based pay, tangible benefits and non tangible benefits, rigid benefit plans and flexible benefit plans, skill based pay and job based pay. Both the general, relative preferences of employees (e.g. do they generally prefer fixed pay over performance based pay) and how individual character traits affect this preference (e.g. an employee with a high level of risk aversion will prefer a fixed pay more than an employee with a low level of risk aversion) will be examined. Moreover, for each pay factor the perceived motivational force it produces will be studied, again both generally and in combination with personality.

Many studies have already addressed the influence of pay height on satisfaction and this positive relation has well been established (Barber, 1991; Gerhart and Milkovich, 1992; Cable and Judge, 1994). Therefore, this study will not directly examine the effects of a high or low wage. Rather, it shows the relative difference in satisfaction and motivation an employee perceives by receiving a given reward in a certain manner. However, the explanation of some relations between pay factors and satisfaction will make use of the assumption that higher pay leads to higher employee reward satisfaction.

This study will ask students to indicate their perceived attraction and motivation based on a hypothetical job situation. I have chosen for this approach because not only absolute and numerical economic data is informative but also the perceptions and feelings of employees towards a certain job aspect can be of significant value. This study therefore tries to combine

economical factors, such as the rewards and different pay systems, with the psychological perceptions of employees such as risk aversity, locus of control, self efficacy and perceived satisfaction and motivation.

This study will be relevant for several reasons. First of all, many studies have examined the influence of employee satisfaction on performance and customer satisfaction and it is generally recognized that these relations are positive (Organ, 1977; McGee and Cavender, 1984; Heskett, Sasser and Schlesinger 1997). However, the way some important factors, such as different reward types, relate to employee pay satisfaction and motivation is much disputed and sometimes even contradictory¹. The reason I want to address only a small part of the employee job satisfaction, namely different pay types as determinants of job reward satisfaction, is because I want to ensure that I assess this topic accurately. Furthermore, research on job reward attractiveness typically focused on the effects of pay levels (Barber, 1991; Gerhart and Milkovich, 1992; Cable and Judge 1994). However, as will be made clear by this thesis, there are a lot of additional factors that can influence the reward attractiveness of a job. Another point of relevance is that this research adds an important element to a study of Cable and Judge (1994). Their study solely examined the effects of pay factors on satisfaction, while this thesis will also try to determine how these factors influence the employee's perceived motivation. Finally, this study will be of much added value for managers. Indeed, it would be ideal when superiors could make their subordinates more satisfied and/or motivated, which ultimately leads to higher profits, only by paying them the same amount of money differently. This is obviously an exaggerated and unrealistic statement since, in addition to the employee reward satisfaction, the firm has to take into account also effects such as alignment with the goals of the company and giving incentives to work. Still, the resulting satisfaction and motivation of an employee by granting a reward in a certain manner should be a point of consideration for a manager.

To summarize the previous, the following research question of this thesis arises:

¹ See for instance the contradicting results of Christen, Iyer and Soberman (2006) and Igalens and Roussel (1999) w.r.t. the motivational force of a fixed reward. Later on, other disagreeing results will be discussed.

What is the influence of different pay factors (generally and given certain character traits) on perceived employee reward satisfaction and motivation and how do these levels of satisfaction and motivation relate?

This thesis will be organized as follows. In chapter 2 I describe the characteristics of the eight relevant pay factors. Subsequently, the three character traits used in this study, risk aversion, self-efficacy and locus of control, are presented and explained. The chapter concludes with an elaboration on the different determinants of employee satisfaction and motivation and their importance in an organizational setting. Chapter 3 will describe how the different kinds of pay factors are, according to the literature, both generally and with the character traits accounted for, expected to relate with pay satisfaction and motivation. The resulting hypotheses will also be presented. The research design is covered in chapter 4. By using the predictive validity framework (Libby, Bloomfield and Nelson, 2002), it gives an overview of the examined relations. The chapter also elaborates on the research method. Moreover, the external variables, for which will be controlled, are summed up and explained. In chapter 5 the findings and results of the analyzed surveys are presented. Finally, contributions of this study, possible limitations and strengths, and directions for future research will be treated in chapter 6.

2 Literature review

In this chapter I will discuss the definitions, determinants and effects of the four main topics used in this paper, namely pay factors, character traits and employee job satisfaction and motivation. Section 2.1 will discuss the different pay factors, namely: fixed pay and performance based pay, tangible rewards and non tangible rewards, flexible and rigid benefit plans and, finally, skill based and job based pay systems. Then, in section 2.2, I present the findings of academics about the distinguished character traits: risk aversity, self-efficacy and locus of control. I conclude this chapter with a discussion of the topics employee satisfaction and motivation (section 2.3)

2.1 Pay Factors

In this section I will discuss the general characteristics of the different pay factors. I distinguish fixed pay and performance based pay (2.1.1), tangible and non tangible rewards (2.1.2), flexible and rigid benefit plans (2.1.3) and lastly, skill based and job based pay systems (2.1.4). In this chapter the focus is on the pay factors.

2.1.1 Fixed Pay and Performance Based Pay

A fixed pay can generally be described as a given amount of money that an employee receives regardless of his performance². An excess (shortage²) with respect to the employee's target performance will not be rewarded (punished). Performance based pay, on the other hand, is defined as a payment that is, at least partly, dependent on an employee's performance or output.

A key advantage of fixed pay is the fact that the pay cannot be influenced by performance. A well known theory that distinguishes fixed and performance based salary, is the agency theory. This theory predicts that a fixed wage should have a significant positive effect on job satisfaction, regardless of an employee's risk preference (Christen, Iyer and Soberman, 2006).

² Assuming that his performance at least equals the minimal required level to stay employed

Christen, Iyer and Soberman (2006) and Igalens and Roussel (1999) find supportive results regarding this theoretic statement.

In literature, not much is written about the composition of the performance based pay. This is remarkable since a performance based reward scheme often consists of a fixed part and a variable part. The most obvious explanation for the fact that only little attention is given to the composition of the reward package is that is often easier to evaluate and discuss extremes. Agency theory offers a guideline on what an 'optimal' ratio of fixed and variable pay would be. The theory suggest that the variable part should be smaller, the greater the costs of monitoring. Furthermore, a couple of findings of academics can be presented. First, Holmstrom and Milgrom (1991) show that an optimal incentive contract can be to pay only a fixed wage, independent of measured

performance. However, Awasthi and Pratt (1990), for example, find a significant result on their hypothesis that monetary incentives are positively related to time spent on decision tasks. Lazear (2000) reported in a case study that the incentive effect of a piece rate pay was an increase of about 22 percent in production. The previous seemingly contradictory results, are in line with the study of Pfeffer and Langton

(1993) who conclude that neither performance based pay nor fixed pay, produces universally superior results.

From a firm perspective the use or nonuse of performance based pay is mostly determined by the costs of monitoring (Lazear, 1986). If monitoring output is costly, Lazear argues that a

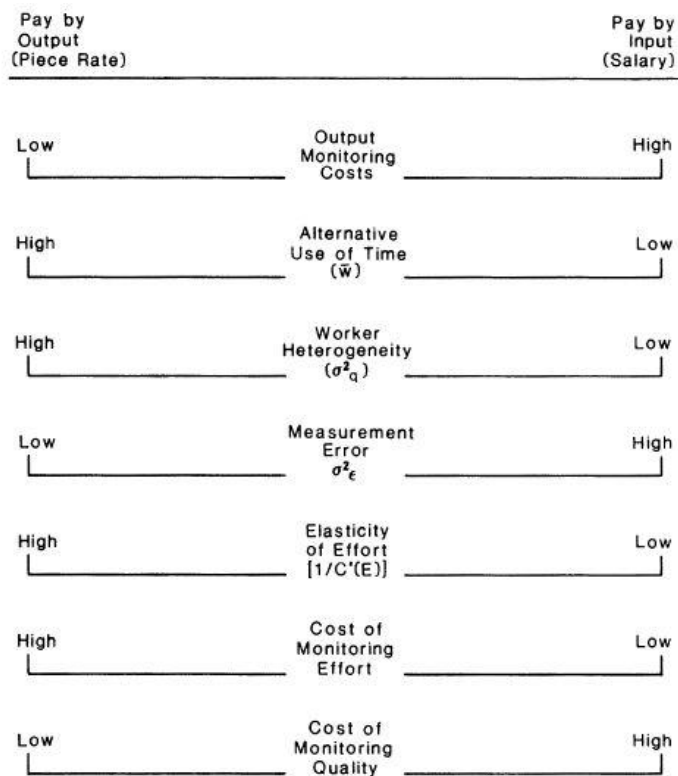


Figure 1 When the firm's characteristics are mostly situated at the left side of this figure, a performance based pay (pay per piece) is preferred. When the firm's characteristics are mostly situated at the right side of this figure, a fixed pay (pay per hour) is preferred.

fixed salary should be paid³. He concluded his research with the following figure (fig. 1)(Lazear, 1986).

Besides these monitoring costs, the optimal pay scheme also depends on lots of other factors. Balkin and Gomez-Mejia (1987) showed that other firm aspects such as the stage of the firm (i.e. the age of the firm), the skills and the profitability of a organization are of influence to the optimal pay composition. The latter are determinants from a company's point of view. A profoundly different approach to determine an employee's wage is to use the efficient wage. The efficient wage hypothesis states that the services an employee renders are a function of the wage he/she receives (Stiglitz, 1976). This is justified by the fact that not all employees are equally skilled. One well-paid worker might be able to do the same tasks as two poorly paid employees can do (Stiglitz, 1976).

2.1.2 Tangible and Non Tangible Rewards

Tangible rewards can be defined as rewards that do not have a direct relation to performance and are not formally agreed upon beforehand. Examples are a holiday gift basket, an outing with colleagues or a small additional cash reward. Supporting literature is scarce. This might be due to the difficulty of using a common term regarding this 'residual' group. Similarly, finding an unambiguous definition of non tangible rewards is complicated. Many academics use different expressions for the same concept. In this paper non tangible rewards can be defined as rewards that are, quite obviously, not tangible and cannot directly be expressed in a monetary value. However, though not directly, some of the non tangible rewards can perceivably lead to tangible rewards. For instance the (perceived) prospect of a promotion is a non tangible reward; it cannot be valued today but it can at the time of realization. Another reward that can be considered non tangible, is the ability to perform a meaningful and significant task⁴ in an organization. A last example of a non tangible reward is appreciation of an

³ He actually refers to this dilemma as choosing between paying on basis of output (performance) or on input (the number of hours an employee works)

⁴ Although some academics classify this as a job characteristic rather than a benefit, this is not detrimental to the further evaluation

employee's superior. For this reward that have value however, the employee should gain full credit for the tasks he/she was assigned to (Wiley, 1997).

A essential difference between a tangible reward and a non tangible reward is the time period required for it to be beneficial to the employee. A tangible reward is considered short term since the employee is able to receive it the instant the employer grants the reward. In contrast, a non tangible reward is often more long term. For instance, receiving enough compliments can in time result in a promotion to a better paid position however, the moment directly following the compliment is not of limited value to the employee. Interestingly, Anderson and Jerman (1979) found that the actual realization of the career growth opportunity is not a condition that has to be satisfied. The opportunity alone, or perception of the employee, is enough to give this reward value⁵.

A last remark about non tangible rewards is that they are likely to be more valued after the lower order needs, which are related to extrinsic rewards such as a financial reward, have been largely satisfied (Deci, 1972; Anderson and Jerman, 1979). This study will not go into detail regarding these influences.

2.1.3 Flexible and Rigid Benefit plans

A possible solution to deal with employees that have different degrees of risk aversion is to use flexible benefit schemes. Barringer and Milkovich (1998) define such a scheme (also known as 'cafeteria benefits') as "*plans that offer employees a choice between qualified (nontaxable) benefits and cash*". For instance, under a flexible benefit scheme employees are allowed to express their relative preferences with respect to topics such as healthcare, dental and employee life insurance (Milkovich and Sturman, 1993)⁶. Rigid benefit plans, on the other hand, are by management predetermined standard benefits.

Under a flexible benefit scheme, employees are thus allowed to choose between several different benefits. However, a firm should use this solution with caution since the results of

⁵ Of course, the perception of a career opportunity can only continue to exist if, at least some of the time, an employee actually does get the promotion

⁶ For example, in the computerized expert system of Milkovich and Sturman (1993), employees were allowed to choose among three 'dental plans': 1. No benefits, 2. Dental benefits for all those in your dependent category, 3. Dental benefits for all those in your dependent category plus all your special dependents.

Igalens and Roussel (1999) suggest that flexible pay lacks efficiency. The reason behind this statement is that a flexible pay scheme influences only employee pay satisfaction and not necessarily job satisfaction. This is in accordance with the evidence provided by Barber, Dunham and Formisano (1992). They add that a firm should consider different factors, such as risk aversion and demand for leisure, when determining the reward schemes. Furthermore, Barber et al. (1992) show that an increased understanding of benefits following implementation of a flexible benefit plan generates increased satisfaction.

A downside of using flexible schemes is that it takes time for employees to get used to and subsequently choose the right package (Cable and Judge, 1994). By contrast, not only do flexible benefit plans lead to higher energy levels and greater focus, it will also reduce the employee turnover and increase the productivity (Schwartz, 1989).

2.1.4 Skill Based and Job Based Pay Systems

Job based pay systems have dominated the fields of organizational behavior and human resource management for a long time. However, since the late eighties, developments in, for instance, global competition, have let academics to believe that a competency-based approach is often more appropriate (Lawler, 1993). The traditional job based system assumes that an employee should be paid according to his position in the organization. However, there is growing evidence that a shift of focus from job based systems to skill based systems is recommendable (Lawler, Ledford and Mohrman, 1992).

A skill based pay system (SBPS) can best be described as *'a system in which the capabilities of individuals are the primary focus and which cause them to be managed in a way that facilitates organizations developing organizational capabilities that provide competitive advantage'* (Lawler III, p6, 1993). Simply put, employees are paid in accordance with the number of positions they are able to fulfill in an organization.

The main reason for adopting a skill based approach is to create a competitive advantage (Lawler, 1993; Murray and Gerhart, 1998) even though the training costs and hourly wages are higher (Tosi and Tosi, 1986). Furthermore it would aid in attracting new employees and retaining existing ones. However, academics argue that, for the skill based system to work

effectively, certain organizational elements have to be met. For instance, Lawler (1986) found that the system works best in a high involvement environment. In addition, Gomez-Mejia and Balkin (1992) suggested that the following elements benefited the results of a SBPS: the organization is situated in a start up or growth phase, has a participative culture and offers other incentive programs complementing skill based pay.

Murray and Gerhart (1998) suggest that a relevant theory to describe a SBPS is the expectancy theory. Here, skill seeking and acquisition is motivated by rewarding an employee for skill or knowledge competencies. In terms of the model of Vroom (1964)⁷, the incremental pay increases are the reward outcome, the value of the increase is the valence, the exertion of skill competency is the effort outcome and the level of skill seeking behavior is the input effort (Murray and Gerhart, 1998). This is in accordance with Tosi and Tosi (1986) who state that workers in a skill based pay system have strong incentives to increase knowledge and skill since higher skill levels are associated with both higher status and with pay.

2.2 Character traits

This chapter gives a detailed and extensive description of the identified character traits. Subsection 2.2.1 will address the influence and determinants of risk aversion. Then, subsection 2.2.2 will provide information found in literature about self efficacy. And finally, subsection 2.2.3 will present an overview of the findings regarding the locus of control.

2.2.1 Risk Aversity

In the late seventies, Kahneman and Tversky (1979) came up with an essential theory in the field of loss aversion: the prospect theory. This theory states that people have to gain a higher level of profit in order to compensate for a certain level of loss. Put differently, losses hurt people more than gains. Tversky and Kahneman (1991) calculated that the ratio, that makes an even chance to gain a certain amount or to lose a certain amount acceptable, to be just over

⁷ $F_i = f_i (\sum(E_{ij}V_j))$, $i = n+1, \dots, m$,

Where F= the force to perform (motivation), E= the likelihood that act I will be followed by outcome j, and V= the valence of outcome j

2:1. Although the former is about loss aversion, most studies that assume loss aversion imply a small-scale risk aversion (Rabin, 2000). To be more specific, loss aversion is the combination of two characteristics namely, risk aversion in gains and risk loving in losses (Bowman, Minehart and Rabin, 1999). Payments should be seen only as gains since an employee cannot lose money when he/she receives his salary. The fact that people are generally risk averse in situations involving a sure gain (Bowman, Minehart and Rabin, 1999) is therefore noteworthy. Furthermore, research has shown that risk averse employees may be willing to make sacrifices in favor of a payment with less risk (for example, receiving a fixed salary instead of a performance based payment) (Weinberger, 1997; Deckop, Merriman and Blau, 2004).

With respect to the determinants of the level of risk aversion, variables such as age and income play an essential role. For these variables will therefore be controlled (see section 4.2 part 3 and section 4.3). A characteristic regarding the gender of an employee was formerly also thought of as an influential variable (see for example Jiankoplos and Bernasek, 1998). Some academics found a significant higher level of exhibiting risk aversion for women than for men when making financial decisions. However, more recent studies argue that these results were found in error due to the fact that they did not control properly for variables such as opportunity assets (Schubert, Brown, Gysler, Brachinger, 1999). Studies of, inter alia, Schubert et al. (1999), Gysler, Kruse and Schubert (2002) and Eckel and Grossman (2003) all show evidence that, when controlling for the above mentioned variables, there is no consistent or significant difference in the level of risk aversion between men and women.

2.2.2 Self-Efficacy

Self-efficacy is about the belief that one can successfully perform a certain type of behavior (Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs and Rogers, 1982). Furthermore, it determines the initial decision to perform a behavior, the needed effort and the persistence in case of setbacks (Bandura, 1977). Bandura (1977) suggests that individuals who often experienced success in the past, are expected to have positive self-efficacy expectancies in a greater variety of situations than those who have experienced limited success. Another

characteristic of employees who perceive a high level of self-efficacy, is that these individuals tend to exert greater effort in order to master challenges (Bandura, 1993).

The determinants of the actual level of self efficacy are the context in which the success or failure experience occur and the individual's attribution of success to chance or skill (Bandura, 1977). Figure 2 give a schematic overview of the determinants, judgments and results associated with self efficacy.

A study that assessed how virtual organizations can manage remote employees effectively (Staples, Hulland and Higgins, 1999), showed strong relations between the level of self-efficacy and work effectiveness, perceived productivity, job satisfaction and the ability to cope. In addition, the

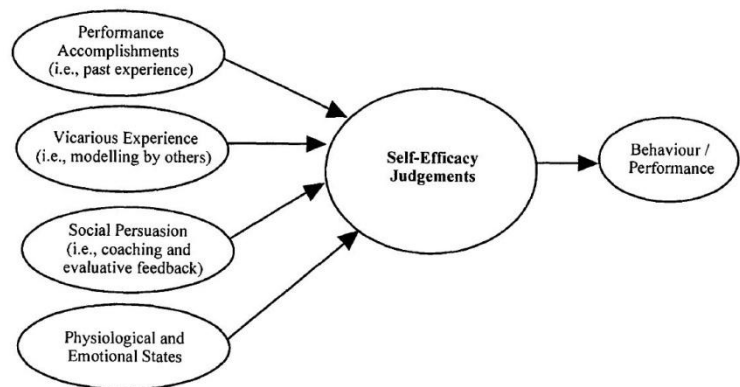


Figure 2 adopted from Staples, Hulland and Higgins (1999)

level of self-efficacy is also related with the motivation an individual perceives. Wood and Bandura (1989) therefore expanded the definition of self-efficacy by suggesting that this character trait forms a central role in the regulatory process through which an individual's motivation and performance attainments are directed. This is concretized in Bandura's study 'self-efficacy in cognitive development' (1993). He finds that self-efficacy beliefs contribute to the level of motivation in a number of ways, namely: they determine the goals people set for themselves, how much effort they expend, how long they persevere in the face of difficulties and their resilience to failures.

2.2.3 Locus of Control

Locus of control is an individual's character trait that may be closely related to self-confidence or self esteem (Miceli and Near, 1992). Two extremes were distinguished by Rotter (1966): internal locus of control (internal LOC) and external locus of control (external LOC). Individuals with an internal LOC focus believe that they themselves are for the most part in control of their

outcomes, while people with an external control, on the other hand, deem chance factors, such as fate and luck, to be the main determinants of their outcomes. Miceli and Near (1992) suggested that persons with an internal LOC may feel more competent than do individuals with an external LOC. In addition, Mitchell, Smyser and Weed (1975) argued that, based on previous research, employees with an internal LOC are more satisfied with the work setting than externals. This may be a direct result of the finding that individuals with an external control focus tend to be more alienated from their work setting.

2.3 Employee Job Satisfaction and Motivation

In this section I will describe what is meant with employee job satisfaction (2.3.1) and motivation (2.3.2). Furthermore, the determinants of both employee job satisfaction and motivation and their influence on performance and other job aspects will be treated.

2.3.1 Employee Job Satisfaction

Employee satisfaction is a much debated topic in the field of behavioral research (Organ, 1977; Petty, McGee and Cavender 1984; Koys 2001) . Not only are the exact determinants often unclear, the actual influence of job satisfaction on performance is not as straightforward as one might think.

I will start this section with the determinants of job satisfaction⁸. First of all, the type of reward an employee receives influences his perceived satisfaction. Pay types like flexible pay and benefits can increase or decrease different facets of satisfaction in different manners (Igalens and Roussel, 1999). Besides the pay type, the height of the reward and the height of the reward in comparison with other employees, influences pay satisfaction (Igalens and Roussel, 1999). Igalens and Roussel (1999) also found that employees are more satisfied when they perceive their fixed pay as 'fair' in relation to their contribution to their firm. The used reference in order to determine the 'fairness' are the salaries other employees in the same organization receive.

⁸ In this chapter the terms 'job reward satisfaction', 'job satisfaction' and 'employee satisfaction' are often used. These terms are actually strongly related. Job reward satisfaction is an important determinant of job satisfaction and job satisfaction influences the level of employee satisfaction.

Other, mainly self-perceived, determinants of job satisfaction are listed in the following figure (3) (Sousa-Poza and Sousa-Poza, 2000)

work-role inputs	work-role outputs
education	high income ^a
working time	job security ^a
exhausting job ^a	advancement opportunities ^a
physically demanding ^a	interesting job ^a
dangerous job ^a	work independently ^a
	help people ^a
	useful to society ^a
	relationship with management ^a
	relationship with colleagues ^a

^a self-perceived values

Figure 3 According to Sousa-Poza and Sousa-Poza (2000) an increase in work-role inputs should, ceteris paribus, decrease job satisfaction. An increase in one of the work-role outputs should, ceteris paribus, increase satisfaction.

Now that the main determinants are discussed it is interesting to evaluate the importance of a satisfied employee. Remarkably, the most straightforward relation that comes to mind, namely job satisfaction leads to higher performance, has in practice lead to contradictive results. The hypothesis that satisfaction is directly related to performance is much disputed ⁹. Petty, McGee and Cavender (1984) do find an impressive positive relation though they state that the strength of the relation can differ among job levels. Koys (2001), on the other hand, does not find a signification satisfaction-performance relation. However, he notes that he does not think profit-oriented managers should ignore employee satisfaction. The motivation behind the remark is that, though there may not be a direct relation, the service profit chain of Heskett, Sasser and Schlesinger (1997) implies that employee satisfaction might indirectly influence performance. The rationale is that a satisfied employee will ‘pass on’ this feeling on to a customer, which in turn is also more inclined to become satisfied. As a result, the increase in customer satisfaction will ultimately lead to a higher firm turnover/performance.

⁹ See Organ (1977) for an elaborate discussion about the logic behind the ‘satisfaction-causes-performance’ hypothesis

Another effect of a high level of employee satisfaction within an organization is that it leads to what is commonly known as organizational citizenship behavior (OCB)¹⁰. Employees are expected to behave appropriately and job performance is an important aspect of this behavior (Koys, 2001).

The last point of interest with respect to the benefits of ensuring that the employees of a firm are satisfied, is that it keeps them attached to the company. Sims and Kroeck (1994) found that satisfaction and commitment are negatively related to turnover intentions.

In order to cover the total employee satisfaction Cotton and Tuttle (1986) made a distinction between overall job satisfaction, satisfaction with the work itself, pay satisfaction, satisfaction with supervision and organizational commitments. For managers, this finding should be noteworthy since it gives an indication of the areas of satisfaction the manager should account for and, by this means, decrease the chance that a skilled employee leaves the company. Finally, other implications of employees that feel like they are treated unfairly or inequitably, are thievery of company assets (Greenberg,1990) and a lower product quality (Cowherd and Levine, 1992).

2.3.2 Employee Motivation

Identical to employee satisfaction, employee motivation and its determinants are much debated (Vroom, 1964; Mitchell, 1973; Stahl and Harrell, 1981). Motivation can be defined as the result of internal and external factors that stimulate desire and energy in people to be continually interested in and committed to a job, role, or subject, and to exert persistent effort in attaining a goal¹¹. In theories about motivation there is a distinction between two types of motivation: extrinsic and intrinsic motivation. Extrinsic motivation requires an instrumentality between the activity and some separable consequences (Gagné and Deci, 2005). For instance, a person gets extrinsically motivated because of rewards. In contrast, an employee is intrinsically motivated when he/she performs an activity without an apparent reward except for the activity itself or the feelings which result from the activity (Deci, 1972). A now popular theory of

¹⁰ The five distinguished categories by Organ (1988) are: conscientiousness (employees have to carry out their tasks beyond the minimum required level), altruism (give to help others), civic virtue (employees should participate in the political life of the organization), sportsmanship (people do not complain and have a positive attitude) and courtesy (treat others with respect)

¹¹ www.businessdictionary.com

motivation that was initially developed by Deci and Ryan is the Self-determination theory (SDT) (see e.g.: Sheldon, and Krieger, 2007; Patrick, Knee, Canevello, and Lonsbary, 2007; Ntoumanis, Edmunds, and Duda, 2009). Central to SDT is the distinction between autonomous motivation and controlled motivation (Gagné and Deci, 2005), where intrinsic motivation is an example of autonomous motivation and extrinsic motivation can be described as a controlled form of motivation.

Deci (1999) argued that reward¹² reduces this intrinsic motivation and presented in 1999 a meta-analysis concluding that expected tangible rewards decreases intrinsic motivation (Deci, Koestner and Ryan, 1999). A paper of the same year by Eisenberger and Cameron (1999), however, found somewhat contrary results. They reported that granting rewards for exceeding the past performance of others, increases intrinsic motivation. Where the authors did agree upon was the fact that both intrinsic and extrinsic motivation are influenced by many factors where elements such as reward, appreciation, job security, promotion and interesting work are the most important (Wiley, 1997).

Not all academics distinguish an intrinsic and extrinsic motivation¹³. Marsden and Richardson (1994), for example, performed a case study in which they evaluated the perceived motivation of employees. They argued that, for there to be a heightened motivation to perform, an employee has to be able to change his behavior and has to feel confident that a change in the behavior will reliably produce the rewards and has to value the rewards sufficiently to justify the change in behavior. Furthermore, verbal reinforcement has also long been recognized as an action that raises motivation (Deci, 1972).

Regarding the relation between a motivated employee and his performance, the answer seems straightforward. Indeed, since the employee is more willing to put effort and time in his task, his performance will probably rise. The results from studies that use expectancy theories of motivation and their ability to predict the amount of effort expended on job tasks and/or the level of job performance have been tested empirically and with generally positive results

¹² Especially contingent monetary payments

¹³ The remainder of this study will also stop to make a distinction between intrinsic and extrinsic as all the pay factors, save for skill based and job based pay systems (which influences intrinsic motivation, Hackman & Oldham, 1976), can be considered extrinsic rewards.

(Walker, Gilbert, Churchill and Ford, 1977). Moreover participation, a possible result of motivation¹⁴, is found to be strongly related to managerial performance (Brownell and McInnes, 1986). Nevertheless, the previous relation should be treated with some caution. Wiley (1997) states that motivation affects behavior, rather than performance. Initiatives designed to increase the performance by increasing an employee's motivation might not be effective if there is a weak link between the job performance and an employee's effort. This is consistent with the expectancy model as has been offered by Vroom (1964)¹⁵.

Although the relation between motivation and performance might not be undisputed, it is, just like satisfaction, not wise for a manager to neglect this factor. Unmotivated employees can lead to potential costs such as: possible damage to the work atmosphere, reduced staff confidence in the reporting system, and reduced motivation among more senior and longer service staff (Marsden and Richardson, 1994)

¹⁴ Although this relation is bidirectional; participation causes motivation and motivation can lead to participation

¹⁵ See footnote 7 for formula

3 Relations and Hypotheses

In this chapter I will provide the hypotheses of this study and their underlying relations. The used independent variables in this research are the eight different pay factors: fixed pay and performance based pay, non tangible rewards and tangible rewards, flexible benefit plans and rigid benefit plans and finally, skill based pay schemes and job based pay schemes. The hypotheses are presented in such a way that the 'A' hypotheses will test relations in their most general form, so without taking into account the character traits of the students, while 'B and up' hypotheses will take into account a second independent variable group, the character traits: risk aversion, self-efficacy and locus of control. The dependent variables will be the perceived level of employee reward satisfaction and motivation. Although in some cases the pay height is used to explain a relation (e.g. performance based pay will motivate employees because the associated wage may be higher than under a fixed pay scheme), it is important to note that the measured satisfaction and motivation are relative, and will not directly be the result of the height of the pay. Furthermore, note that not all possible relations between character traits and satisfaction/motivation are investigated. This is due to either lacking support of literature or because logically derived assumptions based on past research cannot be made properly.

This chapter is organized as follows: Section 3.1 will describe the relation between satisfaction and motivation. The next section (section 3.2) will present the way performance based pay and fixed pay, in itself and in combination with character traits, are expected to influence the perceived satisfaction and motivation of an employee. This structure will be similar for the other pay factors: tangible/non tangible reward hypotheses (section 3.3), flexible/rigid benefit plan hypotheses (section 3.4) and lastly, skill/job based pay system hypotheses (section 3.5). The chapter ends with an overview of the proposed hypotheses (section 3.6).

3.1 Relation Satisfaction and Motivation

The first hypothesis will describe the expected relation between employee reward satisfaction and motivation. A general relation between satisfaction and motivation is hard to establish for every employee. Some employees might be happy and satisfied with their payment and other

job attributes while, at the same time, they do not perceive a high degree of motivation. For instance, Igalens and Roussel (1999) found that making benefits attractive can favor satisfaction, but this is done to the detriment of (some aspects of) motivation. They will be satisfied with their job if it offers benefits that suit them, however, their motivation to perform will not be increased.

Yet, since it is anticipated that a satisfied employee is inclined to work hard in order to keep his job, an increase in satisfaction will generally lead to a higher perceived motivation (Locke, Schweiger and Iatham, 1986; Sheppard, Hartwick and Warshaw, 1988; Walker, Churchill and Ford, 1977). Expectancy theory suggests that, in case of equal expectancy, i.e. the chance that additional effort will lead to above normal performance, a higher valence (satisfaction) will lead to a higher perceived motivation. The assumption is valid for both low and high levels of expectancy, though the relation will be higher in case of a high expectancy level.

Therefore, a positive relation between job reward satisfaction and the level of motivation that results from a specific reward type is expected. This leads to the following hypothesis:

H1: The level of satisfaction an employee perceives as the consequence of a certain pay situation is positively related to the perceived motivation resulting from this pay situation

Based on the first hypothesis, in this study all but one of the hypotheses on the assumed relation between pay factors and satisfaction or motivation, will be similar. The hypothesis that differs with respect to the expected relation (H2A & H3A), will be presented separately for both satisfaction and motivation.

3.2 Relation Fixed/Performance Based Pay, Character Traits and Satisfaction/Motivation

The relation, implied by the agency theory, that a fixed compensation should have a positive effect on job satisfaction is supported by the findings of Christen, Iyer and Soberman (2006) and Igalens and Roussel (1999). Cable and Judge (1994) reported statistics from a large national sample (conducted by the Bureau of National Affairs, 1988) indicating that 63% of the

employees were more attracted to a fixed salary than to a performance based salary. Especially in companies where pay may be subject to unstable factors beyond the control of the employee, such as economic climate, it is apparent that fixed pay is more preferred than a performance based wage (Cable and Judge, 1994). This is consistent with the findings offered by Bowman, Minehart and Rabin (1999), which showed that employees are generally risk averse in situation involving a sure gain. Furthermore, Eisenhardt (1989) argued in an extensive review about the agency theory, that agents are, in general, more averse to financial risks than their principals. This would be the result of the disability of employees to diversify their risks¹⁶. The previous findings lead to the second hypothesis:

H2A: Employees will perceive a higher level of satisfaction from a fixed pay scheme than from a performance based pay scheme

The individual attraction of employees towards a certain pay scheme largely depends on the character traits, such as risk aversion, of that individual. A risk inclined employee would likely appreciate a small fixed pay part whereas a risk averse person would be more attracted to a wage that mostly contains fixed pay. As mentioned, Weinberger (1997) and Deckop, Merriman and Blau (2004) showed that risk averse employees may be willing to make sacrifices in favor of a payment with less risk (for example, receiving a fixed salary instead of a performance based payment). This is consistent with the negative relation, found by Weber, Anderson and Birnbaum (1992), between the perception of risk and the level of attraction an employee perceives towards a job. They argued that the evaluation of risk is, although being inversely related to job attraction, subject to individual differences. Lastly, Gomez-Mejia and Balking (1989) reported findings indicating that employees with a high level of risk aversion, are more likely to experience 'withdrawal cognition'¹⁷ if their salaries are variable. The following hypothesis can thus be formulated:

¹⁷ Withdrawal cognition: the desire withdraw from a company

H2B: Employees with a high level of risk aversion will perceive a higher level of satisfaction and motivation from a fixed pay scheme versus a performance based pay scheme than employees with a low level of risk aversion

Another important character trait that influences the preference of either fixed or performance based pay is self-efficacy. Miceli and Lane (1991), reported that employees with high self confidence prefer a performance based pay more than employees with a low level of self confidence do. Employees with a high level of self-efficacy are assumed to be more confident that they can handle the challenge of performance based pay. This is emphasized by the statements that indentify the level of self-efficacy, created by Sherer and Maddux (1982), such as 'When I make plans, I am certain I can make them work' and ' When I set important goals for myself, I almost always achieve them'. Thus we can hypothesize:

H2C: Employees with a high level of self-efficacy will perceive a higher level of satisfaction from a performance based pay scheme versus a fixed pay scheme than employees with a low level of self-efficacy

A last character trait that can determine an employee's attraction towards fixed or performance based pay is the extent to which he/she believes himself/herself to be able to control his environment and outcomes (either an external locus of control or an internal locus of control). Those with an internal locus of control (LOC) will be more confident that they can directly influence the performance of an organization and will therefore be less deterred by a performance based pay scheme. Together with the finding of Mitchell, Smyser and Weed (1975) that employees with an internal LOC are more satisfied with the work setting than externals, the following hypothesis can be formulated:

H2D: Employees with an internal locus of control will perceive a higher level of satisfaction and motivation from a performance based pay scheme versus a fixed pay scheme than employees with an external locus of control

Generally, the differences in output resulting from a performance based pay scheme versus a fixed wage are evident. Whether the performance based reward was evaluated in the form of a piece rate pay, a tournament or revenue sharing, it did not affect the outcome: a variable pay scheme results in much higher output compared to a fixed pay scheme (Dohmen and Falk, 2007). This is in line with the study of Christen et al. (2006), who report that a fixed reward does not seem to significantly relate with effort and thus motivation.

In a case study, that evaluated the motivational effects of performance based pay, the authors find at the most a very modest positive relation (Marsden and Richardson, 1994). They reported even evidence of cases with a demotivational effect. In accordance, Igalens and Roussel (1999) find a positive relation between fixed pay and work motivation for some employees¹⁸. The explanation for the phenomenon that the performance based pay scheme did not lead to higher motivation was that not all the 'criteria'¹⁹ for a heightened motivation were met. However, the fact that Eisenberger (1999) found that a reward for exceeding the past performance of others did increase motivation, shows that different types of performance pay schemes can render different results. It could also be the case that the reported relation of Marsden and Richardson (1994) between pay for performance and motivation was influenced by the fact that the employees did not perceive the relation between their payments and output (Igalens and Roussel, 1999). Still, since most academics found a positive relation between performance pay and motivation (e.g. Paarsch and Shearer, 2000; Lazear, 2000; Eisenberger, 1999; Dohmen and Falk, 2007), it is reasonable to assume that, if employees perceive a relation between their effort and output, performance based pay will indeed increase motivation. Hence:

H3A: Employees will perceive a higher level of motivation from a performance based pay scheme than from a fixed pay scheme

¹⁸ Igalens and Roussel (1999) differentiated between exempt employees and nonexempt employees. They found that fixed pay can increase work motivation and satisfaction for the exempt group

¹⁹ See also section 2.1.2 Employee Motivation

3.3 Relation Tangible/Non Tangible Rewards, Character Traits and Satisfaction/Motivation

The level of satisfaction an employee perceives by receiving a tangible reward is expected to influence the reward attractiveness in the same manner as a fixed pay salary does. This implies that an employee who prefers a fixed pay over a performance based pay, will also be more attracted to a tangible reward than to a non tangible reward. Yet, granting non tangible rewards to employees has also proven to be an important factor that influences employee satisfaction. In a study of Rousseau (1977) it became evident that task significance was highly related to employee satisfaction and involvement. Furthermore, results of Eisenberger, Pierce and Cameron (1999) indicate that task significance increases motivation, in line with an early study in the seventies by Mitchell (1973), who reported a positive relation between participation and motivation. In line with the previous, Wiley (1997) reported that the appreciation an employee receives from his superior, which is considered a non tangible reward, is an important determinant of motivation²⁰. It is, according to Wiley, essential that the employee gains full credit for the task he/she was assigned to.

In spite of the previous relation, the general attraction is likely to be higher for a tangible reward than for a non tangible reward. This assumption is strengthened by the myopic loss aversion theory, first recognized by Bernartzi and Thaler (1995). This theory states that not only the general characteristic of people to be loss averse is of influence when making decisions but also the planning horizon, or rather the evaluation period, carries great weight (Van der Sar, 2008). The evaluation period of individuals is generally quite short and although people can gain greater reward by waiting, they often prefer a short or middle term profit. The two factors, loss aversion and the short evaluation period, combined increases the chance that employees will prefer a small additional cash amount (tangible reward) over a compliment from their superior (a non tangible reward). Although receiving enough compliments can result in a

²⁰ 'Full appreciation for work done' was placed second in the top five of motivation factors

promotion to a better paid position²¹, the required long evaluation period makes this option for employees less attractive.

With the previous findings in mind, the following hypothesis arises:

H4A: Employees will perceive a higher level of satisfaction and motivation from receiving tangible rewards than from receiving non tangible rewards

Looking at the difference in risk level between tangible and non tangible rewards, tangible rewards evidently imply less risk but non tangible rewards have the potential to be far more promising. Furthermore, non tangible rewards are expected only to be valued after the lower order needs, which are related to extrinsic rewards such as a financial reward, have been largely satisfied (Deci, 1972; Anderson and Jerman, 1979). This leads to the assumption that risk averse employees might be more attracted to tangible rewards than risk inclined employees, and thus:

H4B: Employees with a high level of risk aversion will perceive a higher level of satisfaction and motivation from receiving tangible rewards versus non tangible rewards than employees with a low level of risk aversion

The last character trait related to satisfaction is self-efficacy. Tangible rewards/non tangible rewards combined with self-efficacy are assumed to be similarly related to satisfaction as fixed pay schemes and performance based pay schemes do. The rationale is that employees with a high level of self-efficacy are confident in their ability to cope (Staples, Hulland and Higgins, 1999) and will appreciate the compliment since they are convinced that they are able to receive the implied promotion soon. The following hypothesis can be derived:

H4C: Employees with a high level of self efficacy will perceive a higher level of satisfaction and motivation from receiving non tangible rewards versus tangible rewards than employees with a low level of self-efficacy

²¹ Assuming that the net present value of the additional amount this new position pays is higher than the sporadic small cash receipts

3.4 Relation Flexible/Rigid Benefit Plans, Character Traits and Satisfaction/Motivation

Barber, Dunham and Formisano (1992) presented findings that showed a positive relation between flexible benefit plans and benefits satisfaction. Also, they reported, though to a lesser extent than the previous relation, a significant relation between the use of flexible benefit plans and job satisfaction. Similarly, Cable and Judge (1994) suggested that job seekers were generally more attracted to organizations that offered flexible benefits than to organizations that offered rigid benefits. In addition, Barringer and Milkovich (1998) argue that, among others, flexible benefit plans are tied to continued employment and will induce employees to work at least hard enough to keep their jobs. Thus:

H5A: Employees will perceive a higher level of satisfaction and motivation from flexible benefit plans than from rigid benefit plans

The only character trait that is supported by previous literature and relates to the relative attraction towards either a flexible or a rigid benefit plan, is the perceived locus of control. Miceli and Lane (1991) suggested that an employee's control perception may influence the preference for flexible benefit plans. The rationale behind this statement is that employees with an internal LOC are more attracted to situations in which they have the possibility to influence the outcome. Also, although flexible benefit plans will generally be more preferred than rigid benefit plans, Cable and Judge (1994) suggest that the responsibility and time investment it takes to first learn about the different options and subsequently choose the right package, will deter some employees. They derive this statement from results presented by Sturman & Milkovich (1993), who reported that a significant number of employees were satisfied with the benefit package that was composed with aid of a computerized expert system. The following relation can therefore be hypothesized:

H5B: Employees with an internal locus of control will perceive a higher level of satisfaction and motivation from a flexible benefit plan versus a rigid benefit plan than employees with an external locus of control

3.5 Relation Skill Based/Job Based Pay Systems, Character Traits and Satisfaction/Motivation

Although a skill based pay system (SBPS) is in most cases beneficial for the firm, it is expected that employees will still prefer a job based pay system. Not only is it hard to determine how 'competent' one is, the employee also has to invest in additional education/training in order to receive a decent salary. The myopic loss aversion theory states that employees are generally risk averse and have a short evaluation horizon (Bernartzi and Thaler, 1995; Bowman, Minehart and Rabin, 1999; Van der Sar, 2008). Uncertainty about the exact demands, additional investments in learning and the fear of falling behind are all elements that make a SBPS more risk bearing. Tosi and Tosi (1986) report that especially workers with low motivation, ability and tolerance for work ambiguity will be unsatisfied with a SBPS. The relation that is shown leads to the following hypothesis:

H6A: Employees will perceive a higher level of satisfaction and motivation from a job based pay system than from a skill based pay system

Risk aversion can be of major influence regarding the attraction an employee experiences towards either a job based or a skill based pay system. Employees have to choose between the general job based pay system and the SBPS that requires firm-specific investments. These firm-specific investments in skills might not be transferable across firms and are thus considered more risky than the jobs where you are paid in accordance with your position and for which you only need a few skills. In other words, one should consider the uncertainty of the firm's future payoffs for the acquired skills (Shaw, 1996). Another form of risk involvement under a SBPS is the risk of not being able to keep up with colleagues, which effectively renders the employee redundant or results in wage stagnation. The following hypothesis can be formulated:

H6B: Employees with a high level of risk aversion will perceive a higher level of satisfaction and motivation from receiving a job based system versus a skill based system than employees with a low level of risk aversion

Preferences of individuals regarding either the job based system or the SBPS may vary (Cable and Judge, 1994). It is expected that, in accordance with Bandura (1993), employees with a high level of self-efficacy will be more satisfied and motivated by a skill based pay system than those with a low level of self-efficacy since a high level of self efficacy implies that those employees are willing to exert more effort in order to master the challenges ahead of them. This is consistent with the already mentioned findings of Tosi and Tosi (1986) that especially workers with low ability (i.e. low self-efficacy) will not be attracted to a SBPS. Thus:

H6C: Employees with a high level of self-efficacy will perceive a higher level of satisfaction and motivation from a skill based system versus a job based system than employees with a low level of self-efficacy

A last distinguished character trait that is of influence is the perceived locus of control. Employees with an external LOC believe that they cannot influence their surroundings and personal outcomes. In case of a job based system, where one is paid in accordance to the position he/she occupies, this is of no importance. However, when working under a skill based system, the employee has to increase his skills and invest in education in order to receive a decent wage. It can therefore be assumed that employees with an internal LOC are more attracted to a skill based system than employees with an external LOC. And therefore:

H6D: Employees with an internal locus of control will perceive a higher level of satisfaction and motivation from a skill based system versus a job based system than employees with an external locus of control

3.6 Overview Hypotheses

The following table (fig. 4) gives an overview of the formulated hypotheses regarding the relation between satisfaction and pay factors (generally and in combination with character traits). Plusses and minuses (respectively, a positive and negative relation) represent the hypothesized direction of the relation.

Figure 4

Relation with satisfaction and motivation	Perf. based (vs. fixed)	Tangible (vs. non tangible)	Flexible benefit (vs. rigid benefit)	Job based (vs. skill based)
General	- (H2A)*	+ (H4A)	+ (H5A)	+ (H6A)
Risk aversion	- (H2B)	+ (H4B)	X	+ (H6B)
Self-efficacy	+ (H2C)	- (H4C)	X	- (H6C)
Internal LOC	+ (H2D)	X	+ (H5B)	- (H6D)

*relation not valid for relation with motivation, instead see H3A

Additional hypotheses:

H1: The level of satisfaction an employee perceives as the consequence of a certain pay situation is positively related to the perceived motivation resulting from this pay situation

H3A: Employees will perceive a higher level of motivation from a performance based pay scheme than from a fixed pay scheme

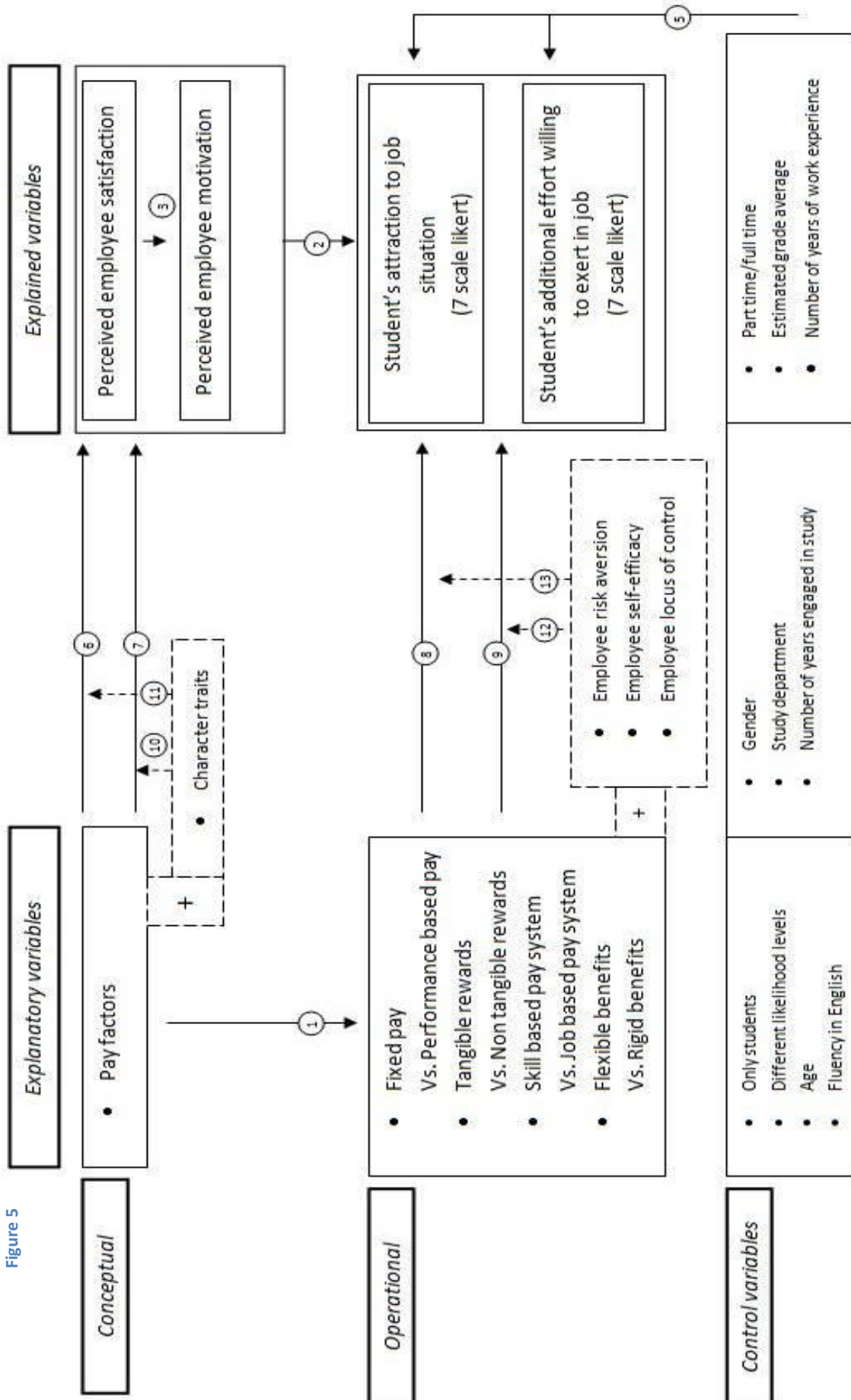
4 Research Design

In this chapter I will present the research design of this study and general descriptive statistics. Section 4.1 will explain this study by making use of the predictive validity framework. Section 4.2 presents the proposed research method and the structure of the survey. Some of the main control variables are explained in section 4.3. Finally, section 4.4 gives an overview of overall descriptive statistics.

4.1 Predictive Validity Framework

To give a clear overview of the topic that will be researched, a model presented by Libby, Bloomfield and Nelson (2002), will be used. This 'predictive validity framework' is a framework that provides a description of the process by which research questions are specified, operationalized and tested (Bisbe, Batista-Foguet and Chenhall , 2007). The 'predictive validity framework' that is used in this study, presented in figure 5, has been slightly adjusted since two dependent variables are examined.

Figure 5



Notes figure 5

Dotted lines

The 'plus' sign and character traits are outlined by dotted lines since these factors will not be used in every hypothesis. As explained in Chapter 3, there is a distinction between a 'general' hypothesis and a hypothesis accounting for character traits.

Explanation of arrows

- Arrow 1. Operationalization of the conceptual explanatory variables
- Arrow 2. Operationalization of the conceptual explained variables
- Arrow 3. Hypothesized relation between the concepts of the explained variables satisfaction and motivation
- Arrow 4. Examined relation between the operationalized explained variables attraction and additional effort
- Arrow 5. Assumed influence of the control variables on the operationalized explained variables attraction and additional effort
- Arrow 6. Hypothesized relation between the concepts of the pay factors and satisfaction
- Arrow 7. Hypothesized relation between the concepts of the pay factors and motivation
- Arrow 8. Examined relation between the operationalized pay and student's attraction to a job situation
- Arrow 9. Examined relation between the operationalized pay factors and student's additional effort willing to exert in a job
- Arrow 10. Hypothesized relation between the concepts of the pay factors combined with character traits and motivation
- Arrow 11. Hypothesized relation between the concepts of the pay factors combined with character traits and satisfaction
- Arrow 12. Examined relation between the operationalized pay factors combined with character traits and student's additional effort willing to exert in a job

Arrow 13. Examined relation between the operationalized pay factors combined with character traits and student's attraction to a job situation

Variable measurement

To measure the different pay factors, the following eight phrases are used:

- Phrase 1. Your salary is fixed
- Phrase 2. Your salary is based on performance. A target salary is set and, depending on the performance of the organization you will receive a payment in the range of 15% below and 25% above this target salary
- Phrase 3. You sometimes get an additional reward in the form of a small cash amount
- Phrase 4. You often get compliments from your boss (which might indicate an increase of your chance on a promotion)
- Phrase 5. Your salary reflects the number of jobs you are able to perform
- Phrase 6. Your salary reflects the position you occupy
- Phrase 7. You are given an amount of cash to spend on benefit options
- Phrase 8. You will receive a, by management, predetermined standard benefit

Except for phrases 3 and 4, all phrases are adopted from Cable and Judge (1994) who in turn derived the dichotomous conditions from Gerhart and Milkovich (1992), Milkovich and Newman (1990) Gomez-Mejia and Balkin (1992) and Drankoski and Judge (1992).

Clear from figure 5 is the importance of the concepts being 'translated' into operational variables. Without the right or accurate 'translation' the link between the explanatory variables and explained variables will be less valid. Furthermore, not only the used explanatory variables influence the explained variables, there are also a lot of other, not examined, factors. To isolate the explanatory variables I will control for the variables that are also assumed to be related to the explained variables (see 4.2 part 3 and 4.3).

4.2 Data and Research Method

The presented hypotheses in this study are examined through the use of surveys. First a small pilot study among three students was conducted. Asked was to keep track of how long it took them to complete the survey and whether there were ambiguities with respect to the cases, terms and questions. The main adjustments that resulted from this pilot study were that the survey was shortened and some changes in the presentation of the survey. For the final survey, the respondents were expected to need approximately 15 minutes to complete the survey. To finish the survey, all questions had to be filled in. As incentive to participate I randomly allotted 15 euro to one student per 25 completed and usable surveys. To those who did not open the survey and did not opt out, the survey was sent again one week after the initial first mail (first reminder). A last reminder was sent one and a half week after that, to the students that still had not replied.

Each student filled out 32 questions about character traits (part 1) plus eight unique cases and two duplicates (explained later on) with a question about attraction and motivation (part 2) plus nine general questions (part 3). This makes, in total, 59 questions per filled in survey. Out of the 381 surveys sent, 33 surveys were returned of which 30 were completed (7.9%) .

The survey consisted of three parts: a character defining part (1), a case presenting part (2) and a general question part (3). All parts will briefly be described. An example of a (shortened) survey can be found in the appendix (A).

Part 1, character defining part

In each of the four surveys the same statements were presented in part 1. This study required information about three character traits, namely; risk aversion, self-efficacy and locus of control. For each characteristic I used measures based on past research.

1. Regarding the character trait risk aversion, only little items were available. I decided to combine the three item scale of Tan (1999) with the two item scale used in Mitchell and Mickel (1999). Chosen is for general risk aversion questions (e.g. I like to take chances, I

am comfortable borrowing substantial sums of money for investment purposes) instead of focusing the risk aversion questions on job decisions, as has been done in Cable and Judge (1994) (e.g. I am not willing to take risks when choosing a job or a company to work for). This study tries to examine the influence of general risk aversion combined with pay factors on satisfaction and motivation. Therefore this choice seemed appropriate. This five-item measure of risk aversion used in this study resulted in a Cronbach's alpha estimate²² of 0.69.

2. To assess the level of self-efficacy I used the 17 item scale of Sherer, Maddux, Mercandante, Prentice-dunn, Jacobs and Rogers (1982). This scale showed acceptable reliability and construct validity and measured the general self-efficacy with an estimated internal consistency of 0.84 (Cable and Judge, 1994). The found Cronbach's alpha estimate of this study regarding the self-efficacy measure was 0.80. Examples of self-efficacy items are: Failure just makes me harder; If I can't do a job the first time. I keep trying until I can.
3. The last character trait, locus of control, was evaluated with help of the Paulhus' (1983) 10 item scale. Since this study examines to what extent the employee believes himself able to influence his environment and outcome, only the interpersonal control scale is used²³. Examples are: I have no trouble making and keeping friends; If there is someone I want to meet, I can usually arrange it. The well known locus of control scale by Rotter (1966), was not used in this study since the alpha reliabilities were significantly lower than the values found with the sphere-of-control items of Paulhus (1983). The Cronbach's alpha estimate of this study regarding the locus of control measure was 0.82

All items of the different scales were presented in random order. Furthermore, to increase the uniformity of the survey, all items used a 7 point likert scale (1 = strongly disagree, 7 = strongly agree). Also, not all statements were presented in the same 'direction'. For example, while

²² Indicator of internal consistency

²³ The Sphere of control battery items created by Paulus distinguished a personal efficacy scale, an interpersonal control scale (used to estimate LOC) and Sociopolitical control scale.

giving a high score to some statements indicated a high level of self-efficacy, others indicated the exact opposite²⁴. The reversed statements in the character determination phase of the survey were transformed and the totals of the three character traits were, for every student, calculated (see section 4.4).

Part 2, cases

The second part of the survey examined the relation between the pay factors and the dependent variables: satisfaction and motivation. Each 'job situation' consisted of four different pay factors. This study used dichotomous conditions i.e. every time, one out of the two 'opposed' pay factors (e.g. fixed or performance based pay) was used to fill in one spot. The four available spots in the cases, where each spot could be filled in by either one of the two opposed factors, resulted in $2*2*2*2 = 16$ possible cases. The students were asked to rate the attractiveness of each job situation on a 7 point likert basis (1 = very little attracted to a job with these characteristics, 7 = very much attracted to a job with these characteristics). The previous described method is called policy capturing and has much been used in studies researching job search and choice decisions (Cable and Judge, 1994). Instead of directly asking the respondent to indicate their attractiveness toward a certain pay factor, such as fixed pay or a tangible benefit, policy capturing actually places the respondent in a decision making situation. This mitigates the problem of only receiving social desirable answers and facilitates a better control environment (Jurgensen, 1978; Cable and Judge, 1994).

After the student had indicated his perceived attraction towards a certain job situation, a percentage (30% or 80%) of the likelihood that additional effort will lead to above normal performance, was given. This was followed up by the question to indicate the additional effort the student would be willing to exert in the provided job (7 point likert scale, 1 = very little additional effort, 7 = very much additional effort). To ensure that the student was able to adequately rate his *additional* effort, which is the proxy for motivation in this study, the introduction of part 2 stated that the student should assume that at the current level of effort in each job situation, his performance was average or slightly below average. This method, to

²⁴ E.g. I avoid facing difficulties (high score indicates low self-efficacy); I am a self-reliant person (high score indicates high self-efficacy)

examine the level of perceived motivation resulting from certain conditions, is derived from the study of Stahl and Harrell (1981). The 16 cases resulting from all the possibilities with respect to the pay factors were each presented with either a 30 or 80 percent likelihood. This in turn produced $16 * 2 = 32$ cases. From the pilot study it became apparent that the total number of ten cases was an appropriate quantity to include in each survey, to limit the length of the survey to an acceptable level. Therefore, four surveys were created with each eight individual cases²⁵ and two duplicates to measure the respondents' reliability between the job situations²⁶. This method to measure the consistency by adding duplicates was adopted from Cable and Judge (1994). For the present study, data provided by four of the respondents was deleted due to extensive differences between the original cases and their duplicates. The final number of used observation was 260 (n=26). The estimated reliability between cases was then examined by calculating the correlations between the original case and its corresponding duplicate. The respondents were moderately consistent in their grading policy. The reliability estimate for the satisfaction grades was .66 while the correlation for the motivation grades was .71.

A sample case is presented below (fig. 6).

Figure 6

Job situation 3							
<ul style="list-style-type: none"> • YOU WILL RECEIVE A, BY MANAGEMENT, PREDETERMINED STANDARD BENEFIT • YOUR SALARY IS FIXED • YOU OFTEN GET COMPLIMENTS FROM YOUR BOSS (WHICH MIGHT INDICATE AN INCREASE OF YOUR CHANCE ON A PROMOTION) • YOUR SALARY REFLECTS THE POSITION YOU OCCUPY 							
	1	2	3	4	5	6	7
With the situation as shown above in mind, indicate HOW ATTRACTED you feel towards this job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The likelihood that additional effort will lead to above normal performance is 80%. Given that you are employed in this organization with the above stated characteristics, rate how much ADDITIONAL EFFORT you would be willing to exert in this job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

²⁵By dividing the total number of possible cases (32) by four, it was ensured that the expected weight (or number of times each pay factor is rated) was about the same²⁵. Again, to mitigate order effects, all job cases were randomly included in the survey. Furthermore the four positions of the pay factors in the job situations were also randomized. The different surveys were each sent to a fourth of a randomized student email data base.

²⁶ Part 1 and part 3 of each survey were exactly the same

Part 3, general questions

Section 3 of the survey covered several control variables (see predictive validity framework, figure 5). The respondent was asked to fill in general information such as age, gender, study department, number of years engaged in study, whether he/she is a part time or full time student, the estimated grade average and the number of years of work experience.

Finally, since the survey was completely conducted in English in order to avoid errors due to inaccurate translation, there is controlled for the command in English by asking questions about the respondents' fluency in this language. This was necessary because only few of the addressed students spoke English as native language.

4.3 Other Control Variables

Using only students as subjects is a main control variable. This will ensure that all respondents are at least about the same in age and skill/education. An additional advantage of using only students is the fact that they are easily accessible (through the use of university email data bases) and, even more important, they are less likely to be biased against a certain pay type. The latter is essential since this study tries to evaluate the initial perception of attraction towards a certain pay factor (e.g. fixed pay versus performance based pay or a skill based pay system versus a job based pay system). Chances are that, when addressing employees already working full time for several years, many of them have prejudices with respect to the pay factors. Furthermore by taking students as a target group I will exclude this research from additional external influences such as labor intensity, level in the hierarchy of the organization and pay height. By only sending the survey to economics students I largely mitigate the effect of misinterpretation of the definitions and pay factors by the respondents. All students have had at least three years of education in the field of economics and have attended courses covering the different pay factors and their inferences²⁷.

²⁷ An exception is the relatively new concept 'skill based pay system'. Therefore, during the pilot study I made sure the students adequately interpreted these pay factors. In addition, skill based and job based pay systems were clearly defined prior to the job situations.

A second important influence for which is controlled in this study, is the likelihood that additional effort will lead to above normal performance. In order to adequately assess the influence of pay factors on motivation, it was vital to include this variable. The rationale behind this is that, according to the expectancy theory, people will exert more effort if there is a higher chance of a positive outcome. Since the focus of this study is on the influence of certain pay factors on motivation instead of on the increased motivation due to a high likelihood that exerting more effort leads to positive outcomes, two levels of likelihoods are used (30 and 80 percent chance that additional effort will lead to above normal performance). This way the increase in motivation as a result of high positive outcome expectancies can be largely isolated from the examined relations.

4.4 Overall Descriptive Statistics

Part 1, character traits

Figure 7

Character traits (sums)	n	#items	Scale	Minimum (maximum)	Mean	Standard deviation	Adjusted Mean*	Cronbach's Alpha
Risk aversion	30	5	7 point likert	8 (30)	21.23	5.33	21.23	.69
Self-efficacy	30	17	7 point likert	69 (104)	87.03	10.22	25.60	.80
Locus of control	30	10	7 point likert	28 (67)	49.17	8.33	24.59	.82

*Sums adjusted to the lowest number of items (5)²⁸

²⁸ For better comparison, the adjusted sums of the character traits are used in the remainder of this study

Part 2, satisfaction and motivation grades

Figure 8

Job Situation grades	n	Scale	Minimum (maximum)	Mean	Standard deviation	Estimated reliability
Satisfaction	260	7 point likert	2 (7)	4.26	1.59	.66
Motivation low*	135	7 point likert	1 (7)	3.86	1.30	.71**
Motivation high*	125	7 point likert	1 (7)	4.75	1.44	.71**

*high and low stands for the probability that additional effort leads to above normal performance (high=80%, low=30%)

**reliabilities for both types of motivation are not separately calculated. The given value is a reliability estimate of all motivation grades

Part 3, general questions

Figure 9

General	n	Min. (max.)	Mean	SD	General	n	%
Age	30	21 (30)	22.87	1.88	Male (female)	18 (12)	60 (40)
Years study	30	1 (7)	3.87	1.233	Full time student (part time)	30 (0)	100 (0)
Years work experience	30	0 (8)	3.63	2.47			
Rounded grade average	30	6 (9)	7.40	0.61			
Fluency English (7 point scale)	30	2 (7)	4.3	1.49			

5 Results

In this chapter, I will explain the used statistical analysis tools to test the hypotheses, present the results and discuss the outcomes. In section 5.1 I will describe the found relation between the satisfaction and motivation grades. Section 5.2 will show the results obtained from the general relations between pay factors, control variables and perceived satisfaction and motivation. Section 5.3 combines the pay preferences with character traits and presents the results. Finally, in section 5.4 an overview of the results is given.

5.1 Relation Satisfaction and Motivation

To test hypothesis 1 ('the level of satisfaction an employee perceives as the consequence of a certain pay situation is positively related to the perceived motivation resulting from this pay situation'), I tested if the correlation between the satisfaction and motivation grades was significant. Two correlations were calculated separately. The correlation between satisfaction and motivation, in case of a job situation with a high probability that additional effort leads to a higher outcome, showed a correlation of .49 ($p = .000$) while the correlation between satisfaction and motivation with a low probability resulted in a correlation of .40 ($p = .000$). These results are in line with the expectations and hypothesis 1 is confirmed. Although the correlation between satisfaction and motivation with a low probability seems considerably lower than the correlation between satisfaction and motivation with a high probability, the difference was not significant according to the Fisher r -to- z transformation (one tailed, $p = .184$).

5.2 General Relation Pay Factors and Perceived Satisfaction/Motivation

To analyze the general relation between the perceived satisfaction employees experience and the different pay factors, multiple linear regression analysis was used.

Policy capturing data are generally analyzed by using the ordinary least squares regression (Webster and Trevino, 1995). However one should be aware of possible autocorrelations between error terms. In case of a high autocorrelation the general least squares regression should be used. Otherwise, the ordinary least square regression is appropriate (Dielman, 1991;

Cable and Judge, 1994). In order to evaluate this potential correlation, the Durbin Watson statistic was used. The found value of $d = 1.86$, indicated that no significant autocorrelation was present, hence the ordinary least square regression was used. The regression was conducted by turning the pay factors into dummy variables (each 'position' in a case was either 1 or 0). With the job scenario grades as dependent variables and the pay factors dummy's as dependent variables the regression accurately captures the general influence of the effect that the different combinations of pay factors have on the perceived satisfaction and motivation. Below an illustration of the basic form of the regression (without control variables):

$$\text{SatGr} = \alpha + \beta_1 D_{\text{perf}} + \beta_2 D_{\text{intg}} + \beta_3 D_{\text{job}} + \beta_4 D_{\text{rigid}} + \epsilon$$

- SatGr are the given satisfaction grades
- Dperf is the dummy for performance based pay (zero in case of fixed pay, one in case of performance based pay)
- Dintg is the dummy for non tangible rewards (zero in case of tangible rewards, one in case of non tangible rewards)
- Djob is the dummy for job based pay systems (zero in case of skill based pay system, one in case of job based pay system)
- Djob is the dummy for rigid benefits (zero in case of flexible benefits, one in case of rigid benefits)

In addition to the previous independent variables, some control variables are also included in the regression. Similar to Cable and Judge (1994), this study ties the control variables to each graded job situation. The result is that each of the 260 observations also include information about variables such as gender, years of study and fluency of English. According to Judge and Bretz (1992) this is both statistically and conceptually correct²⁹. The results of the regression estimates are presented in figure 10.

²⁹ Statistically valid since each graded case is considered to be an independent observation and is used as a dependent variable. Conceptually valid since the control variables may influence the general attraction in each case.

The r^2 values of .26 and .20 indicate that the model did not seem to capture the determinants behind the satisfaction and motivation grades accurately.

With the results from this regression we can test hypothesis 2A (employees generally prefer fixed pay), 4A (employees generally prefer tangible rewards), 5A (employees generally prefer flexible benefits) and 6A (employees generally prefer job based pay systems). From the regression estimates on satisfaction it becomes clear that for six of the eight pay factors, namely performance based pay vs. fixed pay ($p = .371$), non tangible rewards vs. tangible rewards ($p = .661$) and rigid benefit plans vs. flexible benefit plan ($p = .875$), there is not really a general preference. The found beta's are both small and insignificant hence hypotheses 2A, 4A and 5A are rejected. Interestingly, job based vs. skill based ($p = .000$), was significant at a one percent level. However, it behaves in a different direction than this study had anticipated since the general preference lies with a skill based pay system instead of the job based pay system and thus hypothesis 6A must be rejected as well. A possible explanation for this contradictory result is that all of the respondents are students. This group is generally confident in their skill and is relatively eager to learn. This can be derived from the fact that all students totals regarding the self-efficacy statements were 'above average'³⁰ (see also 4.4 Overall descriptive statistics). As a consequence it is plausible this group prefers the more learning orientated skill base pay system.

The control variables also show some interesting results. With significance at an one percent level, male respondents gave lower satisfaction grades ($p = .007$). Age also seems to influence the height of the grade given for a certain job scenario ($p = .000$). Older respondents tend to give lower grades. The choice of study department did also influence the way students graded. Out of the eight study departments, four (Accounting & Finance ($p = .011$), Marketing ($p = .063$), Urban Port and Economics ($p = .089$) and 'Other' departments ($p = .002$)) showed significant differences. However, since there were only few students per department (see section 4.4) these results could be coincidence. Grade point average is negatively related to satisfaction ($p = .002$). Cable and Judge (1994) argue that the rationale behind this is that respondents with a

³⁰ The possible answers per self-efficacy statement (17 in total) were based on a seven item scale. Given that the fourth answer was the average, the score of an average person would be $4 * 17 = 68$. All student scores in this study were above this total (avg 5.1).

high grade average believe to have more job opportunities than those with lower grades³¹. Finally, the command of English seemed to matter when filling in the survey. True for both questions about English fluency, the more confident the respondent was about the ability to speak English, the higher the satisfaction grades ('I speak fluent English' $p = .017$, 'I speak more fluent English than others' $p = .008$).

The results regarding the regression with motivation as dependent variable support the hypothesized relation between performance based pay and motivation (Hypothesis 3A). Working under a performance based pay scheme positively influences the exerted effort at an one percent significance level ($p = .000$). In contrast to the results found for the satisfaction regression, the control variable 'age' did not significantly influence motivation ($p = .681$). The grades given for motivation were significantly influenced by gender ($p = .059$). Again, similar to the satisfaction regression, male respondents tended to grade their perceived level of motivation as a consequence of the job scenarios lower than females.

Only two of the eight study departments, namely Marketing and Urban Port and Economics, showed a significant effect on motivation (respectively $p = .031$ and $p = .065$). The effect of English fluency was, similar to the satisfaction regression estimates, significant though the direction of the control variable 'I am more fluent in English than the average master student' ($p = .007$) was opposite (i.e. negative instead of positive). Noteworthy is that, when splitting the data set based on the probability (either high or low) that additional effort leads to above normal performance, the beta estimates did not significantly change.

5.3 Character specific relation pay factors and satisfaction

To assess the relations between the pay factors in combination with character traits and the level of perceived satisfaction, again the ordinary multiple linear regression analysis was used. In contrast to the previous regressions, which were used to evaluate general hypotheses, I now first performed regressions per student based on his/her grades. This resulted in 26 individual regressions for satisfaction and 26 individual regressions for motivation. All regressions thus

³¹ The same reasoning holds for the number of years working which was in the study of Cable and Judge (1994) significant at a 1 percent level and in this study significant at a ten percent level ($p = .075$).

consisted of ten grades (i.e. the ten satisfaction or motivation grades given for the ten job scenarios) as dependent variables and dummy variables for the four pay factors in each of the ten cases (independent). A sample regression is the following:

$$\text{SatGr}_i = \alpha + \beta_{1i}\text{Dperf} + \beta_{2i}\text{Dintg} + \beta_{3i}\text{Djob} + \beta_{4i}\text{Drigid} + \varepsilon$$

SatGr_i consisted of the ten satisfaction grades of respondent i (where i = 1 to 26) for the individual cases. The dummies were identical to the regression performed in section 5.2.

Next, the unstandardised coefficients (B's) resulting from these 26 regressions, which offer an indication of the relative importance of each pay factor to each respondent, were per pay factor used as dependent variables in another regression. The sums of the character traits served as independent variables. This way the regression results will show the effect character traits have on the preference for certain pay factors. An example regression for the influence of character traits on the preference of performance based pay is as follows:

$$\text{BDperf} = \alpha + \beta_1\text{SSE} + \beta_2\text{SLOC} + \beta_3\text{SRA} + \varepsilon$$

- BDperf are the unstandardized coefficients of performance based pay from the individual regressions
- SSE is the sum of the self-efficacy items of each individual student
- SLOC is the sum of the locus of control items of each individual student
- SRA is the sum of the risk aversion items of each individual student

In figure 11 the results are presented.

Figure 11

**p<.05 **p<.01
n= 26 (two tailed)

BDperf: dependent= B-coefficients 'performance based pay' individual regressions
BDintg: dependent= B-coefficients 'non tangible rewards' individual regressions
BDjob: dependent= B-coefficients 'Job based' individual regressions
BDrigid: dependent= B-coefficients 'rigid benefits' individual regressions

Variables	BDperf		BDintg		BDjob		BDrigid	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
	Character traits							
Risk aversion	.073	.058	-.018	.034	-.059	.065	-.030	.050
Self-efficacy	.196	.080	.117	.068	-.350*	.124	.006	.094
Locus of control	.076	.121	-.002	.056	.049	.089	-.042	.069
R ²	.141		.024		.398		.260	
Adjusted R ²	-.181		-.109		.277		.112	
F	.439		.182		3.304**		1.759	

All models between pay factors and character traits do not seem to accurately capture the determinants behind the preference for these pay factors. With r^2 ranging from .024 to .398, the explanatory power of the tests is poor.

With the data we can now examine the following hypotheses

- 2B (negative relation between the attraction to performance based pay (PBP) and risk aversion),
- 2C (positive relation between the attraction to PBP and self-efficacy),
- 2D (positive relation between the attraction to PBP and internal locus of control)
- 4B (positive relation between the attraction to tangible rewards (TR) and risk aversion)
- 4C (negative relation between the attraction to TR and self-efficacy)
- 5B (positive relation between the attraction to FB and internal locus of control)
- 6B (positive relation between the attraction to job based pay systems (JBPS) and risk aversion)
- 6C (negative relation between the attraction to JBPS and self-efficacy)
- 6D (negative relation between the attraction to JBPS and internal locus of control)

The regression between the character traits and attraction to performance based pay and fixed pay showed that there is no significant relation linking either risk aversion ($p = .567$), self-efficacy ($p = .348$) or locus of control ($p = .645$) to these particular pay factors. This leads to the rejection of hypotheses 2B, 2C and 2D. The same results are found in case of the regression with the 'rigid benefits' β -coefficients as dependent variable (locus of control $p = .550$, rejection of H5B). The regression, with non tangible rewards and job based β -coefficients as dependent variables, do show some relation with the assessed character traits. In both cases the perceived level of self-efficacy affects the attraction to these pay factors. The positive relation between self-efficacy and non tangible rewards ($p = .105$) supports hypothesis 4C. The relation between tangible benefits and risk aversion, however, was not found ($p = .609$, rejection of H4B). Furthermore, the negative relation between self-efficacy and job based pay systems ($p = .013$), which implies a positive relation between self-efficacy and skill based pay systems, was also as hypothesized (H6C). The remainder of the hypotheses regarding the relation between job based pay systems and character traits were not supported by the data (risk aversion : $p = .374$, locus of control: $p = .590$, and thus rejection of H6B and H6D).

A possible explanation of why risk aversion did not influence the level of attraction towards certain pay factors is that the students did not perceive a distinct link between their risk preference and a certain job situation. If different ways of rewarding were not recognized as either risky or riskless, the resulting relation between the two would be insignificant. The same reasoning holds for the locus of control. If the students did not associate their pay design with their personal experience of influencing their surroundings (internal or external locus of control), a relation between the two does not exist.

A second explanation is that the amount of data gathered per survey from an already limited number of respondents was rather small. The hypotheses are strongly supported by previous literature. Yet, nearly all hypotheses had to be rejected. This might be an indication of type II errors in my study.

When performing the same regression with the β -coefficients from the motivation regressions, no significant relations can be found between the effects of characteristics and pay factors on perceived motivation. An explanation for this result is that ‘motivation’ is a variable that is only relevant when the individual is already employed. The individual’s character traits then do not matter as much because the individual has to work to retain his job and whether this employee considers himself to be risk averse or risk inclined, extern locus orientated or internal locus orientated, with high level of self-efficacy or low, should not be of great influence on his exerted effort.

5.4 Overview of supported and rejected hypotheses

Figure 12

Relation with satisfaction and motivation	Perf. based (vs. fixed)	Tangible (vs. non tangible)	Flexible benefit (vs. rigid benefit)	Job based (vs. skill based)
General	- (H2A)	+ (H4A)	+ (H5A)	+ (H6A)
Risk aversion	- (H2B)	+ (H4B)	X	+ (H6B)
Self-efficacy	+ (H2C)	<u>- (H4C)*</u>	X	<u>- (H6C)</u>
Internal LOC	+ (H2D)	X	+ (H5B)	- (H6D)

Underlined hypotheses are confirmed, italic hypotheses are rejected

*confirmed at a 15 percent significance level ($p=.105$)

H1 (confirmed): The level of satisfaction an employee perceives as the consequence of a certain pay situation is positively related to the perceived motivation resulting from this pay situation

H3A (confirmed): Employees will perceive a higher level of motivation from a performance based pay scheme than from a fixed pay scheme

6 Contributions, Limitations & Strengths and Future Research

Several hypotheses of this study are supported by the data. First, there is a positive relation between satisfaction as a consequence of a certain pay situation and motivation resulting from this pay situation (H1). This relation weakens, though not significantly, when the probability that additional effort leads to higher outcomes is lower. Secondly, this study did not find general relations between performance based pay vs. fixed pay, tangible rewards vs. not tangible rewards, flexible benefits systems vs. rigid benefit systems and satisfaction (H2A, H4A and H5A). The data did show a significant relation between job based pay systems vs. skill based pay systems and satisfaction, but this relation was in the opposite direction to the hypothesized relation (H6A). We also found, in accordance with hypothesis 3A, a positive relation between receiving a performance based pay and motivation. Lastly, all but two of the hypotheses regarding the relation between pay factors and character traits were rejected (H2B/C/D, H4B, H5B and H6B/D). The two supported hypotheses (H4C and H6C) were, respectively, the positive relation between self-efficacy and non tangible rewards and the positive relation between self-efficacy and internal locus of control.

In summary, the results of this study show that employee reward satisfaction and motivation are not strongly related to the manner of payment. Also, character traits mostly do not seem to influence the preference regarding either performance based pay or fixed pay, tangible rewards or non tangible rewards, skill based pay or job based pay and rigid benefits or flexible benefits.

This paper makes two kinds of contributions, for theory and practice. First, in a theoretical perspective, it adds to previous literature by reexamining some areas of job reward satisfaction. In contrast to many studies, this study does not focus on the pay height but rather tries to determine the effect paying wages in different manners has on the perceived level of satisfaction of an employee. Another addition to existing literature lies in the fact that both satisfaction and motivation are evaluated at the same time and under the same circumstances. Also, in attempting to explain the perceived level of satisfaction and motivation, identical determinants (i.e. pay factors) are used.

Furthermore, by taking into account the character traits of the respondents this study investigates whether there is a link between self-efficacy, locus of control and risk aversion and personal preferences with respect to the pay situations.

In addition to the theoretical contribution, this paper also aims to give input for practice. Based on the results, which obviously should be interpreted with care (see limitations in next paragraph), managers can decide whether they think it is worth to take into account the way their employees are being paid. These considerations could lead to more satisfied and productive employees, while paying them a similar wage in terms of money. Furthermore, not only the perceptions regarding motivation and satisfaction of existing employees can change, different pay policies will attract different people. To some extent, a company can use this knowledge to attract and retain employees.

When using the data and results of this study, a couple of limitations should be kept in mind. First of all, the length of the survey was rather short and despite the fact that the pilot study implied that a longer survey was ill advised, more data per student might have been beneficial to the validity of this study. A second possible shortcoming could be the sole use of students. While this is at the same time a strength (treated later on), it is uncertain whether the results can be generalized to other populations. For instance, do lower educated individuals react the same to the different pay schemes? Or do people who have already experience with either one of the pay factors, have the same preferences the next time they search for a job?

Another difficulty is that the main determinant of job reward satisfaction is the pay height (Barber, 1991; Gerhart and Milkovich, 1992; Cable and Judge, 1994). Cable and Judge (1994) find, for instance, that the relative importance of fixed pay/performance based pay is more than 3.5 times smaller compared to the perceived importance of pay height. The other pay factors have even smaller values. This knowledge implies that there are employees who actually do not care how they are being paid, as long as the wage is high, these individuals will be satisfied.

The next possible limitation might result from the use of the policy capturing model. Some researchers criticize this method for being inappropriate because of the limited external validity (Sherer, Schwab and Heneman, 1987; Klaas and Wheeler, 1990). However, this problem can be

minimized by addressing people who actually have the option of making the types of decisions that are studied (Webster and Trevino, 1995). Also boredom and fatigue during the filling in of the survey are an issue when using the policy capturing method. Therefore, as has already been mentioned, a pilot study was conducted and the total number of cases per survey was kept to ten. Obviously, increasing the number of cases per survey would have increased the power of the tests but could also have resulted in less accurate data. Acknowledging this trade-off between the power of the tests and possible fatigue of the respondents, is required for using the policy capturing model (Webster and Trevino, 1995). A last limitation for interpreting the results is that the explanatory value of the total and individual regressions was low. The low r^2 's indicated that the model did not properly catch all the relevant variables. In addition, the small number of respondent filling in a relatively small survey, resulted in a (too) limited data base which could have influenced the outcomes of the regressions (and possibly lead to type II errors).

This study also has several strengths. One of them is that it solely uses students. Though, as already mentioned, the generalizability can be an issue, the fact that there is controlled for skill, age and mostly work experience are big plusses. In addition, the respondents were unbiased with respect to the different pay factors, which was a vital condition for this study.

The results of this study are furthermore strengthened because it builds on previously used and well researched methods. By using scales with high Cronbach's alphas (internal consistency estimate) to determine the character of students and by gathering data with the well researched policy capturing model, this study gains validity. Academics have shown that as few as ten respondents are enough to accurately analyze data when using the policy capturing method (Batsell and Lodish, 1981; Einhorn, 1971; Slovic, 1972). This study makes use of data collected from 33 students (26 after corrections) and is therefore well suited. In addition, the (dichotomous) manipulations of the pay factors of which the job scenarios were constructed, were based on previous literature in order to ensure that the reliability of the pay perception was adequate. And finally, the level of motivation was assessed for two different probabilities that additional effort leads to above normal performance (30 and 80%). This way, the additional

level of motivation that arises from higher chances that actions result in higher output are accounted for and thus the effects of the expectancy theory are largely mitigated.

All hypotheses in this study are strongly supported by existing literature. The fact that the results of the data are contradictory is therefore questionable. To give a more decisive answer regarding the relation between pay factors, character traits and the perceived level of satisfaction and motivation, a reevaluation of this topic is advised.

There are a couple of directions for future study. Focusing on populations other than students is one of them. This will result in a greater generalizability of the theory. Secondly, it would be interesting to see how the results would change if more character traits or cultural aspects are taken into account. For instance, the results of this study imply that the level of risk aversion is not related to the way employees are paid. This means that generally one does not conceive being paid in one way or another as being risky. However, it is possible that, for some cultures, this relation does exist. The variable 'gender' also showed some surprising differences with respect to grading job situations. Males tended to give significant lower satisfaction and motivation grades. Examining this phenomenon might be useful. A third consideration for further research is using a larger number of respondents since the sample size of this study was very small. This might result in different findings. In addition, this study used only four unique cases per survey regarding satisfaction and eight cases for motivation. With the benefit of hindsight, this turned out to be a little restrictive. However, one should also be aware of the trade-off between fatigue due to a lengthy survey and the power of the tests. This leads to the last recommendation for future research. The policy capturing model is, although on many fronts very useful, limited by several required conditions and thus has its weaknesses. Using other techniques to evaluate the researched field will increase the overall validity of the theory.

7 References

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8 Appendix

Appendix A: Survey 3, shortened version

Part 1
 In this first part of the survey you will find a series of statements. You will probably agree with some statements and disagree with others. Please indicate the extent to which you agree or disagree with each statement by circling one number from 1 to 7, where:

1 = Strongly Disagree
 2 = Moderately Disagree
 3 = Slightly Disagree
 4 = Neither Disagree Nor Agree
 5 = Slightly Agree
 6 = Moderately Agree
 7 = Strongly Agree

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree Nor Agree	Slightly Agree	Moderately Agree	Strongly Agree
When I set important goals for myself, I rarely achieve them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One of my problems is that I cannot get down to work when I should.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid trying to learn new things when they look too difficult for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I give up on things before completing them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not seem capable of dealing with most problems that come up in life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When being interviewed I can usually steer the interviewer toward the topics I want to talk about and away from those I wish to avoid.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a self-reliant person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If there's someone I want to meet I can usually arrange it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I need help in carrying off a plan of mine, it's usually difficult to get others to help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In attempting to smooth over a disagreement I usually make it worse.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often find it hard to get my point of view across to others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like people who are a little shocking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I can't do a job the first time, I keep trying until I can.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm not good at guiding the course of a conversation with several others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If something looks too complicated, I will not even bother to try it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Failure just makes me try harder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part 2

In this part of the questionnaire, 10 cases are presented which each represent a particular job situation. Each of these job situations is described in terms of four pay-related factors, randomly chosen from the following list of possible pay-related factors:

YOUR SALARY IS FIXED (your base salary is a fixed amount per month)

vs

YOUR SALARY IS BASED ON PERFORMANCE (your base salary is dependent on performance)

YOU SOMETIMES GET AN ADDITIONAL REWARD IN THE FORM OF A SMALL CASH AMOUNT (a reward independent of base salary)

vs

YOU OFTEN GET COMPLIMENTS FROM YOUR BOSS (WHICH MIGHT INDICATE AN INCREASE OF YOUR CHANCE ON A PROMOTION)

YOUR SALARY REFLECTS THE NUMBER OF JOBS YOU ARE ABLE TO PERFORM (Pay height dependent on the number of positions an employee is able to fulfill in an organization. The more positions an employee can occupy, the higher his salary)

vs

YOUR SALARY REFLECTS THE POSITION YOU OCCUPY (traditional pay method where employees are paid in accordance with the value of the position they occupy in the organization)

YOU ARE GIVEN AN AMOUNT OF CASH TO SPEND ON BENEFIT OPTIONS (flexible benefits, in addition to your base salary)

vs

YOU WILL RECEIVE A, BY MANAGEMENT, PREDETERMINED STANDARD BENEFIT (rigid benefits, in addition to your base salary)

In each of these cases, you will first be asked how attracted you feel towards the particular job situation. Please try to consider and take into account all four pay-related factors when judging the attractiveness of each job situation on a scale from 1 (very little attracted to a job with these characteristics) to 7 (very much attracted to a job with these characteristics). Next, in each of these cases you will be asked how much additional effort you would exert given the four pay-related factors in the particular job situation and given a specific chance (30% or 80%) that this additional effort will lead to above average performance. In determining how much additional effort you would be willing to exert in each particular situation, please assume that at the current level of effort in each job situation you will perform on or slightly below average. Indicate the level of additional effort on a scale from 1 (very little additional effort) to 7 (very much additional effort).

Job situation 1

- YOU WILL RECEIVE A, BY MANAGEMENT, PREDETERMINED STANDARD BENEFIT
- YOU OFTEN GET COMPLIMENTS FROM YOUR BOSS (WHICH MIGHT INDICATE AN INCREASE OF YOUR CHANCE ON A PROMOTION)
- YOUR SALARY REFLECTS THE NUMBER OF JOBS YOU ARE ABLE TO PERFORM
- YOUR SALARY IS BASED ON PERFORMANCE. A TARGET SALARY IS SET AND, DEPENDING ON THE PERFORMANCE OF THE ORGANIZATION YOU WILL RECEIVE A PAYMENT IN THE RANGE OF 15% BELOW AND 25% ABOVE THIS TARGET SALARY

1 2 3 4 5 6 7

With the situation as shown above in mind, indicate the attractiveness of this job.

The likelihood that additional effort will lead to above normal performance is 80%. Given that you are employed in this organization with the above stated characteristics, rate how much ADDITIONAL EFFORT you would be willing to exert in this job.

Part 3

Finally, this part of the questionnaire contains a number of questions about yourself. These questions are important to see whether differences in answers may be related to differences in age, gender, education or experience


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
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Gender

Male


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Study department

Accounting and Finance

Accounting, Auditing & Control

Economics of Markets, Organisations and Policy

Entrepreneurship, Strategy and Organisation Economics

Financial Economics

Health Economics

International Economics and Business Studies

Marketing

Urban, Port & Transport Economics

Other:


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Number of years engaged in study

 Add Question

Appendix B: Department statistics

General	n	%
Accounting and Finance	5	16.67
Accounting, Auditing and Control	5	16.67
Economics of Markets, Organizations and Policy	2	6.67
Entrepreneurship, Strategy and Organization Economics	1	3.33
Financial Economics	2	6.67
Health Economics	0	0
International Economics and Business Studies	5	16.67
Marketing	1	3.33
Urban, Port & Economics	5	16.67
Other	4	13.33