

MASTER

Establishing and reinforcing deadline commitment in an automotive company the "drive" of Van den Udenhout

Timmermans, P.

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Eindhoven, February 2009

**Establishing and reinforcing
deadline commitment in an
automotive company;
The “drive” of Van den Udenhout**

By
P. (Paul) Timmermans

BSc industrial engineering and management sciences — TU/e 2008
Student identity number 0539595

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Supervisors:

dr. J.M.P. Gevers, TU/e, Human Performance Management

dr. T. Bipp, TU/e, Human Performance Management

Company supervisor:

L. Emanuelson, VdU

TUE. Department of Technology Management.
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Preface

Managing the human resources of an organization or business goes back as far as man can recollect and since the early theory of scientific management by Taylor around 1900, many theories have been derived. As of late, there is a growing recognition of the incorporation of time in human resource management theories. However, incorporation of time in existing human resource theories, such as the renowned goal-setting theory, have not yet been undertaken extensively, as far as known by this author. Therefore, I hope that contributions to this emerging field have been made, albeit in raising interesting points or, if possible, true new insights.

This master thesis has been written in order to graduate from the master study Innovation Management at the Eindhoven University of Technology. After completing this thesis, a long, yet pleasant, period of studying has come to an end. The time has come to find my own place in society as a graduate and still as a pupil; I may have completed my learning period at school, I am never done learning and I hope many more challenges await. This thesis was written at Van den Udenhout (VdU); however these months are not enjoyed that much.

Me being able to complete this master thesis successfully has to do with the excellent guiding I have received over the past one-and-a-half year. Each update which I had made had to undergo the all-seeing eye of my seemingly all-knowing tutor, dr. Josette Gevers; countless revisions have been made to refine my grammar, sentence structure in addition to content. Also, all the questions I had about the topic I could ask without hesitation which has helped me creating a greater understanding about the topic. I could not wish for a more heart warming yet critical learning environment.

Furthermore, Tanja Bipp receives my thanks for reviewing my work and for her constructive feedback comments on my work. Also, I would like to give special thanks to Marjorie van Son and Lionell Emanuelson to let me graduate at VdU. My thanks also go to those few at VdU who showed concern for me and interest in my work while writing my thesis as well as those participating in my research. In addition, I would like to thank Etienne Gangadin for all those “educational” lunches on Friday, during which our projects were subdue to each other’s critique, which kept me focused and on track.

Finally, my appreciation goes out to all those who have supported me along the way. First of all, I would like to thank my parents for stimulating me to use my own approach, urging not to rush but rather to enjoy. Secondly, I would like to thank my sister, brother-in-law, girlfriend and all my friends for their support.

Paul Timmermans.

January, 2009.

Executive summary

What has been investigated?

In the context of an automotive company, Van den Udenhout, it was examined what the effects of such commitment were, how the commitment of employees originates and how it can be influenced. In order to investigate this problem, the goal-setting theory was extended with the notion of time; goals were extended to deadlines and goal commitment was extended to deadline commitment.

Some constraints were put on this research by the context, however; the deadlines with which employees had to work were very short and as a result, employees had a large set of such small tasks on a single day. Consequently, it seemed very unlikely that deviations in commitment to a single deadline could be tracked. In order to deal with this constraint, a look was taken at the daily set of tasks with the corresponding deadline; the end of the day. Despite that deviations in deadline commitment were unlikely to be detected for a single deadline; it was assumed that deviations in deadline commitment across days could indeed be detected.

Thus, in order to get insight in the construct of deadline commitment and associated behaviour and outcomes, the following research question was derived as the basis for this research: *How can VdU influence the deadline commitment of employees and what effect does deadline commitment have on performance?*

Influencing was regarded in a positive way since it was supposed to be beneficial for both the company as well as the employees.

Approach of the investigation

First of all, deadline commitment was defined and the mechanism elaborated on. By combining the definition of goal commitment with that of deadlines, the following definition was derived; deadline commitment is the determination of individuals to strive for a particular goal within the time constraint attached to it.

The mechanism of deadline commitment is as follows: individuals compare available time periods with the time estimation for completing possible goals. From this, a selection is made which goals to strive for in the available time period. Noted was that these goals do not have to be in line with organizational goals, it is therefore important to let the employee strive for organizational goals.

Furthermore, it was believed that goal commitment evoked goal-directed behaviour and was, therefore, hypothesized to lead to certain outcome variables. Three outcome variables were included in this research; performance, stress and satisfaction. Performance was defined as those actions or behaviours which are measurable as well as relevant to the company, for instance the completion rate of invoices to be registered on a single day. The perceived relationship of an individual with its environment, which is appraised as exceeding his or her resources and endangering his or her well-being by that particular individual, is the definition of stress. Thirdly, the affective orientation of an employee towards his or her work was used as the definition of satisfaction, which was made up by pleasure, excitement and feelings of control, while working.

Deadline commitment was hypothesized to lead to high levels of performance, stress and satisfaction. This may seem contradictory, yet it was expected that employee get satisfaction from striving for their deadlines. However, such determination may cause stress when there are other, interrupting, tasks at the same time, especially in such a dynamic environment. Thus, deadline commitment was expected to act as a double-edged sword; leading to high levels of performance and satisfaction yet also to high levels of stress.

Then, it was researched how deadline commitment originates, also to determine where interventions could be undertaken to reinforce deadline commitment. From the various theories used, several contributing variables were identified. In addition, due to the dynamic environment, the handling of interruptions was included as well. These variables can be found in table I along with their hypothesized relation with deadline commitment, explanation of these variables can be found in chapter two. To illustrate, when individuals perceive they are capable to perform (self-efficacy is high), deadline commitment will be high due to the positive relation. On the other hand, low levels of self-efficacy leads to low levels of deadline commitment.

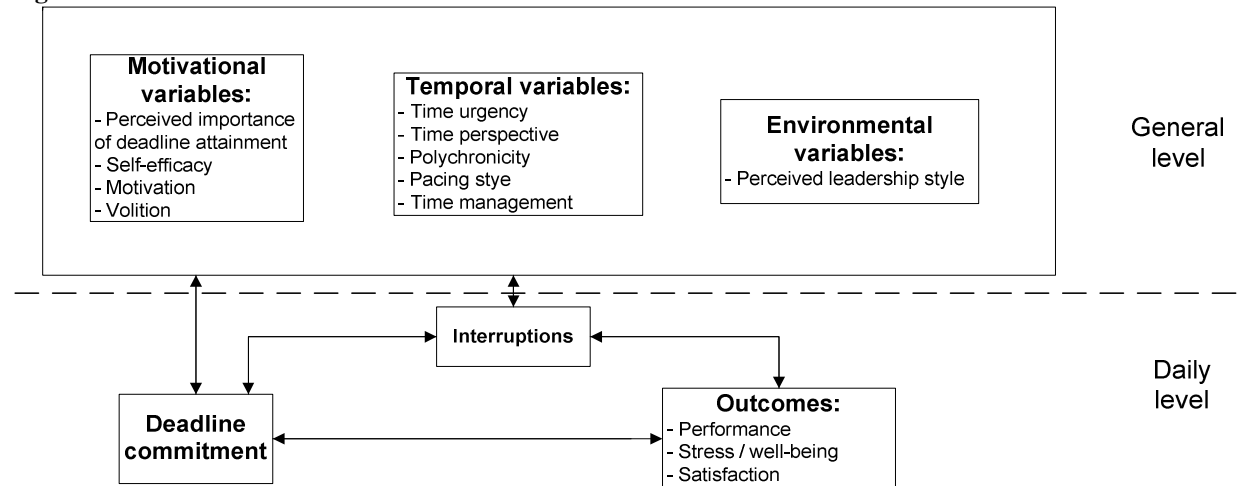
Table I: Contributing variables of deadline commitment

<i>Contributing variables of deadline commitment</i>	
<i>Positive</i>	<i>Negative</i>
Self-efficacy (high)	Self-efficacy (low)
Perceived importance of deadline attainment (high)	Perceived importance of deadline attainment (low)
Motivational force (high)	Motivational force (low)
Volition (high)	Volition (low)
Time urgency (high)	Time urgency (low)
Future time perspective	Present time perspective
Pacing style	Polychronicity (delays for dull tasks)
Time management techniques	
Perceived leadership style	
	Handling of interruptions

The outcome variables, deadline commitment as well as the handling of interruptions were hypothesized to be subject to daily deviations whereas the contributing variables do not; a distinction is thus made between general variables and daily variables. These general variables were regarded as characteristics of a person, evoking a goal-directed behaviour within individuals to lead to the outcome variables through a certain level of deadline commitment.

All of this led to the following research model:

Figure II: The research model



Then, a diary study was used to examine this model and consisted of two questionnaires; one to measure the general variables and one to measure the daily variables. The daily questionnaire concerned a diary in which the participants recorded their daily experiences.

Results

In line with the expectations it was found that deadline commitment was associated with high levels of performance as well as high levels of satisfaction, indicating the importance of deadline commitment. Additionally, against the expectations, deadline commitment was associated with low levels of stress. Considering the limitations of the present sample, the robustness of the latter finding seems questionable.

In addition, it was found that deadline commitment was established by working according to a deadline- or u-shaped pacing style since these styles allow coping with the dynamic environment in which VdU operates. Moreover, deadline commitment serves as a partial mediator between the relationship between a deadline pacing style and stress; a deadline pacing style was associated with low levels of stress because it was associated with high levels of deadline commitment. Also, it was found, against expectations, that self-efficacy, perceived importance of deadline attainment, motivation and volition were significant negative predictors of deadline commitment: when an individual scores low on these four variables, deadline commitment will be high. Here, deadline commitment was found to partially mediate the relationship between self-efficacy and dominance; high levels of self-efficacy were associated with feelings of being in control over ones' actions, due to increases in deadline commitment. Finally, it was found that volition contributed to high levels of stress since volition was associated with low levels of deadline commitment.

Concerning the interruptions, it was found that a future perspective was associated with a low acceptance rate of interruptions; those who are looking towards the future are less likely to accept interruptions when they occur.

Conclusion of the research

First of all, it was concluded that the findings need to be interpreted carefully due to a low sample size as well as little variation on some of the scales. This may have lead to instable models and thus, inaccurate findings.

However, it was concluded that deadline commitment is an important aspect for organizations and that is required attention in order to maintain a committed workforce along with the associated beneficial outcomes, i.e. performance and satisfaction. Deadline commitment may be influenced by matching personal pacing styles with the dynamic environment, i.e. enhancing the regulation of time use. In turn, this should result in high levels of deadline commitment and thus excitement, pleasure and a high level of performance.

Recommendations for VdU

In this study, it has been shown that the commitment amongst employees is rather low; indicating that the levels of both performance and satisfaction could be higher than there are.

First of all, it is advised to encourage employees to adopt a deadline or u-shaped pacing style while working in order to cope with the dynamic environment. In addition, employees may be given somewhat more autonomy on the level of task execution, i.e. let them determine how to allocate their preset tasks within the available time. Furthermore, employees need to be well informed about their role within VdU. By informing employees how they are positioned in the chain of value creation, they might be more responsive to the environment which apparently is needed to get committed. Also, employees should be matched with tasks according their perceived capabilities.

Besides these recommendations two other methods were proposed in order to enhance the self-regulation of time by employees: participation can be used to align the employee with the environment whereas time management can be used to efficiently use available time.

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1 Introduction

“Goals are central to current treatments of work motivation and goal commitment is a critical construct in understanding the relationship between goals and task performance. Despite this importance, there is confusion about the role of goal commitment and only recently has this key construct received the empirical attention it warrants” Howard J. Klein, Michael J. Wesson, John R. Hollenbeck & Bradley J. Alge – American professors (Klein et al., 1999).

“During the last two decades, there has been a growing recognition of the importance of time in the organizational literature. The temporal dimension of work has become more important because of expanding global competition and increased demands for immediate availability of products and services” Brigitte J.C. Claessens, Wendelien van Eerde, Christel G. Rutte & Robert A. Roe – Dutch professors (Claessens et al., 2005).

While the goal-setting theory already has a wide-established base and is considered “among the most scientifically valid and useful theories in organizational science” (Locke et al., 1988, pp. 1), the recognition of goal commitment in this theory began to grow during the last two decades. In almost the same time span, the recognition of the importance of time in organizational literature grew as well (Claessens, 2005). Yet, a combination of these two constructs has remained, to the best knowledge of this author, largely absent and forms the basis for this master thesis.

In order to combine these two topics, the aspect of deadline commitment is used here; it combines goal commitment with deadlines. Deadline commitment is defined as the determination of individuals to strive for a particular goal within the time constraint attached to it. The extension of deadline commitment compared to goal commitment can be illustrated with the following example: when one is assigned a project, goal commitment concerns whether one does or does not strive for the project while deadline commitment additionally concerns striving towards the timely goal attached to the project.

This master thesis has been conducted at Van den Udenhout (VdU), an automotive company. At VdU, there is already recognition of the importance of time; however, this is rather on a company level than on the level of the individual, i.e. to maintain sustainable. While these plans on a company level are to affect those working in the company, no formal plans have been devised for personnel to deal with, the passing of, time. Instead, rather vague slogans appear in the company magazine stating that personnel should work more efficiently and effectively. Yet, how this should or could be done is not addressed. As a result, this thesis will contribute in the understanding of VdU in how time affects the behaviour of individuals, what will result from such behaviour and what might be done to alter such behaviour as to yield positive outcomes for both personnel and company.

The remainder of this chapter will include a description of the company, a more precise definition of the problem and objective of this thesis. Then, research questions are derived from this problem statement. This chapter will end with the outline of this master thesis.

1.1 Research context: Van den Udenhout

Founded in 1957, VdU is a growing automotive company concerned with the brands Volkswagen and Audi. It is part of dealer group Pon which is, in turn, a subsidiary of Pon Holdings; one of the larger non stock market listed companies in the Netherlands. VdU aims to offer tailor fit solutions over a wide range of services to their customers. Integrity, continuity, innovation, growth and life-enjoyment are the core values VdU wants to display to the customer.

Such solutions are offered by any (combination) of the three main activities which make up the main body of VdU; first of all the automotive company, secondly various financial services (e.g. leasing) and thirdly the damage and repair centres. While each of these activities is autonomous, it is tried to use each other's knowledge and power to create synergy. In turn, six different business units can be distinguished, spread out over these three main activities; finance, sales, after-sales, human resources, damage & repair and leasing.

1.2 Problem definition

Pon holdings have made some changes in the measures to which VdU has to comply, in order for them to meet the future perspectives of Pon. Consequently, VdU reviewed their business structure, not only to comply with these new measures, but also to comply with their own future perspective. This accounts, partially, for the disappointing results after gaining several successes, the best Volkswagen dealer in 2006, the best Audi dealer in 2007 and achieving the status of excellent Audi dealer in 2008.

As a result of the business structure review, cost reduction is the key (as can be found in the second edition of the company magazine of 2008). VdU needs to organize its processes better than they did before; efficiency seems the primary way to achieve cost reduction. In line with this striving is the problem signalled at several departments; there is a lack of personnel which puts strain on employees in addition to the strain already encountered in their day-to-day work.

Furthermore, the day-to-day work at VdU can be considered very ad-hoc; they are, to a great extent, dependent of the events occurring on a particular day. Most of their employees have an amount of work to be done on some particular day and will start with a new set of, similar, tasks the following day. As a result, there is little room for postponing deadlines or tasks; instead great reliance is put on the willingness of employees to exert extra effort, for instance by helping co-workers on the spot or by working late, when there is "lack of time".

Looking at the current situation VdU is in; great reliance is put on the commitment of individuals towards their tasks and company. Employees need to work under rather strict deadline conditions, understaffed as well as reorganizing their work more efficiently to meet the new precepts; more work has to be done with fewer resources. However, what the effects of this situation are on their personnel is not well understood. Moreover, what the indirect effects are on the outcomes of their business processes, e.g. performance, experienced stress, satisfaction, is not yet understood either.

1.3 Objectives

Via their employee magazine and various meetings, VdU has expressed their wishes for efficiency and cost reduction explicitly. However, the measures to achieve these objectives and adjust the behaviour of the employees seem somewhat random. This may partially have to do with the lack of understanding how employee commit themselves to their deadlines and thus on the goal-directed behaviour of their employees.

While it may be possible to indeed maintain a competitive advantage over competitors without knowing how to deal with the behaviours of individuals and their deadlines, business processes may be smoothened if there is indeed such an understanding. Without such an understanding, measures taken on a task and/or personal level may seem more random than directed towards possible problems. Especially in an automotive company, where the relative amount of profit is rather low compared to turnover, such smoothened business process can provide the wanted efficiency. Thus, an understanding of the establishment of the behaviour of employees makes it less likely that incorrect interventions are undertaken. This may, in turn, be beneficial for the sustainability on the long run when the effects of incorrect interventions give rise.

While models concerning the behaviour of individuals when looking at goals can be found in contemporary literature, these models on their own may be insufficient to explain the temporal behaviour of individuals concerning their goals. Consequently, a model concerning the combination of goal commitment and deadlines will be dealt with in this master thesis to provide VdU with a better understanding of how individuals deal with their deadlines. Therefore, the combination of known theories on goal commitment and temporal behaviour are combined in this thesis and tested on the sites of VdU: a selection was made which of the business units to include in this research and which not. Those business units where the employees are actually working with deadlines and have some autonomy in their day-to-day work were selected; finance and after-sales. As a result, recommendations are derived and proposed to provide insights in the issues elaborated on before.

1.4 Research questions

A start is made in the emerging field of combining temporal issues in organizational literature with goal setting theory; contemporary literature on goal-setting and goal-commitment is extended with a framework in which effects and antecedents of deadline commitment, the combination of goal commitment and time, are elaborated on. Consequently, this thesis can be regarded as both rigour, as it contributes to contemporary literature, as well as relevant, this thesis provides insights to problems in the specific context of VdU (Shrivastava, 1987; van Aken, 2005). The main research question which was constructed for this thesis is the following:

What effect does deadline commitment have on performance and how can VdU influence the deadline commitment of employees?

In line with this main research question, several sub-questions are derived in order to help answer the main research question. First of all, the definition of deadline commitment needs to be derived from contemporary literature along with its mechanism, to form an adequate basis. Then, when it is known what deadline commitment exactly is and how it works, it is interesting to investigate what the possible (positive) effects of deadline commitment may be.

1. How can deadline commitment be defined?
2. What are the effects of deadline commitment on daily outcomes?

When such outcomes are determined, it becomes interesting to understand how deadline commitment originates; this may yield possibilities for interventions, i.e. antecedents which may be influenced for the better. First of all, possible antecedents of the goal setting theory are examined. Then, since the scope of this thesis includes time, it is obvious that time related issues need to be elaborated on as well. Not everyone perceives and responds to deadlines in a similar manner, and it would therefore be interesting to investigate how individual perspectives on time influence deadline commitment. In addition, it is worthwhile to examine several other aspects external to the employee that may influence an individual's attitude towards deadlines, e.g., does the leader have a role in the process of establishing deadline commitment? Or, in what way do interruptions of daily work influence the determination to meet a deadline?

3. What are the antecedents of deadline commitment?
 - a. What are the motivational antecedents to deadline commitment according to the goal setting theory?
 - b. Which temporal antecedents of deadline commitment can be identified?
 - c. Which environmental antecedents of deadline commitment can be identified?
 - d. What the effect do interruptions have on deadline commitment?

After determining the antecedents of deadline commitment, methods which may be used to enhance deadline commitment can be elaborated on. Specifically, two methods are addressed which are believed to increase employees' ability to regulate their time use, and thereby increase deadline commitment, namely participation and time management.

4. How can deadline commitment be reinforced?
 - a. What are the possibilities of participation?
 - b. How can time management help in the self-regulation of time to reinforce deadline commitment?

Finally, these findings need to be placed in the context of where this thesis is written. The establishment and effects of deadline commitment are looked at on a general basis, yet VdU has a specific context; thus a link between the findings and the context must be made.

5. In what way can the findings be translated to a deadline commitment model for the precise surrounding of VdU?
 - a. What recommendations can be given to VdU according to the findings?

1.5 Outline of this report

With the research problem, context, scope and outline discussed, the rest of this thesis was outlined in the following structure:

First of all, in chapter two, relevant literature is discussed; deadline commitment was explained with the help of intertwining topics in contemporary literature. Also, effects of such commitment as well as contributing variables were identified and a selection of these contributing variables was made which to include in this thesis.

Chapter three discusses the method for the field study; how data was collected, which measures were used and how the data was prepared for the actual analysis. Then, the actual data analysis and results are discussed in chapter four; each of the hypotheses was elaborated on separately after which the findings are summarized and discussed.

In chapter five, the main research question is answered, in addition, implications, limitations and recommendations are provided here as well. Using both the theoretical data as well as data obtained from the field study, a design was made and can be found in chapter six. Here, all of the obtained knowledge was applied to the specific context of VdU.

References can be found in chapter seven whereas appendices can be found in chapter eight.

2 The theory about deadline commitment

“The goal-performance relationship is strongest when people are committed to their goals”
(Locke & Latham, 2002, pp. 70).

This quote reflects the importance of commitment when pursuing goals, presumably including temporal goals. With the context demarcated, the construct of deadline commitment was explored. First of all, the concept of deadline commitment is defined. Secondly, the mechanism of deadline commitment is elaborated on, i.e. how it works. Afterwards, the effects of deadline commitment on several outcome variables, such as performance, are looked at. In addition, contributing variables are explored and their relation with deadline commitment is described to determine where to intervene when needed. Furthermore, hypotheses were constructed while elaborating on each of the variables, which were used to answer the research question. Consequently, the corresponding hypotheses are presented after each of these elaborations.

2.1 Deadline commitment

Since the literature concerning deadline commitment in specific is largely absent, several other theories are used to define deadline commitment, come up with possible, plausible, contributing variables as well as methods to reinforce these variables. As a result, the backbone of this thesis is the goal-setting theory, which has been extended with theories concerning deadlines and temporal behaviour in specific.

2.1.1 Definition of deadline commitment

Goals are seen as the “object or aim of an action” (Locke & Latham, 2002, pp. 705) and goals are considered to affect the behaviour of individuals. Individuals can either be positively or negatively influenced by goals in their behaviour; goals can influence the intention of an individual to strive for a goal or not. The determination of individuals to strive for a goal is seen as the commitment of that individual towards the goal (Locke & Latham, 1991).

In turn, deadlines can be defined as a temporal goal (Locke & Latham, 1991; Lim & Murnighan, 1994; Tükel & Rom, 1998). Thus, deadline commitment can be defined as the determination of individuals to strive for a particular goal within the time constraint attached to it. It should be noted though, that deadline commitment needs not to be constant (Tubbs, 1993).

2.1.2 The mechanism of deadline commitment

Deadline commitment works as follows (Klein et al., 1999): first of all, an individual determines the time interval in which he or she can pursue personal goals. Then, personal goals need to be evaluated which may be strived for, along with a time estimation concerning the completion time of the possible personal goals. These estimations have to be compared with the available time resulting in a selection of personal goals which can be strived for in the available time slot. After this comparison, a selection needs to be made which goals are indeed going to be strived for; of course, personal goals may or may not be in line with the goals of the organisation. Finally, this choice needs to be maintained over time, until the deadline is met.

2.1.3 Effects of deadline commitment

First of all, in alignment with the research question, it was researched what the effects of deadline commitment may be.

Performance is one of the prevalent variables looked at in the goal-setting theory as an outcome of goal commitment (Locke & Latham, 2002). As a result, performance was also looked at in relation with deadline commitment. In addition, commitment is associated with satisfaction and stress (Klein et al., 1999; Locke & Latham, 2002); which led to the inclusion of these two outcome variables as well.

Below, these three outcomes variables are defined along with their expected relation with deadline commitment.

Performance

While the term performance is often used in a wide variety of contexts, it is seen here as the actions or behaviours which are relevant to the organization and can be measured on an individual basis (Campbell et al., 1993). In other words, performance concerns what has been accomplished by an individual within a certain time slot; such accomplishments must be measurable on an individual basis. High levels of deadline commitment are associated with high levels of performance (Klein et al., 1999; Locke & Latham, 2002). Committed individuals are likely to exert effort and persevere in that effort, i.e. trying to meet the deadline with good results, leading to high levels of performance. Less committed individuals, on the other hand, are not likely to strive for a deadline and may care less about the outcomes. As a result, it was expected that committed individuals achieve more in a certain time slot than do less committed individuals. This leads to the following hypothesis:

1a. Deadline commitment is positively related to performance.

Stress

Stress, an emotional outcome, is the perceived relationship of an individual with its environment, which is appraised as exceeding his or her resources and endangering his or her well-being (Stanton et al., 1989). Especially in an ad hoc environment such as the one encountered at VdU, committed individuals were expected to experience high levels of work stress. There are ample deadlines to commit to and when such deadlines require more time than available, which may cause stress. In other words, committed individuals may experience higher levels of stress, compared to less committed individuals because they are more likely to persevere in their striving for deadline achievement, despite the fact that individual resources are exceeded (Waller et al., 2001). Less committed individuals, on the other hand, are more likely to have a “laidback” attitude towards their work and are therefore less likely to experience a lot of stress.

As a consequence, the following hypothesis is constructed:

1b. Deadline commitment is positively related to stress.

Work satisfaction

“The affective orientation that an employee has towards his or her work” (Lu et al., 2005, pp. 212) is used here as the definition of work satisfaction. Highly committed individuals are likely to have greater satisfaction in their work than do less committed individuals; it concerns “doing what you love and loving what you do” (Amabile, 1997, pp.1). It was assumed that when an individual strives for a particular deadline, this is a deliberate choice; after all, an individual was assumed to evaluate several personal goals to strive within a specific time interval. As such, it was expected that an individual, striving for a personally selected deadline, will have a positive orientation towards that deadline, or his or her work. Thus, satisfaction at work should lead to higher levels of deadline commitment (Ingledeu et al., 2005), suggesting a positive reciprocal relationship between deadline commitment and work satisfaction.

This results in the following hypothesis:

1c. Deadline commitment is positively related to work satisfaction.

2.1.4 Antecedents of deadline commitment

Next, it is examined what exactly determines deadline commitment. In order to be able to influence deadline commitment, it is important to understand how it originates; that way, one can determine on which variables interventions must be directed and what the effects of such interventions are likely to be for the outcomes.

From the goal setting and goal commitment literature, three main contributing variables have been determined; perceived importance of deadline attainment (attractiveness of deadline attainment), self-efficacy (expectancy of deadline attainment) and the resulting motivational force (Klein et al., 1999). In turn, seven other variables contribute directly to these three variables and thus indirectly to deadline commitment; ability, volition (power of will), affect, goal specificity, task experience, provision of and type of feedback (Klein et al., 1999). However, from these seven more distal variables, only volition is going to be included in this research; due to the notion of Tubbs (1993) that interruptions may arise as time passes, this variable seems interesting since it concerns the power of will to ignore interruptions.

In addition, five variables concerning temporal behaviour are included. Four of these variables make up the so-called temporal portfolio with which individuals perceive deadlines, and time (Waller et al., 2001; Harrison & Mohammed, 2008). This portfolio also holds preferences of individuals when working under deadline conditions. The fifth temporal variable concerns the application of time-management techniques, e.g. planning, by an individual.

Finally, external or environmental variables may also play a role in the establishment of deadline commitment (Locke et al., 1988). In this thesis, the role of perceived leadership style is included. Individuals are likely to act upon the perception they have of the leadership style of their superior (McColl-Kennedy & Anderson, 2005; Oshagbemi & Ocholi, 2005).

Here, each of these contributing variables was elaborated on to discuss their effect on deadline commitment. The variables are grouped into three categories; motivational, temporal and environmental variables. This was done since the variables are derived from the three respective and distinct streams of literature. Moreover, the possible relations between the contributing variables, of each separate block in the model, were not of interest here since they have been elaborated on in the literature reviewed here; especially the relation of each of the possible antecedents with deadline commitment was of interest and was therefore elaborated on.

2.1.5 Motivational variables

The motivational variables are those which were obtained from the goal-setting theory and were translated to the context of deadlines. In addition, it was expected that these variables are rather stable over time and can be seen as characteristics of an individual.

Self-efficacy

Self-efficacy is defined as the belief of an individual that he or she can indeed attain the deadline set and can produce certain outcomes (Locke & Latham, 2002; Schyns & Collani, 2002). In other words, self-efficacy concerns the expectations one has about meeting the deadline. An individual must not only believe he or she can handle the task, that person must also believe the deadline condition associated with it is attainable. When individuals believe they can indeed attain a particular deadline, they will be more committed to that deadline than when they do not have such a belief (Locke & Latham, 2002). Thus, when the level of self-efficacy is high, the level of deadline commitment will be high as well. Therefore, associated with this elaboration was the following hypothesis concerning self-efficacy:

2a. Self-efficacy is positively related to deadline commitment.

Perceived importance of deadline attainment

This variable concerns the degree to which individuals perceive the deadline to be attained to be important or not (Locke & Latham, 2002), i.e. it concerns the perception of attractiveness of deadline attainment.

When individuals are convinced, either by themselves or by others, that the deadline is important, they are likely to strive for it and thus show high levels of deadline commitment (Locke & Latham, 2002). When such a belief is absent, deadline commitment will be low as well. Consequently, this led to the following hypothesis:

2b. Perceived importance of deadline attainment is positively related to deadline commitment.

Motivational force

Motivation concerns intensity, direction and persistence (Ryan & Deci, 2000; Mitchell & Daniels, 2002), it will determine “what an individual will actually do” (Amabile, 1997, pp. 44); it is the process of allocating time and energy across possible tasks or actions (Pritchard et al., 2002).

By combining self-efficacy and perceived importance of deadline attainment, the motivational force of an individual is obtained. In addition, the individual must believe that his or her actions can lead to the expected outcomes (Sanchez et al., 2000). As a result, it is expected that when the level of motivation is high, i.e. the individual believes that he or she can attain the deadline, perceives attaining the deadline is important and believes that such deadline directed behaviour leads to certain outcomes, he or she will be committed to that deadline. When such feelings are absent, deadline commitment will be low. Thus, the following hypothesis was constructed:

2c. Motivation is positively related to deadline commitment.

Volition

Volition is defined as those thoughts and/or behaviours of individuals which are directed towards maintaining the intention to attain a specific goal, while the individual is subject to possible distractions by internal and external forces (Locke, 1991; Garcia et al., 1998; Ghoshal & Bruch, 2003). As was argued, deadline commitment starts with a selection of possible time intervals in which an individual may strive for goals and a selection which deadlines fit within those time intervals; thus there is an intention to strive for a goal. Only when there are thoughts and behaviours which actually maintain the intention to strive for a deadline, one can speak of determination to reach a deadline. As a result, it is argued that volition is associated with high levels of deadline commitment since volition ensures that energy is not diverted away from the deadline (Garcia et al., 1998). As a result, such behaviour aimed at meeting a deadline will reinforce commitment within an individual, leading to the following hypothesis:

2d. Volition is positively related to deadline commitment.

2.1.6 Temporal characteristics

Since not every individual perceives time and deadlines in the same way (Waller et al., 2001; Mohammed & Harrison, 2008), such perceptions may have a different effect on their approach to deadlines as well as with their allocation of time use. Four “time-based individual differences” (Mohammed & Harrison, 2008, pp. 5) were therefore included in this research; time urgency, time perspective, polychronicity and pacing style. Together, these four variables make up the so-called temporal portfolio (Mohammed & Harrison, 2008). In addition, it was assumed that not only characteristics of an individual, but also their skills in time use and deadline handling was important. As such, the application of time management techniques was included in this research. Together, these five variables were seen as the temporal variables influencing deadline commitment.

The variables of the temporal portfolio, time urgency, time perspective, polychronicity and the pacing styles, were assumed to be more or less stable over time. The tendency to engage in time management techniques, on the other hand was considered more fluctuating; one can perceived benefits or losses from such techniques over a rather limited time period.

Time urgency

Individuals who perceive deadlines as an indicator of how much time is left to complete a task are called time urgent (Waller, 2001; Mohammed & Harrison, 2008). Such individuals perceive time as a scarce resource, tend to be chronically hurried, feel the need to have control over their deadlines and schedule more activities in a period of time than most people for comfortable (Waller et al., 2001; Mohammed & Harrison, 2008).

Time urgent individuals are likely to show high levels of deadline commitment (Mohammed & Harrison, 2008) due to their high perceived importance of deadline attainment, motivation as well as their tendency to “ignore obstacles that may require additional time” (Rastegary & Landy, 1993, pp. 220). Low time urgent individuals, on the other hand, are less motivated and do not perceive their deadlines to be that important. Therefore it is expected that high time urgent individuals will have high deadline commitment and that low time urgent individuals will have low levels of deadline commitment. This leads to the following hypothesis:

3a. Time urgency is positively related to deadline commitment

Time perspective

The framework by which individuals plan and schedules their activities can be (past,) present or future oriented (Bluedorn & Denhardt, 1988). A focus on the present is associated with risk taking, impulsive behaviour and a need for immediate gratification of needs. As such, a present time perspective is associated with less goal-directed behaviour, distractions from work and aiming for short term achievements and gains; thus a low determination in meeting deadlines. A future time perspective, on the other hand, is associated with long term planning, overseeing the relation of the present with the future and the recognition of consequences of action in the present on the future (Waller et al., 2001; Fried & Slowik, 2004; Mohammed & Harrison, 2008); making such individuals likely to be activated even when the deadlines can be characterized as dull or boring, since they recognize its relation with the future. Therefore, a present time perspective is associated with low levels of deadline commitment, whereas a future time perspective is associated with high levels of deadline commitment.

3b. Future time perspective is positively related to deadline commitment.

3c. Present time perspective is negatively related to deadline commitment.

Polychronicity

While some individuals find it pleasant to be engaged in multiple tasks at the same time, others do not. The extent to which individuals prefer to be engaged in multiple tasks at the same time and belief that their approach is the best way of working determines the level of polychronicity (Mohammed & Harrison, 2008). Thus, polychronicity is the preference to be engaged in multiple tasks at the same time whereas monochronicity is the preference to be engaged in one single task at a single time; monochronic individuals complete one single task before switching to another whereas polychronic individuals do not. Therefore, indirectly, this variable determines how well one can switch between tasks; polychronic individuals are believed to be able to switch well between tasks whereas monochronic individuals are believed to be less able to do so.

Neither polychronicity nor monochronicity can be characterized as being “good” or “bad”, rather, it depends on the context. Polychronic individuals have the advantages of having incubation time (Beeftink et al., 2007) when switching between tasks. This has been shown to enhance their performance on creative tasks. At the same time, polychronic individuals may easily postpone dull tasks when more exciting tasks can also be done, despite due dates, which may be detrimental to meeting deadlines. Monochronic individuals, on the other hand, have the advantage that they are less likely to accept interferences and postpone dull tasks. However, when times get hectic, they are less likely to be able to cope with such a situation. Moreover, polychronics may have the tendency to accept interruptions due to their preference to be engaged in multiple tasks at the same time, while monochronics are unlikely to accept interruptions while working on a task. Therefore, it is expected that monochronic individuals are more likely to finish tasks than polychronic individuals, leading to the following hypothesis:

3d. Polychronicity is negatively related to deadline commitment.

Pacing style

“The allocation of time in task execution under deadline conditions” is used here as the definition of pacing style (Gevers et al., 2006, pp. 55). In this thesis, three pacing styles are taken into account: a constant action pacing style, a u-shaped action pacing style, and a deadline action style (Gevers et al., 2006). The constant action pacing style refers to the style of time use in which an individual divides effort and energy equally over the time available. The u-shaped action pacing style refers to a situation in which an individual starts with exerting a great amount of time and energy, before putting things aside for a while, and then exerting again a great amount of energy just before the due date. A deadline pacing style holds that individuals only become active when the due date of a deadline is near.

A deadline action pacing style has the most risks associate with it (Gevers et al., 2006; Mohammed & Harrison, 2008). Also, individuals with such a style might have lower commitment towards a deadline since they do not leave room for misjudgements; rather they start only because they cannot postpone the deadline anymore. On the other hand, a constant action pacing style may be regarded as a safe option. Although it is the least inspirational one of the three, it also is considered to be the steadiest working style, which is actually the least affected by deadline perceptions. Thirdly, the u-shaped style can be regarded as a strategic style (Gevers et al., 2006); individuals carefully analyse the situation to understand the task requirement before they leave the task to be picked up later when it is time to start working on the task, which is expected to enhance commitment. As a result, the following is expected:

3e. Deadline action pacing style is negatively related to deadline commitment.

3f. Steady action pacing style is positively related to deadline commitment.

3g. U-shaped action style is positively related to deadline commitment.

Time-management

Time-management is defined as the self-managing of tasks, e.g. planning, prioritising, under a time constraint to efficiently satisfy predetermined needs (Koch & Kleinmann, 2002). Time itself can, of course, not be managed (Dobbins & Pettmann, 1998); rather, one should manage how he or she deals with the time available. Using time-management techniques, individuals can organize their activities in such a manner that they complement each other in terms of time (Bluedorn & Bernhardt, 1988); they can experience some control over their time. Also, the extent to which individuals are engaged in time-management techniques affects the behaviour of individuals to the time available (Beefink et al, 2008). Moreover, when individuals apply time management techniques, they are willing to allocate their time and energy efficiently and as a result they are expected to be committed to their deadlines.

3h. Time management activities are positively related to deadline commitment.

2.1.7 Environmental variables

Only a perceived leadership style is included as an environmental variable, this was done since it was believed that a leader may be able to influence the behaviour of individuals while working. In other words, it was believed that a leader can exert influence in such a way that he or she may evoke, greater, determination within individuals to strive for their deadlines.

Perceived leadership style

Only the two most prevalent styles are incorporated in this research: initiating structure and transformational leadership (Bass, 1990; Sosik & Dionne, 1997; Bono & Judge, 2004). Initiating structure concerns a leader which “defines, directs, and structures the roles and activities of subordinates towards attainment of the team’s goals” (Keller, 2006). Furthermore, initiating structure concerns the monitoring and controlling of employees (Bono & Judge, 2004).

Transformational leadership, or charismatic leadership, on the other hand is characterized as a style with a leader which can create a vision to achieve success as well as letting others perceive that he or she is highly competent as a leader (Keller, 2006). In other words, a transformational leader is associated with high standards of moral and ethical conduct, a strong vision for the future, challenging organizational norms and recognizing the unique requirements of individuals (Bono & Judge, 2004).

Thus, initiating structure is more output oriented whereas transformational leadership is more people oriented. In addition, transformational leadership is associated with increased commitment to deadlines, especially in very creative tasks (Sosik & Dionne, 1997; Keegan & Den Hartog, 2004; Keller, 2006); a transformational leader can encourage unconventional thinking which can be beneficial in a creative surrounding. Initiating structure can also be associated with increased commitment although it seems more effective in less creative tasks (Keller, 2006); the knowledge to perform is available, what is needed is coordination of work.

Since a leader can exhibit aspects of multiple leadership styles at the same time, it is the perceived style of the individual that is of interest (McColl-Kennedy & Anderson, 2005; Oshagbemi & Ocholi, 2005). It is this perception which determines the behaviour of an individual; it can either stimulate or discourage particular types of task engagement and task handling.

Since the tasks in this context are rather straightforward, there is little need for creativity (Amabile, 1997); an environment in which an initiating structure fits well. Despite the low level of required creativity, however, it was believed that a perceived transformational leader, e.g. by individual consideration, also may lead to deadline commitment. Consequently, the following hypotheses were constructed:

4a. Initiating structure is positively related to deadline commitment.

4b. Transformational leadership is positively related to deadline commitment.

2.1.8 The role of interruptions

In addition to the hypothesized antecedents of deadline commitment, the handling of interruptions was discussed as well. This variable holds the possible interruptions an employee might face while working towards a deadline. Especially in ad hoc environments such as at VdU, employees might be faced with quite a number of interruptions each day; interruptions concern both the acceptance- as well as completion rate.

First of all, the handling of interruptions is expected to be under influence of some of the motivational, temporal and environmental variables. It is expected that when individuals perceive their deadlines as important, are maintaining an allocation of time and energy towards their deadline and are looking at the future will have a low rate of accepting interruptions. When individuals perceive their deadline as important, they are believed not to engage in interruptions to avoid the possibility of not meeting their perceived important deadline. Also, individuals with a future time perspective are, due to their vision on the relation of the present with the future, unlikely to have a high acceptance rate of interruptions. In addition, time urgent individuals were expected to ignore obstacles, or interruptions, which require additional time since that would keep them from meeting their busy schedule; as such, they will show a low acceptance rate of interruption. Also, when the perceived leadership style is an initiating structure, it is expected that due to the allocation of tasks and activities, subordinates are unlikely to have a high rate of accepting interruptions. The roles and tasks of an employee are predetermined and, therefore, it is assumed that individuals do not deviate from this allocation of tasks and activities.

On the other hand, individuals who prefer to be engaged in multiple tasks at the same time, polychronic individuals, are likely to accept interruptions since they believe that being engaged in multiple tasks at the same time is the best way of working. This leads to the following hypotheses:

- 5a. *Volition is negatively related to the acceptance rate of interruptions.*
- 5b. *Perceived importance of deadline attainment is negatively related with the number of accepted interruptions.*
- 5c. *Time urgency is negatively related to the number of accepted interruptions.*
- 5d. *Polychronicity is positively related to the number of accepted interruptions.*
- 5e. *Future time perspective is negatively related to the number of accepted interruptions.*
- 5f. *Initiating structure is negatively related to the number of accepted interruptions.*

The handling of interruptions is also expected to affect the level of deadline commitment. The handling of interruptions is expected to lower deadline commitment because of the increased psychological costs of an individual (Zijlstra et al., 1999). When interruptions are ignored, there will be no increase of psychological costs; therefore, deadline commitment will be high.

In addition, the appearance of interruptions may have a negative impact on deadline commitment through the phenomenon of deadline discounting; those deadlines with a due date more in the present are perceived as more important than those with a due date more in the future even though this might not objectively be the case (Koch & Kleinmann, 2002). Thus, individuals divert time and energy away from their original deadline and allocate it to such a deadline with a shorter due date.

5g. The number of accepted interruption is negatively related to deadline commitment.

5h. The completion of accepted interruptions is negatively related to deadline commitment.

Thirdly, the handling of interruptions was also expected to correlate with the three outcomes variables already introduced; performance, stress and satisfaction.

The handling of interruptions may have an influence on the level of performance. Time which could be spend on the original deadline is consumed by the handling of interruptions, as a result, one would accomplish less than he or she could have when ignoring the interruptions. However, it is expected that individuals tend to avoid anticipated performance level decline by exerting more effort after having dealt with interruptions (Zijlstra et al., 1999; Svenson, 2007). This expected absence of a negative effect is only possible to a certain extent though; once that threshold is passed, negative effects on performance of regular tasks are expected.

As a result of the increase in psychological costs, i.e. extra effort one has to exert to make up for the anticipated performance decline of their original task (Zijlstra et al., 1999), it was hypothesized that the handling of interruptions leads to a high levels of stress.

5i. Interruptions are positively related to stress.

The effect of interruptions on work satisfaction depends on the attitude of an individual; low committed individual are likely to prefer interruptions when they lead to immediate gratification (Waller et al., 2001; Mohammed & Harrison, 2008). In addition, polychronic individuals are also expected to be fond of interruptions. On the other hand, however, highly committed individuals are likely to perceive interruptions as annoying and the more they deal with, the lower the level of work satisfaction will be. Still, it is expected that the handling of interruptions lowers feelings of satisfaction due to the possible increase of psychological strain, especially when interruptions are ample.

5j. Interruptions are negatively related to satisfaction.

2.1.9 Mediation

Deadline commitment was expected that have antecedents as well as effects, yet the role between the antecedents and the outcomes remains unknown. To some extent, deadline commitment may be seen as a regulator of human behaviour (Locke, 1996) and as a result, it was expected that deadline commitment mediated, fully or partially, the relationships between its antecedents and effects. This led to the following hypothesis:

6a. Deadline commitment mediates between the motivational, temporal and environmental antecedents and the work outcomes in terms of performance, stress, and satisfaction.

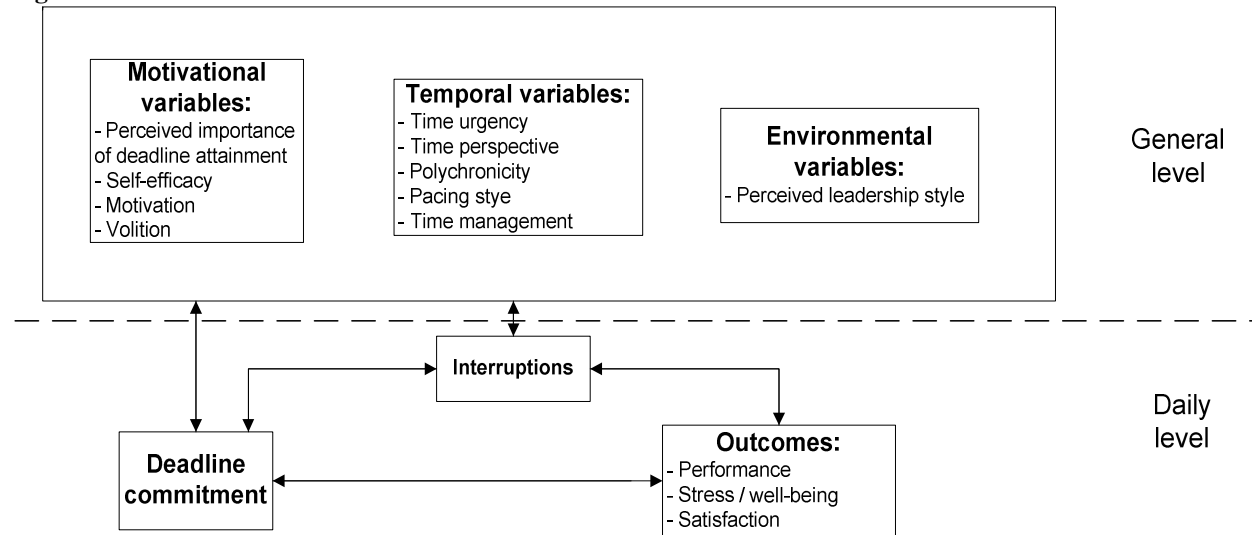
2.2 Research model

With the literature elaborated on and hypotheses set-up, while taking the context into account, a research model was constructed which model can be found in figure 2.2-1 on the next page. This model was to provide an overview of the literature review and hypotheses. Moreover, by combining the hypotheses into a research model, it was possible to use that model in order to answer the main research question. Furthermore, such a model may be used to recognize where interventions can be undertaken and what the effect of such interventions will be on the other variables in the model.

It was recognized that some of the variables operate on a general basis whereas other operate on a daily basis; i.e. some variables are more stable than others. Overall, the variables above the dotted line were seen as rather stable whereas the variables below the dotted line are seen as subdue to daily fluctuations. However, the general variables are not equally stable; the motivational variables were regarded as personal characteristics and therefore stable over time whereas time management, pacing style and perceived leadership were regarded as personal preferences which do not fluctuate each day, yet are not as stable as the other general variables. For instance, a leader can change its leadership style, which should lead to a change in the perceived style. Also, the environment may change in such a way, e.g. more dynamic, that a certain pacing style, e.g. steady, does not fit anymore or that the use of time management becomes interesting. Consequently, these variables may prove to hold opportunities for interventions in order to reinforce deadline commitment, e.g. time management training.

The model suggests that, in accordance with the reviewed literature, deadline commitment was expected to lead to three outcome variables; performance, stress and satisfaction. In turn, deadline commitment was hypothesized have antecedents in three categories; motivational variables obtained from the goal-setting theory, temporal variables from the temporal portfolio (Mohammed & Harrison, 2008) and time management, and finally, perceived leadership as an environmental variable. In addition, a look was taken at interruptions; the handling of interruptions was expected to negatively correlate with deadline commitment and satisfaction, and positively to stress while being influenced by several motivational, temporal and environmental variables.

Figure 2.2-1: The research model



2.3 Summary

Deadline commitment has been defined as the determination of individuals to strive for a particular goal within the time constraint attached to it. Such a determination was expected to lead to high levels of performance, stress and satisfaction. In turn, deadline commitment was expected to be subject to several motivational, temporal and environmental variables. Also, the handling of interruptions, which are ample in the ad hoc environment of VdU, was expected to play a role in the determination of deadline commitment as well as in the determination of the outcomes variables while being subject to some of the motivational, temporal and environmental variables.

All of this has led to a research model along with hypotheses. With the help of this model, the effects and antecedents of deadline commitment were mapped in order to determine the importance of deadline commitment for organizations, and VdU here in particular, and how deadline commitment may be influenced for the greater good. This was done with a field study which is described in the following chapter.

3 Method

“To measure is to know” William Thomson (Lord Kelvin) – British mathematical physicist and engineer.

3.1 Diary study

3.1.1 Procedure

The data collection was done using a diary study. In this context, diary studies are favourable since they allow one to look at the variability between individuals as well as variability within individuals over time. However, since some of the variables are rather stable over time and others are not, part of the data is collected with a daily survey whereas the rest is collected with a general survey.

Diary studies hold that participants keep some sort of diary; each day of a session, the employee has to fill in a questionnaire in which the experiences, in this case concerning deadline commitment, were collected.

Participants were approached before starting the actual data collection. However, because of travelling limitations, some of the employees were approached via the telephone and e-mail whereas the others were approached directly. During this initial introduction, employees received an explanation about what this thesis was about, why data has to be collected, why it has to be collected via questionnaires and why they were selected. Furthermore, issues such as anonymity were discussed; each participant was given a unique identifier to make it possible to compare data from different points in time (Peugh & Enders, 2005), without endangering anonymous data collection. Besides the possible participants, also the supervisors were approached to gain support from them as well.

After this introduction, participants were approached formally via the e-mail system, again explaining the project and their role in it as well as administrative issues such as anonymity, and they were to hand in their questionnaires via this e-mail system as well. Those who did not have access to a computer were approached directly. The collection of data was done over two periods of 5 consecutive work days. In total, two weeks of data was collected.

Questionnaires consisted of 5-point Likert scales; “a Likert scale consists of statements that express either a favourable or unfavourable attitude towards the object of interest” (Cooper & Schindler, 2003, pp. 253); thus, the scale of each variable would consist of a number of statements which were to be rated by the participants. All of these scales ranged from 1 (disagree completely/strongly disagree) to 5 (agree completely/strongly agree). Furthermore, the questionnaires were translated to Dutch with the help of an official translator.

The questionnaires were e-mailed to those participants who had access to a computer, the Saturday before the work week started. Those who did not have access to a computer received the questionnaire on Monday morning, before eight o’ clock. Once every two days, participants received a reminder when they did not fill in the questionnaire.

General survey

This questionnaire consisted of items to measure several personal characteristics which are considered rather stable over time (Mohammed & Harrison, 2008); self-efficacy, perceived importance of deadline attainment, motivation, time perspective, time urgency, polychronicity, pacing style, volition, perceived leadership and the use of time-management techniques were the personal characteristics included in this questionnaire.

Participants received an e-mail with the questionnaire attached to it; this questionnaire could be filled in on the computer or, according to ones preference, could be printed and filled in by hand. Those participants who did not have access to a computer were provided with blind envelopes. After completing the questionnaire, the envelopes were sealed, to provide anonymity, and collected by their supervisor; afterwards they were collected by the author.

In order not to interfere with the diary study, this questionnaire was scheduled the week before the first session of the diary study was to take place.

Daily survey

Again, participants received an email with the questionnaires attached to it; these questionnaires could also be filled in manually or digitally. Those participants who did not have access to a computer were, again, provided with blind envelopes.

First of all, participants had to provide their daily plan at the start of a working day in order to convey what was to be done; this should be done globally since participants receive a wide number of tasks per day. Furthermore, participants should keep track of interruptions during the execution of their daily plan. It is important that individuals rate their level of stress, satisfaction, commitment, etc. at the end of the working day.

3.1.2 Sample

Only employees working in the business unit finance and after-sales were included in this research. Besides the restriction on the definition of deadlines, this selection had put restrictions on the sample size. In total, fifty-eight employees were approached to participate in this study.

Of these fifty-eight employees, seventeen were female while the remaining forty-one were male. Furthermore, the greater deal of these employees, thirty-seven, was working in the business unit after-sales. Of these, twenty-seven were service advisors while the remaining ten were warehouse employees. In addition, most of the employees were full-time employed. Some of those who worked part-time only had to work a couple of days each week, whereas others worked each day, albeit less than eight hours.

In total, only fourteen of the fifty-eight possible participants had filled in both the general survey as well as participated in at least one week of the daily survey. This sample consisted of four male and ten female respondents.

During and after the first week of the diary study, those who were selected as participants, but did not fill in the questionnaire were approached once again and requested to participate in the second diary session. Most of the possible participants showed an intention to cooperate. However, the response rate of the second session was rather poorly, with only twelve employees filling in the questionnaire. Thus, it was decided that the data collection period should be extended with one week for yet another session. Participants were approached again; however, with no additional responses, the response rate remained very low.

In the end, only fourteen out of fifty-eight participants actually participated in this research, this is a response rate of twenty-four percent. Those who did fill in the general survey, but, for some reason, did not fill in any diary session, were excluded from the analysis.

3.1.3 Measures

All of the scales used in this research were adapted from prior research; however, the scale of volition was constructed for this thesis since no appropriate scale could be found. In the appendix, paragraph 8.1, all of the items can be found.

The reliability of the scales was verified in order to determine the degree to which the scales are subject to random errors (Cooper & Schindler, 2003). In order to increase reliability, there was the possibility to adjust the scales to increase reliability where possible, i.e. items removed from the scale to increase reliability. While removing items may increase the reliability, it also takes away the possibility to compare this research with other research in which the entire scales were used. However, since the scales were adapted from prior research, to fit with deadlines, the possibility to compare these results with other research is not apparent; consequently, it was chosen to improve reliability but removing items were possible.

- General measures -

3.1.4 Motivational variables

First of all, the motivational variables were discussed; self-efficacy, perceived importance of deadline attainment, motivation and volition. Despite that motivation was seen here as the combination of self-efficacy and perceived importance of deadline attainment (Van Eerde & Thierry, 1996; Klein et al., 1999), it was measured directly. As a result, there might be some overlap between these measures.

Below, the measures of these four variables are discussed:

Perceived importance of deadline attainment

Individuals will only act towards meeting a deadline when they perceive it as important. In addition, the outcomes of attaining the deadline, which are expected, must also be perceived as important (Locke & Latham, 2002).

Employees were, thus, rated on their perception of how they see the importance of a particular deadline they work on; both how they see the deadline, the outcomes and how they perceive how important the deadline is for their boss and company they work for. For example; “By meeting these deadlines, I will satisfy some of my needs”.

This scale was derived from Arvey et al. (1990) and consists of 8 items (Cronbach’s Alpha of 0.85 in prior research), measured on a 5-point Likert scale which ranges from 1 (disagree completely) to 5 (agree completely).

With all of the items taken into account, Cronbach’s Alpha was 0.42. After removing item six, eight and seven, Cronbach’s Alpha was 0.76 and it is decided to remove these items in order to get a smaller, yet more adequate scale.

Self-efficacy

Based upon the new general self-efficacy scale from Chen et al. (2001), employees were to rate themselves to what extent they feel capable of performing adequately. This scale is “theory based, unidimensional, internally consistent and stable over time” (Chen et al., 2001, pp. 69) with Cronbach’s Alpha retested in prior research in three occasions: 0.87, 0.88 and 0.85.

These questions cover the extent to which individuals believe they can overcome their daily sets of tasks, within the time limit attached to those sets. Here, these questions were adjusted to the domain of deadlines: “I am confident I can perform these deadlines”.

Rating was done using a 5-point Likert scale; while a debate has been going on about the application of Likert scales in assessing the level of self-efficacy, it seems possible to measure self-efficacy with a Likert scale (Maurer & Pierce, 1998; Maurer & Andrews, 2000). Thus, employees rate themselves on a scale which ranges from 1 (strongly disagree) to 5 (strongly agree).

The scale of self-efficacy in this research yielded a Cronbach’s Alpha of 0.88 and was used as it is.

Motivation

Since the definition of motivation was taken from the valence, instrumentality and expectancy theory (Sanchez et al., 2000), there may be some overlap in the outcomes of self-efficacy and perceived importance of deadline attainment on the one hand, and expectancy and valence on the other hand. However, even though overlap might exist, these constructs are different in nature. Then, the level of motivation is the addition of each of the three category levels, rather than multiplying them (Van Eerde & Thierry, 1996).

As a result, based on the valence, instrumentality, expectancy scale, ten items were used to rate the employees on their level of motivation (Sanchez et al., 2000). Cronbach’s Alpha in prior research was 0.94, 0.86 and 0.89 respectively. A 5-point Likert scale was used to measure this variable with scores ranging from 1 (disagree completely) to 5 (agree completely). For instance: “I would like to attain these deadlines”. After removing two items (nine and five), the Cronbach’s Alpha in this research went from 0.53 to 0.72.

Volition

Volition was defined as the thoughts and/or behaviours of individuals directed towards maintaining the intention to attain a specific deadline, therefore, employees were rated on off-task behaviour on a 5-point Likert scale ranging from 1 (disagree completely) to 5 (agree completely).

The construction of this measure was inspired by Hunt (1996), in this study, specific and distinct off-task behaviour is discussed, since author was not able to find an existing scale. Using the definition of volition, it seemed that such behaviour would indicate low levels of volition. Thus, being inspired by this off-task behaviour, a questionnaire is constructed by the author consisting of seven items. An example is: “When working on a task, I tend to ignore interferences”. With Cronbach’s Alpha of 0.77, this scale was used as it is.

3.1.5 Temporal variables

The second component holds the general temporal variables; the temporal portfolio (time urgency, time perspective, polychronicity and pacing style) and the extent to which time management techniques are applied in general.

Time perspective

Eight items from Shipp et al. (2006) were used to let employees rate themselves on a 5-point Likert scale about their focus towards time. These items were to measure the perspective with which the daily work was approached; a distinction was made between a present and future time perspective. Reliability estimates of these items in prior research ranges from Cronbach's Alpha of 0.84 and higher. The response categories ranged from 1 (disagree completely) to 5 (agree completely).

- Present time perspective

This scale consisted of four items. An example item is: "I think about where I am today". Cronbach's Alpha in this research for a present time perspective was 0.48 after removing item one.

- Future time perspective

Four items made up this scale and an example item is: "I focus on my future". Cronbach's Alpha in this research was 0.79.

The reliability of the present time perspective could not be increased anymore since that would leave only two items in the scale. Moreover, it seems that mainly future time perspective has been measured; therefore, present time perspective was omitted from the model. Future time perspective was taken as it was.

Time urgency

Employees were to rate their attitude towards time on a 5-point Likert scale ranging from 1 (disagree completely) to 5 (agree completely). These six items were used from Landy et al. (1991) which are to cover two of the five main variables which are to measure time urgency; general hurry and task-related hurry. An example item is: "I find myself hurrying to get to places even when there is plenty of time".

Reliability issues of prior research can be found in Landy et al. (1991), pp. 650, stating Cronbach's Alpha values of 0.90 and 0.95 for general and task-related hurry respectively. In this research, one item (item five) was removed in order to increase Cronbach's Alpha from 0.56 to 0.69.

Polychronicity

In total, nine items were used in a self-assessment of the variable polychronicity. Six of these items are from Bluedorn et al. (1999) while the remaining three items come from Hecht & Allen (2005). Employees were to rate the extent to which they preferred to be engaged in multiple tasks at the same time, e.g. "I like to juggle several activities at the same time".

Concerning reliability; Cronbach's Alpha was 0.84 in prior research and is 0.76 in this research.

Pacing style

Employees were to rate their style of time usage while working towards deadlines on a 5-point Likert scale ranging, again, from 1 (disagree completely) to 5 (agree completely). These items were taken from Gevers et al. (2008). For instance: “The effort I put into projects is high at start, low halfway through, and high again at the end” (u-shaped style).

Reliability issues for deadline-, steady- and u-shaped pacing styles were looked at independently since they are three distinct styles. The Cronbach’s Alpha of a deadline action pacing style went to 0.58 from 0.37 after removing one item (item one). Concerning the Cronbach’s Alpha of a steady action pacing style, it went from 0.50 to 0.73 after removing one item (item three). Thirdly, the Cronbach’s Alpha of a u-shaped action pacing style was 0.85.

Time management

The items to measure the extent to which individuals were engaged in time management behaviour, that is, the extent to which individuals apply time management techniques, were derived from Tripoli (1998) and Claessens (2004). For example: “Each day, I make a time table for my activities”. Cronbach’s Alpha in prior research ranges from 0.78 to 0.95, concerning each of the separate time management techniques.

Instead of making a distinction between the various time management techniques, such as anchored planning, priority focus, contingency planning and time monitoring (Claessens, 2004), an overall scale was used. In this research, Cronbach’s Alpha was 0.81.

3.1.6 Environmental variables

Thirdly, the perceived leadership style of the direct manager was measured (McColl-Kennedy & Anderson, 2005), to cover the third component of the model.

Perceived leadership style

Leadership styles were assessed using Keller’s (2006) measures, in which transformational leadership is operationalized by ten items from the charismatic leadership scale from Bass’s (1985) multivariable leadership questionnaire and three items from the intellectual stimulation scale from that same questionnaire; Cronbach’s Alpha of 0.79 in prior research. An example item is the following: “Our team leader assigns team members to particular tasks”. Transactional leadership was measured by six items from the leader behaviour description questionnaire (Stogdill, 1963); Cronbach’s Alpha of 0.82 in prior research. An example is the following item: “Our team leader is a model for me to follow”.

Employees were to rate their direct manager on this scale using a 5-point Likert scale ranging from 1 (disagree completely) to 5 (agree completely). In this research, Cronbach’s Alpha was 0.95 for perceived transformational leadership style and 0.84 for perceived transactional leadership style.

- Daily measures -

3.1.7 Deadline commitment

Deadline commitment is the major dependent variable in this study and while it should be looked at both at the start of working towards a deadline as well as time passes (Tubbs, 1993), this could not be done in this research due to the length of the deadlines. It was assumed that deviations in commitment on a single deadline are unlikely to be detected since the tasks were very short and therefore the deadlines were very short; consequently, deadline commitment will be towards a daily set of tasks along with the deadline for this set, i.e. the end of the day. These conditions apply to each of the participants, although the exact tasks differed between employees. Thus, deadline commitment was looked at on a daily basis.

The measure constructed by Klein et al. (2001) concerning goal commitment was used to convert these measures into deadline commitment measures. Construct reliability of this questionnaire is provided by Hollenbeck et al. (2001); Cronbach's Alpha of 0.71. An example is: "I'm strongly committed to pursuing these deadlines".

Employees were rated based on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). With these questions, it is measured to what extent an individual perceives to be committed to the deadlines faced.

Here, after removing one item (item one), Cronbach's Alpha is 0.622.

3.1.8 Interruptions

This component of the model holds the interruptions an employee might face while working towards a deadline. Consequently, these interruptions were looked at on a daily basis since it is unlikely that an interruption on one day interferes with activities on another day; rather if they are postponed to another day, they should be considered a "regular", yet additional, task on the following day.

In addition, a distinction is made between unplanned tasks and interruptions; interruptions are those tasks which are posed upon an employee by someone else whereas unplanned tasks are tasks which an employee decides to work on despite that they were not taken into account in their plan, e.g. because they were forgotten.

The amount of interruptions as well as the extent to which these interruptions are dealt with was measured via a format used by Claessens (Claessens, 2004). Using this format, employees were simply to state which tasks interrupted with their daily work, to which extent they had finished it and, where needed, an explanation about the task.

Interruptions are regarded as those tasks which are opposed upon an employee by someone else whereas unplanned tasks are tasks which an employee decides to work on despite that they were not taken into account in their plan, e.g. because they were forgotten.

3.1.9 Daily outcomes

Next to deadline commitment, the level of performance, stress and satisfaction were also seen as dependent variables; the level of deadline commitment as well as the dealing with interruptions was hypothesized to be correlated with the level of performance, work-stress and work-satisfaction.

Performance

Performance was measured using the same format as used for measuring interruptions (Claessens, 2004). Employees stated which tasks await them a particular day, then, at the end of the day; employees rated the extent to which they have completed their daily set of tasks.

Daily work-satisfaction

Being defined as the affective orientation of an individual to their job(s) and the different aspects relating to the work, the items for measuring this variable should incorporate various aspects of the work to be done. This measure has been derived from the pleasure, arousal and dominance (PAD) model (Russell & Mehrabian, 1977; Morris, 1995); pleasure refers to the degree to which employees feel content about their job, arousal refers to the degree of excitement of employees and the level of dominance refers to the feeling of being in control. This scale was used since it is short and easy to understand (Morris, 1995); also, it covers almost all the various emotional states according to Russell & Mehrabian (1977).

Employees rated themselves on their satisfaction about the results of the current day with the self-assessment manikin; each aspect of the PAD model is graphically displayed along with a 5-point continuous scale. Pleasure ranges from unhappy to happy, arousal ranges from sleepy to excited and dominance ranges from big and significant (in control) to feeling small and insignificant (lack of control) (Morris, 1995).

Daily stress

Stress covers the entire environment of an individual with a person, it does not relate to a single task or deadline. Therefore, the level of stress was measured on a daily basis as one of the outcomes variables in the model.

Derived from the Stress-In-General scales (Stanton, et al., 1989) (Cronbach's Alpha of 0.88 and 0.82), several items have been constructed to measure the level of stress experienced by an individual on a daily basis. These items were rated on a 5-point Likert scale ranging from 1 (disagree completely) to 5 (agree completely). For example: "Today, I felt a lot of pressure to perform".

Both the daily as well as the overall reliability was measured and, after removing item five and three, Cronbach's Alpha concerning the overall reliability was 0.68. The daily reliability ranged from Cronbach's Alpha is 0.41 to 0.79.

3.1.10 Overview

To sum up, table 3.1-1 provides an overview of the reliability of each of the scales in prior research and in this research. Also, where needed, the reliability after adjusting the scales by removing items is presented along with the items which were removed.

Table 3.1-1: Reliability of the scales

Scale	Original reliability	Initial reliability	Items removed in order	Reliability after adjustment
Perceived importance of deadline attainment	0.85	0.418	6, 8, 7	0.763
Self-efficacy	0.87	0.884	None	-
Motivation	0.86	0.530	9, 5	0.717
Volition	-	0.772	None	-
Present time perspective	0.84	0.483	Scale removed	-
Future time perspective	0.84	0.791	None	-
Time urgency	0.90	0.558	5	0.690
Polychronicity	0.84	0.760	None	-
Deadline pacing style	-	0.371	2	0.577
Steady pacing style	-	0.504	3	0.732
U-shaped pacing style	-	0.852	None	-
Time management	0.90	0.807	None	-
Perceived transformational leadership style	0.82	0.946	None	-
Perceived transactional leadership style	0.79	0.838	None	-
Deadline commitment	0.71	0.539	1	0.622
Stress	0.85	-0.369	5, 3	0.681

3.2 Data analysis

3.2.1 Method

In a lot of social research, one might observe typical hierarchical data structures (Bryk & Raudenbush, 2002). Such a hierarchical data structure can also be observed in the sample of this thesis; personal characteristics on a general level are hypothesized to influence several variables on a personal daily level.

Hierarchical linear modelling was used to address such a hierarchical structure since methods like multiple regression analysis, applied consecutively a number of times, may lead to misleading results caused by aggregation issues (Aitkin & Longford, 1986). In this context, aggregation would lead to a situation in which the daily data would be lost in the aggregation process; which would be a loss of valuable data.

A typical hierarchical model, with two level looks like the following;

Level 1: $Y_{ij} = \beta_{0j} + \varepsilon_{ij}$ (i.e. daily personal variables)

Level 2: $\beta_{0j} = \gamma_{00} + \epsilon_{0j}$ (i.e. general personal variables)

Combined: $Y_{ij} = \gamma_{00} + \epsilon_{0j} + \varepsilon_{ij}$.

From this it can be seen that the second level estimation is used in the estimation of the level one; in this case, general personal characteristics were hypothesized to have an effect on daily personal outcomes.

An important issue in hierarchical linear modelling is that of centering. Centering is done “for computational ease in deriving parameter estimates” (Kreft et al., 1995, pp. 1) and holds that predictors, or variable values in this case, are centered around the mean of that variable (Kreft et al., 1995). Here, two types of centering were used; grand mean centering and group mean centering (Peugh & Enders, 2005). For grand mean centering, this holds that, for each case (row in SPSS), the mean value of a general personal variable is deducted from the actual value. Group mean centering, on the other hand, centers within a group; instead of using the mean of an entire variable, the mean of a sub-set, e.g. person, is used for that particular sub-set. For example, one person may score consistently lower than another person, yet the differences within both individuals may be the same; by applying centering, the difference within an individual are looked at rather than the person level scores to improve parameter estimation (Kreft et al., 1995).

The first step in the construction of a hierarchical model was to create an empty model in which only a constant variable was included to estimate the dependent variable. In the following step, a control variable was added to check whether, in this case, gender was a significant predictor for the dependent variables; this way it could be determined whether results could be ascribed to gender rather than the variables used in this thesis. The following model was then created by adding independent variables in order to try and explain more variance; these variables were included in subsequent steps. However, each of these variables was added individually, since there were too few degrees of freedom*, due to the low sample size, to construct a larger model. Consequently, each variable was added to model one, i.e. the null model extended with the control variable gender, independently and individually.

Improvement of the models was based upon the difference in likelihood ratios compared to the chi-squared critical value (Montgomery & Runger, 2003; Beeftink, 2008); when the observed difference between the likelihood ratios was greater than the critical chi-squared value, the model differed significantly from the previous model and was thus a significant improvement over the previous model since it explained significantly more variance.

In addition to testing the model, each of the variables included in the model were tested as well to see whether they were significant predictors of the dependent variable or not. Here, an error level of 0.05 was used; when the measured statistical value was lower than the critical value on a 0.05 error level, this model was flagged as a significant predictor of the independent variable.

* The number of degrees of freedom is the number of observations (sample size) minus the number of estimated parameters (Walker, 1940). Such degrees of freedom are used to indicate the number of independent observations on which basis a model is constructed (Montgomery & Runger, 2003; Hair et al., 2006). Thus, the lower the degrees of freedom; the less the model can be generalized since the model is based on a few independent observations only, namely the number of observations minus the number of estimated parameters (Montgomery & Runger, 2003; Hair et al., 2006).

3.2.2 Data preparation

Data preparation consisted of testing the normality assumptions. In total, there are four important assumptions for statistical research such as conducted in this thesis; normality, homoscedasticity, linearity and absence of correlated errors (Hair et al., 2006). However, it was assumed that these assumptions hold; the normality assumption was discussed since this assumption is also a basis for the correlation matrix which was used later on.

Normality

Variables have been constructed simply by taking the average value of the items per scale. With these variables, the data was checked for normality; the normality assumption is one of the fundamental assumptions for multivariate data analysis (Hair et al., 2006), such as the method which was used in this thesis. When the data does not fit the normal distribution, “all resulting statistical tests are invalid” (Hair et al., 2006, pp. 79); thus the shape of the data gathered needs to be similar to the shape of the normal distribution.

Furthermore, while testing for normality, outliers may also be detected. While it cannot be checked whether these outliers come from errors in the questionnaire or that they are true outliers, eventual outliers were removed from the data set because they interfered with the data analysis, leading to inaccurate estimations.

Normality was tested with the use of normal probability plots as well as formal tests concerning the skewness and kurtosis of the data. By comparing the cumulative distribution of the actual data values to the cumulative distribution of the normal distribution, one can determine whether these two plots show a great deal of similarities. When these two plots are roughly the same, the normality assumption holds (Cooper & Schindler, 2003; Hair et al., 2006).

Concerning the skewness and kurtosis of the actual data; when either the statistical value for the skewness or kurtosis exceeds the specified critical value, the distribution of that variable can be considered to be non-normal (Hair et al., 2006). The statistical value for the skewness can be calculated with the following formula: $Z_{skewness} = \frac{skewness}{\sqrt{6/N}}$. The value for the kurtosis can be

calculated in a similar way using the following formula: $Z_{kurtosis} = \frac{kurtosis}{\sqrt{24/N}}$. Here, N is the

sample size and the critical value is 1.96 on a 0.05 error level and 2.58 on a 0.01 error level (with the critical value being positive or negative).

In the appendix, paragraph 8.2, the statistical values of all of the variables can be found as well as the tests; both initial as well as additional tests where needed. From all of the variables tested for normality, only time urgency and both types of perceived leadership had outliers. These outliers were removed from the dataset after which the normality assumption now holds for all variables.

4 Results

After the tests for reliability and normality have been conducted, the actual testing of the hypotheses started in order to devise an answer to the main research question. The hypotheses will be dealt with in the order as they were introduced in chapter two. However, first a look will be taken at the distributions and correlations among the variables in the study (both on a day and person level)

4.1 Means, standard deviations and correlations

Before hierarchical linear models were tested, a look was taken at the correlation matrix as well as the mean and standard deviations of the variables; these can be found in table 8.3-1 and 8.3-2.

4.1.1 Mean and standard deviations of variables

To begin with, it was noticed that the levels of deadline commitment of this sample are fairly low with a mean of 2.26. Apparently, the employees were not that committed to their deadlines. Still, performance was quite high with a mean of 86.46%. Despite such levels of performance, there seems to be room for improvement given the low level of deadline commitment. Furthermore, the employees had a high acceptance rate of interruptions (77%). However, the completion rate has a mean of 46.47%, with a standard deviation of 48.38; this points in a direction that there are employees who complete all of their interruptions whereas others accept interruptions but do not complete them. Given these levels of performance and interruption handling, one would expect rather high levels of stress, yet it seems that the level of stress is average with a mean of 3.33.

Concerning the temporal characteristics, employees seem to favour a steady action pacing style ($M = 3.40$) over a deadline ($M = 2.24$) or u-shaped pacing style ($M = 2.36$). This was partially reflected in the polychronicity measure; with a mean of 2.85, employees seem to be more monochronic than polychronic. Furthermore, the mean and standard deviation of time urgency were noticed; with a mean of 3.05 and standard deviation of 0.30, there is little variability in this measure, which may negatively affect its predictive capacity. A similar problem is identified for the perceived transactional leadership style ($M = 3.25$ and $SD = 0.26$).

4.1.2 Correlations

Effects and determinants of deadline commitment

According to the correlations, deadline commitment was associated with high levels of performance ($r = 0.60^*$ on the personal level and $r = 0.42^{**}$ on the daily level) and arousal ($r = 0.22^*$). In turn, deadline commitment was associated with low levels of stress ($r = -0.86^{**}$ on the personal level and $r = -0.72^{**}$ on the day level). In addition, deadline commitment was indirectly associated, via excitement, with feelings of being in control ($r = -0.39^{**}$ on a daily basis) and pleasure ($r = 0.57^{**}$ on a daily level and $r = 0.75^{**}$ on a person level). It seemed that the employees in this sample do not get really excited about their work ($M = 3.02$) nor feel in control over their actions, yet they do experience feelings of pleasure while working ($M = 3.69$).

^a $p < 0.05$ one-tailed

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

On the other hand, self-efficacy ($r = -0.45$, n.s.), perceived importance of deadline attainment ($r = -0.67^{**}$), motivation ($r = -0.68^{**}$) and volition ($r = -0.57^*$) were associated with low levels of deadline commitment. While it seems that the employees of this sample feel capable of performing (self-efficacy: $M = 3.83$), understand why they are to perform (perceived importance of deadline attainment: $M = 3.81$) and are motivated to do so (motivation: $M = 3.61$), they do not get committed. This suggests that feelings of being capable, perceiving why the deadline is important, being motivated and ignoring interruptions should result in low levels of commitment.

Then, the correlations between deadline commitment and the temporal variables (time urgency, time perspective, polychronicity, pacing style and time management) were looked at. Here, it was observed that only the pacing styles (deadline, steady, u-shaped) showed correlations in line with expectations; using such styles was associated with high levels of deadline commitment. From the three styles, only a deadline and u-shaped pacing style showed a high correlation ($r = 0.56^*$ and 0.46 respectively). In addition, these two styles were also significantly correlated with each other ($r = 0.60^*$); individuals preferring one of these two styles are associated with preferring the other one as well. Furthermore, it was interesting that time management was negatively associated with deadline commitment ($r = -0.29^{**}$ on the daily level and -0.42 on the person level).

When looking at the perceived leadership styles; deadline commitment showed almost no correlation with a perceived transactional leadership style ($r = 0.01$). However, such a style is correlated with the completion rate of interruptions ($r = 0.22^*$), also, it is correlated with feelings of being in control or dominance ($r = -0.24^*$). Thus, a perceived transactional leadership style may have an indirect effect on deadline commitment. A perceived transformational leadership style, in turn, showed a correlation in the opposite direction than hypothesized (-0.40); having a leader with a perceived charismatic and intellectually stimulating style is associated with low levels of deadline commitment.

The acceptance and completion rate of interruptions showed mediocre correlations with deadline commitment in line with expectations ($r = -0.27$ and -0.35 for the acceptance- and completion rate respectively on the personal level and $r = -0.16$ and -0.21 respectively on the daily level); hinting towards a trend that handling of interruptions is correlated with low levels of deadline commitment. In addition, there is a significant correlation between the acceptance- and completion rate of interruptions ($r = 0.95^{**}$ on a personal level and 0.87^{**} on a daily level); it seems that when an individual accepts an interruption, he or she is likely to complete it as well.

Determinants and effects of accepting and handling interruptions

From the correlation matrix it can be seen that the handling of interruptions is significantly correlated with lower performance ($r = 0.59^{**}$ for the acceptance rate and -0.55^{**} for the completion rate on the personal level and $r = -0.25^*$ and -0.25^* respectively on the daily level).

However, it seems that when individuals engage in time management activities, they are less likely to accept interruptions ($r = -0.51$). Also, a deadline- and u-shaped pacing style are associated with a low acceptance rate of interruptions ($r = -0.27$ and -0.34 respectively on a person level and $r = -0.25^*$ and -0.28^* respectively on a day level).

^a $p < 0.05$ one-tailed

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

4.2 Hypotheses

Concerning each hypothesis, a table is set-up in which the main findings are presented; see appendix paragraph 8.3.2: hypotheses. In such a table the estimates, standard errors, t-values for the predicting variables are displayed, in addition, the likelihood ratios and the difference between likelihood ratios are displayed there as well as day- and person-level intercept variances. Here, smaller tables are provided at each hypothesis to provide an overview of found results; note that these values concern adding the variable to model 1 independently and individually.

4.2.1 Hypothesis 1: Deadline commitment predicting performance, stress and satisfaction

Deadline commitment is seen here as an independent variable exerting influence on several outcome variables; namely, performance, stress and satisfaction. The outcomes can be found in table 8.3-3 through 8.3-7 in the appendix.

Gender is not a significant predictor for performance, nor was the model which included gender a significant improvement over the null model ($\Delta -2 \times \log = 3.535$, $df = 1$, $p > 0.05$).

Deadline commitment predicting performance

Hypothesis 1a concerned the expectation that deadline commitment would be positively correlated with performance. However, adding deadline commitment to model 1 did not lead to a significant improvement ($\Delta -2 \times \log = 3.535$, $df = 1$, $p > 0.05$). However, the difference in likelihood ratios does not have a great distance from the critical chi-squared value (error level 0.05) nor is significance of deadline commitment that small ($p = 0.061$). Thus, while the model was not a significant improvement nor the variable was significant, these findings showed a positive trend; high levels of deadline commitment are associated with high levels of performance. Therefore, the hypothesis concerning deadline commitment being positively correlated with performance was partially supported.

Deadline commitment predicting stress

Deadline commitment was hypothesized to be positively correlated with stress, hypothesis 1b, i.e. high levels of stress as a result of high levels of deadline commitment. Adding deadline commitment to model 1 led to a significant improvement ($\Delta -2 \times \log = 14.791$, $df = 1$, $p < 0.001$) with deadline commitment a significant predictor for stress ($p < 0.001$). However, the direction of the relationship pointed in the opposite direction as was hypothesized; that is, high levels of deadline commitment were associated with low levels of stress; not supporting the hypothesis.

Deadline commitment predicting satisfaction

Concerning hypothesis 1c, deadline commitment was hypothesized to positively correlate with pleasure, excitement and dominance. While deadline commitment did not show to be a significant predictor for pleasure ($p > 0.05$), it is a significant predictor for both arousal ($p < 0.05$) and dominance ($p < 0.001$). Both models were a significant improvement over model 1; for the model concerning arousal ($\Delta -2 \times \log = 3.994$, $df = 1$, $p < 0.05$) and dominance ($\Delta -2 \times \log = 14.295$, $df = 1$, $p < 0.001$). The model concerning pleasure ($\Delta -2 \times \log = 2.836$, $df = 1$, $p > 0.05$) was not a significant improvement over model 1; yet, when a one-tailed error level is used, a positive trend is shown; deadline commitment was associated with pleasure. Thus, high levels of deadline commitment were associated with high levels of excitement, feelings of being in control and pleasure; partially supporting hypothesis 1c.

^a $p < 0.05$ one-tailed

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Furthermore, most of the variance predicted was due to variation on the daily-level ($p < 0.001$) rather than on the personal level ($p > 0.05$), which was expected since deadline commitment was measured on a daily, rather than personal, level.

Altogether, deadline commitment showed a positive trend with performance, a negative correlation with stress and predicted satisfaction positively. More precisely, deadline commitment showed a positive trend with pleasure, and a significant positive correlation with arousal and dominance. Thus, the hypotheses concerning the outcome variables were supported, but the hypothesis of stress (1b) was not supported, with an overview of these findings in table 4.2-1.

Table 4.2-1: Overview hypothesis one

Independent variable	Dependent variable	Estimate	SD	T-value
Deadline commitment	Performance	7.565	3.975	1.903 ^a
Deadline commitment	Stress	-0.413	0.102	-4.047 ^{***}
Deadline commitment	Pleasure	0.418	0.246	1.701 ^a
Deadline commitment	Arousal	0.471	0.232	2.027 [*]
Deadline commitment	Dominance	-1.134	0.286	-3.965 ^{***}

4.2.2 Hypothesis 2: Motivational variables predicting deadline commitment

Table 8.3-8 of the appendix, provides the results for deadline commitment as the dependent variable of the tested hierarchical linear model with self-efficacy, perceived importance of deadline attainment, motivation and volition as the independent variables. The difference in likelihood ratios is based on the null model.

From the null model, it can be seen that the variance in deadline commitment was for the greater part predicted by day-level variation ($p < 0.001$) and less, but still partially, by person-level variation ($p < 0.05$). Adding gender to the null model, this does not show a significant improvement over the null model ($\Delta -2 \times \log = 0.22$, $df = 1$, n.s.) and therefore, gender does not predict deadline commitment.

The next model, hypothesis 2a, concerned the expected positive correlation between self-efficacy and deadline commitment. This model did not show a significant improvement over model 1; ($\Delta -2 \times \log = 3.217$, $df = 1$, $p > 0.05$), self-efficacy was not a significant predictor either ($p > 0.05$). However, with $p = 0.078$, this showed a negative trend; self-efficacy was associated with lower commitment to that deadline, not supporting the hypothesis.

Hypothesis 2b concerning a positive correlation between perceived importance of deadline attainment and deadline commitment; the model showed a significant improvement over model 1 ($\Delta -2 \times \log = 7.818$, $df = 1$, $p < 0.01$) with perceived importance of deadline attainment a significant predictor for deadline commitment ($p < 0.01$). However, the correlation was a negative one; high levels of perceived importance were associated with low levels of deadline commitment and vice versa; not supporting the hypothesis.

Then, motivation was added to model 1 in accordance to hypothesis 2c; motivation was expected to be positively correlated with deadline commitment. The model showed a significant improvement over model 1 ($\Delta -2 \times \log = 8.013$, $df = 1$, $p < 0.001$), in addition, the variable motivation is a significant predictor for deadline commitment ($p < 0.01$), though it is a negative one. This suggests that highly motivated individuals would be less committed to their deadlines than less motivated individuals, not supporting this hypothesis.

^a $p < 0.05$ one-tailed

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

After including volition in model 1 according to hypothesis 2d, deadline commitment is positively correlated with volition, again an improvement is obtained ($\Delta -2 \times \log = 8.544$, $df = 1$, $p < 0.001$) and volition is a significant predictor ($p < 0.01$) with a negative correlation. Not getting disturbed by interruptions was associated with lower levels of deadline commitment; not supporting the hypothesis.

Table 4.2-2 provides an overview of these findings; concerning the motivational variables, it can be stated that the hypotheses should be rejected based on these findings; the relationships found pointed in the opposite direction of what was expected.

Table 4.2-2: Overview hypothesis two

Independent variable	Dependent variable	Estimate	SD	T-value
Self-efficacy	Deadline commitment	-0.385	0.202	-1.908 ^a
Perceived importance of deadline attainment	Deadline commitment	-0.518	0.160	-3.244 **
Motivation	Deadline commitment	-0.818	0.251	-3.256 **
Volition	Deadline commitment	-0.395	0.184	-3.415 **

4.2.3 Hypothesis 3: Temporal variables predicting deadline commitment

The null model and model one are the same as with the motivational variables; the null model containing none of the variables while model 1 contains only the control variable gender; in addition, the following models which were constructed can be found in table 8.3-9 and 8.3-10 of the appendix.

The first model concerning the temporal variables has time urgency included; time urgency was expected to be positively correlated with deadline commitment. Time urgency was not a significant predictor for deadline commitment, however, the model is significantly better than model 1 ($\Delta -2 \times \log = 28.272$, $df = 1$, $p < 0.001$). Furthermore, more variance is explained due to day-level variation ($\Delta = -0.029438$) than person-level variation ($\Delta = 0.005398$); since time urgency is a person level measure changes on the person-level were expected. Instability of the model might have to do with the low sample size and low variation in the data. In all, this hypothesis was not supported.

By adding a future time perspective in accordance of hypothesis 3b, a future time perspective is positively correlated with deadline commitment, a new model was obtained which was not a significant improvement over model 1 ($\Delta -2 \times \log = 2.471$, $df = 1$, $p > 0.05$) and the added variable is not significant either; therefore no support was found for this hypothesis. It must be noted that hypothesis 3c was omitted from this thesis after it was decided to omit a present time perspective, see paragraph 3.1.5.

Hypothesis 3d concerned the expectation that polychronicity was positively correlated with deadline commitment. However, this model did not show significant improvement over model 1 ($\Delta -2 \times \log = 0.796$, $df = 1$, $p > 0.05$). Also, polychronicity was not a significant predictor of deadline commitment, thus these results did not support the hypothesis.

^a $p < 0.05$ one-tailed

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Concerning the pacing styles, it was expected that a deadline action pacing style would be correlated with low levels of deadline commitment whereas a steady and u-shaped pacing style would lead to high levels of such commitment. First, the three styles are looked at individually, and then they were included in a single model. The results showed that when adding the deadline action pacing style to model 1, there was a significant improvement compared to model 1 ($\Delta -2 \times \log = 6.312$, $df = 1$, $p < 0.05$). Also, a deadline action pacing style was a significant positive predictor for deadline commitment ($p < 0.05$), however, not supporting the hypothesis due to a positive correlation. When adding a steady pacing style to model 1, there was no significant improvement ($\Delta -2 \times \log = 0$, $df = 1$, $p > 0.05$) nor was this pacing style a significant predictor of deadline commitment ($p > 0.05$); these results did not support the hypothesis. Also, when the u-shaped pacing style was added to model 1, there was no significant improvement over model one, but there might be a trend ($\Delta -2 \times \log = 3.253$, $df = 1$, $p > 0.05$). This model was not significant when looking at the two-tailed error level, but it was indeed significant when looking at the one-tailed error level of 0.05; the correlation pointed in the direction that a u-shaped pacing style was associated with high levels of deadline commitment. Therefore, this hypothesis was partially supported. Then, by adding all three styles to the model, the model did not improve significantly nor were there any significant variables in the model ($\Delta -2 \times \log = 1.654$, $df = 2$, $p > 0.05$).

Finally, it was expected that the application of time management techniques would be positively correlated with deadline commitment, hypothesis 3h. However, when time management was added to model 1, there was no significant improvement ($\Delta -2 \times \log = 2.461$, $df = 1$, $p > 0.05$) and time management was not a significant predictor of deadline commitment; thus not supporting the hypothesis.

As a result, it can be stated that most of the hypotheses are not supported based on this data. The only hypothesis for which support has been found was that of a u-shaped pacing style was positively associated with high levels of deadline commitment (3g). This suggested that being active at the start of working towards a deadline and just before the deadline should bring about a high level commitment to that deadline. In addition, one opposite significant relationship was found; a deadline pacing style is positively correlated with deadline commitment as opposed to the expected negative relation. These findings are summarized in table 4.2-3.

Table 4.2-3: Overview hypothesis three

Independent variable	Dependent variable	Estimate	SD	T-value
Time urgency	Deadline commitment	-0.403	0.420	-0.960
Time perspective	Deadline commitment	-0.441	0.269	-1.642
Polychronicity	Deadline commitment	-0.211	0.235	-0.900
Deadline pacing style	Deadline commitment	0.497	0.175	2.846 *
Steady pacing style	Deadline commitment	-0.000	0.194	13.886
U-shaped pacing style	Deadline commitment	0.274	0.143	13.408 ^a
Time management	Deadline commitment	-0.352	0.215	-1.637

^a $p < 0.05$ one-tailed

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

4.2.4 Hypothesis 4: Environmental variables predicting deadline commitment

The results of this hypothesis, i.e. either perceived leadership style is positively correlated with deadline commitment, can be found in table 8.3-11 of the appendix and an overview can be found in table 4.2-4.

The model with perceived transformational leadership style included was not an improvement over the model 1 ($\Delta -2 \times \log = 3.806$, $df = 1$, $p > 0.05$). Adding perceived transactional leadership style to this model, there was no improvement ($\Delta -2 \times \log = 0.626$, $df = 1$, $p > 0.05$) either. In conclusion, hypotheses 4a and 4b cannot be supported; neither a perceived transactional nor a perceived transformational leadership style was positively correlated with deadline commitment.

Table 4.2-4: Overview hypothesis four

Independent variable	Dependent variable	Estimate	SD	T-value
Perceived transactional leadership style	Deadline commitment	-0.067	0.490	-0.138
Perceived transformational leadership style	Deadline commitment	-0.367	0.245	-1.497

4.2.5 Hypothesis 5: The role of interruptions

Motivational, temporal and environmental variables predicting the number of accepted interruptions

The results of motivational, temporal and environmental variables predicting the number of accepted interruptions can be found in table 8.3-12. In the null model, most of the variance was predicted by variations on the day-level ($p < 0.001$) and not on the person-level ($p > 0.05$). Adding gender as a control variable did not lead to a significant improvement over the null model ($\Delta -2 \times \log = 0.023$, $df = 1$, $p > 0.05$); most of the variance is predicted by variation on the day-level ($p < 0.001$).

Motivational variables predicting the number of accepted interruptions

Volition and perceived importance of deadline attainment were hypothesized to correlate negatively with the acceptance rate of interruptions. However, neither model was a significant improvement over model 1; ($\Delta -2 \times \log = 0.340$, $df = 1$, $p > 0.05$ for volition) and ($\Delta -2 \times \log = 0.828$, $df = 1$, $p > 0.05$ for perceived importance of deadline attainment). Therefore, hypothesis 5a and 5b were not supported.

Temporal variables predicting the number of accepted interruptions

Included here were time urgency, future time perspective and polychronicity. The model in which time urgency was added showed a significant improvement over model 1 ($\Delta -2 \times \log = 22.550$, $df = 1$, $p < 0.001$) but time urgency was not a significant predictor ($p > 0.05$). Furthermore, there was an increase in variance predicted by variations on the day-level rather than on the personal-level. Thus, these findings did not support the hypothesis. Secondly, a future time perspective was added to model 1. This model did not show a significant improvement over model 1 ($\Delta -2 \times \log = 3.702$, $df = 1$, $p > 0.05$) with a two-tailed error level, yet it was a significant improvement with a one-tailed error level. Time perspective was a significant negative predictor for the acceptance rate ($p < 0.05$, one-tailed). Also, gender turned out to be a significant predictor for the acceptance rate ($p < 0.05$); female employees are more likely to accept interruptions than do male employees.

^a $p < 0.05$ one-tailed

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Gender also proved to be a significant predictor of the acceptance rate when polychronicity is added to model 1 ($p < 0.05$), the model itself, however, is not a significant improvement over model one ($\Delta -2 \times \log = 1.861$, $df = 1$, $p > 0.05$). Therefore, this hypothesis was partially supported.

Environmental variables predicting the number of accepted interruptions

Lastly, a model was constructed in accordance with hypothesis 5f; initiating structure is negatively correlated with the acceptance rate of interruptions. While this model was a significant improvement over model 1 ($\Delta -2 \times \log = 8.410$, $df = 1$, $p < 0.01$), none of the variables were.

Summarized in table 4.2-5, it seems that the number of accepted interruptions depend more on variation on the day-level than on variation on the person-level; none of the estimates of covariance on the person-level was significant. Likely, the acceptance rate depends on the fluctuating daily arrivals of such work rather than any of the hypothesized antecedents; hypothesis five was not supported.

Table 4.2-5: Overview hypothesis five a) through five f)

Independent variable	Dependent variable	Estimate	SD	T-value
Volition	Acceptance rate of interruptions	0.171	0.292	0.587
Perceived importance of deadline attainment	Acceptance rate of interruptions	0.218	0.234	0.930
Time urgency	Acceptance rate of interruptions	0.074	0.482	0.154
Time perspective	Acceptance rate of interruptions	-0.094	0.601	2.201 ^a
Polychronicity	Acceptance rate of interruptions	-0.381	0.257	-1.481
Perceived transactional leadership style	Acceptance rate of interruptions	0.273	0.570	0.479

Interruptions predicting deadline commitment

These models concerning this hypothesis, i.e. the acceptance and completion rate is negatively correlated with deadline commitment, can be found in table 8.3-13 of the appendix and in table 4.2-6, an overview can be found.

When adding the acceptance rate of interruption on a day was added to model 1, there was no significant improvement ($\Delta -2 \times \log = 0.023$, $df = 1$, $p > 0.05$). When adding the completion rate of the interruptions handled to the model, the model was not a significant improvement over model 1 either ($\Delta -2 \times \log = 1.869$, $df = 1$, $p > 0.05$) nor are there any significant predicting variables. With these results, the hypotheses concerning that the acceptance- and completion rate would be associated with low levels of deadline commitment (5i and 5j) were not supported.

Table 4.2-6: Overview hypothesis five g) and five h)

Independent variable	Dependent variable	Estimate	SD	T-value
Acceptance rate of interruptions	Deadline commitment	0.002	0.054	0.039
Completion rate of interruptions	Deadline commitment	0.003	0.002	1.366

^a $p < 0.05$ one-tailed

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Interruptions predicting stress and satisfaction

The handling of interruptions was not only hypothesized to have an effect on deadline commitment, but on stress, pleasure, arousal and dominance as well. Both the completion rate as well as the number of accepted interruptions was included in the model in a single step since these two showed significant correlation in the correlation matrix on a daily level. The multilevel estimates can be found in table 8.3-14 through 8.3-17 of the appendix.

Stress

It was expected, in hypothesis 5i, that an increase in handling of interruptions would lead to a high levels of experienced stress, however, the results did not indicate the number of interruptions nor the completion rate as significant predictors of stress ($p = 0.399$ and $p = 0.683$ respectively). Also, the model was not an improvement over model 1 ($\Delta -2 \times \log = 0.890$, $df = 2$, $p > 0.05$). Thus this hypothesis was not supported.

Satisfaction

When looking at dominance; the completion rate was a significant predictor of dominance ($p < 0.05$). In addition, the acceptance rate was a significant predictor of dominance when using a one-tailed error level of 0.05. This suggested that a high acceptance and completion rate of interruptions was associated with feelings of being in control over ones' actions. However, this model only was a significant improvement over model 1 while using a one-tailed error level ($\Delta -2 \times \log = 4.897$, $df = 2$, $p > 0.05$). In turn, none of the models, concerning the handling of interruptions being correlated negatively with pleasure and excitement, were a significant improvement over model 1 with a two-tailed error level; ($\Delta -2 \times \log = 3.132$, $df = 2$, $p > 0.05$) for pleasure and ($\Delta -2 \times \log = 3.340$, $df = 2$, $p > 0.05$) for arousal. Therefore, this hypothesis was partially supported.

Here, table 4.2-7 summarizes the findings concerning hypothesis 5i and 5j.

Table 4.2-7: Overview hypothesis five i) and five j)

Independent variable	Dependent variable	Estimate	SD	T-value
Handling of interruptions:	Stress			
Acceptance rate of interruptions		0.073	0.086	0.847
Completion rate of interruptions		-0.000	0.002	-0.410
Handling of interruptions:	Pleasure			
Acceptance rate of interruptions		-0.293	0.185	-1.586
Completion rate of interruptions		0.007	0.004	1.778 ^a
Handling of interruptions:	Arousal			
Acceptance rate of interruptions		-0.319	0.172	-1.849 ^a
Completion rate of interruptions		0.006	0.004	1.521
Handling of interruptions:	Dominance			
Acceptance rate of interruptions		0.389	0.221	1.761 ^a
Completion rate of interruptions		-0.011	0.005	-2.247 [*]

^a $p < 0.05$ one-tailed^{*} $p < 0.05$, ^{**} $p < 0.01$, ^{***} $p < 0.001$

4.2.6 Hypothesis 6: Deadline commitment mediates the correlation between motivational, temporal and environmental variables with outcomes

“Mediation refers to instances where the significant total relationship that exists between an antecedent and a criterion, is accounted for in part (*partial mediation*) or completely (*full mediation*) by a mediator variable” (Mathieu & Taylor, 2006, pp. 1039). This definition of mediation is used in this thesis, which shows that there are three types of variables in such a relationship, i.e. antecedent, mediator and criterion, and that there are two possibilities of how deadline commitment may mediate the correlation between motivational, temporal and environmental variables with the outcome variables; partial or full mediation.

For both types of mediation, there are multiple conditions which must be satisfied concerning the antecedent, mediator and criterion (Mathieu & Taylor, 2007); only when all of those conditions are satisfied, a mediator can be characterized as one; albeit partial or full. Concerning full mediation, there must be (Mathieu & Taylor, 2006; Mathieu & Taylor, 2007)

1. A significant relationship between the antecedent and the criterion
2. A significant relationship between the antecedent and the mediator
3. A significant relationship between the mediator and criterion
4. A non significant relationship between the antecedent and the criterion and a significant relationship between the mediator and the criterion when both the antecedent and mediator are added to the same model as independent variable.

Concerning partial mediation, the following conditions must be satisfied (Mathieu & Taylor, 2007):

1. There must be a significant correlation between the antecedent and the mediator
2. While including both the mediator and the antecedent in the same model, there must be a significant correlation between the mediator and the criterion
3. While including both the mediator and the antecedent in the same model, there must be a significant correlation between the antecedent and the criterion

In addition for both types of mediation, it is necessary that the antecedent exhibits a significant indirect effect on the criterion as transmitted through the mediator (Mathieu & Taylor, 2007); this can be tested with the use of the so-called Sobel’s test (MacKinnon et al., 2002), taking into account that it concerns mediation model in a multi-level model (Krull & MacKinnon, 1999). However, Sobel’s test is not needed to determine full mediation since when the antecedent is no longer significant while looking at the relationship between the antecedent and mediator with the criterion, the decrease is significant.

In the preceding hypotheses, several significant relationships between some of the antecedents and deadline commitment have been found as well as between deadline commitment and performance, stress and satisfaction. Thus a look was taken whether deadline commitment acts as a mediator for the relationship between self-efficacy, perceived importance of deadline attainment, motivation, volition, deadline pacing style or a u-shaped pacing style with any of the outcome variables. There may be other significant associations between the antecedents and effects of deadline commitment; however, these were not the focus of this research and were therefore not examined.

^a $p < 0.05$ one-tailed

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Full mediation

Since condition two and three were already satisfied by the motivational variables and a deadline and u-shaped pacing style, condition one was tested; this was done using hierarchical modelling, table 8.3-18 through 8.3-22 in the appendix provide the multilevel estimates whereas table 4.2-8 provides an overview of these findings.

It was found that volition and a deadline pacing style satisfied condition one while looking at performance and stress, separately, as a criterion. None of the antecedents were associated with pleasure or arousal; however, self-efficacy was associated with dominance.

Table 4.2-8: Overview full mediation

Independent variable	Dependent variable	Estimate	SD	T-value
Self-efficacy	Performance	2.110	9.189	0.341
Perceived importance of deadline attainment	Performance	-5.001	5.659	-0.884
Motivation	Performance	-11.845	8.579	-1.381
Volition	Performance	-16.144	5.237	-3.083 *
Deadline pacing style	Performance	14.127	4.762	2.967 *
U-shaped pacing style	Performance	7.595	3.876	1.959 ^a
Self-efficacy	Stress	0.155	0.267	0.579
Perceived importance of deadline attainment	Stress	0.364	0.235	1.545
Motivation	Stress	0.720	0.346	2.080 ^a
Volition	Stress	0.681	0.232	2.930 *
Deadline pacing style	Stress	-0.750	0.163	-4.611 *
U-shaped pacing style	Stress	-0.398	0.160	-2.488 *
Self-efficacy	Pleasure	0.379	0.305	1.243
Perceived importance of deadline attainment	Pleasure	0.097	0.301	0.321
Motivation	Pleasure	-0.306	0.470	-0.651
Volition	Pleasure	-0.106	0.358	-0.297
Deadline pacing style	Pleasure	-0.379	-0.300	-1.266
U-shaped pacing style	Pleasure	-0.022	0.229	-0.094
Self-efficacy	Arousal	0.188	0.219	0.855
Perceived importance of deadline attainment	Arousal	-0.036	-0.214	-0.171
Motivation	Arousal	-0.416	0.328	-1.268
Volition	Arousal	-0.182	0.256	-0.712
Deadline pacing style	Arousal	0.003	0.232	0.012
U-shaped pacing style	Arousal	0.086	0.159	0.540
Self-efficacy	Dominance	-0.633	0.197	-3.217 **
Perceived importance of deadline attainment	Dominance	-0.399	0.206	-1.937 ^a
Motivation	Dominance	-0.370	-0.362	-1.022
Volition	Dominance	-0.098	0.295	-0.331
Deadline pacing style	Dominance	0.010	0.262	0.036
U-shaped pacing style	Dominance	0.127	0.174	0.730

The next step was to investigate whether the antecedents remain significant or not while deadline commitment was added to the model. These findings can be found in the table 4.2-9 whereas a full overview can be found in table 8.3-23 through table 8.3-25 in the appendix.

It was found that deadline commitment did not act as a full mediator between volition and performance, volition and stress, a deadline pacing style and performance, and between a deadline pacing style and stress. Furthermore, deadline commitment did not fully account for the relationship between self-efficacy and dominance. Consequently, partial mediation needed to be examined since a model with full mediation was rejected (Mathieu & Taylor, 2006).

^a $p < 0.05$ one-tailed* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4.2-9: Overview full mediation continued

Independent variable	Dependent variable	Estimate	SD	T-value
Volition	Performance	-16.150	5.232	-3.087**
Deadline commitment		7.554	3.971	1.902 ^a
Deadline pacing style	Performance	14.144	4.751	2.977**
Deadline commitment		7.564	3.965	1.908 ^a
Volition	Stress	0.681	0.231	2.952**
Deadline commitment		-0.412	0.102	-4.06***
Deadline pacing style	Stress	-0.399	0.159	-2.502*
Deadline commitment		-0.413	0.102	-4.05***
Self-efficacy	Dominance	-0.634	0.192	-3.295**
Deadline commitment		-1.135	0.284	-4.00***

Partial mediation

With the data values obtained from examined full mediation, it was checked for which relation deadline commitment could serve as a partial mediator. The relation between volition and performance and between a deadline pacing style and performance are omitted here since deadline commitment was not significant when using a two-tailed error level; therefore there may be direct effect between volition and performance and between a deadline pacing style and performance.

To determine partial mediation, a Sobel's test was required. For each Sobel's test, the input consisted of the following:

1. Estimate and standard error (SE) of the antecedent while looking at the relationship between the antecedent and the criterion (without the mediator).
2. Estimate and standard error of the mediator while modelling a relationship in which both the antecedent as well as the mediator is included.

The results found after executing Sobel's test can be found in table 4.2-10. The p-values concern a normal distribution and were compared to a two-tailed error level of 0.05, i.e. +/- 1.96, under the assumption that there is no mediating effect of deadline commitment.

Table 4.2-10: Overview partial mediation

Association antecedent	Association criterion	Estimate	SE	Test-statistic	P-value
Volition	Stress	0.681	0.232	-2.375	0.017
Deadline commitment		-0.412	0.101		
Deadline pacing style	Stress	-0.750	0.162	3.036	0.002
Deadline commitment		-0.412	0.102		
Self-efficacy	Dominance	-0.633	0.196	2.507	0.012
Deadline commitment		-1.135	0.284		

Consequently, deadline commitment acted as a partial mediator for the relation between volition and stress, between a deadline pacing style and stress, and between self-efficacy and dominance. Volition was associated with high levels of stress due to its association with low levels of deadline commitment. In addition, a deadline pacing style was associated with low levels of stress because of its association with high levels of deadline commitment. Finally, perceptions of being capable were associated with feelings of being in control due to the association with low levels of deadline commitment.

^a p < 0.05 one-tailed

* p < 0.05, ** p < 0.01, *** p < 0.001

4.3 Summary

Summarized in table 4.3-1, it was found that deadline commitment is associated with feeling pleasure, excitement and being in control (1c). There was partial support (no significant results, yet trends in the direction of the hypothesis) for the hypothesized positive correlation between a u-shaped pacing style (hypothesis 3g) and deadline commitment, between deadline commitment and performance (hypothesis 1a)

Furthermore, several temporal variables were included to examine whether they contributed to deadline commitment. Besides a deadline action and a u-shaped pacing style, no support was found for such expectations. Also, the style of perceived leadership and the handling of interruptions were not associated with deadline commitment. Lastly, deadline commitment acted as a mediator for the relation between volition and stress, between a deadline pacing style and stress, and between self-efficacy and dominance.

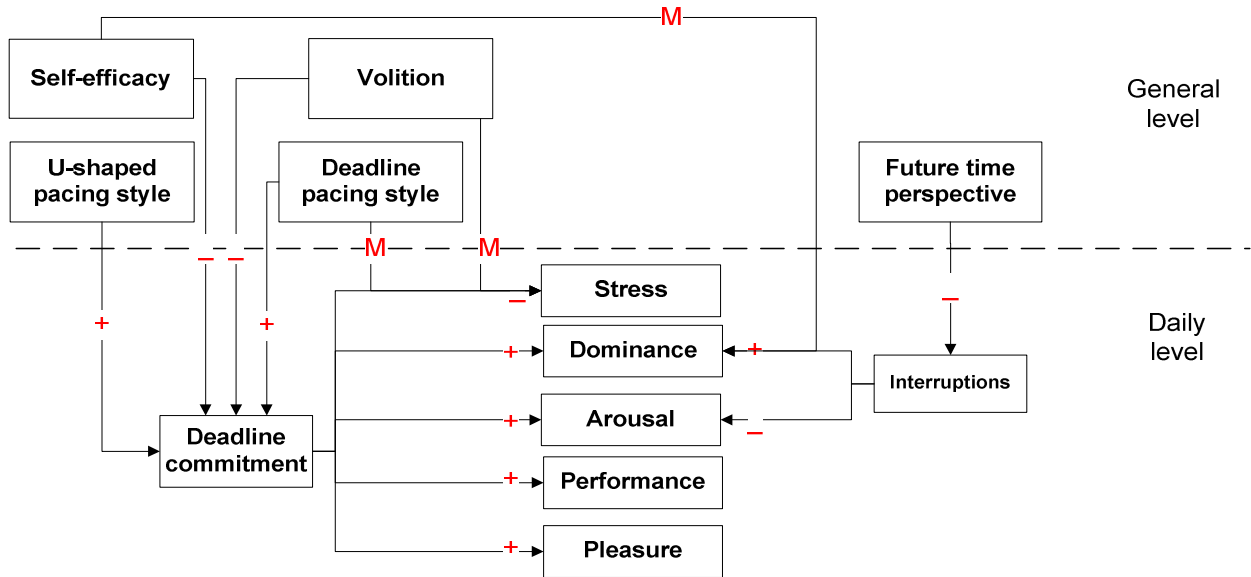
In addition, it was expected that self-efficacy, perceived importance of deadline attainment, motivation and volition were positively associated with deadline commitment. However, the exact opposite was found; such orientations were associated with low levels of deadline commitment. In addition, deadline commitment was also found to be associated with low levels of stress rather than high levels of stress, as expected based on founded literature. Finally, a deadline pacing style was expected to lead to low levels of commitment while it was significantly associated with high levels of deadline commitment.

Table 4.3-1: Hypotheses overview

No.	Independent variable	Dependent variable	Predicted	Support	Comment
1a	Deadline commitment	Performance	+	Partial	
1b	Deadline commitment	Stress	+	No	Opposite
1c	Deadline commitment	Satisfaction	+	Yes	
2a	Self-efficacy	Deadline commitment	+	No	Opposite
2b	Perceived importance of deadline attainment	Deadline commitment	+	No	Opposite
2c	Motivation	Deadline commitment	+	No	Opposite
2d	Volition	Deadline commitment	+	No	Opposite
3a	Time urgency	Deadline commitment	+	No	
3b	Future time perspective	Deadline commitment	+	No	
3c	Present time perspective	Deadline commitment	-	Omitted	
3d	Polychronicity	Deadline commitment	+	No	
3e	Deadline pacing style	Deadline commitment	+	No	Opposite
3f	Steady pacing style	Deadline commitment	+	No	
3g	U-shaped pacing style	Deadline commitment	+	Partial	
3h	Time management	Deadline commitment	+	No	
4a	Perceived initiating structure	Deadline commitment	+	No	
4b	Perceived transformational leadership	Deadline commitment	+	No	
5a	Volition	Acceptance rate of interruptions	-	No	
5b	Perceived importance of deadline attainment	Acceptance rate of interruptions	-	No	
5c	Time urgency	Acceptance rate of interruptions	-	No	
5d	Polychronicity	Acceptance rate of interruptions	+	No	
5e	Future time perspective	Acceptance rate of interruptions	-	Partial	
5f	Perceived initiating structure	Acceptance rate of interruptions	-	No	
5g	Acceptance rate of interruptions	Deadline commitment	-	No	
5h	Completion rate of interruptions	Deadline commitment	-	No	
5i	Handling of interruptions	Stress	+	No	
5j	Handling of interruptions	Satisfaction	-	Partial	
6	Antecedents	Criteria	Med.	Partial	

Altogether, the following research model, see figure 4.3-2, was derived based on the original model (figure 2.3-1). The direction of the relationships is shown as a + (positive) or - (negative) on the arrow whereas an M on the arrow denotes that the relationship was (partially) mediated by deadline commitment. For example, deadline commitment mediates the relationship between volition and stress.

Figure 4.3-2: The supported research model



In the next chapter, the findings are discussed briefly after which an answer is provided to the research questions constructed in order to conclude this thesis.

5 Discussion

In addition to the discussion of the findings and an answer, and thus conclusion, to the main research question, theoretical implications are provided along with some limitations and possible directions of future research. Practical implications will be provided in the next chapter.

5.1 Answering the main research question

The main research question of this thesis was the following:

What effect does deadline commitment have on performance and how can VdU influence the deadline commitment of employees?

Answering this question it could be stated that conform the expectations regarding the effects of deadline commitment, it was found that deadline commitment was associated with high levels of performance as well as high levels of satisfaction, i.e. deadline commitment was associated to feelings of pleasure, arousal and being in control over ones' actions while working. Additionally, against the expectations, deadline commitment was associated with low levels of stress. Considering the limitations of the present sample, the robustness of the latter finding seems questionable.

Concerning the antecedents of deadline commitment, it was found that deadline commitment was established by working according to a deadline- or u-shaped pacing style since these styles allow coping with the dynamic environment in which VdU operates. Moreover, deadline commitment serves as a partial mediator between the relationship between a deadline pacing style and stress; a deadline pacing style was associated with low levels of stress because it was associated with high levels of deadline commitment. In addition, it was found that self-efficacy, perceived importance of deadline attainment, motivation and volition were significant predictors of deadline commitment in a way that when an individual scores low on these four variables, deadline commitment will be high. Here it was found that deadline commitment partially mediated the relationship between self-efficacy and dominance; high levels of self-efficacy were associated with feelings of being in control over ones' actions, due to increases in deadline commitment. It was also found that volition contributed to high levels of stress since volition was associated with low levels of deadline commitment.

Consequently, deadline commitment may be influenced by matching personal pacing styles with the dynamic environment, i.e. enhancing the regulation of time use. In turn, this should result in high levels of deadline commitment and thus excitement, pleasure and a high level of performance.

5.2 Discussion of the findings

First of all, measurement issues may account for part of the findings. As it turns out, the deadlines were rather arbitrary and, therefore, they may not be perceived as real deadlines. This may account for the low levels of experienced stress as well as the low levels of self-efficacy. Also, it seemed that in this sample, when a superior tells their employees to perform, they are more willing to do so, and more committed to that deadline, than when they perceive the deadline to be important themselves. Apparently, it matters less what *they* feel is important, rather it matters what others, with authority, find important.

Furthermore, some expectations which were not supported may be ascribed to the environment, i.e. being dynamic with rather short tasks. First of all, it was expected that a deadline pacing style would be negatively associated with deadline commitment due to its risk taking behaviour, yet it was found that such a style actually was positively correlated with deadline commitment due that it allows handling of such a dynamic environment (Perlow, 1999; Gevers et al., 2006). Also, due to the task being rather short, there were not really possibilities to engage in polychronic behaviour; from multiple informal interviews with participants; it became clear that when interruptions were accepted, they were completed entirely as was noticed in the correlations. Finally, the throughput time of tasks may account for the finding that time management correlated negatively with deadline commitment in the correlation matrix; such techniques may easily be used inefficiently and therefore are abandoned by the employees.

Secondly, rewarding at VdU is done on a rather random basis. Bonuses may or may not be distributed based on the amount of profit made rather than on the performance level of individual employees. Also, individuals are unlikely to receive feedback on time about their performance. Thus, the link between performing and rewarding is largely absent (Pritchard et al., 2002). Also, due to the dynamic environment, it may not be acceptable to ignore interruptions and focus solely on attaining one specific goal; there may be a large dependency on one another while working. Furthermore, part of the interruptions is evoked by customers, which should not be ignored in such a service related company. Also, employees indicated beforehand that information about non-work related behaviour may not be filled in truthfully, despite repeatedly pointing out anonymous handling of information; outcomes had to be interpreted carefully.

Finally, some of the findings were accounted for by the gender of the employee; the amount of accepted interruptions had more to do with gender than with most of the temporal variables, except a future time perspective. Female employees are more likely to accept interruptions than male employees. In the masculine environment they are working in, they may experience the need to nurture (Hatch, 1997), stimulating them to be more willing to handle interruptions to help others. In addition, the acceptance rate depended on the fluctuating daily arrivals of such work. Moreover, when such interruptions occur in the form of a telephone call, people tend not to ignore such interruptions (Zijlstra et al., 1999).

5.3 Limitations

Despite the attempt to construct a solid and complete model, there are some limitations associated with this thesis. Limitations are present both in the theoretical level as well as on the level of the environment in which the research has been conducted.

First of all, since a new field of literature was reviewed, reliance was put on established theories in order to combine them in to a new theory. As a result, there may be limitations concerning the applicability of the variables obtained.

Additionally, there are some limitations concerning the context in which this thesis was written. To start with, it may also be that the measurement of performance has been biased; participants indicated that some aspects might not be filled in truthfully, e.g. off-task behaviour, thus it might very well be that these scores are somewhat over-exaggerated. Also, deadlines are on a daily basis and concern multiple tasks with a short time span rather than a deadline concerning a single task with a longer time span. The relation of the variables with deadline commitment may be different in such a setting. Also, the deadlines themselves may have been rather arbitrary. Such deadlines may not have been taken seriously.

Also, there might have been some issues regarding the measurement scales which led to some of the findings: the measure of motivation consisted of valence, instrumentality and expectancy; three distinct constructs which have been taken together as a single construct due to the sample size and reliability issues. In addition, the volition scale consisted mainly of items about non-work related behaviour, e.g. personal telephone calls, and less about work-related behaviour. Moreover, it was only measured how much interruptions were accepted rather than a relative acceptance rate. Thirdly, concerning the time perspective scale, the intention was to measure to which degree individuals incorporate the future while working, however, the items do not explicitly point in a business context direction. It may very well be that personal issues were taken as a guide. Furthermore, as a result of the low variation in the time urgency scale, it is assumed that participants did not fully grasp the construct of time urgency and choose to go for the safe answer “do not agree / do not disagree”. As a result and in addition to the low sample size, the models in which time urgency is added are likely to be instable.

Then, there was little variation in the rating of some of the scales; with such little variation, models which are constructed are less valuable than models build according to scales in which more variance was present. Thus, this lowered the reliability of the models constructed.

Finally, due to time restrictions it was not possible to conduct an extra field study to cope with the low response rate. Furthermore, with a sample size of only fourteen, it is unlikely that a lot of significant relationship can be found (Hair et al., 2006).

5.4 Theoretical implications

In spite of the abovementioned limitations, the findings of the present study may have some important theoretical implications. In this thesis, two topics, which have not been studied in relation to one another before, were combined. This was done in order to try and close a gap in the literature. In essence, there is little knowledge about the role of deadlines in the goal-setting theory, nor is there much knowledge of the exact motivational factors involved in deadline attainment. Here, it was shown that deadline commitment was associated with high levels of performance and satisfaction. Moreover, this study identified the deadline- and u-shaped pacing styles as antecedents of deadline commitment. Self-efficacy, perceived importance of deadline attainment, motivation and volition were also found to be significant determinants of deadline commitment. However, the direction of these relationships is questionable due to the environmental issues addressed in the discussion of the findings; deadlines may not have been perceived as such, little control on meeting deadlines, etc. Also, the negative association between deadline commitment and stress is questionable; since the lack of control on deadlines, there is little need to experience stress.

Deadline commitment proved to be a partial mediator for the relationship between volition and stress and for the relationship between a deadline pacing style and stress. Volition was associated with high levels of stress due to the association of volition with low levels of deadline commitment. In turn, a deadline pacing style was associated with low levels of stress since it was associated with high levels of deadline commitment. In addition, deadline commitment mediated the relationship between self-efficacy and dominance, i.e. feelings of being in control; self-efficacy was associated with feelings of being in control because self-efficacy was associated with low levels of deadline commitment.

Thus, it can be stated that deadline commitment is an important aspect of human resource management that complements the well-known concept of goal commitment. Both the field of goal-setting and the field of time management may benefit from further research to develop a better understanding of the concept of deadline commitment.

5.5 Possibilities for future research

This research should be repeated in another setting in which the expectations of getting enough response are high and where deadlines concern one task rather than a set of tasks. Suggested is an environment such as a law firm. Due to the legislation, employees in this branch have to deal with deadlines each time a client wants to start a case; these deadlines are very strict. In addition, it is expected that a sample in such a surrounding is likely to be eager and honest to co-operate. With an increase in the sample size, it is more likely that significant and reliable relationships can be found, thus revealing more of the relationships of deadline commitment with its hypothesized antecedents and possibly extending the current goal-setting theory with the aspect of time and deadline commitment. Concluding, extending the established goal-setting theory prominently with time, associated issues of time and environmental variables may still yield new interesting viewpoints.

In the following chapter, practical implications are provided in order to reinforce deadline commitment at VdU.

6 Practical implications

Using the research findings, a translation was made between theory and practice in order to provide VdU with possibilities for improvement. First of all, practical implications based on the findings of this research are going to be discussed after which two other methods will be introduced. When these two methods are discussed shortly, a summary is provided concerning the recommendations made.

6.1 Reinforcing deadline commitment at VdU

Moreover, from this research, it has been shown that the commitment amongst employees is rather low, which has implications on the levels of performance and satisfaction; these levels could be higher than they are at the moment. After all, the main recommendation is, of course, to keep a committed workforce in order to get high levels of performance and efficiency (on both an individual as organizational level) as well as sustaining such levels over a longer period of time.

The tasks at VdU can be classified as being algorithmic, holding that they are rather straightforward and clear (Amabile, 1996). While it is argued in contemporary literature that it is not hard to get commitment to such easy goals since it does not require a lot of dedication to reach such goals (Locke, 1996), it was shown that in this sample, the commitment was rather low. As a result, it must be taken into account that even though most of the tasks are fairly easy, employees do not get committed simply because of the tasks being easy.

Due to the low levels of objective difficulty of the tasks, it is assumed that most of the employees work for their salary rather than for challenges of the job itself; such employees are likely to be less committed to the company they work for than those who are working out of personal interest of the job (Amabile, 1997). This notion should really be taken into account by VdU; the commitment of the employees to their tasks or the company should not be overrated.

A recurring outcome variable was the perceived control over ones actions, which was associated with deadline commitment. Here, it is advised to devise strategies to let employees perceive such control in order for them to gain commitment to their deadlines. For instance, it was argued that due to the dynamic environment, employees need to be able to respond to the environment when needed, i.e. a steady pacing style, which is preferred amongst employees, does not fit with the context. Therefore, it is advised to encourage employees to adopt a deadline or u-shaped pacing style while working. Employees may be given somewhat more autonomy on the level of task execution; employees could be allowed to determine how to allocate their preset tasks within the available time (Barrick et al., 1993; Barrick & Mount, 1993).

With further regard to the dynamic environment, employees need to be well informed about their role within VdU. It was argued that, because of a significant negative association between volition and deadline commitment, a great deal of dependencies exists between employees. In other words, requests from colleagues are likely to make up the greater part of daily interruptions. By informing employees how they are positioned in the chain of value creation, they might be more responsive to the environment, i.e. low on volition; which apparently is needed to get committed.

Finally, feelings of being in control were influenced by the perception whether an employee believed he or she was able to meet the deadline. By matching the employees with the tasks, such a perception may be enhanced; this may be done by incorporating person specific information or by allocation personnel across based on their competencies.

Besides the findings of this study, two particular methods are in line with reinforcing feelings of being in control over ones' actions; participation and time management. While these methods have not been researched in this thesis, they are added here since it is argued that participation and time management provide opportunities to increase employees' ability to regulate their time use. Participation can be used to align the employee with the environment. Time management can be used in order to efficiently use available time.

6.2 Participation

6.2.1 Introduction into participation

Participation is the degree to which "individuals are freely engaged in the goal-setting process" (Li & Butler, 2004, pp. 38). Participation relies on the exchange of information between a superior and a submissive; its strength is based on an information flow in both directions (Kleingeld et al., 2004). Individuals are provided with a clear picture of what is expected, what is important, how tasks may be accomplished, etc and, in addition, participation provides participating individuals with an opportunity to provide their superior with additional information about the task at hand as well as information about the individual him or herself, e.g. temporal preferences (Kleingeld et al., 2004; Claessens et al., 2005). The gap between personal and organizational goals may be bridged with the use of such information (Tubbs, 1993).

Moreover, with such information, deadlines can be set in such a manner that it matches not only the task as it is carried out in practice, rather than on paper, it also matches with what an individual believes he or she can attain and/or how an individual prefers to engage in his or her work (Pritchard et al., 2002). Furthermore, individuals may feel respected members of the company when participating (Li & Butler, 2004), they may perceive the decision making process fair and trust management more (DeNisi & Kluger, 2000).

Participation is appropriate to be used for bridging the gap between the perspective of an individual and the company (Tubbs, 1993) and as a result, it is important that there is indeed information to be shared; otherwise, participation is not used to its full potential. In addition, both parties must be willing to engage in participative meetings.

6.2.2 Participation in context

Participation can be applied by joint discussion in order to enrich both parties with information (Kleingeld et al., 2004) which ought to be used to benefit both parties. At this moment, it seems that the perceived importance of a superior weighs more than the perceived importance of an individual. Yet a combination of top-down communication along with bottom-up communication is advocated since this is likely to evoke feelings of honesty (Li & Butler, 2004) as well as sense of ownership (Claessens et al., 2005). This is likely to stimulate a relationship for the long term rather than having employees coping with you as a superior for the short term, having little commitment to their deadlines as to the company. Moreover, a "tell and sell" strategy does not take individual preferences and characteristics into account (Locke et al., 1988); one of the main advantages of participation over "tell and sell" (Kleingeld et al., 2004; Li & Butler, 2004).

6.2.3 Recommendations

It was already recommended to keep employees involved in the business processes in order for them to get a clear picture of what is going on and will thus enhance their feelings of being in control.

By using participation, an information flow from the employees to the management should originate. Management can use task- and employee specific information to adjust tasks or the allocation of tasks where needed, for instance: those working according to a deadline action pacing style should be placed in rapidly changing environments whereas those who tend to work with a steady action pacing style should be placed in a somewhat stable environment. As a result, when individuals feel they are capable to perform their tasks, and thus deadlines, they are to experience they are in control over their actions, as was found in this research.

Finally, it is recommended to keep group meetings more frequently. This was also requested by the employees themselves, indicating that there is indeed a need for information. Such meetings should be held both within departments as well as with other departments with which they have a connection in order to create a greater understanding of the chain of events they make part of.

6.3 Time management

6.3.1 Introduction into time management

Time management concerns the training in and application of time management techniques, or techniques in the self-managing of tasks under a time constraint to satisfy predetermined needs (Koch & Kleinmann, 2002). These techniques do not concern the managing of time, as time cannot be managed (Dobbins & Pettman, 1998); rather, they concern the dealing with the available time to achieve pre-set deadlines.

Time management starts with the application of such techniques, e.g. planning, prioritising, and, in turn, one must persist in using such techniques in order to gain benefits from them (Bluedorn & Denhardt, 1988; Macan, 1994; Francis-Smythe & Robertson, 1999; Claessens, 2005). Finally, employees are required to be given feedback about their use of time management techniques.

In order to be able to apply time management techniques, one should be able to predict how long an activity will take (Francis-Smythe & Robertson, 1999). However, most of the tasks at VdU are recurrent and therefore, one should be able to make such estimation rather accurately. The employees are, thus, not likely to suffer from the planning fallacy, overly optimistic time estimations (Buehler et al., 1994; Francis-Smythe & Robertson, 1999).

Furthermore, deadlines should not be set too tightly or too loose (Bluedorn & Denhardt, 1988; Koch & Kleinmann, 2002; Fried & Slowik, 2004); too much pressure might lead to possible quality loss of performed work (Bluedorn & Denhardt, 1988; Koch & Kleinmann, 2002; Fried & Slowik, 2004) and increase in psychological strain, or stress (Zijlstra et al., 1999). Altogether, too much pressure will lead to lowered feelings of being in control whereas too little pressure will lower the pace of an individual and thus to inefficient use of already scarce time.

6.3.2 Time management in context

Although time management was negatively associated with deadline commitment in the present study, perhaps the application of such techniques in their current form may not be suitable for the context, e.g. the tasks are too short. The application of time management techniques may increase deadline commitment when the tasks are not too short or when such short tasks can be grouped in order to reduce the time to apply time management. The main advantage of time management techniques in this dynamic context (Perlow, 1999) is that by the use of such techniques one can structure their work and thus part of the environment. As a result, employees should experience feelings of being in control and perhaps also some sense of ownership when they are involved in the prioritisation process (Claessens et al., 2004; Claessens et al., 2005). Of course, the use of such techniques must be maintained over time, otherwise there will be little effects on the long term (Francis-Smythe & Robertson, 1999), both for VdU as well as for the employees themselves.

6.3.3 Recommendations

Time management should not be applied to very short tasks; the application of such techniques would then require more time than just start working. It is therefore recommended that time management should be applied to groups of tasks, as a result, the application of time management does not require relatively too much time. In addition, employees should be provided with information about what is and what is not important in order to be able to prioritise properly; if the prioritisation is not according to the priorities of VdU, time and energy may be allocated to less important deadlines (Koch & Kleinmann, 2002, pp. 204).

However, the application of time management should still allow for an ad hoc, non-steady work style; time for interruptions should be incorporated in the application of time management.

6.4 Recommendations overview

It is advised to consider the aspect of deadline commitment since it has an impact on important organizational variables; employee performance and, related to that, employee well-being.

Overall, employees should be able to handle the dynamic environment; it was advised to encourage employees to engage in a non-steady time allocation while working. A time allocation style which allows the handling of interruptions, i.e. deadline or u-shaped pacing style, was associated with high levels of commitment of an employee.

Moreover, by encouraging employees to work according to such a time allocation, perceptions of being in control are stimulated. In addition, to accomplish such a perception, employees should be provided with information about VdU and they should be able to discuss such information. A good way of exchanging information is the use of (group) meetings.

Another possibility is to allocate personnel in such a way that employees are doing what they do best, this too, was associated with feelings of being in control.

Finally, it was assumed that, when applied properly, time management techniques can be used in order to structure the dynamic environment, stimulating feelings of being in control once more.

7 References

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8 Appendix

8.1 Measures

In this paragraph of the appendix, the actual measures are displayed. Reverse scaled items are displayed with a (r) at the end of the statement and the items which were removed are displayed in italic font.

8.1.1 Deadline commitment

Table 8.1-1: Deadline commitment (Klein et al., 2001)

<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	<i>It's hard to take these deadlines seriously (r).</i>	5-point Likert
2	Quite frankly, I don't care if I meet these deadlines or not (r).	5-point Likert
3	I'm strongly committed to pursuing these deadlines.	5-point Likert
4	It wouldn't take much to make me abandon these deadlines (r).	5-point Likert
5	I think these are good deadlines to shoot for.	5-point Likert

8.1.2 Motivational variables

Table 8.1-2: Self-efficacy (Chen et al., 2001)

<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	I will be able to meet the deadlines, within the time constraint, which have been set.	5-point Likert
2	When the timely goal of the deadline seems rather short, I am certain that I will accomplish these deadlines.	5-point Likert
3	I believe I can succeed at these deadlines when I set my mind to it.	5-point Likert
4	I will be able to successfully overcome these, timely, challenges.	5-point Likert
5	I am confident that I can perform these deadlines.	5-point Likert
6	Compared to other people, I can meet these deadlines easily.	5-point Likert
7	Even when things are tough, I can perform these deadlines within the time limit.	5-point Likert

Table 8.1-3: Perceived importance of deadline attainment (Arvey et al., 1990)

<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	I do not see the importance of attaining these deadlines (r).	5-point Likert
2	By meeting these deadlines, I will satisfy some of my needs.	5-point Likert
3	I am only working towards these deadlines because I have been asked to (r).	5-point Likert
4	I do not show willingness to work towards these deadlines because I do not care about the outcomes (r).	5-point Likert
5	These deadlines are important because my boss told me so (r).	5-point Likert
6	<i>I understand how these deadlines contribute to our long term strategy.</i>	5-point Likert
7	<i>These deadlines will not contribute to attaining my needs (r).</i>	5-point Likert
8	<i>These deadlines are important to my boss (r).</i>	5-point Likert

Table 8.1-4: Motivation (Sanchez et al., 2000)

<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	I would like to attain these deadlines (valence).	5-point Likert
2	It would not matter to attain these deadlines or not (valence) (r).	5-point Likert
3	Attaining these deadlines gives me satisfaction (valence).	5-point Likert
4	If you attain good results on this deadline, you are likely to be rewarded (instrumentality).	5-point Likert
5	<i>The better the results of this deadline, the more you will be rewarded (instrumentality).</i>	5-point Likert
6	How well you perform on this deadline does not affect the level of awarding (instrumentality) (r).	5-point Likert
7	You will be rewarded when you perform well on this deadline (instrumentality).	5-point Likert
8	If you do your best on these deadlines, you can attain it with good results (expectancy).	5-point Likert
9	<i>To attain these deadlines with good results, you must be very concentrated and work hard (expectancy).</i>	5-point Likert
10	It is not possible to get good results on this deadline when you put some effort in it (expectancy) (r).	5-point Likert

Table 8.1-5: Volition (Hunt, 1996)

<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	I let personal calls interrupt with my work (r).	5-point Likert
2	I conduct personal business and let that interrupt with my work (r).	5-point Likert
3	I let joking friends be a distraction and interruption to work (r).	5-point Likert
4	I leave a job half finished in a rush to leave for home (r).	5-point Likert
5	I take unauthorized breaks while working on a task (r).	5-point Likert
6	When working on a task, I tend to ignore interferences.	5-point Likert
7	Other would rate me as being sensitive to interruptions (r).	5-point Likert

8.1.3 Temporal variables

Table 8.1-6: Time perspective (Shipp et al., 2006)

<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	<i>I live my life in the present (present).</i>	5-point Likert
2	I think about what the future has in store (future).	5-point Likert
3	<i>I focus on what is currently happening in my life (present).</i>	5-point Likert
4	I focus on my future (future).	5-point Likert
5	<i>I imagine what tomorrow will bring for me (present).</i>	5-point Likert
6	My mind is not on the future (future) (r).	5-point Likert
7	<i>I think about where I am today (present).</i>	5-point Likert
8	I think about times to come (future).	5-point Likert

Table 8.1-7: Time urgency (Landy et al., 1991)

<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	I find myself hurrying to get to places even when there is plenty of time.	5-point Likert
2	I often work slowly and leisurely (r).	5-point Likert
3	People that know me well agree that I tend to do most things in a hurry.	5-point Likert
4	I tend to be quick and energetic at work.	5-point Likert
5	<i>I often feel very pressed for time.</i>	5-point Likert
6	My spouse or a close friend would rate me as definitely relaxed and easy going (r).	5-point Likert

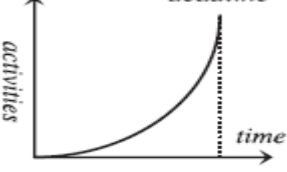



Table 8.1-8: Polychronicity (Bluedorn et al., 1999; Hecht & Allen, 2005)

<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	I like to juggle several activities at the same time.	5-point Likert
2	I would rather complete an entire project every day than complete parts of several projects (r).	5-point Likert
3	I believe people should try to do many things at once.	5-point Likert
4	I prefer to do one thing at a time (r).	5-point Likert
5	I believe people do their best work when they have many tasks to complete.	5-point Likert
6	I believe it is best to complete one task before beginning another (r).	5-point Likert
7	It is hard for me to start something new, when there are other things I have not finished (r).	5-point Likert
8	When I have several things to do, I prefer to spend a little bit of time on each - moving back and forth from one thing to the other.	5-point Likert
9	I would rather complete parts of several projects every day than complete an entire project.	5-point Likert

Table 8.1-9: Time management (Tripoli, 1998; Claessens, 2004)

<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	Each day, I make a time table for my activities.	5-point Likert
2	In order to approach my tasks each day, I prioritize my work.	5-point Likert
3	I make a closely tight planning.	5-point Likert
4	It is not necessary to work with time tables for my deadlines (r).	5-point Likert
5	It is easy to prioritize my tasks.	5-point Likert
6	I do not keep track of time while working on tasks (r).	5-point Likert
7	When unforeseen situations arise, my planning allows me to cope with that.	5-point Likert
8	In order to stay on schedule, I keep track of time.	5-point Likert
9	Time tables are a waste of time (r).	5-point Likert
10	I am able to determine which tasks are important for VdU and which are not and act accordingly.	5-point Likert
11	Despite my planning, I do not keep track of time (r).	5-point Likert
12	I do not leave room for unexpected events in my planning (r).	5-point Likert

Table 8.1-10: Pacing style (Gevers et al., 2008; Gevers et al., 2006)

No.	Item	Scale
1	I start projects right away and finish the work long before the deadline (deadline) (r).	5-point Likert
2	I work steadily on tasks, spreading my work out evenly over time (e.g., 3 hours per week until the deadline) (steady).	5-point Likert
3	The effort I put into projects is high at the start, low halfway through, and high again at the end (u-shaped).	5-point Likert
4	<i>I work harder at the beginning of a project than at the end (deadline) (r).</i>	5-point Likert
5	I space out my work evenly over time (steady).	5-point Likert
6	I invest most of my effort toward the beginning and end of projects (u-shaped).	5-point Likert
7	I do not get much done on projects until the due date is close (deadline).	5-point Likert
8	<i>I pace myself to work on projects a little bit everyday or every week instead of doing several hours of work all at once (steady).</i>	5-point Likert
9	I do the least amount of work halfway through the allotted time (u-shaped).	5-point Likert
10	I generally do not work until there is time pressure from an approaching deadline (deadline).	5-point Likert
11	I work in a slow, but steady, manner to complete tasks (steady).	5-point Likert
12	I put in more effort at the beginning of tasks as well as right before the deadline, but am less active during the middle of the work cycle (u-shaped).	5-point Likert
13	 <p>(deadline)</p>	5-point Likert
14	 <p>(steady)</p>	5-point Likert
15	 <p>(U-shaped)</p>	5-point Likert
16	 <p>(deadline) (r)</p>	5-point Likert

8.1.4 Environmental variables

Table 8.1-11: Perceived leadership style (Keller, 2006)

<i>Transformational leadership</i>		
<i>No.</i>	<i>Item</i>	<i>Scale</i>
1	Our team leader commands respect from everyone.	5-point Likert
2	Our team leader is a model for me to follow.	5-point Likert
3	In my mind, our team leader is a symbol of success and accomplishment.	5-point Likert
4	Our team leader has provided me with new ways of looking at things which used to be a puzzle for me.	5-point Likert
5	Our team leader is an inspiration to us.	5-point Likert
6	Our team leader makes me proud to be associated with him/her.	5-point Likert
7	Our team leader has a special gift of seeing what it is that really is important for me to consider.	5-point Likert
8	Our team leader's ideas have forced me to rethink some of my own ideas which I had never questioned before.	5-point Likert
9	Our team leader enables me to think about old problems in new ways.	5-point Likert
10	Our team leader inspires loyalty to the organization.	5-point Likert
11	Our team leader excites us with his/her visions of what we may be able to accomplish if we work together.	5-point Likert
12	Our team leader has a sense of mission which he/she transmits to me.	5-point Likert
13	Our team leader makes everyone around him/her enthusiastic about assignments.	5-point Likert
<i>Transactional leadership</i>		
1	Our team leader maintains definite standards of performance.	5-point Likert
2	Our team leader assigns team members to particular tasks.	5-point Likert
3	Our team leader asks that team members follow standard rules and regulations.	5-point Likert
4	Our team leader encourages the use of uniform procedures.	5-point Likert
5	Our team leader schedules the work to be done.	5-point Likert
6	Our team leader decides what and how things shall be done.	5-point Likert

8.1.5 Outcome variables

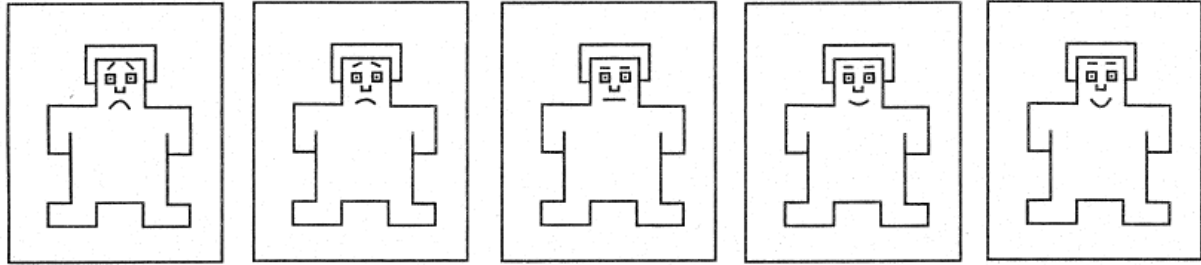
Table 8.1-12: Task approach (Claessens, 2004)

Planned task	Finished (%)	Explanation
Unplanned task	Finished (%)	Explanation
Interfering task	Finished (%)	Explanation

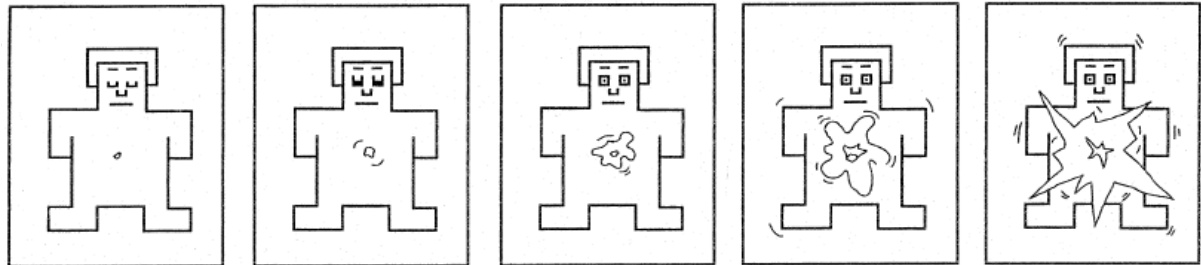
- *Did you (have to) work overtime today?*
 - a. Yes; ... hours
 - b. No.

Figure 8.1-13: Satisfaction (Russell & Mehrabian, 1977; Morris, 1995)

-Pleasure:



-Arousal:



-Dominance:

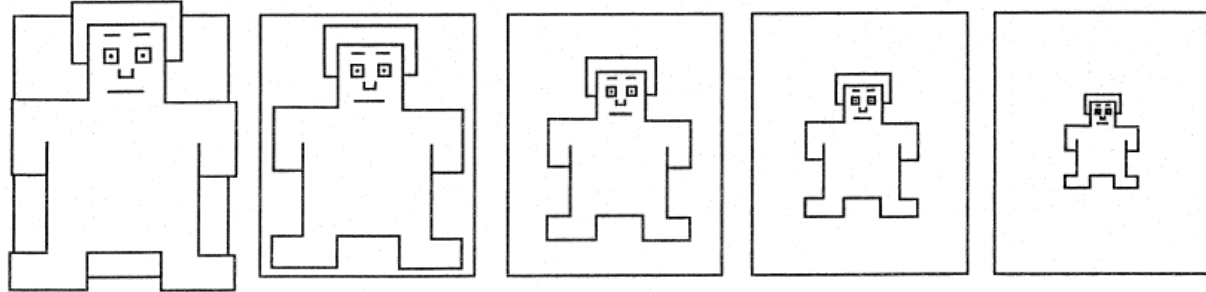


Table 8.1-14: Stress (Stanton et al., 1989)

No.	Item	Scale
1	Today, I felt a lot of pressure to perform.	5-point Likert
2	My workday can be considered hectic.	5-point Likert
3	<i>I have worked relaxed towards my deadlines today (r).</i>	5-point Likert
4	I feel pushed around today.	5-point Likert
5	<i>This day was more stress-full than I would like.</i>	5-point Likert
6	<i>My day went smoothly (r).</i>	5-point Likert

8.2 Statistical values concerning the normality assumption

Table 8.2-1: Statistical test concerning normality for the initial person level variables

Variable (N = 14)	Descriptive	Value	Z-value	Significance check ($\alpha = 0,05$)
Self-efficacy	Skewness	-0.59	-0.92	Pass
	Kurtosis	-0.49	-0.39	Pass
Perceived importance of deadline attainment	Skewness	0.60	0.95	Pass
	Kurtosis	-0.38	-0.30	Pass
Motivation	Skewness	-0.36	-0.57	Pass
	Kurtosis	1.71	1.35	Pass
Volition	Skewness	-0.19	-0.29	Pass
	Kurtosis	-0.95	-0.75	Pass
Time perspective	Skewness	0.44	0.69	Pass
	Kurtosis	-0.52	-0.41	Pass
Time urgency	Skewness	1.75	2.76	Fail
	Kurtosis	4.64	3.67	Fail
Polychronicity	Skewness	-0.06	-0.10	Pass
	Kurtosis	-0.77	-0.61	Pass
Deadline pacing style	Skewness	0.99	1.56	Pass
	Kurtosis	1.61	1.27	Pass
Steady pacing style	Skewness	-0.22	-0.34	Pass
	Kurtosis	-1.57	-1.24	Pass
U-shaped pacing style	Skewness	0.67	1.05	Pass
	Kurtosis	0.16	0.13	Pass
Transformational leadership	Skewness	-1.34	-2.12	Fail
	Kurtosis	1.89	1.49	Pass
Transactional leadership	Skewness	-1.91	4.26	Fail
	Kurtosis	3.90	3.09	Fail
Time management	Skewness	-0.17	-0.26	Pass
	Kurtosis	2.07	1.63	Pass

Table 8.2-2: Statistical test concerning normality for the adjusted person level variables

Variable	Descriptive	Value	Z-value	Significance check ($\alpha = 0,05$)	Outliers removed
Time urgency	Skewness	-0.11	-0.18	Pass	4.60
	Kurtosis	0.11	0.08	Pass	
Transformational leadership	Skewness	-1.06	-1.67	Pass	1.15
	Kurtosis	1.57	1.24	Pass	
Transactional leadership	Skewness	0.32	0.50	Pass	1.17 and 2.00
	Kurtosis	-0.46	-0.36	Pass	

Table 8.2-3: Statistical test concerning normality for the initial day level variables

Variable (N = 87)	Descriptive	Value	Z-value	Significance check ($\alpha = 0,05$)
Stress	Skewness	-0.26	-0.99	Pass
	Kurtosis	-0.89	-1.70	Pass
Deadline commitment	Skewness	0.03	0.10	Pass
	Kurtosis	-0.83	-1.59	Pass

8.3 Results

8.3.1 Correlation matrix

Here a correlation matrix is constructed for all the variables included in this thesis. The area below the diagonal displays the correlations on a person-level ($N = 14$) whereas the area above the diagonal displays the daily-level correlations ($N = 87$); part of the area above the diagonal is removed from the table since those values are not measured on a daily basis (variable 2 to 14). Furthermore, a legend is provided on the following page where the table continues due to size issues of this table.

Those correlations which are significant are marked highlighted with bold font, in addition they are marked according to the error level with which significance was detected: * $p < 0,05$ and ** $p < 0,01$, two tailed.

Table 8.3-1: Correlation matrix

Var.	Mean	Standard Deviation	1	2	3	4	5	6	7	8	9	10	11	Var.
1. GD	0.71	0.45	1											1. GD
2. SE	3.83	0.53	-0.25	1										2. SE
3. PI	3.81	0.54	-0.04	0.34	1									3. PI
4. MO	3.61	0.37	-0.25	0.47	0.63*	1								4. MO
5. VO	3.49	0.56	0.52	-0.04	0.55*	0.33	1							5. VO
6. TP	4.07	0.53	-0.66*	0.29	0.02	0.18	-0.34	1						6. TP
7. TU	3.05	0.30	-0.01	-0.14	0.07	0.38	0.012	0.32	1					7. TU
8. PC	2.85	0.58	0.48	-0.29	-0.13	0.03	0.57*	-0.35	0.26	1				8. PC
9. PPD	2.24	0.57	-0.29	-0.1	-0.30	-0.37	-0.60*	-0.12	0.05	-0.30	1			9. PPD
10. PPS	3.40	0.71	0.51	0.33	-0.34	-0.38	0.10	-0.24	-0.4	0.15	-0.30	1		10. PPS
11. PPU	2.36	0.73	-0.13	-0.03	-0.64*	-0.40	-0.43	-0.02	0.18	0.17	0.60*	0.21	1	11. PPU
12. PLF	3.13	0.50	-0.29	0.21	-0.04	0.57*	-0.06	0.35	0.78**	0.25	-0.04	-0.22	0.29	12. PLF
13. PLA	3.25	0.26	0.23	0.29	-0.06	0.15	0.16	0.20	-0.05	-0.20	-0.48	0.34	-0.16	13. PLA
14. TM	3.19	0.51	-0.05	0.04	0.17	0.34	0.49	-0.04	0.06	0.66*	-0.31	-0.08	-0.01	14. TM
15. ST	3.33	0.60	-0.15	0.18	0.39	0.53	0.46	0.47	0.17	0.28	-0.67**	-0.11	-0.53*	15. ST
16. DC	2.26	0.54	0.06	-0.45	-0.67**	-0.68**	-0.57*	-0.35	-0.27	-0.21	0.56*	0.05	0.46	16. DC
17. Sam1	3.69	0.94	0.27	0.19	0.02	-0.24	0.06	-0.21	-0.34	-0.16	-0.35	0.60*	-0.01	17. Sam1
18. Sam2	3.02	0.79	0.20	0.03	-0.06	-0.42	-0.05	-0.32	-0.48	-0.36	0.04	0.54*	0.06	18. Sam2
19. Sam3	2.55	0.99	0.169	-0.70**	-0.46	-0.25	-0.04	-0.21	0.25	0.59*	0.01	-0.11	0.14	19. Sam3
20. INT	0.77	0.90	0.22	-0.14	0.16	-0.10	0.23	0.12	0.07	-0.04	-0.27	0.03	-0.34	20. INT
21. COM	46.47	48.38	0.25	-0.15	0.18	-0.04	0.27	0.16	0.21	0.04	-0.2	0.03	-0.29	21. COM
22. Perf.	86.46	15.65	0.09	0.05	-0.23	-0.38	-0.49	-0.27	-0.11	-0.24	0.56*	0.14	0.45	22. Perf.

Table 8.3-2: Correlation matrix continued

Var.	12	13	14	15	16	17	18	19	20	21	22	Var.
1. GD				-0.09	-0.01	0.27*	0.23*	0.13	0.36**	0.44**	-0.04	1. GD
2. SE				0.16	-0.35**	0.13	0.07	-0.36**	-0.11	-0.10	0.15	2. SE
3. PI				0.28**	-0.53**	0.08	-0.01	-0.23*	0.16	0.20	-0.13	3. PI
4. MO				0.32**	-0.49**	-0.15	-0.20	-0.17	-0.12	-0.08	-0.16	4. MO
5. VO				0.31**	-0.44**	0.13	0.07	0.06	0.27*	0.37**	-0.35**	5. VO
6. TP				0.41**	-0.23*	-0.19	-0.21	-0.17	0.03	0.04	-0.18	6. TP
7. TU				0.04	-0.17	-0.16	-0.16	0.05	0.13	0.21	-0.14	7. TU
8. PC				0.14	-0.09	0.07	0.03	0.36**	-0.03	0.07	-0.15	8. PC
9. PPD				-0.59**	0.46**	-0.34**	-0.12	-0.07	-0.25*	-0.31**	0.38**	9. PPD
10. PPS				0.04	-0.03	0.44**	0.37**	0.04	0.10	0.16	0.09	10. PPS
11. PPU				-0.42**	0.38**	-0.09	0.05	0.09	-0.28**	-0.27*	0.30**	11. PPU
12. PLF	1			0.23*	-0.28**	-0.30**	-0.32**	0.05	-0.14	-0.13	-0.25*	12. PLF
13. PLA	-0.09	1		-0.09	0.10	0.08	0.12	-0.24*	0.19	0.22*	0.003	13. PLA
14. TM	0.28	-0.21	1	0.41**	-0.29**	-0.10	-0.20	0.22*	-0.34**	-0.31**	-0.19	14. TM
15. ST	0.31	0.03	0.50	1	-0.72**	-0.21	-0.15	0.09	0.17	0.22*	-0.58**	15. ST
16. DC	-0.40	0.01	-0.42	-0.86**	1	0.09	0.22*	-0.12	-0.16	-0.21	0.42**	16. DC
17. Sam1	-0.31	0.29	-0.23	-0.30	0.17	1	0.57**	-0.19	0.03	0.10	0.35**	17. Sam1
18. Sam2	-0.67*	0.11	-0.51	-0.44	0.32	0.75**	1	-0.39**	-0.03	0.08	0.19	18. Sam2
19. Sam3	0.13	-0.51	0.19	0.11	0.18	-0.23	-0.16	1	-0.07	-0.12	-0.16	19. Sam3
20. INT	-0.03	0.04	-0.51	0.25	-0.27	0.05	0.16	0.06	1	0.87**	-0.25*	20. INT
21. COM	0.03	0.05	-0.45	0.32	-0.35	-0.003	0.14	0.14	0.95**	1	-0.25*	21. COM
22. Perf.	-0.34	-0.06	-0.20	-0.75**	0.60*	0.26	0.24	-0.16	-0.59*	-0.55*	1	22. Perf.

Legend:

GD = gender
 SE = self-efficacy
 PI = perceived importance of deadline attainment
 MO = motivation
 VO = volition
 TP = time perspective
 TU = time urgency
 PC = polychronicity
 PPD = deadline pacing style
 PPS = steady pacing style
 PPU = u-shaped pacing style

PLF = transformational leadership
 PLA = transactional leadership
 TM = time management
 ST = stress
 DC = deadline commitment
 Sam1 = pleasure
 Sam2 = arousal
 Sam3 = dominance
 INT = acceptance rate of interruptions
 COM = completion rate of interruptions
 Perf = performance

8.3.2 Hypotheses

A note for all of the tables: Note: $n=87$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ^a $p < 0,05$ one-tailed. Those variables displayed in *italic font* are entered in the previous model.

The likelihood ratio of a model in a table is compared to model 1 of that table. The first of two exceptions is the model in which all multiple pacing styles are included (PPD2 and PPD3); these models are compared to PPD and PPD2 respectively. Secondly, the model in which the completion rate of interruptions is added, model COMP, is compared to model INT.

8.3.3 Hypothesis 1

Table 8.3-3: Multilevel estimates for daily deadline commitment predicting performance

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	85.848139	3.291739	26.080	700.225	-	139.756831 (23.162310) ***	117.649148 (58.025531) *
Model 1							
<i>Intercept</i>	85.166346	5.851330	14.555	700.205	0.020	139.679329 (117.891655) ***	23.146268 (58.069914) *
Gender	.998698	7.080010	0.141				
Model DC							
<i>Intercept</i>	85.133292	5.865399	14.514	696.670	3.535	133.089805 (22.056436) ***	119.425751 (58.149142) *
<i>Gender</i>	1.054175	7.091164	0.149		(1)		
DC	7.565062	3.975354	1.903 ^a				

Table 8.3-4: Multilevel estimates for daily deadline commitment predicting stress

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	3.359522	.142123	23.638	88.324	-	0.107156 (0.017668) ***	0.253590 (0.104733) *
Model 1							
<i>Intercept</i>	3.467926	.256968	13.496	88.072	0.252	0.107102 (0.017652) ***	0.249277 (0.102899) *
Gender	-0.155069	.307392	-0.504				
Model DC							
<i>Intercept</i>	3.469591	.256936	13.504	73.281	14.791 ***	0.087624 (0.014452) ***	0.251886 (0.102413) *
<i>Gender</i>	-0.157411	.306826	-0.513		(1)		
DC	-0.412804	.102004	-4.047 ***				

Table 8.3-5: Multilevel estimates for daily deadline commitment predicting pleasure

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	3.682944	0.182504	20.180	212.103	-	0.527849 (0.087008) ***	0.342158 (0.173213) *
Model 1							
<i>Intercept</i>	3.392961	0.303230	11.189	210.842	1.261	0.529164 (0.087428) ***	0.296326 (0.157704)
Gender	0.427578	0.369059	1.159				
Model DC							
<i>Intercept</i>	3.393108	0.303958	11.163	208.006	2.836	0.509062 (0.084149) ***	0.300708 (0.158327)
<i>Gender</i>	0.427159	0.369654	1.156		(1)		
DC	0.418095	0.245860	1.701 ^a				

Table 8.3-6: Multilevel estimates for daily deadline commitment predicting arousal

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	3.007279	0.134697	22.326	196.372	-	0.475107 (0.078967) ***	0.152825 (0.099808)
Model 1							
<i>Intercept</i>	2.804870	0.212572	13.195	195.126	1.246	0.480284 (0.080500) ***	0.117613 (0.089340)
Gender	0.310050	0.261976	1.184				
Model DC							
<i>Intercept</i>	2.805325	0.214733	13.064	191.132	3.994 *	0.454116 (0.076261) ***	0.124504 (0.091278)
<i>Gender</i>	0.306930	0.264192	1.162		(1)		
DC	0.470655	0.232212	2.027 *				

Table 8.3-7: Multilevel estimates for daily deadline commitment predicting dominance

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	2.550770	0.143098	17.825	239.521	-	0.830824 (0.134949) ***	0.126352 (0.098318)
Model 1							
<i>Intercept</i>	2.381176	0.233269	10.208	238.727	0.794	0.830718 (0.134714) ***	0.110824 (0.091250)
Gender	0.262808	0.289947	0.906				
Model DC							
<i>Intercept</i>	2.379956	0.232647	10.230	224.432	14.295 ***	0.688634 (0.111916) ***	0.126905 (0.090264)
<i>Gender</i>	0.260796	0.287905	0.906		(1)		
DC	-1.133744	0.285953	-3.965***				

8.3.4 Hypothesis 2

Table 8.3-8: Multilevel estimates for motivational models predicting daily deadline commitment

Variable	Estimate	SE	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	2.256401	0.119138	18.939	87.928	-	0.113914 (0.018713) ***	0.169018 (0.072085) *
Model 1							
<i>Intercept</i>	2.230049	0.214838	10.380	87.906	0.22	0.113892 (0.018707) ***	0.168915 (0.071997) *
Gender	0.038044	0.258139	0.147				
Model MO							
<i>Intercept</i>	2.349233	0.165052	14.233	79.893	8.013 **	0.112845 (0.018400) ***	0.088622 (0.040183) *
<i>Gender</i>	-0.132594	0.201587	-0.658		(1)		
MO	-0.817667	0.251131	-3.256 **				
Model PI							
<i>Intercept</i>	2.241546	0.160274	13.986	80.088	7.818 **	0.113373 (0.018545) ***	0.087295 (0.040579) *
<i>Gender</i>	0.015233	0.194210	0.078		(1)		
PI	-0.518316	0.159762	-3.244 **				
Model VO							
<i>Intercept</i>	2.120475	0.181337	10.623	79.362	8.544 ***	0.113002 (0.018448) ***	0.083473 (0.038650) *
<i>Gender</i>	0.170031	0.225026	1.946		(1)		
VO	-0.395399	0.184168	-3.415**				
Model SE							
<i>Intercept</i>	2.315829	0.195130	11.868	84.689	3.217	0.113803 (0.018676) ***	0.128903 (0.056894) *
<i>Gender</i>	-0.088975	0.238139	-0.374		(1)		
SE	-0.384586	0.201549	-1.908 ^a				

8.3.5 Hypothesis 3

Table 8.3-9: Multilevel estimates for temporal models predicting daily deadline commitment

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	2.256401	0.119138	18.939	87.928	-	0.113914 (0.018713) ***	0.169018 (0.072085) *
Model 1							
<i>Intercept</i>	2.230049	0.214838	10.380	87.906	0.22	0.113892 (0.018707) ***	0.168915 (0.071997) *
Gender	0.038044	0.258139	0.147				
Model PPD							
<i>Intercept</i>	2.091746	0.175881	11.893	81.594	6.312 *	0.113714 (0.018634) ***	0.098262 (0.045110) *
<i>Gender</i>	0.220950	0.214608	1.030		(1)		
PPD	0.496784	0.174579	2.846*				
Model PPS							
<i>Intercept</i>	2.229914	0.240285	13.061	87.906	0	0.1138934 (0.168913)	0.018708 (0.072017) *
<i>Gender</i>	0.038231	0.298017	13.364		(1)	***	
PPS	-0.000243	0.193809	13.886				
Model PPU							
<i>Intercept</i>	2.186597	0.192099	13.148	84.653	3.253	0.113630 (0.129788) ***	0.018629 (0.056864) *
<i>Gender</i>	0.094113	0.231847	13.834		(1)		
PPU	0.274104	0.143344	13.408 ^a				
Model PPD2							
<i>Intercept</i>	2.097394	0.175861	11.926	81.414	0.180	0.113557 (0.018599) ***	0.097591 (0.044717) *
<i>Gender</i>	0.212751	0.214840	0.990		(1)		
<i>PPD</i>	0.435139	0.226762	1.919 ^a				
PPU	0.070074	0.164993	0.425				
Model PPD3							
<i>Intercept</i>	2.126560	0.194328	10.943	81.295	0.119	0.113558 (0.018599) ***	0.096524 (0.044326) *
<i>Gender</i>	0.172562	0.243271	0.709		(1)		
<i>PPD</i>	0.488936	0.273640	1.787 ^a				
<i>PPU</i>	0.026414	0.206734	0.128				
PPS	0.067680	0.195351	0.346				

Table 8.3-10: Multilevel estimates for temporal models predicting daily deadline commitment continued

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model TM							
<i>Intercept</i>	2.243544	0.196648	11.409	85.445	2.461	0.113656 (0.018633) ***	0.138830 (0.060182) *
<i>Gender</i>	0.002457	0.237514	0.010		(1)		
TM	-0.351612	0.214729	-1.637				
Model TP							
<i>Intercept</i>	2.472012	0.245125	10.085	85.435	2.471	0.113661 (0.018636) ***	0.138658 (0.060155) *
<i>Gender</i>	-0.295892	0.311066	-0.951		(1)		
TP	-0.441056	0.268665	-1.642				
Model TU							
<i>Intercept</i>	2.228678	0.215644	10.335	59.634	28.272 ***	0.084454 (0.014696) ***	0.174313 (0.074520) *
<i>Gender</i>	0.056796	0.263095	0.216		(1)		
TU	-0.403158	0.420117	-0.960				
Model PC							
<i>Intercept</i>	2.138214	0.233696	9.150	87.110	0.796	0.113561 (0.018614) ***	0.160902 (0.068168) *
<i>Gender</i>	0.168886	0.291719	0.579		(1)		
PC	-0.211036	0.234551	-0.900				

8.3.6 Hypothesis 4

Table 8.3-11: Multilevel estimates for environmental models predicting daily deadline commitment

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	2.256401	0.119138	18.939	87.928	-	0.113914 (0.018713) ***	0.169018 (0.072085) *
Model 1							
<i>Intercept</i>	2.230049	0.214838	10.380	87.906	0.22	0.113892 (0.018707) ***	0.168915 (0.071997) *
Gender	0.038044	0.258139	0.147				
Model PLF							
<i>Intercept</i>	2.314979	0.207479	11.158	84.100	3.806	0.114942 (0.019002) ***	0.143810 (0.064124) *
<i>Gender</i>	-0.030825	0.254041	-0.121		(1)		
PLF	-0.367159	0.245259	-1.497				
Model PLA							
<i>Intercept</i>	2.318772	0.217571	10.658	83.474	0.626	0.115503 (0.019169) ***	0.150928 (0.069231) *
<i>Gender</i>	-0.020427	0.264435	-0.077		(1)		
<i>PLF</i>	-0.411616	0.283055	-1.454				
PLA	-0.067375	0.489902	-0.138				

8.3.7 Hypothesis 5

Table 8.3-12: Multilevel estimates for motivational, temporal and environmental models predicting the acceptance of interruptions

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	0.763600	0.161963	4.715	209.283	-	0.530269 (0.086771) ***	0.248126 (0.130726)
Model 1							
<i>Intercept</i>	0.435574	0.243462	1.789	207.011	2.272	0.539300 (0.089211) ***	0.165631 (0.107015)
Gender	0.505263	0.299025	1.690				
Model VO							
<i>Intercept</i>	0.523763	0.284338	1.842	206.671	0.340	0.539214 (0.089074) ***	0.159166 (0.103505)
<i>Gender</i>	0.394849	0.352925	1.119		(1)		
VO	0.171059	0.291568	0.587				
Model PI							
<i>Intercept</i>	0.434601	0.233118	1.864	206.183	0.828	0.540620 (0.089362) ***	0.146020 (0.098607)
<i>Gender</i>	0.515848	0.286850	1.798		(1)		
PI	0.217807	0.234081	0.930				
Model TU							
<i>Intercept</i>	0.427686	0.224383	1.906	184.461	22.550	0.543151 (0.095113) ***	0.130042 (0.097696)
<i>Gender</i>	0.405990	0.286216	1.418		(1)		
TU	0.074345	0.482132	0.154				
Model TP							
<i>Intercept</i>	2.252408	0.099709	0.415	203.309	3.702	0.550104 (0.091915) ***	0.079103 (0.075926)
<i>Gender</i>	0.024471	0.978252	3.198 *		(1)		
TP	-0.094048	0.601404	2.201 ^a				
Model PC							
<i>Intercept</i>	0.253873	0.243141	1.044	205.150	1.861	0.546833 (0.090979) ***	0.112738 (0.088583)
<i>Gender</i>	0.773854	0.309759	2.498 *		(1)		
PC	-0.380522	0.256893	-1.481				
Model PLA							
<i>Intercept</i>	0.454448	0.230764	1.969	198.601	8.41 **	0.545300 (0.090579) ***	0.128724 (0.089358)
<i>Gender</i>	0.609135	0.287073	2.122 ^a		(1)		
PLA	0.273022	0.569959	0.479				

Table 8.3-13: Multilevel estimates for handling of interruptions predicting deadline commitment

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model INT							
Intercept	2.229549	0.215273	10.357	87.905	0.023	0.113880 (0.018707) ***	0.169012 (0.072076) *
Gender	0.038357	0.258324	0.148		(1)		
No. of Interruptions	0.002088	0.053784	0.039				
Model COMP							
Intercept	2.252408	0.213467	10.552	86.059	1.869	0.111524 (0.018322) ***	0.165135 (0.070502) *
Gender	0.024471	0.255576	0.096		(1)		
No. of Interruptions	-0.094048	0.088235	-1.066				
Completion rate	0.002505	0.001834	1.366				

Table 8.3-14: Multilevel estimates for handling of interruptions predicting stress

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	3.359522	0.142123	23.638	88.324	-	0.107156 (0.017668) ***	0.253590 (0.104733) *
Model 1							
<i>Intercept</i>	3.467926	0.256968	13.496	88.072	0.252	0.107102 (0.017652) ***	0.249277 (0.102899) *
Gender	-.155069	0.307392	-0.504				
Model INT							
<i>Intercept</i>	3.450552	0.256705	13.442	87.162	0.890	0.105949 (0.017464) ***	0.247211 (0.102070) *
<i>Gender</i>	-0.144325	0.306350	-0.471		(2)		
No. accepted	0.073194	0.086368	0.847				
Completion rate	-0.000735	0.001792	-0.410				

Table 8.3-15: Multilevel estimates for handling of interruptions predicting pleasure

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	3.682944	0.182504	20.180	212.103	-	0.527849 (0.087008) ***	0.342158 (0.173213) *
Model 1							
<i>Intercept</i>	3.392961	0.303230	11.189	210.842	1.261	0.529164 (0.087428) ***	0.296326 (0.157704)
Gender	0.427578	0.369059	1.159				
Model INT							
<i>Intercept</i>	3.463990	0.315086	10.994	207.710	3.132	0.502705 (0.083220) ***	0.321242 (0.167302)
<i>Gender</i>	0.384616	0.379896	1.012		(2)		
No. accepted	-0.293314	0.184909	-1.586				
Completion rate	0.006864	0.003861	1.778 ^a				

Table 8.3-16: Multilevel estimates for handling of interruptions predicting arousal

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	3.007279	0.134697	22.326	196.372	-	0.475107 (0.078967) ***	0.152825 (0.099808)
Model 1							
<i>Intercept</i>	2.804870	0.212572	13.195	195.126	1.246	0.480284 (0.080500) ***	0.117613 (0.089340)
Gender	0.310050	0.261976	1.184				
Model INT							
<i>Intercept</i>	2.881950	0.220222	13.087	191.786	3.340	0.457017 (0.077166) ***	0.126871 (0.095145)
<i>Gender</i>	0.262345	0.267178	0.982		(2)		
No. accepted	-0.319262	0.172631	-1.849 ^a				
Completion rate	0.005525	0.003633	1.521				

Table 8.3-17: Multilevel estimates for handling of interruptions predicting dominance

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Null model							
Intercept	2.550770	0.143098	17.825	239.521	-	0.830824 (0.134949) ***	0.126352 (0.098318)
Model 1							
<i>Intercept</i>	2.381176	0.233269	10.208	238.727	0.794	0.830718 (0.134714) ***	0.110824 (0.091250)
Gender	0.262808	0.289947	0.906				
Model INT							
<i>Intercept</i>	2.288720	0.227969	10.040	233.830	4.897	0.790338 (0.1287436) ***	0.095407 (0.085836)
<i>Gender</i>	0.314924	0.277579	1.135		(2)		
No. accepted	0.389246	0.220985	1.761 ^a				
Completion rate	-0.010560	0.004699	-2.247 *				

8.3.8 Hypothesis 6

Note: since the null models concerning performance, stress, pleasure, arousal and dominance have been displayed in table 8.3-3 through 8.3-7 respectively, these will not be displayed here again.

Table 8.3-18: Multilevel estimates for motivational and temporal variables predicting performance

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model SE							
<i>Intercept</i>	84.704426	5.971207	14.185	700.090	0.115	139.796739 (23.190593)	115.961217 (57.661701) *
<i>Gender</i>	1.678966	7.320943	0.229		(1)	***	
SE	2.109633	6.189016	0.341				
Model PI							
<i>Intercept</i>	85.267021	5.678175	15.017	699.444	0.761	139.671119 (23.131094)	109.913064 (54.743825) *
<i>Gender</i>	0.798262	6.878369	0.116		(1)	***	
PI	-5.001442	5.659228	-0.884				
Model MO							
<i>Intercept</i>	86.893728	5.631259	15.431	698.387	1.818	139.171183 (22.977192)	102.109280 (50.728182) *
<i>Gender</i>	-1.474471	6.884186	-0.214		(1)	***	
MO	-11.845262	8.579117	-1.381				
Model VO							
<i>Intercept</i>	77.311743	5.126325	15.081	692.851	7.354 **	139.259156 (22.886868)	58.002060 (32.516074) ^a
<i>Gender</i>	11.035878	6.364841	1.734		(1)	***	
VO	-16.144269	5.236601	-3.083 *				
Model PPD							
<i>Intercept</i>	81.237130	4.707243	17.258	693.201	7.004 **	138.848326 (22.746215)	61.757019 (33.260576) ^a
<i>Gender</i>	5.985515	5.782279	1.035		(1)	***	
PPD	14.127340	4.761855	2.967 *				
Model PPU							
<i>Intercept</i>	83.951813	5.181401	16.203	696.772	3.433 ^a	139.343440 (23.001772)	86.585170 (44.657932) ^a
<i>Gender</i>	2.447351	6.299929	0.388		(1)	***	
PPU	7.594524	3.876468	1.959 ^a				

Table 8.3-19: Multilevel estimates for motivational and temporal variables predicting stress

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model SE							
<i>Intercept</i>	3.434818	0.260105	13.205	87.740	0.332	0.107095 (0.017650) ***	0.242846 (0.100454) *
<i>Gender</i>	-0.106847	0.314774	-0.339		(1)		
SW	0.154757	0.267133	0.579				
Model PI							
<i>Intercept</i>	3.456541	0.237356	14.563	85.860	2.212	0.106955 (0.017605) ***	0.210374 (0.087709) *
<i>Gender</i>	-0.138462	0.284421	-0.487		(1)		
PI	0.363678	0.235369	1.545				
Model MO							
<i>Intercept</i>	3.364940	0.230318	14.610	84.244	3.828 ^a	0.106609 (0.017501) ***	0.188039 (0.078137) *
<i>Gender</i>	-0.009107	0.278650	-0.033		(1)		
MO	0.719682	0.345962	2.080 ^a				
Model VO							
<i>Intercept</i>	3.787752	0.229963	16.471	81.289	6.783 **	0.106499 (0.017464) ***	0.147917 (0.063003) *
<i>Gender</i>	-0.587749	0.284889	-2.063		(1)		
VO	0.680879	0.232374	2.930 *				
Model PPD							
<i>Intercept</i>	3.672454	0.163379	22.478	75.674	12.398 ***	0.107701 (0.017761) ***	0.083328 (0.040655) *
<i>Gender</i>	-0.428768	0.199574	-2.148 ^a		(1)		
PPD	-0.749903	0.162649	-4.611 *				
Model PPU							
<i>Intercept</i>	3.527822	0.214457	16.450	82.927	5.145 *	0.106810 (0.017557) ***	0.166656 (0.070871) *
<i>Gender</i>	-0.235079	0.257973	-0.911		(1)		
PPU	-0.397563	0.159813	-2.488 *				

Table 8.3-20: Multilevel estimates for motivational and temporal variables predicting pleasure

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model SE							
<i>Intercept</i>	3.303497	0.291637	11.327	209.405	1.437	0.530886 (0.087903) ***	0.248972 (0.140864) ^a
<i>Gender</i>	0.560655	0.360858	1.554		(1)		
SE	0.378579	0.304648	1.243				
Model PI							
<i>Intercept</i>	3.392214	0.301076	11.267	210.740	0.102	0.529678 (0.087557) ***	0.291077 (0.156125) ^a
<i>Gender</i>	0.429891	0.366589	1.173		(1)		
PI	0.096633	0.300795	0.321				
Model MO							
<i>Intercept</i>	3.435696	0.306646	11.204	210.421	0.421	0.528359 (0.087168) ***	0.287374 (0.152796) ^a
<i>Gender</i>	0.366955	0.376472	0.975		(1)		
MO	-0.306079	0.469955	-0.651				
Model VO							
<i>Intercept</i>	3.339746	0.351421	9.504	210.753	0.089	0.528915 (0.087376) ***	0.294775 (0.156959) ^a
<i>Gender</i>	0.497219	0.436271	1.140		(1)		
VO	-0.106458	0.357883	-0.297				
Model PPD							
<i>Intercept</i>	3.505007	0.296621	11.816	209.350	1.492	0.530694 (0.087917) ***	0.248274 (0.140991) ^a
<i>Gender</i>	0.282699	0.364180	0.776				
PPD	-0.379264	0.299604	-1.266				
Model PPU							
<i>Intercept</i>	3.396862	0.305666	11.113	210.833	0.009	0.529343 (0.087493) ***	0.295284 (0.157681) ^a
<i>Gender</i>	0.422757	0.372168	1.136		(1)		
PPU	-0.021600	0.228784	-0.094				

Table 8.3-21: Multilevel estimates for motivational and temporal variables predicting arousal

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model SE							
<i>Intercept</i>	2.756490	0.206780	13.331	194.464	0.662	0.485325 (0.082059) ***	0.095817 (0.083637)
<i>Gender</i>	0.385546	0.259340	1.487		(1)		
SE	0.187527	0.219209	0.855				
Model PI							
<i>Intercept</i>	2.804264	0.212530	13.195	195.097	0.029	0.480147 (0.080477) ***	0.117511 (0.089282)
<i>Gender</i>	0.310147	0.261891	1.184		(1)		
PI	-0.036453	0.213558	-0.171				
Model MO							
<i>Intercept</i>	2.862722	0.209705	13.651	193.549	1.577	0.475885 (0.079216) ***	0.105018 (0.080305)
<i>Gender</i>	0.229896	0.260891	0.881		(1)		
MO	-0.415660	0.327829	-1.268				
Model VO							
<i>Intercept</i>	2.707377	0.249043	10.871	194.627	0.499	0.480000 (0.080410) ***	0.110751 (0.086017)
<i>Gender</i>	0.433868	0.308958	1.404		(1)		
VO	-0.182220	0.256090	-0.712				
Model PPD							
<i>Intercept</i>	2.803981	0.225145	12.454	195.126	0	0.480238 (0.080576) ***	0.117726 (0.089878)
<i>Gender</i>	0.311145	0.278099	1.119		(1)		
PPD	0.002812	0.232014	0.012				
Model PPU							
<i>Intercept</i>	2.786244	0.211405	13.180	194.840	0.286	0.481138 (0.080699) ***	0.111127 (0.086833)
<i>Gender</i>	0.332648	0.260298	1.278		(1)		
PPU	0.085701	0.158714	0.540				

Table 8.3-22: Multilevel estimates for motivational and temporal variables predicting dominance

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model SE							
<i>Intercept</i>	2.569965	0.180045	14.274	230.857	7.87 **	0.815825 (0.130669) ***	0.016949 (0.048312) *
<i>Gender</i>	0.005682	0.229998	0.025		(1)		
SE	-0.633389	0.196879	-3.217 **				
Model PI							
<i>Intercept</i>	2.365589	0.203668	11.615	235.419	3.308 ^a	0.826773 (0.133577) ***	0.061204 (0.069853)
<i>Gender</i>	0.278379	0.254729	1.093		(1)		
PI	-0.399388	0.206218	-1.937 ^a				
Model MO							
<i>Intercept</i>	2.434957	0.228425	10.660	237.733	0.994	0.831027 (0.134752) ***	0.091964 (0.084022)
<i>Gender</i>	0.188552	0.286693	0.658		(1)		
MO	-0.370382	0.362439	-1.022				
Model VO							
<i>Intercept</i>	2.327042	0.284995	8.165	238.618	0.109	0.829218 (0.134372) ***	0.111542 (0.090914)
<i>Gender</i>	0.329267	0.352933	0.933		(1)		
VO	-0.097626	0.294818	-0.331				
Model PPD							
<i>Intercept</i>	2.377961	0.249470	9.532	238.726	0.001	0.830585 (0.134727) ***	0.111048 (0.091503)
<i>Gender</i>	0.266731	0.309584	0.862		(1)		
PPD	0.009507	0.261864	0.036				
Model PPU							
<i>Intercept</i>	2.352244	0.230801	10.192	238.210	0.517	0.831356 (0.134921) ***	0.099953 (0.087667)
<i>Gender</i>	0.295213	0.286222	1.031		(1)		
PPU	0.126728	0.173583	0.730				

Table 8.3-23: Multilevel estimates for daily deadline commitment mediating performance

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model VO							
<i>Intercept</i>	77.300905	5.125566	15.081	689.318	10.887 ***	132.771697 (21.838912)	59.118999 (32.649039) ^a
<i>Gender</i>	11.083201	6.363915	1.742		(2)	***	
VO	-16.150366	5.232066	-3.087 **				
DC	7.553590	3.970597	1.902 ^a				
Model PPD							
<i>Intercept</i>	81.212814	4.705477	17.259	689.647	10.558 **	132.402120 (21.708218)	62.649553 (33.317187) ^a
<i>Gender</i>	6.035592	5.776560	1.045		(2)	***	
PPD	14.144411	4.751167	2.977 **				
DC	7.564044	3.965063	1.908 ^a				

Table 8.3-24: Multilevel estimates for daily deadline commitment mediating stress

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model VO							
<i>Intercept</i>	3.787805	0.228701	16.562	66.430	21.642 ***	0.087206 (0.014319) ***	0.149631 (0.062490) *
<i>Gender</i>	-0.589940	0.283136	-2.084		(2)		
VO	0.681379	0.230788	2.952 **				
DC	-0.412683	0.101760	-4.06 ***				
Model PPD							
<i>Intercept</i>	3.528912	0.214090	16.483	68.093	19.979 ***	0.087429 (0.014387) ***	0.168782 (0.070405) *
<i>Gender</i>	-0.237310	0.257012	-.923		(2)		
PPD	-0.398778	0.159401	-2.502 *				
DC	-0.412891	0.101890	-4.05 ***				

Table 8.3-25: Multilevel estimates for daily deadline commitment mediating dominance

Model and variable	Estimate	Standard error (SE)	<i>t</i>	-2 x log	Δ -2 x log (df)	Day-level intercept variance (SE)	Person-level intercept variance (SE)
Model SE							
<i>Intercept</i>	2.563587	0.177218	14.466	216.283	22.444 ***	0.677155 (0.108706) ***	0.030045 (0.046850) *
<i>Gender</i>	0.010953	0.225600	0.049		(2)		
SE	-0.634039	0.192396	-3.295 **				
DC	-1.134696	0.283557	-4.00 ***				