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“The ingredients for a committed workforce”

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This thesis marks the end of my study in Business Administration at the Faculty of Management & Governance of the University of Twente. In this thesis I report about the study on employee commitment which I executed on behalf of Cehave Pasze Poland.

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SUMMARY

This master thesis focuses on Cehave Pasze in Poland, which is a division of the cooperation Cehave Landbouwbelang. In Poland, Cehave Pasze produces animal feed and concentrates for broilers, pigs and cattle. It has a workforce of 155 employees, with plants in Szamotuly, Topola Wielka and Margonin.

Cehave Pasze wants to be number one in their business, which is only possible when having enough and the right people to get the job done. To retain and especially to attract new people Cehave Pasze must take care to keep their employees satisfied with their jobs and committed to the organization. Besides, a strategic goal of Cehave Pasze is to be a people focused organization. In order to get insight into the reasons why the current employees have a long tenure and to discover which factors contribute to the employees commitment, Cehave Pasze needs a valid and reliable instrument to assess these issues and to evaluate their Human Resource policies and practices.

Commitment is a relatively stable attitude over time when compared to job satisfaction and commitment can be seen as a very relevant management construct because it can lead to competitive advantage and financial success.

Organizational Commitment is an attachment or bound that is a personal voluntary decision based on calculated rationality, affective tendency and moral judgement, which leads to a higher or lower degree of identification with, and involvement in, a particular organization; and that is observable in the free effort extended in accomplishing organizational goals.

According to Meyer and Allen (1991) commitment exists of three components reflecting (a) a desire (affective commitment), (b) a need (continuance commitment), and (c) an obligation (normative component) to maintain employment in an organization. This study focuses on normative and affective commitment towards the organization, co-workers and towards the work.

For this study a company-specific questionnaire was developed in order to measure the levels of commitment of the employees of Cehave Pasze. All 151 employees were asked to fill in and return the questionnaire. Members of the management team were excluded. Overall the response rate was very good (87%).

The levels of affective commitment are satisfactory, except for the level of affective commitment to the company (0.57), which was a little below the satisfactory level. However, overall the employees are reasonably committed. The employees of Cehave Pasze are most committed toward their work, their co-workers, and somewhat less toward Cehave Pasze. Remarkably, the levels of normative commitment are higher than the level of affective commitment. These results deviate from the pattern which normally shows that employees are more affectively than normatively committed. Apparently the employees of Cehave Pasze have a strong work ethos or moral.

There is a persistent pattern of insufficient levels of some comfort factors. This mainly concerns the organization's support, rewards and recognition, communication, openness within the organization,

and the balance between work and private life. Improvements in the levels of comfort factors also may be worth pursuing for reasons of good entrepreneurship.

The employees of Cehave Pasze are reasonably to strongly satisfied with the competence factors, except for the feedback they receive. The level of feedback ranges between insufficiently and sufficiently. The level of feedback has a negative effect on affective commitment to the work and the subsidiary company, and on normative commitment to the work- co-workers, and the subsidiary company. Apparently the feedback that the employees receive is assessed negatively. Feedback needs serious attention.

The behaviour of Cehave Pasze's employees that reaches beyond what is rewarded based on the contract, supervision or job requirements, is sufficient to good. Both the level of commitment and the employees' need for personal growth and development have influenced the level of organizational citizenship behaviour. Next to that, the intention of the employees to leave Cehave Pasze is reasonably low and thus satisfactory. The level of turnover intention is positively influenced by both the level of commitment and the relative absence of role conflict.

Cehave Pasze is recommended to examine more in depth the impact of company specific education, since the current research results show that employees who attended company specific education in the last five years are more affectively committed to the organization than employees who did not. Better insights in the company specific education can improve the utilization of company specific education which can lead to an increase in affective commitment.

It is very important to communicate the main findings of this research and the following actions to the employees. In this way support for any intervention plans will be more supported by the employees. It is also important to make constant references to this research while communicating, for example; implementation of new strategies to create better work-life balance possibilities, since this was a point of recommendation point in the current research.

For more details about conclusions, recommendations and limitations see chapter 5.

1. Introduction

In this introductory chapter a brief summary of Cehave Landbouwbelaag and Cehave Pasze will be presented in chapter 1.1. Second, the background of the study and its relevance will be given. Third, the problem definition will be given in chapter 1.3. Fourth, the central questions are stated in chapter 1.4. Fifth, the relevance of the study is explained in chapter 1.5. Finally in chapter 1.6 a short summary of the structure of the study will be presented.

1.1 Cehave landbouwbelaag and Cehave Pasze

Cehave Landbouwbelaag is a cooperative with approximately 6,000 Dutch members. A cooperative means that all members are also owner. At Cehave the production and marketing of animal feed and animal feed ingredients is the core business. With production plants in the Netherlands, Belgium, Poland, Germany, Hungary and China, and export premixes, nutritional specialties and concentrates throughout the world, Cehave Landbouwbelaag achieves a turnover of almost EUR 1 billion per annum. Their focus is on innovation in animal feed and profitable growth.

The development of knowledge plays an important role in this respect. Based on years of experience, a practically oriented approach and consistent investments in research and development (R&D), Cehave has secured a leading position with respect to knowledge creation. This position serves as an important basis for the business and as motivation to create better products, to develop more efficient production processes and to provide more focussed advice to livestock farmers. The subjects for which Cehave Landbouwbelaag's 'knowledge basis' is explicitly evident are animal health, innovation, agrotechnical expertise, the knowledge and experience of its business consultants, its production process ingenuity and its patents for products and processes (corporate website Cehave march 2008).

This master thesis focuses on Cehave Pasze in Poland, which is a division of the cooperation Cehave Landbouwbelaag. In Poland, Cehave Pasze produces animal feed and concentrates for broilers, pigs and cattle. It has a workforce of 155 employees, with plants in Szamotuly, Topola Wielka and Margonin. The study is initiated by the director HRM of Cehave Landbouwbelaag. The management of Cehave wants to have an instrument that reveals which factors make the work attractive and what keeps employees committed to Cehave. This instrument will give insight in their current situation. With these insights Cehave can evaluate their current and future HRM policies in order to retain and attract employees.

This measurement must be applicable for all subsidiary companies of Cehave Landbouwbelaag in the different countries, but in this master thesis the instrument will be tested at the three plants in Poland.

1.2 Background

Over the last 50 years there has been enormous economic and social progress in Europe and – although there are large regional and social differences – Europeans are living longer than ever before: on average eight to nine years more than in 1960. This coincides with other demographic developments: fewer children are being born, which will mean fewer people paying into state pension and healthcare systems, and a smaller pool of potential careers (The European Foundation for the Improvement of Living and Working Conditions, Eurofound 2008). The ageing of the workforce in Poland also has an increasing effect on labour costs (Johnson and Zimmerman, 1993). Policymakers are beginning to reflect on the role of older people in society as both providers and consumers. If current levels of productivity and pensions are to be maintained, more people will have to work longer. Business is increasingly taking a different approach towards older people, whether as potential customers with considerable spending power or as a valuable resource in the workplace in terms of skills and knowledge. Early retirement was frequently used as a tool for restructuring, particularly in sectors that were struggling to remain profitable in the face of international competition, but also in the public sector. However, in recent years, some countries have moved to raise the retirement age (for example, in Germany toward 67 years) or sought to encourage workers to stay in their jobs longer. This promotion of employment opportunities for an ageing workforce requires rethinking at company, national and EU level. In particular, it means introducing policies that maintain and promote the health of all employees, develop and update the skills of workers through training, and provide suitable working conditions, including measures to reconcile work with family and care responsibilities (The European Foundation for the Improvement of Living and Working Conditions, Eurofound 2008).

According to the Economic Survey of Poland 2008, during the past two years Poland has recorded its best economic performance since the late 1990s, with growth exceeding 6%. “After nearly a decade of relative stagnation, employment has finally begun to contribute markedly to gains in living standards, rising by some 3% per year. Meanwhile, labour supply has shrunk, despite a still expanding working age population. This further decline in labour force participation rates, especially low levels for older workers and the least skilled, is of great concern”. The result has been a spectacular decline in the unemployment rate, from nearly 18% in 2005 to 8.5% in the fourth quarter of 2007. At the same time, productivity gains have slowed from the growth rates recorded in the early 2000’s. This decline in unemployment means also a tighter labour market. However, in Poland 41.5% of the people aged 50 to 64 were professionally active in 2006, making Poland’s employment rate for this group one of the lowest in the European Union. According to an Ipsos Poland survey done for the Academy for the Development of Philanthropy high unemployment in the 1990’s and the beginning of the 2000’s decade forced a large number of older people to exit the workforce in order to accommodate the younger generation, a trend that was further increased by high labour costs.

Besides the trend of ageing, more changes can be observed over the last twenty years. Especially in most of the industrialized countries there have been a number of significant changes. According to Quinian (1999), there broadly have been three types of change. “First, there have been shifts in

employment structures and work arrangements, most notable a growth in self-employment, casual/temporary and part-time work and a corresponding decline in the proportion of the workforce holding permanent full-time jobs. There also have been changes to the timing of work, with a growth in shift work and night work. Second, there have been sectoral shifts in employment, most notably a market movement of employment away from manufacturing, mining and construction and towards service industries like hospitality/ tourism, finance and information services” (p.1). Third, there have been important changes to workforce demographics: which are the ageing workforce (as already mentioned), increase in female participation rates and changes to the youth labour market.

Organizations pay more and more attention to employee commitment and job satisfaction to increase retention and performance (Steers, 1977). Furthermore, organizational commitment is often linked with forms of work and nonwork behaviour, like turnover intention (Allen & Meyer, 1996). This is especially important to overcome the problem of an ageing workforce, a shrinking labour supply, the changes in employment structures and the sectoral shifts in employment. Cehave Pasze has to deal with these kinds of issues and therefore it is important to be attractive for new employees and to have a solid and satisfied workforce, where employees want to stay.

1.3 Problem definition

Cehave Pasze wants to be number 1 in their business, which is only possible when having enough and the right people to get the job done. To retain and especially to attract new people and overcome the other trends mentioned in chapter 1.2, Cehave Pasze must strive for keeping their employees satisfied with their jobs and committed to the organization. Besides, a strategic goal of Cehave Pasze is to be a people focused organization. To get an understanding why the current employees have a long tenure and to discover which factors contribute to commitment, Cehave Pasze needs a valid and reliable instrument to assess these issues and to evaluate their Human Resource policies and practices.

1.4 Central questions

The purposes of this research can be achieved by means of answering the following central questions:

1. With which reliable and valid instruments can the commitment of the employees of Cehave Pasze be measured?
2. To what extent, and to which foci, are the employees of Cehave Pasze committed?

1.5 Relevance of the study

The purpose of this study is twofold. Firstly, Cehave Pasze wants to know which factors make the work attractive and which factors result in committed employees, which in this study are mainly blue-collar workers. This will be realized by providing Cehave Pasze a company-specific instrument whereby the gained results can be used as steering information for the management of Cehave Pasze. Secondly, based on the information gathered, Cehave Pasze can evaluate their current strategies in order to become more attractive for new employees. Besides, this study provides data that can be used in future scientific research about commitment.

1.6 Organization of the study

Chapter 2 contains the theoretical framework. Chapter 3 discusses the methodology of the study. Chapter 4 will give an analysis of the results. Finally in chapter 5, conclusions will be drawn from the measurement, followed by recommendations and limitations.

2. Theoretical framework

In this chapter a theoretical background will be presented. In chapter 2.1 the construct commitment will be elaborated. The chapters 2.2 and 2.3 will give the relevant antecedents and outcomes of commitment for this study. Based on the previous chapters a conceptual model will be presented in chapter 2.4. At the end in chapter 2.5 research questions will be formulated with respect to proposed relationships between the variables of interest.

2.1 Commitment

In this study commitment is used as an explanatory concept. Therefore the conceptualization of commitment will be viewed in a way that we can distinguish it from related constructs, like motives and attitudes. Commitment is more than a state of mind that exists when an individual experiences a positive exchange relationship with some entity; it contributes to our understanding of organizational behaviour (Meyer and Herscovitch 2001). Research towards commitment is seen useful for a number of reasons. Bateman and Strasser (1984) summed up that it consistently has been shown to be related to: “(a), employee behaviours, like searching a job elsewhere, absenteeism, turnover and a little extent to performance (Abelson and Sheridan, 1981; Angle and Perry, 1981; Bluedorn, 1982; Farrell and Rusbult, 1981; Marsh and Mannari, 1977; Morris and Sherman, 1981; Porter et al, 1976; Porter et al 1974; Steers, 1977). (b), attitudinal, affective, and cognitive constructs such as job involvement, and job tension (Hall & Schneider, 1972; Hrebiniak & Alutto, 1972; Porter et al., 1974; Stevens, Beyer, & Trice, 1978; Stone & Porter, 1976); (c) job tenure (Angle & Perry, 1981; Hall & Schneider, 1972; Hrebiniak & Alutto, 1972; Koch & Steers, 1978; Sheldon, 1971; Steers, 1977)” (p. 95-96).

According to Mowday (1998) there appears to be evidence linking specific human resource management systems with overall organization performance and with affective commitment at the level of the individual employees. The linkage between human resource management strategies and individual-level employee commitment is also demonstrated by Tsui, Pearce, Porter, Tripoli (1997). They found that organizational investment in employees (i.e. company specific education) was associated with higher levels of employee affective commitment, as well as higher levels of citizenship behaviour, greater intention to stay with the organization, and lower absenteeism.

Because of this range of relationships, coupled with: the belief that organizational commitment is a relatively stable attitude over time, is less seriously affected by transitory events and is more strongly affected by organizational factors including leadership, culture, values and norms when compared to job satisfaction (e.g., Porter et al., 1974; Mowday, Steers & Porter 1979; Matthieu and Kohler, 1990; Cohen, 1992; Sagie, 1993; Gellatly, 1995; Markham and Mckee, 1995) commitment can be seen as a very relevant management construct. Furthermore, findings indicate that commitment is often a better predictor of turnover than is job satisfaction (Koch and Steers, 1976; Porter et al, 1974), which also is a frequently used construct. In fact, commitment may be the key source of competitive advantage in times of labour scarcity, especially.

Within commitment theories a distinction can be made between attitudinal and behavioural approaches. Mowday et al (1982) offered the following descriptions of the two approaches: “Attitudinal commitment focuses on the process by which people come to think about their relationship with the organization. In many ways it can be thought of as a mind set in which individuals consider the extent to which their own values and goals are congruent with those of the organization. People could be attached to organizations, unions or jobs, as attitudinal commitment (Meyer and Allen, 1997, p.9). Behavioural commitment, on the other hand, relates to the process by which individuals become locked into a certain organization and how they deal with this problem (p.26)” or to some course of action, like remaining a member, goals or policies (Meyer and Allen, 1997, p.9).

Meyer and Herscovitch (2001) reviewed several definitions of commitment. For example, one of the first authors who gave a definition of commitment in general was Becker (1960) who stated: “Commitment comes into being when a person, by making a side bet, links extraneous interests with a consistent line of activity” (p.32). Meyer and Herscovitch (2001) argued that all of the definitions of commitment in general make reference to the fact that commitment is a “stabilizing or obliging force, that gives direction to behaviour (e.g. restricts freedom, binds the person to a course of action) (p.301)”. Other expressions defining this concept in the literature are: psychological state (Allen and Meyer, 1990, p.14), psychological attachment (O’Reilly and Chatman 1986, p.493) or ‘psychological bond’ (Matthieu and Zajac, 1990, p.171).

A review of the workplace commitment literature, as well as a consideration of the everyday use of the term, suggests that individuals can commit to both entities (as attitudinal) and behaviours (as behavioural commitment). An example is given by Meyer and Herscovitch (2001); “We read and speak about commitment to organizations, occupations, and unions (i.e. entities), as well as of commitment to work toward the attainment of goals and the implementation of policies (behaviours). In some cases, commitment is conceptualized as including both an entity and a course of action. Meyer and colleagues (Meyer & Allen, 1984, 1991; Meyer et al., 1993), for example, defined commitment in such a way that it implies a course of action (i.e. continuing membership) of relevance to an entity (i.e., organization or occupation)”(p.309)

González and Guillén (2008) asked very interesting questions with respect to definitions of commitment. Because if commitment is described as a frame of mind or psychological state that compels an individual towards a course of action, “should we make a more emphasized distinction between intentions and actions in this conception? Is the final action a necessary outcome of a psychological-state, and then, as a consequence, something mechanistic, or the result of a free decision, a consequence of human will? If the free human will is not explicitly included in the definition of commitment, can we really talk about a moral dimension?” (p.404). By including the human will, the individual differences among employees are also recognized. If management wants to redesign work to get a more satisfied workforce they have to acknowledge the individual differences. According to

Hackman and Oldham (1975) “a job high in motivating potential will not affect all individuals in the same way. In particular, people who strongly value and desire personal feelings of accomplishment and growth should respond very positively to a job which is high on the core dimensions: individuals who do not value personal growth and accomplishment may find such a job anxiety arousing and may be uncomfortably “stretched” by it” (p.160).

Conclusively, commitment includes both behavioural and attitudinal aspects, but emphasizing the course of action, and then describing the final objective or objectives (Meyer and Herscovitsch, 2001). This study will also include the “human will” and therefore will use the definition from González et al (2008) for organizational commitment:

“Organizational commitment is an attachment or bound that is a personal voluntary decision based on calculated rationality, affective tendency and moral judgement, which leads to a higher or lower degree of identification with, and involvement in, a particular organization; and that is observable in the free effort extended in accomplishing organizational goals” (p.412).

It is now well recognized and widely accepted that commitment itself is a multidimensional construct (e.g. Meyer and Herscovitsch, 2001). Identifying the different types of commitment suggests alternative management strategies leading to desired behaviours in the workplace (Mowday, 1998).

One of the most widely accepted conceptualization of commitment that has a good linkage with the definition of González et al (2008) is that of Allen & Meyer (1990, 1996; Meyer, Stanley, Herscovitch & Topolnytsky, 2002; Meyer & Allen, 1991). They actually integrated existing conceptualizations of commitment into a three-component model.

Meyer and Allen (1984) initially proposed that a distinction can be made between affective commitment, denoting an emotional attachment to, identification with, and involvement in the organization and continuance commitment, denoting the perceived costs associated with leaving the organization. Allen and Meyer (1991) later suggested a third distinguishable component of commitment, normative commitment, which reflects a perceived obligation to remain in the organization.

According to Meyer and Allen (1991) the three components reflect (a) a desire (affective commitment), (b) a need (continuance commitment), and (c) an obligation (normative commitment) to maintain employed in an organization. These components are also called “bases of commitment”. An important rationale for the development of the three-component model was “the belief that, although all three forms of commitment relate negatively to turnover, they relate differently to measures of other work relevant behaviours (e.g. attendance, in-role performance, organizational citizenship behaviour (OCB) (Meyer, Stanley, Herscovitch and Topolnytsky, 2002, p.21)”. “More specifically, affective commitment is expected to have the strongest positive relation, followed by normative commitment; continuance commitment is expected to be unrelated, or related negatively, to these desirable work behaviours (p.21)”. In the three-component model the authors include behavioural commitment as an antecedent

of affective commitment and as part of a feedback chain in which positive work behaviours (for which the employee accepts responsibility) increase behavioural commitment and consequently, affective commitment.

Meyer, Stanley, Herscovitch, & Topolnytsky (2002) conducted a meta analysis to assess (a) relations among affective, continuance, and normative commitment to the organization and (b) relations between the three forms of commitment and variables identified as their antecedents, correlates, and consequences in Meyer and Allen's (1991) Three-Component Model. All three forms of commitment "related negatively to withdrawal cognition and turnover, and affective commitment had the strongest and most favourable correlations with organization-relevant (attendance, performance, and organizational citizenship behaviour) and employee-relevant (stress and work-family conflict) outcomes. Normative commitment was also associated with desirable outcomes, albeit not as strongly. Continuance commitment was unrelated or related negatively, to these outcomes". (p.20)

According to González et al (2008) there are problems derived from the overlap of the affective and normative dimensions. "In fact when reviewing the literature, high statistical correlations and lack of discriminating validity have been found between affective and normative commitments. That means that it is not clear yet how the two dimensions are conceptually separable, and also, that a considerable conceptual redundancy exists". (p.413). They propose that affective organizational commitment is related to emotions or affective tendencies (desires and impulses), while the normative organizational commitment corresponds to rational tendencies. "In line with the literature, this work maintains that both spheres are present in every human action, and can be distinguished but not separated (p.412)".

More recently, Solinger, Van Olffen and Roe (2008) offer a conceptual critique of the three-component model and especially on the instruments. They argue that the three component model is inconsistent. Solinger et al. (2008) and others, found that affective and normative commitment are strongly correlated (e.g., an average correlation of .63; Meyer et al., 2002); with the note that affective commitment is the most reliable and strongly validated base of organizational commitment (e.g. Allen and Meyer, 1996; Meyer et al, 2002). Affective commitment has also been found to correlate with the widest range of behavioral criterion variables (Meyer and Herscovitch, 2001). In contrast with affective and normative commitment, continuance commitment seems to have a negative or no relationship with desired employee behaviour. Besides, the construct of continuance commitment is not clear: for example, is it a one-dimensional construct (Ko et al, 1997) or a two-dimensional construct, with a lack of alternatives and high personal sacrifice (McGee and Ford, 1987)? Alternatives are partly controlled by the labour market and not that controllable by the organization. For these reasons continuance commitment will be excluded from the current study.

Thus this study only focuses on two of the three bases of commitment in the three component model, namely affective and normative commitment.

Although, organizational commitment is the main focus of many studies, commitment can take various forms or foci, including commitment to organizations (e.g. Mathieu and Zajac, 1990; Meyer and Allen, 1991; Mowdey et al, 1982), “unions (e.g. Barling, Fullager, and Kelloway, 1992; Gordon et al, 1980), occupations and professions (e.g. Blau, 1985; Meyer, Allen and Smith, 1993), teams and leaders (e.g. Becker, 1992; Hunt and Morgan, 1994), goals (e.g. Campion and Lord, 1982; Locke, Latham and Erez, 1988), and personal careers (e.g. Hall, 1996). Answers to questions about how these commitments develop, and how they influence work behaviour, organizational effectiveness, and employee well-being vary somewhat across the different frameworks” (Meyer and Herscovitch, 2001, p.300).

Analysis (Benkhoff 1996) showed that high standards and the disposition to work hard, seem to be stable personal characteristics which are suitable as selection criteria. Colleagues appear to be a factor contributing to extra effort. Employees seem to be sensitive to the standards set by their work group. While they may become immune to superiors demanding as much effort as possible, their colleagues set the benchmark that determines employees’ status within the group and their self-esteem. If this relation between employee and colleagues is good, it can be said that employees get committed to their colleagues.

According to Torka (2003) employees are likely to be more strongly committed to less abstract foci such as the work and the co-workers than toward the organization. Torka (2003) stated that “commitment towards the department and the organization is less important than commitment towards a more tangible objects” (p.184) For these reasons it seems reasonable not only to include organizational commitment in this study, but also other foci of commitment, like commitment towards co-workers and the work itself. It seems evident to distinguish between these foci of commitment in the current study, since the units of analysis of Torka’s study have a great resemblance with the large group of operational employees of Cehave Pasze (i.e., a lot of them are blue-collar workers which are semi- or unskilled). Because it is unknown to which foci the employees in this study are committed and to practical reasons, a choice is made to distinguish the previous three foci that are involved in working in an organization. This study will distinguish three foci of commitment; the work, co-workers, and the organization.

Summarizing, this study focuses on two bases of commitment, namely affective and normative commitment, and three foci of commitment, namely commitment to the organization, the work and the coworkers. Second, it is of relevance to study the antecedents and outcomes of commitment. To determine the antecedents and outcomes the research of Meyer et al. (2002) will be used. They performed a meta-analysis based on research that was conducted for this purpose.

2.2. Antecedents of commitment

In Becker's (1960) 'side-bet' theory the author mentioned the potential effects of occupation on organizational commitment by arguing that:

'for a complete understanding of a person's commitment we need ... an analysis of the system of values or, perhaps better, valuables with which bets can be made in the world he lives in... In short, to understand commitment fully, we must discover the systems of values within which the mechanisms and processes described earlier operate' (p.39).

Becker later argued that occupational groups are subcultures with value systems of their own. Based on this study, Cohen (1992) concluded that it can be expected that antecedents of commitment would affect commitment differently across occupational groups, because each occupational group has its own value system. Therefore with including or excluding antecedents of commitment it is important to take into consideration that the variable can have different influences on commitment across occupational groups. Categories of the antecedents of organizational commitment will be used following Meyer et al's (2002) meta-analysis which is partially based on the meta-analysis of Mathieu and Zajac (1990). The following variables are antecedents of affective and/or normative commitment which seems to have the best fit with the occupational group of this research, namely mainly blue-collar workers: personal and work related characteristics, work experiences, job satisfaction, socialization experiences and organizational investments. The socialization experiences and organizational investments were distinguished by Meyer et al. (2002) as antecedents of normative commitment. An important remark on these two variables was given by the authors: "None of the antecedents of normative commitment (...) received sufficient investigation to warrant inclusion in our meta-analyses. One reason for this might be that the hypothesized antecedents of normative commitment (i.e., socialization and organizational investments) are difficult to measure. Both socialization experiences and organizational investments are likely to be idiosyncratic and difficult to capture using standard research instruments" (p. 42-43).

Therefore, socialization experiences and organizational investments will not be included in this current study as antecedents of normative commitment. This study will include personal and work related characteristics, work experiences and job satisfaction as antecedents for affective and normative commitment.

2.2.1 Personal and work related characteristics

The meta-analysis of Meyer et al (2002) identified demographic variables and individual differences as two separate sets of variables. For practical reasons these two sets are merged and labelled as the personal and work related characteristics. Age, gender, education, organization tenure, position tenure, and job are identified as the variables.

In general the correlation between the personal characteristics and affective and normative commitment are weak: for example in the meta-analysis age correlated only .15 with the different bases of organizational commitment (Meyer et al., 2002). However, they are still important to include because, according to Cohen (1992), personal antecedents would affect employees in low status occupations more than those in higher status occupations. He explained this as follows: "The

organizational commitment of employees in low status occupations (e.g. blue collar) is affected by their fewer employment opportunities, high costs of leaving the organization and desire for stability in employment” (p. 543). Which is interesting while the population of this study mainly consist of low or (un)skilled blue collar workers. For example, Cohen (1992) found a negative relationship between education and organizational commitment, especially for blue collar workers. That is, less educated blue collar employees are more committed than more educated blue collar employees. “The relationship between education and organizational commitment is meaningless for white collar employees ($r = -0.03$)” (p.546). Therefore several personal and work related characteristics will be included to make (statistical) comparisons possible.

2.2.2 Work Experiences

Allen and Meyer (1990) grouped work experience variables contributing to affective commitment into two groups, “those that satisfy employees’ needs to feel comfortable in their relationship with the organization and those to feel competent in the work-role” (p.8-9). In their study these groups of variables are labelled as the comfort and competence variables. Comfort variables are, according to Allen and Meyer (1990) best served by “organizational dependability, management receptiveness, equity, peer cohesion, role clarity and goal clarity.... competence variables would be enhanced most by job challenge, goal difficulty, personal importance, feedback and participation” (p.9).

The comfort and competence variables of Allen and Meyer (1990) have strong similarities with Herzberg’s Motivator-Hygiene Theory (1966) which will be mentioned later on in the chapter about job satisfaction. The motivators relate to job content (work itself) and include achievement, recognition, work itself, responsibility and advancement. The hygiene factors relate to job context (work environment) and involve, for example, company policy and administration, supervision, salary, interpersonal relations, and working conditions. The hygiene factors can be seen as the comfort variables and the motivators as the competence variables.

Some comfort variables can be found in the meta-analysis of Meyer et al (2002). The variables organizational support, leadership, role ambiguity, and especially role conflict correlate strongly with affective commitment, but also correlate with normative commitment. Role ambiguity and role conflict did correlate negatively (-0.47 and -0.33) with affective and normative commitment.

Organizational Support

Organizational support means according to Rhoades and Eisenberger (2002) that “employees develop global beliefs concerning the extent to which the organization values their contributions and cares about their well-being” (p.698). Organizational support seems to have a positive relationship with commitment.

Leadership

A distinction can be made between transformational and transactional leadership. Den Hartog, Van Muijen and Koopman (1997) stated that “transformational leaders broaden and elevate the interests of followers, generate awareness and acceptance among followers of the purposes and mission of the group and motivate followers to go beyond their self-interests for the good of the group” (p.20). Transactional leadership in contrast means that leaders motivate their employees as expected and no more. According to Meyer et al. (2002) there is a positive relation between transformational leadership and affective and normative commitment, while there is a negative relation between transactional leadership and these two types of commitment. However, Den Hartog et al. (1997) cited Bass (1985) who argues “that transformational leadership builds on transactional leadership...”(p.21) Therefore both forms of leadership will be included in this study.

Role ambiguity

Role ambiguity concerns ambiguity about role expectations. De Jong & Janssen (2005) argued that high role ambiguity causes uncertainty about job demands and control. Meyer et al. (2002) reported negative correlations (-0.39) between role ambiguity and affective and normative commitment.

Role conflict

Role conflict has to do with requirements of the role of an employee and is “defined in terms of the dimensions of congruency-incongruency or compatibility ... where congruency or compatibility is judged relative to a set of standards or conditions which impinge upon role performance” (Rizzo, House & Lirtzman p.155, 1970). The meta-analysis of Meyer et al. (2002) reported negative relationships between role conflict and affective commitment (-0.30) and normative commitment (-0.24).

2.2.3 Job Satisfaction

People bring mental and physical abilities and time to their jobs. Many people try to make a difference in their lives and in the lives of others through working. A pay check is not the only reason for wanting a job. Jobs can be used to achieve personal goals. “When a job meets or exceeds an individual’s expectation, the individual often experiences positive emotions. These positive emotions represent job satisfaction. Job satisfaction in turn is also a major contributor to life satisfaction (Smith, 1992).

According to Green (2000), a universal definition of job satisfaction is not a difficult one; it is an impossible one. Many researchers define job satisfaction, but they vary. Hoppock, Locke and Vroom are the most commonly referred researchers for a definition of job satisfaction.

Hoppock’s (1935) response to the question ‘What is job satisfaction?’ was: “...any combination of psychological, physiological, and environmental circumstances that causes a person truthfully to say, ‘I am satisfied with my job’” (p. 47). Locke’s (1976) answer to the same question in the seventies was: “...a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (p.1300). Vroom (1982), who used the terms “job satisfaction” and “job attitudes” interchangeably, defined job satisfaction as “...affective orientations on the part of individuals toward

work roles which they are presently occupying” (p. 99). Even though the definitions vary, a commonality among them seems to be that job satisfaction is a job-related emotional reaction.

Relationship between commitment and job satisfaction.

Over the last two decades much research has been done by researchers towards variables that appear to contribute to either job satisfaction or organizational commitment. These variables are presented by Glisson and Durick (1988) into roughly three groups: (1) variables that describe characteristics of the job tasks performed by the workers; (2) variables that describe characteristics of the organizations in which the tasks are performed; and (3) variables that describe characteristics of the workers who perform the tasks.

According to Huang and Hsiao (2007) results show that job characteristics are the most important determinant of commitment and satisfaction. “This implies that managers can implement job redesign to improve employees’ loyalty, identification and commitment. This involves the level of skill variety, task identity, task significance, autonomy, and feedback of the job. Results show that the better a firm’s working conditions and organizational climate are, the higher satisfaction and commitment level its employees may hold” (p.1271-1272). Besides the strategy of job redesign, changing management style is a useful strategy for management to promote employees satisfaction and commitment (Huang and Hsiao 2007, p.1274). Although the social context of the previous study was Asian, the authors claim that the effects of personal factors on satisfaction and commitment in both societies are consistent with Western society.

Job satisfaction and organizational commitment are closely related, but still can be recognized as two separated constructs (Porter, Steers and Boulian 1974).

Bateman and Strasser (1984) found commitment to be a precursor of satisfaction. In contrast with Bateman and Strasser (1984) and Porter, Steers and Boulian (1973), Curry, Wakefield, Price and Mueller (1986) and Currivan (1999) found no relation between satisfaction and commitment. More recently, Huang and Hsiao (2007) findings show that the reciprocal relation between commitment and job satisfaction fits the data best. According to analysis of Currivan (1999) the dominant view in the literature assumes job satisfaction causes commitment, an example of this assumption is supported by Wallace (1995).

Conclusively, there are four causal orders between job satisfaction and commitment; (1) job satisfaction precedes commitment, (2) commitment precedes job satisfaction, (3) job satisfaction and commitment have a reciprocal relationship and (4) job satisfaction and commitment have no significant relationship.

Although the literature cannot give total clarity about the causal order of job satisfaction and organizational commitment, the majority of the literature showed that job satisfaction is causally related to commitment and as a precursor of commitment. Therefore job satisfaction will be used as a antecedent of commitment.

Global and facet job satisfaction

Curry et al. (1986) stated that “job satisfaction has been treated as both a global concept referring to overall satisfaction and as a facet specific concept referring to various aspects of work, such as pay, supervision, or workload (Cook, Hepworth, Wall & Warr, 1981)” (p.848).

Thus, job satisfaction can be assessed using single-item, general, or facet-specific measures. The choice for which measure will be used depends on the purpose of the evaluation of job satisfaction.

Kalleberg (1974) criticized single-items measures based on the measures’ “assumption that job satisfaction is unidimensional, when in fact it appears to be multidimensional. Evidence points toward an overestimation of job satisfaction when the construct is measured using a single-item measure” (in Green, 2000, p.10). The measure of overall satisfaction can be useful if you want to know an overall rate of the job satisfaction. However, what to improve to get higher job satisfaction if you only measured with a single item of overall job satisfaction?

In contrast, facet-specific job satisfaction measurement is a study of job satisfaction that is conducted to identify areas of dissatisfaction to improve upon them. Numerous standardized reliable and valid instruments are available for this type of approach (Green, 2000). Although, Bateman and Strasser (1984) conclude in their research that overall job satisfaction is predicting the variance in organizational commitment best, facet job satisfaction is more useful in this study. Facets can be seen as affective evaluations of individual job facets and in comparison with global job satisfaction it gives more specific factors of the work that employees are satisfied or dissatisfied with and to what extent (Rice, Gentile and McFarlin, 1991). This kind of information can be more valuable than only one overall rate of global satisfaction, because it can provide useful steering information. Therefore this study will include the facet approach of job satisfaction, since it gives more focussed insights in the construct commitment and therefore more valuable measures for any managerial intervention.

Kinnie, Hutchinson, Purcell, Rayton and Swart (2005) identified some facets of job satisfaction related to the employee groups they examined. Kinnie, Hutchinson, Purcell, Rayton & Swart (2005) researched the relationship between employees’ satisfaction with HR practices and commitment for three employee groups: professionals, line managers, and workers. They argued that this relationship varies for the different groups. The employee group workers are comparable with the majority of employees involved in this study. Kinnie et al (2005) identified the following facets as antecedents for commitment: rewards and recognition, communication, openness and work-life balance. They explained these results as follows:

“The commitment of employees in our group of workers appears to be linked to practices associated with internal fairness: openness, communication, being recognised for their performance and not being forced to make large sacrifices in their home lives. These results are hardly surprising given the nature of the jobs and the position in the organisation held by our worker group (...)”. (p. 20)

The HR practices with which workers and other employees are satisfied can be considered as facets of job satisfaction. Based on the results of the study of Kinnie et al. (2005) it appears to be relevant to include rewards and recognition, communication, openness, and work-life balance as comfort factors in the current study. Furthermore, satisfaction with co-workers is an important facet with respect to commitment to co-workers.

Hackman and Oldham (1975) developed the Job Characteristics Model, which is partially an extension of Herzberg's Motivator-Hygiene Theory (1966). This theory focuses attention upon the work itself as a principal source of job satisfaction. According to Herzberg the concept of job satisfaction has two dimensions, namely intrinsic and extrinsic factors. Intrinsic factors are also known as motivators or satisfiers, and extrinsic factors as hygiene, dissatisfiers, or maintenance factors. The motivators relate to job content (work itself) and include achievement, recognition, work itself, responsibility and advancement. The hygiene factor relates to job context (work environment) and involves, for example, company policy and administration, supervision, salary, interpersonal relations, and working conditions. Hygienes are associated with job dissatisfaction when absent but not with satisfaction when present.

The model of Hackman and Oldham (1975, 1976) presents the dimensions that predict the satisfaction with the design of the job (like the motivators), the so called core job dimensions. These dimensions can be considered competence factors. According to the authors three psychological states (e.g. experienced meaningfulness of the work) were influenced by the dimensions. However, later research of James and Jones (1980) proved that these "states" did not have a mediating role between the core job dimensions and the outcomes of job satisfaction. However, the core job dimensions did influence job satisfaction, therefore the states will be excluded and the core job dimensions will be included in this study.

The core job dimensions are (With an explanation of Hackman and Oldham, 1976):

- Skill variety: "the degree to which the job requires a variety of different activities in carrying out the work, which involves the use of a number of different skills and talents of the person" (p. 257);
- Task identity: "the degree to which the job requires completion of a "whole" and identifiable piece of work; that is, doing a job from beginning to end with a visible outcome" (p. 257);
- Task significance: "the degree to which the job has a substantial impact on the lives or work of other people, whether in the immediate organization or in the external environment" (p. 257);
- Autonomy: "the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out" (p. 258);
- Feedback: "the degree to which carrying out the work activities required by the job results in the individual obtaining direct and clear information about the effectiveness of his or her performance" (p. 258).

As already mentioned (in chapter 2.1) this study will include the human will. By including the human will, the individual differences among employees are recognized. If management wants to redesign

work to get a more satisfied workforce they have to acknowledge the individual differences. According to Hackman and Oldham (1975) “a job high in motivating potential will not affect all individuals in the same way. In particular, people who strongly value and desire personal feelings of accomplishment and growth should respond very positively to a job which is high on the core dimensions: individuals who do not value personal growth and accomplishment may find such a job anxiety arousing and may be uncomfortably “stretched” by it” (p.160). Therefore, individual “growth need strength” is included as a moderator within the core job dimensions in the causal model. Although Oldham et al. (1976) did identify a second moderator, satisfaction with the work context; this will not be included as a new variable. Satisfaction with the work context is explained by Oldham et al. (1976) as the “degree to which the immediate work environment is satisfying to employees” (p.396). This degree will be addressed by the work experiences in chapter 2.2.2. and thus can be seen as the hygiene factors of Herzberg’s theory and the comfort factors mentioned by Allen and Meyer (1990).

2.3 Outcomes of commitment

Meyer et al. (2002) identified several outcomes of affective and normative commitment. These are: withdrawal cognition, turnover intention, turnover, on-the-job behaviour (i.e., absenteeism, organizational citizenship behaviour, and job performance), and employee health and well-being. However, the variable employee health and well-being, will be excluded because there was no strong evidence available for this variable. The outcomes of commitment that are proposed by several authors can be described as behavioural. In this chapter the variables which are included will be discussed.

2.3.1 Turnover intention

In the literature different variables have been examined as potential antecedents of commitment, but what they all have in common is the link with turnover intention; the intention to leave the organization is the lowest among employees who are strongly committed to the organization (Allen and Meyer, 1990; Mathieu and Zajac, 1990; Meyer and Allen, 1991; Meyer et al, 2002). Findings of the meta-analysis of Meyer et al (2002) showed that affective commitment, followed by normative commitment were strongest negatively related to turnover. Moreover, turnover intention was stronger than the actual turnover. Again the strongest correlations were obtained for affective commitment (-.56), followed by normative (-.33) commitment. However, the company that initiated this study, Cehave Landbouwbelang, does not experience problems with retaining its current employees. Concern is, however, attracting new employees in the future and retaining them. Thus, it will be important in the future to know if and why employees have the intention to leave the organization. Therefore it is important to include turnover intention in the measurement instrument.

2.3.2 Organizational citizenship behaviour

The second outcome variable that will be included in the causal model is Organizational Citizen Behaviour. OCB is seen as a desired behaviour and is therefore included in this study. In the earliest work (Bateman & Organ, 1983; Smith, Organ, & Near, 1983), OCB was defined by two criteria: (1) behaviour above and beyond role requirements that is (2) organizationally functional. A more formal definition was given by Organ (1988): “OCB represents individual behaviour that is discretionary, not

directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization” (p.4).

Smith, Organ, and Near (1983) see OCB as an individual’s extra personal behaviour, for example, being cooperative, helpful, and other instances of extra-role behaviour. It is a behaviour performed in helping a specific co-worker, a customer or a supervisor, not normally expected of the employee since it is not part of the employment contract. Examples are, sitting in for a sick co-worker, or assisting supervisors and others.

The practical importance of OCB is that it improves organizational efficiency and effectiveness by contributing to resource transformations, innovativeness and adaptability (Organ, 1988 in Williams and Anderson, 1991).

In the meta-analysis of Meyer et al (2002) OCB correlated positively with affective (.32) and normative (.24) commitment. However, there were differences between the ratings of self-rating and ratings performed by supervisors.

2.3.3 Job performance

Job performance can normally be seen as an outcome of commitment. Job Performance is included in the model but not in the measurement instrument because the real performance data can be collected from performance results of the company and linked to commitment after this study.

Summarizing.

To make (statistical) comparisons possible, this study includes several personal and work related characteristics. Comfort factors are the first set of antecedents that will be used to assess affective and normative commitment. The comfort factors are: organizational support, transformational and transactional leadership, role ambiguity, role conflict, satisfaction with: rewards and recognition, communication, co-workers, openness and work-life balance.

The second set of antecedent variables are the so called competence factors. These competence factors, the core job dimensions of Hackman and Oldham (1975), include: skill variety, task identity, task significance, feedback, autonomy and the moderator growth need strength.

Finally, the hypothesis is that affective and normative will result in a lower turnover intention and higher organisational citizenship behaviour (OCB) and job performance. Therefore, turnover intention, OCB and job performance are included in the conceptual model. The conceptual model is presented in figure 1.

2.4 Conceptual model

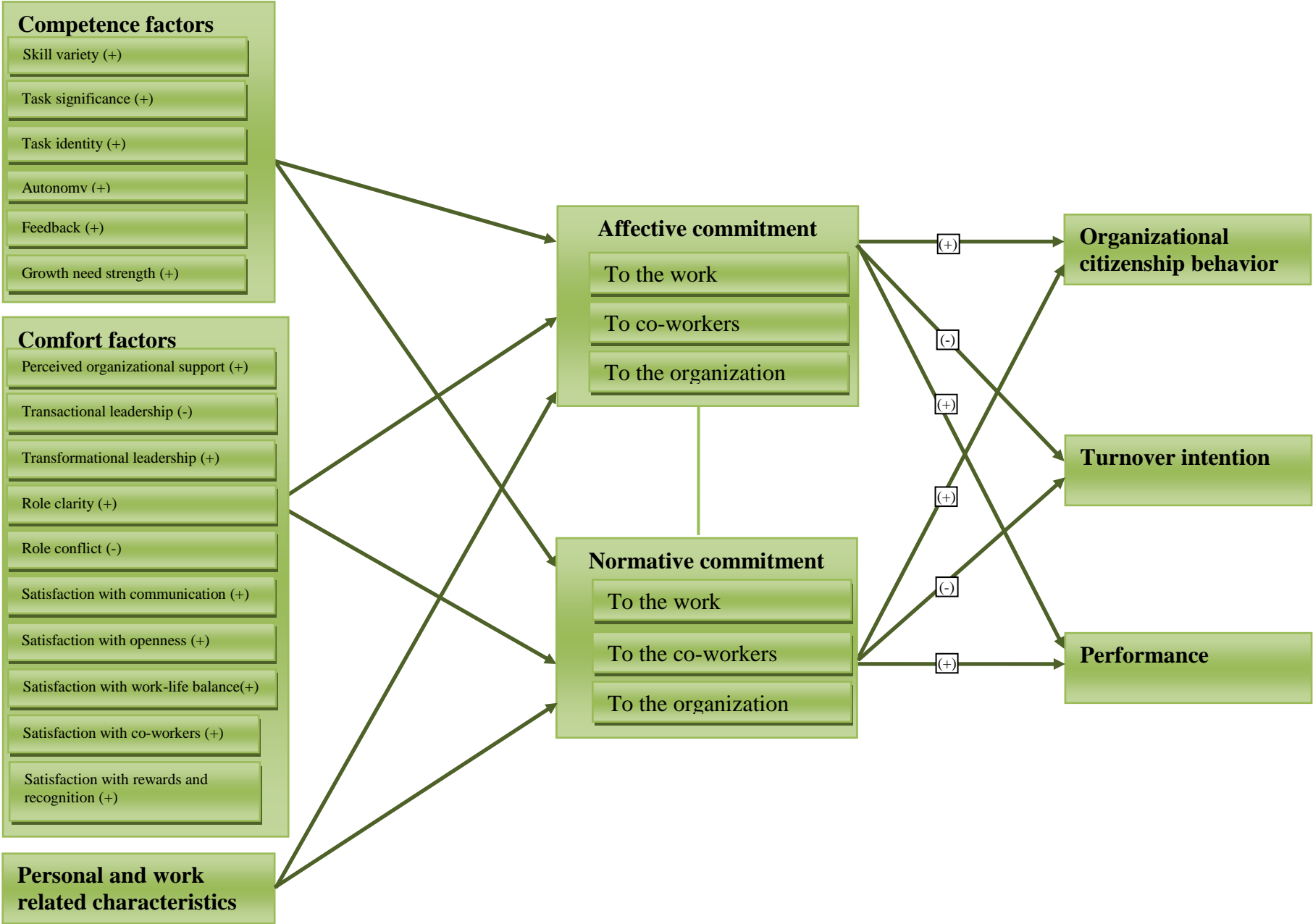


Figure 1. Conceptual model

2.5 Research questions

Based on the practical and theoretical background of this study research questions can be formulated.

- What is the level of commitment of the employees of Cehave Landbouwbelang's Polish businesses?
- What causes the level of commitment of the employees of Cehave Landbouwbelang's Polish businesses?
- What effects does this level of commitment of the employees of Cehave Landbouwbelang's Polish businesses have for OCB, turnover intention, and performance?

Answering these research questions should, at the end, allow for answering the two central questions.

3. Methodology

This chapter includes information about the methodology of the study. Chapter 3.1 describes the research sample. In chapter 3.2 the research design and instruments will be presented. The way the data is collected and which analyses are used, will be presented in chapter 3.4. The procedure of the research will be addressed in chapter 3.5.

3.1 Research sample

Cehave Pasze has production plants at three locations. The research population consists of 151 employees (management excluded). With 47 employees in Topola Wielka, 55 employees in Szamotuły, 47 employees in Margonin and 2 guards. Most of the employees are blue-collar workers that work in production, maintenance, storage and transport. Cehave Pasze has supporting staff departments like human resources, finance & administration, quality & nutrition and the sales department.

In this study the decision has been made to exclude the management team because the research instrument was not fully applicable for this group. For example, the management team could experience difficulties with questions about leadership. By excluding the four management members, the research population consists of 151 employees.

At the same time that this study was conducted, simultaneously a study took place in the Dutch setting. The Dutch and Polish datasets will be bundled for analysis this makes comparison also easier. Results of internal consistency, factor analysis and LISREL are also measured with input from the Dutch setting.

3.2 Research design and instruments

The nature of the current study is inductive and exploratory and the research method was mostly survey research. Data survey research is described by Rea and Parker (1997) as "...the concept of considering information derived from a smaller number of people to be an accurate representation of a significantly larger number of people" (p.1). Given the descriptive nature of this study, the nature of the constructs, the available quantitative instruments for measuring constructs and the advantage of such a study; that it can be conducted in a relatively short time period, survey research appeared the most appropriate research design. Some limitations of this type of study method are also recognized, including a questionnaires' cross-sectional nature, which means that the study is "based on observations representing a single point in time" (Babbie, 2007, p. 102), and the superficial nature of the responses received (Kerlinger, 1986). Besides survey research, also a small test was done with few low skilled workers of Cehave Landbouwbelaag Netherlands to test the understandability of the questionnaire. Observational evidence is often useful in providing additional information about the topic being studied (Yin, 1994).

The questionnaire is not conducted to test theory as a means of fundamental research but to give Cehave useful information about the current situation. Therefore this study can be considered as

applied research. In this study the proposed relationships between the constructs derived from the literature are taken for granted.

This questionnaire exists of several subscales, each representing a variable that was investigated. For this research existing scales will be used that have been reported to be reliable in earlier scientific research.

By using mainly short scales with suitable cronbach's alfa's, the length of the questionnaire is kept as short as possible. Furthermore, some scales are slightly adjusted without changing the content. Those items that were originally formulated in English or Dutch were translated into Polish for this current research. The translation is done by a professional translation office in the Netherlands. This translated version was checked by a Polish PhD student of the University of Twente and this version was finally examined by a Polish Human Resource employee of Cehave. All these controls were carried out in order to create a questionnaire that was translated well and to reduce the possibility that the content of the questionnaire was changed.

Items of the same scale were bundled before proceeding to the next subscale, instead of randomization of items from different scales. A 5-point Likert scale was used for the range of answer possibilities. (For example: 1= strongly disagree to 5= strongly agree).

The scales will be addressed in the following subsections. The items for each scale are included in appendix 1. For a complete overview of the scales with the amount of questions, their reference and the internal consistency coefficients (Cronbach alfa) see appendix 2.

3.2.1 Personal characteristics

Items are included in the questionnaire with respect to demographic data. These items are concentrated on the following variables: organization, location, function, contract type, working hours, organization tenure, job tenure, education (i.e., formal and company-specific), age, gender, marital status, and family status.

3.2.2 Work experiences

The work experiences are partially adapted from the meta-analysis of Meyer et al (2002) and the study of Hackman and Oldham (1975) The work experience variables are: the core job dimensions (moderated by growth need strength), organizational support, leadership style, role ambiguity, role conflict, satisfaction with rewards and recognition, satisfaction with communication, satisfaction with openness, satisfaction with work-life balance, and satisfaction with co-workers.

3.2.2.1 Satisfaction with core job dimensions

Skill variety, task significance, and task identity will be measured with subscales from the Work Design Questionnaire (WDQ) from Morgeson & Humphrey (2006). This research reported Cronbach alpha's above .85 with each subscale four items. For examples of questions see appendix 1.

The variable autonomy will be measured with three items of a scale from Janssen, Schoonebeek & Van Looy (1997). The scale for feedback was adapted from the research of Emans, Turusbekova, Broekhuis & Molleman (2004).

3.2.2.2 Growth need strength

Growth need strength, as reported to influence satisfaction with the core job dimensions, was measured by means of a Dutch translation of a 6-item scale from the Job Diagnostic Survey of Hackman & Oldham (1980). This Dutch translation is adapted from the research of Houkes, Janssen, De Jonge & Bakker (2003).

3.2.2.3 Organizational support

Perceived organizational support will be measured with a scale composed by Moideenkutty et al. (1998), based on the short version of a scale developed by Eisenberger, Huntington, Hutchison & Sowa (1986). The scale contains three items.

3.2.2.4 Leadership style

Transactional and transformational leadership will be measured with a scale developed by Den Hartog, Van Muijen & Koopman (1994) and which was adjusted by Janssen (2002). Transactional and transformational leadership will be measured with five and twelve items, respectively.

3.2.2.5 Role clarity

A scale from De Jong & Janssen (2005) will be used to measure role clarity. This scale is adapted from González-Roma & Lloret (1998) and it consists of six Dutch items.

3.2.2.6 Role conflict

Role conflict can be measured with a scale from the research of González-Roma & Lloret (1998), adapted from Rizzo et al. (1970). This scale has eight items.

3.2.2.7 Satisfaction with rewards and recognition, communication, openness, work-life balance, and co-workers

Scales to measure satisfaction with rewards and recognition, openness, and work-life balance are adapted from Kinnie et al. (2005). Rewards and recognition will be measured with four items. Both openness and work-life balance are measured with one item. Satisfaction with communication will be measured with three items of a scale from Torka (2007).

Satisfaction with co-workers will be measured with the subscale 'satisfaction with co-workers', adapted from the 1967, long-form, version of the Minnesota Satisfaction Questionnaire of Weiss, Dawis, England & Lofquist (1967). It contains five items and it has been reported that the median Hoyt reliability coefficient was .85 (with the highest reporting .93 and the lowest .66).

3.2.3 Normative and affective commitment to the work, co-workers, and organization

For this study normative and affective commitment towards the work, co-workers, and the organization will be measured with six scales from the study of Torka (2003). These scales have a satisfactory internal consistency reliability for all of the six scales. All scales contain three to eight items which needed to be translated into English and subsequently into Polish. Torka's (2003) scales are based on the scales of Allen & Meyer (1990) but slightly adjusted in order to improve upon the critiques she had on their scales.

3.2.4 Turnover intention

Turnover intention will be measured with a scale of Sanders & Roefs (2002) which they adapted from McGee & Ford (1987). Their scale consists of four items.

3.2.5 Organizational citizenship behavior

Organizational citizenship behavior will also be measured with a scale from Sanders & Roefs (2002). The scale has eight items.

3.3 Data collection and analysis

The data was gathered by collecting the questionnaires. The questionnaires could be returned by the employees by means of a return envelop which could be returned in a box at the plants.

The nature of the questionnaire is quantitative and is analysed by the use of the statistic programs SPSS v.16 and LISREL. By the use of this program several measures such as means, standard deviations, Cronbach's alpha's, and several analysis, like Factor analysis, Anova and Bonferroni could be performed. By means of linear structural analyses (LISREL) the relationships between the variables were measured. The outcomes of these measures and analysis are used to interpret the results and to formulate conclusions and recommendations.

3.4 Procedure

After the translation into Polish, the questionnaire was sent to the director of Cehave Poland. He was responsible for the distribution of the questionnaires at the three sites. Besides the distribution, he was also the contact person for all communication regarding the research.

In order to inform the employees and their supervisors about the research an informational letter was sent to inform about the research and its goals. Before conducting the research an additional letter was sent to all supervisors with more in-depth information about the research and what their role had to be in this research (e.g. stimulating to fill in the questionnaires).

To stimulate the workers to fill in the questionnaire and maintain attention for the research, posters were used on all sites with an informational text about the importance of the research.

After sending the questionnaires to all Polish employees a response period of approximately two weeks was given. In this time period the employees were reminded to fill in the questionnaire by using posters. The questionnaires were finally collected at headquarters and sent back to the Netherlands for analysis. Confidentiality was reached by the use of sealed envelopes. The questionnaires were processed in SPSS for analysis. After the analysis, all the questionnaires were destroyed. In this way the data couldn't be related to individual employees.

4. Results

This chapter will discuss the results of the study. In chapter 4.1 the responses will be addressed. The reliability of the constructs will be elaborated in chapter 4.2. Results on antecedents, commitment and outcome variables are presented in chapter 4.3. In chapter 4.4 the conceptual model will be tested, followed by a final model in chapter 4.5.

4.1 Response

The research that was conducted in Poland has a population of 151 employees (management members excluded) at three sites: Szamotuly, Topola Wielka and Margonin. Of the 151 employees 132 (87%) employees returned the questionnaire. 13 respondents had not filled in the location where they are operational. At site level, Szamotuly has a remarkable response: all 55 employees (100%) returned their questionnaire, 33 employees (70%) at Topola Wielka and 31 employees (66%) at Margonin. All returned questionnaires were usable, although some were not completely filled in.

The final sample consists of 70% male, 20% female and for 11% the gender was unknown.

The largest group of the sample is between 26 and 35 years old, with a sample average of 38 years.

Of the 151 employees 83% had a permanent contract, 4% a temporary contract and for 13% the type of contract is unknown.

The educational level shows a remarkable result: 26.5% has an educational level of Wysze Magisterskie (Master level). This was not expected in an organization with mainly blue collar workers. After searching for an explanation for this result the company came up with a possible explanation; a lot of people in Poland work below their education level and another explanation might be the question to what extent the master level in Poland is the same as a master degree in the Netherlands. Besides the master degree, Szkola Zawodowa (35.6%) which is comparable with VMBO and Technikum (17.4%) which is comparable with VWO Technical, are the largest groups. In the past 5 years 41% of the employees attended company specific education.

By comparing the response group and the entire population by work related characteristics and the official figures of the amount of employees, it was possible to test for attendance of selective non-response and to check if there were strange proportions in the number of response in comparison with the official population. No indications were found for selective non-response. However, the results show some notable things. First, 11 employees said to have a contract with 0 – 20 hours, however, according to the official numbers; there should be only one person with this kind of contract hours. Second, major differences exist between the amounts of employees in each department compared with the official amount of employees for that specific department. Some departments got more respondents than there should be according to the official figures. For example 7 respondents at Topola Wielka said to work at the Storage department, although there should, according to the official figures, only work 2 employees in this department. This can be a serious bias in this research because it can lead to false judgements on department level. Therefore, judgements on department level must be interpreted with care.

4.2 Construct reliability

The questionnaire that was used in this research contained several scales which have been proved to be reliable in earlier publications. To determine the reliability of the scales for internal consistency, Cronbach's alpha's were measured. A Cronbach's alpha of 0.70 or higher is seen as satisfactory.

Exploratory factor analysis is also used to determine whether items can be removed to make the scale more homogeneous and to increase the Cronbach's alpha. The eigenvalue is used to determine the homogeneity of a scale, by analyzing if the first component is equal or greater than 1.

Table 1 reports Cronbach's alpha's and eigenvalues of the first component. These results are based on the data of the Polish sample (N=131), as well as on the Dutch sample (N=689).

Table 1. Cronbach's Alpha and eigenvalue of the first component

Variable	Number of items	Cronbach's Alpha (α)	Eigenvalue 1 st component (λ_1)
Skill variety	4	0.85	2.87
Task significance	4	0.86	2.85
Task identity	4	0.86	2.86
Autonomy	3	0.85	2.30
Feedback	5	0.86	3.20
Growth need strength	6	0.87	3.68
Perceived organizational support	3	0.84	2.27
Transactional leadership	5	0.81	2.85 ^b
Transformational leadership	12	0.96	8.22
Role clarity	6	0.78	3.02
Role conflict	8	0.85	3.87 ^b
Satisfaction with rewards and recognition	4	0.80	2.52
Satisfaction with communication	3	0.76	2.02
Satisfaction with openness	1	x ^a	x ^a
Satisfaction with work-life balance	1	x ^a	x ^a
Satisfaction with co-workers	5	0.89	3.47
Affective commitment to the work	4	0.75	2.48
Affective commitment to co-workers	8	0.83	3.90 ^b
Affective commitment to the company	6	0.87	3.84
Normative commitment to the work	7	0.90	4.42
Normative commitment to co-workers	3	0.84	2.27
Normative commitment to the company	8	0.89	4.61
Organizational citizenship behavior	8	0.83	3.72
Turnover intention	4 ^c	0.76	2.41

Notes

^a No value because the concept is measured with one item

^b The factor analysis identified two sub dimensions within the scale; however, the scale as such is robust enough to consider it as one scale (i.e., Cronbach alpha's are satisfactory and the eigenvalue of the second component only slightly exceeds one)

^c One reverse keyed item had to be reverse-scored

Rotated Component Matrix with extraction method Varimax has been used in order to test for dimensionality and potential data reduction.

The instrument for the measurement of role conflict consisted of 8 items. A factor analysis revealed a two-factor solution. A split can be made for the source of role conflict, namely between items related to individual entities, like the person or the work itself, and group entities, like other workgroups or departments. The latter is more environment related than the former source, which is maybe more out of control of the respondent. However, this scale can be seen as homogeneous.

The variables communication and openness consisted of 3 and 1 items, respectively. A factor analysis revealed that both variables can be seen together as one-factor solution. Looking at the instrument for openness, the item has strong similarities with communication. In logical human sense it can be said that communication is a condition for openness. So these two variables could be combined to one variable.

The instrument for the measurement of affective commitment to the organization, to co-workers and to the work consisted of 6 items, 8 items and 4 items, respectively. Factor analysis for affective commitment to the organization and to the job revealed a clear factor solution for each variable. In contrast, affective commitment to coworkers revealed a two-factor solution. After examining the items for this variable, it can be concluded that the first factor items are private related and the second factor is work related. So no actions or changes are needed.

In case of item reduction the following items for affective commitment can be deleted.

For affective commitment to the work, item q089 (factor loading .572) can be deleted with positive effect on the Cronbach's alfa (from .75 to .82 if item will be deleted).

For affective commitment to the organization item q114 (factor loading .522) can be deleted with a positive effect on the Cronbach's alfa (factor loadings from .866 to .991 if item will be deleted).

4.3 Results on antecedents, commitment and outcome variables

Before presenting the results of the study, a clear explanation is given on the statistical terms that are used.

The mean score for each variable (e.g., leadership style) is measured by taking the scores of all respondents and dividing them by the number of respondents. The average score per variable is converted from the five-point response scale towards a value that ranges between 0 and 1. An average score between 0 and 0.40 means that the respondents' answers on the questions were 'disagree' and 'strongly disagree'. This mean score is valued as insufficiently. A mean score between 0.40 and 0.60 means that the respondents neither agree nor disagree with the statements. This mean score is valued as insufficiently to sufficiently. A mean score between 0.60 and 1 means that the respondents' answers on the questions were 'agree' and 'strongly agree'. This mean score is valued as sufficiently to good. However, the norms for the variables 'role conflict' and 'turnover intention' are reversed, since high mean scores for these variables are negative for the organization.

In case of large differences in mean scores between locations or departments, these differences can be significant. A significant difference means that the difference in mean scores is not likely to have occurred by chance. A one way ANOVA test and Bonferroni's post hoc test were carried out in order to test for significant differences and to determine which organizational levels caused these significant differences. The first analysis that is performed to find significant differences is a one way ANOVA. Results of one way ANOVA only shows if there are significant differences. With the use of a Bonferroni's post hoc test it was possible to point out the significant differences within or between the different aggregation levels. For example, which department differs significantly from another and on which variable do they differ.

The standard deviation indicates the dispersion of the answers around the mean score. A relatively small standard deviation means that the answers of the respondents vary rather close around the mean score, while a large standard deviation means that the answers deviate considerably from the mean score. In case of the latter, the mean score does not represent the answers of the respondents well. The expected value of the standard deviation is 0.20 in case of a five-point response format. A standard deviation that is smaller than 0.20 indicates little dispersion of the answers around the mean score. This means that the respondents did not have much differences in opinions, and that they are therefore quite homogeneously. A standard deviation which is greater than 0.20 indicates reasonable to great dispersion of the answers around the mean score. In that case, interpretation of the mean score should be taken with care. It is important for Cehave Pasze to find out which groups of employees scored relatively low and high.

For each variable also the part of the response group is reported that either agreed or strongly agreed with the answers. This is measured with the percentage of the respondents that had an average score between 0.60 and 1. Only for the variables 'transactional leadership', 'role conflict' and 'turnover intention' the norm is reversed; for these variables the percentage of the respondents that had an average score between 0 and 0.40 is measured.

In table 2 the means scores, standard deviations and the percentage that scores .6 or higher are presented for the competence, comfort, commitment and outcome variables.

Table 2. Mean scores, standard deviations and percentage that scores 0,6 or higher.

Variable	Mean	Standard Deviation	Percentage scores ≥ 0.6
Competence factors			
Skill variety	0.78	0.21	89.9%
Task significance	0.66	0.22	70.6%
Task identity	0.73	0.23	75.6%
Autonomy	0.66	0.23	75.6%
Feedback	0.52	0.24	45.4%
Growth need strength	0.76	0.25	90.8%
Comfort factors			
Perceived organizational support	0.49	0.22	34.5%
Transactional leadership*	0.34	0.24	55.1%
Transformational leadership	0.52	0.29	45.4%
Role clarity	0.76	0.24	90.8%
Role conflict*	0.35	0.25	55.5%
Satisfaction with rewards and recognition	0.43	0.24	21.0%
Satisfaction with communication	0.52	0.24	35.3%
Satisfaction with openness	0.41	0.27	15.1%
Satisfaction with work-life balance	0.44	0.30	25.2%
Satisfaction with co-workers	0.63	0.25	68.1%
Bases and foci of commitment			
Affective commitment to the work	0.60	0.23	57.1%
Affective commitment to co-workers	0.62	0.24	63.8%
Affective commitment to the organization	0.57	0.27	56.3%
Normative commitment to the work	0.82	0.23	96.6%
Normative commitment to co-workers	0.79	0.24	93.3%
Normative commitment to the organization	0.60	0.29	63.9%
Outcome variables			
Organizational citizenship behavior	0.67	0.29	83.2%
Turnover intention*	0.34	0.29	63.9%

* for these variables the percentage is measured of the respondents that had an average score $\leq 0,4$, which is desirable.

In table 2 the results are presented for Cehave Pasze. In the research the average scores and standard deviations for different aggregation levels were measured. The third aggregation level is department factors level, with the departments: Human Resources(n=3), Sales(n=14), Storage(n=12), Purchase(n=2), Finance & Administration(n=12), Maintenance(n=3), Production(n=47), Quality & Nutrition(n=8) and the department Transport(n=11). For each department the total amount of respondents is given with the notation (n=...). In the following sections results will be given from analysis which tested if there were significant differences within and between the different aggregation levels. However, it was not possible to make a distinction between location and department level at the same time in order to find significant differences due to the low amount of respondents on the department level. For some significant differences it is necessary to take into consideration the total amount of respondents, because it could be questionable if significant differences within or between different aggregations levels with a small amount of respondents are useful for causal judgments. Besides, these results need to be interpreted with care, as noted in chapter 4.1 since there are some serious differences between the amount of respondents in comparison with exact numbers for each specified department.

Foci of commitment

On average the employees of Cehave Pasze are reasonably to very committed towards their work, co-workers and Cehave Pasze. However, the score for affective commitment to Cehave Pasze (0.57) is just below a score that is considered as sufficient. The employees are more normatively than affectively committed and this is expressed strongest towards the work and co-workers. Thus, their commitment is expressed above all because of moral obligations and not because of affection. The dispersion of the answers around the mean is rather high (i.e., standard deviations range from 0.23 to 0.29) so the results should be interpreted with care. There are some serious differences in the levels of commitment. A one way ANOVA analysis shows significant differences ($F(9,109) = 4.757, p = 0.000$) between the departments with respect to affective commitment to the work. According to the Bonferroni's post hoc test, employees of the Production departments (0.49) are significantly less affectively committed to their work than the employees of Sales (0.74), Quality & Nutrition (0.83) and Transport (0.78). Besides, the employees of Human Resources (0.15) are significantly less affectively committed to Cehave Pasze than the employees of the other departments. Although, it is necessary to take in consideration the total amount of respondents of the different departments. With a small total amount of three (according to the official numbers there should only work one person in this department) respondents for the department Human Resources, it is questionable to make judgements about the significant differences.

Comfort factors

In comparison with the competence and outcome variables the employees of Cehave Pasze score the lowest on the comfort factors. Role clarity (0.76) and satisfaction with co-workers are seen as sufficient to good, whereas the rest of the comfort factors score beneath the 0.6, which is insufficient. Role conflict (0.35) also scores well: the lower the score on this variable means the less role conflict people experience.

Noteworthy for all variables are the reasonably high standard deviations. This means that the average scores for the variables with high standard deviations have to be interpreted with care due to the high variation among the mean score. However, while we have tried to explain the high deviations by distinguishing groups of respondents, based on personal and work related characteristics, that scored significantly higher or lower than the average scores, we failed to distinguish them. So explanations for the high deviations are unknown.

A one way ANOVA analysis showed that there were only significant differences ($F(9,109) = 2.685, p = 0.007$) between the departments with respect to the level of transactional leadership. Results of Bonferroni's post hoc test show that the mean score of the sales department (0.54) is significantly higher than that of the production department (0.26).

Competence factors

With the exception of feedback the average score of the competence factors are sufficient to good. This means that the employees are reasonably satisfied with the work content itself. However, feedback (0.52) is moderate to insufficient. A total of 54.6% of the employees' scores lower than 0.6

on feedback (i.e., they are not satisfied with the feedback). Furthermore, a one way ANOVA shows that there are significant differences ($F(9,109)= 4.761, p=0.000$) between the departments with respect to task significance. Results of Bonferroni's post hoc test show that the employees of the sales (0.85) and transport department (0.85) experience a significant higher degree of task significance than the employees of both finance & administration (0.56) and production (0.61). The one way ANOVA test shows that there are also significant differences ($F(9,109)= 3.370, p=0.001$) between the departments with respect to a need for personal growth and development. According to Bonferroni's post hoc test the employees of the production department (0.67) have a significant lower need for personal growth and development than the employees of the sales (0.92) and quality & nutrition (0.96) department. The one way ANOVA test also shows a significant difference ($F(9,109)= 2.558, p=0.01$) between the departments with respect to skill variety, but the Bonferroni's post hoc test did not reveal which departments differ significant from each other. This study tried to identify specific worker groups that have a very low growth need strength (GNS) score. Employees with very low GNS will according the theory react negatively to an increase of the other competence factors. In the current dataset no specific worker groups or specific (work related) characteristics could be identified with a very low NS (i.e. score with between 0 and 0.4).

Outcome variables

The employees show reasonably organisational citizen behaviour (0.67). The intention to leave the organisation(0.34) is also not alarming present and is therefore seen as sufficient. However, one way ANOVA analysis shows that there are significant differences ($F(2, 116)=5.395, p=0.006$) between the locations with respect to turnover intention. According to the Bonferroni's post hoc test the employees of Topola Wielka (0.25) have a significant lower intention to leave Cehave Pasze than the employees of Szamotuły (0.42).

4.4 Testing the conceptual model

Chapter 2.4 presented the conceptual model that was used in this research. It gives an overview of the used variables and their proposed interrelations based on a literature study. In order to test whether the proposed relations really exist and to determine if relations are strong enough for causal judgements a linear structural analysis (LISREL) was conducted. The linear structural analysis is able to explain the total effects – that is, both the direct and indirect effects – of the independent variables on the dependent variables. The correlation matrix is depicted in appendix 3.

In tabel 3 the results of the LISREL analysis are presented.

Table 3. Total effects of antecedents on commitment, organizational citizenship behaviour and turnover intention

	Affective commitment to the work	Affective commitment to co-workers	Affective commitment to the subsidiary company	Normative commitment to the work	Normative commitment to co-workers	Normative commitment to the subsidiary company	Organizational citizenship behavior	Turnover intention
Skill variety	0.18	0.04	0.13	0.16	0.15	0.14	0.08	-0.03
Task significance	0.11	0.00	0.13	0.01	0.03	0.12	0.03	-0.05
Task identity	0.01	0.03	0.01	0.06	0.02	-0.05	0.00	-0.01
Autonomy	0.17	0.00	0.06	0.04	0.00	0.07	0.03	-0.04
Feedback	-0.13	-0.02	-0.26	-0.22	-0.08	-0.19	-0.09	0.07
Growth need strength	0.15	0.12	0.24	0.38	0.21	0.31	0.35	0.00
Perceived organizational support	0.09	-0.02	0.20	-0.04	-0.05	0.16	0.03	-0.09
Transactional leadership	-0.06	0.01	-0.16	-0.12	-0.06	-0.04	-0.01	0.06
Transformational leadership	0.17	0.12	0.35	0.25	0.12	0.19	0.10	-0.10
Role clarity	0.05	0.06	0.06	0.16	0.20	0.05	0.06	0.02
Role conflict	0.01	0.15	0.05	0.10	0.16	0.14	0.11	0.32
Satisfaction with rewards and recognition	0.17	0.04	0.24	0.14	0.07	0.09	0.04	-0.10
Satisfaction with communication	0.10	-0.02	0.15	0.07	0.04	0.18	0.06	-0.04
Satisfaction with openness	0.04	-0.04	-0.02	-0.09	-0.05	-0.04	-0.04	-0.03
Satisfaction with work-life balance	0.02	0.02	0.20	0.04	0.04	0.15	0.05	-0.05
Satisfaction with co-workers	0.09	0.54	0.09	0.18	0.24	0.08	0.17	0.04
Contract type (categories: (1) fixed; (2) temporary)	-0.02	-0.04	-0.15	-0.09	-0.05	-0.05	-0.03	0.04
Average working hours per week	-0.18	-0.02	-0.24	-0.23	-0.15	-0.13	-0.07	0.07
Organization tenure	-0.03	0.06	0.07	-0.07	-0.02	-0.04	-0.03	-0.04
Job tenure	0.08	0.01	0.04	0.03	-0.01	0.01	0.00	-0.02
Company-specific education (categories: (1) has taken company-specific education in the last five years; (2) has not taken company-specific education in the last five years)	-0.09	0.01	-0.47	-0.21	-0.08	-0.19	-0.06	0.16
Age	-0.01	-0.07	0.02	0.00	-0.01	-0.01	-0.02	-0.01
Gender (categories: (1) male; (2) female)	-0.06	-0.05	-0.13	-0.08	-0.04	0.14	0.05	0.08
Marital status (categories: (1) married; (2) living together; (3) unmarried, with partner; (4) unmarried, no partner)	-0.05	0.01	-0.22	-0.06	-0.01	-0.18	-0.06	0.07
Parental status (categories: (1) children, living at home; (2) children, living on their own; (3) no children)	-0.09	-0.09	-0.07	-0.12	-0.05	-0.02	-0.03	0.02
	R² = 0.50	R² = 0.61	R² = 0.69	R² = 0.57	R² = 0.58	R² = 0.67		

Notes

1. Total effects (β) that are depicted in bold are significant ($p < .05$, one sided)

2. Goodness of fit statistics: $X^2 = 264.90$ ($p = 0.0$); $df = 49$; $RMSEA = 0.071$; $RMR = 0.014$

3. With respect to the variables contract type, company-specific education, gender, marital status, and parental status the answering categories should be interpreted before interpreting the total effects, in order to avoid confusion about the direction of the effects

The R^2 shows that 50% of affective commitment to the work is explained by the antecedents that were included in this study. The antecedents explain 61% of affective commitment to co-workers and as much as 69% of affective commitment to the subsidiary company. Besides, the antecedents explain 57% of the employees' normative commitment to the work, 58% of the normative commitment toward the co-workers, and 67% of the normative commitment toward the subsidiary company. Thus, the explained variances for commitment to the subsidiary company are rather large, although also the explained variances for affective and normative commitment to the work and the co-workers are reasonable.

Comfort factors

The influence of the comfort factors on the commitment variables is also largely as expected. However, according to theory (i.e., Herzberg's Two factor theory) a sufficient level of the comfort factors will only result in no dissatisfaction and not into an improvement in satisfaction and subsequent commitment, if this sufficient level is reached. One could question whether law or collective agreements or company policies (e.g. imported from the Dutch parent company) already provide a sufficient level of these comfort factors. If that is the case then the insufficient results of the comfort factors at Cehave Pasze are still above the sufficient levels of the Herzberg's theory, and should not a result in dissatisfaction. However, the results of the linear structural analysis show otherwise. In fact, the comfort factors can have significant and positive effects on the levels of commitment, even if the employees are already sufficiently satisfied with the level of the comfort factors. Like the competence factors the comfort factors do not have significant effect on all commitment and outcome variables. Table 3 shows that perceived organizational support especially has a significant effect on affective and normative commitment to the subsidiary organization. This is not surprising since this construct is about the organization. For transactional leadership we see, in line with the theory (Meyer et al. 2002), that it has a negative effect on commitment, especially towards affective commitment to the organization. In contrast with transactional leadership, transformational leadership has a positive effect on commitment and OCB, but a negative effect on turnover intention. Transformational leadership seems to have a strong effect on affective commitment to the organization. There are significant effects of role clarity on affective commitment to the co-workers and the subsidiary company.

Besides, the total effects of the comfort factors are significant on all three foci of normative commitment and OCB. However, the influence of role conflict on commitment is unexpected. Role conflict has a significant and positive effect on all commitment variables except for affective commitment to the work. However, a clear explanation for the positive and significant effects of role conflict on commitment is unknown. A negative relation was expected based on the theory. Role conflict seems to have a pretty large positive effect on turnover intention. This means that employees who experience role conflict have a higher intention to leave the organization than people who do not experience role conflict. The effects of satisfaction with rewards & recognition, communication, openness and co-workers have different effects on the foci of commitment. Satisfaction with rewards & recognition seems to have a strong total effect on affective commitment to the organization and less

on the other commitment and outcome variables. Not surprisingly, satisfaction with co-workers has a strong effect on normative and affective commitment to co-workers; they are about the same subject.

Competence factors

According to the conceptual model the competence factors have a positive effect on all foci of normative commitment and affective commitment. Besides they should have, in line with the model, an effect through the foci of commitment on organizational citizenship behaviour (OCB) and turnover intention. However, table 3 shows that not all competence factors (skill variety, task significance, task identity, autonomy, feedback and growth need strength) have a significant effect on each focus of commitment or on the outcome variables. The total effects that are depicted in bold have a significant total effect. Based on empirical evidence, which is reported in published scientific research, a positive influence of feedback on commitment was expected. However, analysis showed a negative relationship. This negative effect is significant for all commitment and outcome variables, with exception of affective commitment towards co-workers. Apparently the feedback that the employees receive is assessed negatively. The total effects show that this feedback especially has a negative effect on the affective commitment to the organization and normative commitment to the work and subsidiary organization.

Growth need strength shows to have significant total effects on almost all commitment variables, but there seems to be a strong direct effect on OCB, without the mediating role of one of the bases or foci of commitment. Thus, people with a strong need of personal growth and development seem to act more in favour of organizational behaviour. Besides, growth need strength correlates strongly with skill variety, task significance, and autonomy (see correlation matrix in appendix 3). Thus, employees with a high need for personal growth and development will appreciate a job with a challenging content.

Personal and work related characteristics

Normally control variables have small, although expected, effects on commitment. However, company-specific education seems to have a rather large positive effect on affective commitment to the organization. It seems to be that workers who have attended a company-specific course in the past five years are more affectively committed than the employees who do not have taken company-specific education in the past five years.

4.4.1 Effects of commitment

Table 4 reports the total effects of commitment on organizational citizenship behavior and turnover intention. Besides, the explained variances for organizational citizenship behavior and turnover intention are reported by R^2 . Note that the variance for organizational citizenship behavior is not only explained by the commitment variables but also by growth need strength. The variance for turnover intention is explained by both commitment and role conflict.

Table 4. Total effects of commitment on organizational citizenship behaviour and turnover intention

	Organizational citizenship behavior	Turnover intention
Affective commitment to the work	0.06	-0.23
Affective commitment to co-workers	0.30	0.08
Affective commitment to the subsidiary company	0.07	-0.45
Normative commitment to the work	0.30	0.14
Normative commitment to co-workers	0.26	0.11
Normative commitment to the subsidiary company	0.51	0.10
	R² = 0.48	R² = 0.29

Notes

1. Total effects that are depicted in bold are significant ($p < .05$, one sided)
2. Goodness of fit statistics: $X^2 = 264.90$ ($p = 0.0$); $df = 49$; $RMSEA = 0.071$; $RMR = 0.014$

The R^2 shows that 48% of organizational citizenship behavior is explained by the commitment variables and growth need strength. Just as much as 29% of turnover intention is explained by role conflict and the commitment variables.

Based on published scientific research relationships between commitment and both organizational citizenship behaviour and role conflict were expected.

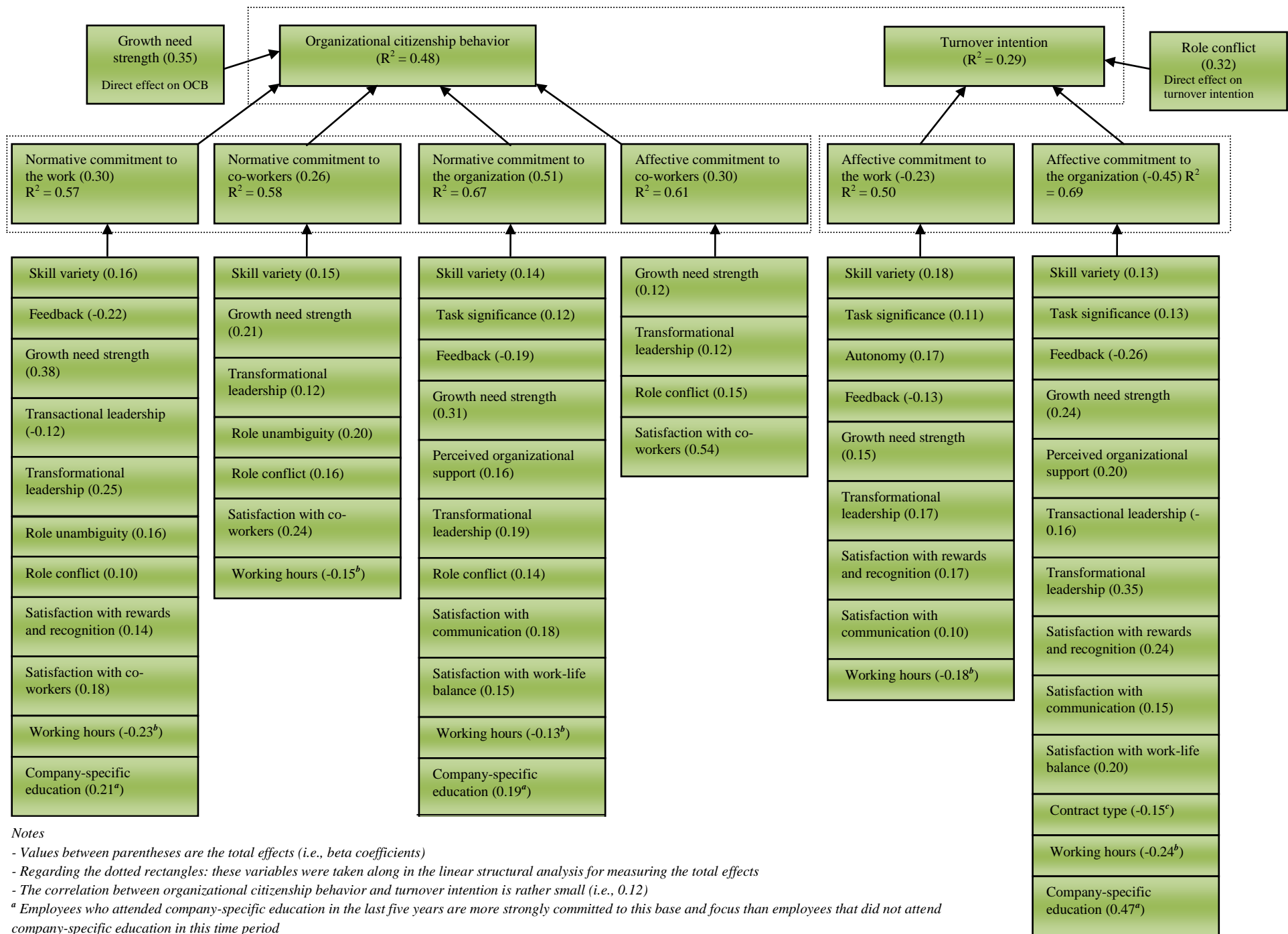
Based on this current research it can be concluded that commitment has a positive and significant effect on organizational citizenship behaviour (OCB). The more committed the employees are, the higher their levels of OCB will be. Especially normative commitment to the subsidiary organisation positively influences this level of OCB.

Above all, affective commitment to the work and the subsidiary organization have a large and positive effect on the employees' intention to leave the organization. The more affectively committed the employees are toward their job or Cehave Pasze, the less intention they will have to leave the organization. Only affective commitment to the work seems to have no significant effect on OCB. The relationship between normative commitment and turnover intention is somewhat less clear. While it was expected that a higher level of normative commitment would lead to a lower level of turnover intention, this was not proven. The effect of normative commitment on the level of turnover intention is not very large. However, the relationships between the other commitment variables and turnover intention are positive, although not that large. While it is uncertain what caused this, the extremely high average scores for normative commitment may have influenced the effects (e.g., when the relationship between the variables is in fact curvilinear).

Finally, there seems to be little consistency between organizational citizenship behaviour and turnover intention, the correlation is rather small (0.12).

4.5 Final model

The conceptual model can be adjusted based on the results of the linear structural analysis that were discussed in paragraph 4.4. The final model is presented in figure 2.



Notes

- Values between parentheses are the total effects (i.e., beta coefficients)

- Regarding the dotted rectangles: these variables were taken along in the linear structural analysis for measuring the total effects

- The correlation between organizational citizenship behavior and turnover intention is rather small (i.e., 0.12)

^a Employees who attended company-specific education in the last five years are more strongly committed to this base and focus than employees that did not attend company-specific education in this time period

^b The more working hours employees have, the more committed they are to this base and focus

^c Employees with temporary contracts are more committed to this base and focus than employees with permanent contracts

Figure 2. Final model

5. Conclusions and recommendations

In this chapter conclusions en recommendations will be drawn based on the results of this study.

In chapter 5.1 conclusions regarding the levels, causes, and effects of commitment will be discussed and the recommendations are presented in chapter 5.2. The limitations of this study are presented in chapter 5.3. In chapter 5.4 directions for future research will be given.

5.1 Conclusions

The employees of Cehave Pasze are relatively dissatisfied with the comfort factors. Moderate results were found for the organization's support, rewards and recognition, communication within the organization, the openness within the organization, and the balance between work and private life. The employees experience the leadership style of their supervisor as more transformational than transactional. With respect to the employees' commitment this is desirable, since transformational leadership positively influences the level of commitment. The employees of Cehave Pasze are satisfied with the degree of role clarity, the relative absence of role conflict, and their co-workers. Especially the satisfaction with the clarity of their roles has positively influenced the levels of commitment.

The employees of Cehave Pasze are reasonably to strongly satisfied with the competence factors, except for the feedback they receive. The level of feedback ranges between insufficiently and sufficiently. The level of feedback has a negative effect on affective commitment to the work and the subsidiary company, and on normative commitment to the work- co-workers, and the subsidiary company. Apparently the feedback that the employees receive is assessed negatively, while the theory (e.g. Hackman and Oldham, 1976) says it should have a positive effect. Apparently the way feedback is given at Cehave Pasze is received as good or enough. Skill variety has a rather large influence on all levels of commitment, and was perceived as sufficiently to good. The employees of Cehave Pasze have a strong need for personal growth and development, so they will – and, on average, do – appreciate challenging job content. This will positively influence the level of commitment.

The levels of commitment are somewhat diverging. The levels the levels of affective commitment are satisfactory, except for commitment to the subsidiary company. However, overall the employees are reasonably committed. The employees of Cehave Pasze are most committed toward their work, their co-workers, and somewhat less toward Cehave Pasze. Consistent with previous research, for example Torka (2003), employees' affective commitment levels to co-workers and the work are higher than towards the organization.

Remarkably, the levels of normative commitment are higher than for affective commitment. These results deviate from the pattern which normally shows that employees are more affectively than normatively committed. This is in contrast with findings of, for example, Allen & Meyer (1990), and Meyer, Allen & Smith (1993), who reported higher levels of affective than normative commitment. Although an direct explanation for these results is unknown, apparently the employees of Cehave

Pasze have a strong work ethos or moral. These levels of commitment have influenced the levels of organizational citizenship behavior (OCB) and turnover intention. The behaviour of Cehave Pasze's employees that reaches beyond what is rewarded based on the contract, supervision or job requirements is sufficiently to good. Both the level of commitment and the employees' need for personal growth and development have influenced the level of organizational citizenship behaviour. Next to that, the intention of the employees to leave Cehave Pasze is reasonably low and thus satisfactory. This level of turnover intention is positively influenced by both the level of commitment and the relative absence of role conflict.

The fact that the different subsidiary companies do not differ in the levels of commitment, causes and outcome variables that much from each other can be seen as a remarkable conclusion since they are not acquired all three at the same time. For example, location Margonin was recently acquired to the Cehave Pasze group and still their results are quite similar to the other two locations. This may be because of common (agricultural) backgrounds.

Finally, employees who did get company specific education in the past five years seem to be more affectively committed to the organization than employees who did not follow company specific education in the past five years.

5.2 Recommendations

For this research a reliable and valid instrument was developed, based on existing instruments, in order to measure the level of commitment of the employees of Cehave Pasze and the other subsidiary companies abroad. Besides, the purpose of this study was to determine to what extent, and to which foci, the employees were committed.

There is a persistent pattern of insufficient levels of some comfort factors. Although, it can be discussed that some of these comfort factors will not lead directly toward demotivation because of the minimum levels set by law and collective agreements, analysis showed that some comfort factors could have considerable influence on the levels of commitment. This mainly concerns the organization's support, rewards and recognition, communication, openness within the organization, and the balance between work and private life. Improvements in the levels of comfort factors also may be worth pursuing for reasons of good entrepreneurship.

A relationship was found between role conflict and employees' intention to leave the organization. The levels of role conflict at Szamotuły and Margonin are not very high and may therefore deserve some attention. Avoiding contradictory demands and unrealistic expectations is recommended in order to evade an increase in turnover intention.

The results for transactional and transformational leadership are also noteworthy. As expected, transformational leadership has a positive effect on commitment. Transactional leadership negatively influences the employees' commitment. Cehave Pasze can be satisfied because the presence of transactional and transformational leadership are satisfactorily in proportion (i.e., transformational

leadership is more apparent than transactional leadership). Cehave Pasze should keep focusing on the proportion of these two leadership styles.

Also a persistent pattern was found with respect to the employees' opinion on the level of competence factors. Overall, the levels of the competence factors are satisfactory with exception of feedback. The level of feedback is judged insufficient. Thus, the employees experience insufficient levels of direct and clear information on the effectiveness of their performance. The level of feedback has a negative effect on affective commitment to the work and the subsidiary company, and on normative commitment to the work-, co-workers, and the subsidiary company. Apparently the feedback that the employees receive is assessed negatively. This is very remarkable and undesirable and therefore doubts may rise with respect to the quality of the feedback at Cehave Pasze. Therefore, Cehave Pasze will be recommended to make improvement with respect to the feedback that is given at Topola Wielka, Szamotuły, and Margonin in order to accomplish positive effects on commitment. Feedback is also associated with the role/ task of leadership, therefore trainings can be organized to improve the feedback and leadership quality.

It is very important to communicate and refer to the results of this research for any intervention (e.g. implementation of new strategies to create better work-life balance possibilities) because in this way support by the employees is more likely.

Cehave Pasze is recommended to examine more in depth the impact of company specific education, since the current research results show that employees who followed company specific education in the past five years are more affectively committed to the organization than employees who did not. This is in line with the findings of Tsui, Pearce, Porter and Tripoli (1997), they found that organizational investment in employees will result in higher levels of affective commitment. However, this study contains no in-depth information about this occurrence, so no strong causal judgments can be made. In depth information can help with the utilization of company specific education to increase higher levels of organizational commitment.

An explanation for the higher levels of normative commitment in comparison with affective commitment can maybe be found in the history of the company. Cehave Landbouwbelaag is a cooperation, in the basis all the members were also owner. This means that the member were very loyal to company for example because they had to be based on moral obligations. But nowadays this is changing, therefore it is recommended to focus on those variables that contribute to affective commitment and to become more attractive for employees who have no owner or agricultural background.

Finally, Cehave Pasze is recommended to compare performance results with the employees' commitment. For this purpose, this study can be seen as a starting point, and comparisons can be

made in future studies at Cehave Pasze toward the levels of the employees' commitment and their performance.

5.3 Limitations and directions for future research

This study is developed in the Netherlands; the researcher did not have the possibility to gather information in Poland by himself. Everything was coordinated from the Netherlands by e-mail, which could have caused some communication biases. One of the major possible biases in this research is the difference in the amount of respondents for each department compared with the exact numbers of the workforce for each department. There is a very high possibility that employees filled in the wrong department which results in a judgement on department level that can be biased. Cehave Pasze needs to examine this problem and has to be cautious with the results presented in this study on department level.

The second limitation can be the translation waves that had to be made to get a Polish questionnaire. During the different translation waves a change in content could have occurred. However, the translated questionnaire was checked by a Polish PhD student at the University of Twente in order to reduce any change in content by comparing the English version and the Polish version.

Thirdly, generalization of the results toward other populations is limited. This research was conducted for this company only with the aim to develop a company-specific research instrument in order to get insight into the level of Cehave Pasze's employees' commitment.

Finally, it is possible that the phrasing of the growth need strength is a cause for the impossibility to identify specific worker groups with a low need for personal growth and development, while current items can result in socially desirable answers. Therefore future research should consider using a different scale. Another problem derived from Growth Need Strength (GNS), is that it is not implemented as a moderator within the competence factors in this current study. GNS is seen as a normal antecedent. However, through the use of LISREL results show that GNS had no effect on commitment, so in this case it also could not be a moderator. However, future research can try to implement GNS as a moderator, which is the theoretical purpose of this variable.

This study must be seen as a pilot. This means evaluation is needed to determine if improvement of the questionnaire is needed. For example the questionnaire has a relative large number of questions. However, the average time to fill in the questionnaire was only 26 minutes, therefore one may question whether it would be desirable to reduce the amount of questions.

The results of the current study can be used for intervention plans or policy making. Future research of this instrument makes it possible to measure if these interventions or changes in policies did have a positive or even a negative effect on the levels of commitment, the comfort factors, the competence factors and outcome variables. Again communication is very important. A review is needed with respect to the problem with the departments and the amount of employees that are really working within the different departments.

This research was based on scientific evidence. However, this current research has also yielded some remarkable results that cannot be explained completely by the used scientific evidence. For example the higher levels of normative than affective commitment. Perhaps future research will be able to give explanations for the unexpected results.

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Appendix 1 Questionnaire

Overview of items per variable

Skill variety

- My job requires a variety of skills.
- My job requires me to utilize a variety of different skills in order to complete the work.
- My job requires me to use a number of complex or high-level skills.
- My job requires the use of a number of skills.

Task significance

- The results of my work are likely to significantly affect the lives of other people.
- My job itself is very significant and important in the broader context.
- My job has a large impact on people outside Cehave Pasze.
- The work performed on the job has a significant impact on people outside Cehave Pasze.

Task identity

- My job involves completing a piece of work that has an obvious beginning and end.
- My job is arranged so that I can do an entire piece of work from beginning to end.
- My job provides me the chance to completely finish the pieces of work I begin.
- My job allows me to complete the work I start.

Autonomy

- I decide in a considerable manner how I execute my job.
- I can decide independently how to execute my work.
- I have considerable opportunities to execute my work independently and in freedom.

Feedback

- I receive enough feedback that tells me how I perform in my work.
- My supervisor lets me know regularly how well I execute my work.
- My co-workers let me know regularly how well I execute my work.
- My supervisor stimulates me to do my work well.
- My co-workers stimulate me to do my work well.

Growth need strength

- I have a need for stimulating and challenging work.
- I have a need for autonomy in my work.
- I have a need for learning new things from my work.
- I have a need for being creative in my work.
- I have a need for work that offers opportunities for personal growth and development.
- I would like to accomplish something in my work.

Perceived organizational support

- Cehave Pasze cares about my opinion.
- When I have a problem, Cehave Pasze offers me help.
- Cehave Pasze really cares about my well being.

Transactional leadership

- My supervisor focuses attention to irregularities and deviations in my work.
- My supervisor keeps track at mistakes in my performance that need to be corrected.
- My supervisor tells me what rewards I receive for an effort.
- My supervisor points out what I will receive if I do what is required.
- My supervisor keeps careful track at mistakes.

Transformational leadership

- My supervisor serves as a role model for me.
- My supervisor displays extraordinary competence in everything he/ she undertakes.
- My supervisor inspires me to perform as good as possible.
- My supervisor creates a collective sense of working on an important assignment / mission.
- My supervisor makes me proud working together with him/ her.
- My supervisor enhances his/ her image of competence through his/ her words and deeds.
- My supervisor makes me aware of important common values, ideals, and aspirations.
- My supervisor gives me confidence that he/ she can overcome any obstacle.
- My supervisor makes sure I have complete confidence in him/ her.
- My supervisor is a symbol of success and accomplishment for me.
- My supervisor articulates a clear vision of future opportunities.
- My supervisor listens to things that are important to me.

Role clarity

- I feel secure about how much authority I have.
- Clear planned goals exist for executing my job.
- I know that I divide my time properly.
- I know what my responsibilities are.
- I know exactly what is expected from me.
- The explanation of what has to be done in my job is clear.

Role conflict

- I have to do things that should be done differently.
- I have to break a rule or policy to carry out an assignment.
- I receive assignments without the manpower to complete it.
- I work with two or more groups who work quite differently.
- I receive incompatible requests from two or more people.
- I do things that are apt to be accepted by one person, but not by someone else.
- I receive an assignment without adequate resources and materials to execute it.
- I work on unnecessary things.

Satisfaction with rewards and recognition

- How satisfied are you with your pay?
- How satisfied are you with your pay compared with the pay of other people that work here?
- Overall how satisfied are you with the rewards and recognition you receive for your performance?
- How satisfied are you with the benefits you receive – other than pay?

Satisfaction with communication

- How satisfied are you with information with respect to (changes in) your tasks?
- How satisfied are you with information concerning departmental affairs?
- How satisfied are you with information concerning Cehave Pasze as a whole?

Satisfaction with openness

- How satisfied are you with the opportunities Cehave Pasze offers you to express complaints and personal concerns?

Satisfaction with work-life balance

- How satisfied are you with the opportunities Cehave Pasze offers you to help employees achieve a balance between home life and work?

Satisfaction with co-workers

- How satisfied are you with the spirit of cooperation among your co-workers?
- How satisfied are you with the chance to develop close friendships with your co-workers?
- How satisfied are you with the friendliness of your co-workers?
- How satisfied are you with the way your co-workers are easy to make friends with?
- How satisfied are you with the way your co-workers get along with each other?

Affective commitment to the work

- The work I execute is interesting.
- I execute my work with pleasure.
- Even if I did not need the money, I would still keep executing my work.
- I am proud of the work I execute.

Affective commitment to coworkers

- I would always stand up for my direct co-workers.
- When I talk about my direct co-workers, I would rather say “we” than “they”.
- I feel at home with my direct co-workers.
- I like to hang out with my direct co-workers.
- I regularly talk with my direct co-workers about things that have nothing to do with work.
- I talk about private things with my direct co-workers.
- I hang out with one or more co-workers privately.
- If direct colleagues have personal problems, I am bothered by that.

Affective commitment to the organization

- I am proud to work at Cehave Pasze.
- I am really part of the “Cehave Pasze family”.
- This is a nice organization to work for.
- Cehave Pasze means a lot to me.
- I feel at home with Cehave Pasze.
- I would almost accept any job to keep working at Cehave Pasze.

Normative commitment to the work

- It is important for me to execute my work as good as possible.
- I feel responsible when mistakes occur.
- I feel responsible for my work.
- I feel responsible for improvements in my work.
- I think it is important to work properly.
- I think it is important to be alert when executing my work.
- I think it is important that one is satisfied with the work I perform.

Normative commitment to coworkers

- I think it is important to help each other.
- I think it is good to help co-workers.
- We are responsible for a good course of events together.

Normative commitment to the organization

- If something goes wrong at Cehave Pasze, I am bothered by that.
- I feel also responsible for the course of events at Cehave Pasze.
- I feel responsible for all products and services of Cehave Pasze.
- Cehave Pasze’s goals are also my goals.
- I feel also responsible for changes at Cehave Pasze.
- I feel also responsible for improvements at Cehave Pasze.
- I feel also responsible for Cehave Pasze’s good name.
- I feel I have obligations with respect to Cehave Pasze.

Organizational citizenship behavior

- I intervene without asking, if mistakes can be prevented.
- When I am finished, I help my colleague so that he/ she is done with his/ her work quicker too.
- I attend meetings, even if these are not mandatory.
- I will work anyway, even if I have an excuse to stay away.
- If others will get into trouble, I will do extra work, even if it is not instructed.
- When I notice someone having trouble executing the work, I help him/ her with it.
- I think along with proposals that improve the life at my department.
- Despite a change I will try to cooperate with work as much as possible.

Turnover intention

- Since my commencement of employment I have thought occasionally about finding other work.
- If it is up to me, I will still work at Cehave Pasze in two years.
- As soon as I get the opportunity to work for another company, I will take the chance.
- Within a short period of time I will search actively for a job at another company.

Appendix 2 Overview Scales, References and Reliability

Scale	Author	Number of questions	Cronbach's alpha (α)
Skill variety	Morgeson & Humphrey (2006)	4	0.85
Task significance	Morgeson & Humphrey (2006)	4	0.86
Task identity	Morgeson & Humphrey (2006)	4	0.86
Autonomy	Janssen, Schoonebeek & Van Looy (1997)	3	0.85
Feedback	Emans, Turusbekova, Broekhuis & Molleman (2004)	5	0.86
Growth need strength	Houkes, Janssen, De Jonge & Bakker (2003)	6	0.87
Perceived organizational support	Moideenkutty, Blau, Kumar & Nalakath (1998)	3	0.84
Transactional leadership	Den Hartog, Van Muijen & Koopman (1994)	5	0.81
Transformational leadership	Den Hartog, Van Muijen & Koopman (1994)	12	0.96
Role clarity	De Jong & Janssen (2005)	6	0.78
Role conflict	González-Roma & Lloret (1998)	8	0.85
Satisfaction with rewards and recognition	Kinnie, Hutchinson, Purcell, Rayton & Swart (2005)	4	0.80
Satisfaction with communication	Torka (2007)	3	0.76
Satisfaction with openness	Kinnie, Hutchinson, Purcell, Rayton & Swart (2005)	1	*
Satisfaction with work-life balance	Kinnie, Hutchinson, Purcell, Rayton & Swart (2005)	1	*
Satisfaction with coworkers	Weiss, Dawis, England & Lofquist (1967)	5	0.89
Affective commitment to the work	Torka (2003)	4	0.75
Affective commitment to coworkers	Torka (2003)	8	0.83
Affective commitment to the organization	Torka (2003)	6	0.87
Normative commitment to the work	Torka (2003)	7	0.90
Normative commitment to coworkers	Torka (2003)	3	0.84
Normative commitment to the organization	Torka (2003)	8	0.89
Organizational citizenship behavior	Sanders & Roefs (2002)	8	0.83
Turnover intention	Sanders & Roefs (2002)	4	0.76

*No value because the scale is measured with one question

Appendix 3 Correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Affective commitment to the work	1.00																
2. Normative commitment to the work	0.55	1.00															
3. Affective commitment to co-workers	0.45	0.57	1.00														
4. Normative commitment to co-workers	0.42	0.67	0.65	1.00													
5. Affective commitment to co-workers	0.58	0.45	0.44	0.48	1.00												
6. Normative commitment to co-workers	0.52	0.53	0.46	0.56	0.73	1.00											
7. Organizational citizenship behavior	0.37	0.53	0.51	0.51	0.39	0.59	1.00										
8. Turnover intention	-0.22	0.06	0.05	0.08	-0.29	-0.03	0.12	1.00									
9. Skill variety	0.28	0.21	0.14	0.21	0.12	0.28	0.26	0.06	1.00								
10. Task significance	0.22	0.13	0.10	0.15	0.15	0.24	0.17	-0.06	0.42	1.00							
11. Task identity	0.14	0.16	0.11	0.13	0.15	0.07	0.11	-0.08	0.05	0.15	1.00						
12. Autonomy	0.33	0.21	0.18	0.17	0.22	0.26	0.17	-0.01	0.31	0.18	0.20	1.00					
13. Feedback	0.27	0.14	0.27	0.17	0.28	0.25	0.21	-0.09	0.10	0.12	0.13	0.31	1.00				
14. Growth need strength	0.31	0.39	0.32	0.32	0.20	0.40	0.44	-0.13	0.32	0.21	0.08	0.31	0.32	1.00			
15. Perceived organizational support	0.36	0.17	0.21	0.15	0.47	0.42	0.26	-0.21	0.11	0.12	0.11	0.21	0.54	0.33	1.00		
16. Transactional leadership	0.19	0.08	0.20	0.10	0.17	0.23	0.19	0.04	0.03	0.11	0.00	0.08	0.48	0.26	0.54	1.00	
17. Transformational leadership	0.32	0.23	0.31	0.22	0.35	0.31	0.27	-0.09	0.06	0.13	0.07	0.12	0.59	0.26	0.57	0.59	1.00
18. Role clarity	0.31	0.34	0.29	0.34	0.37	0.30	0.33	-0.04	0.08	0.14	0.33	0.20	0.26	0.15	0.24	0.17	0.33
19. Role conflict	-0.05	0.08	0.12	0.13	-0.03	0.13	0.21	0.37	0.10	0.11	-0.06	-0.04	-0.11	0.14	-0.10	0.01	-0.13
20. Satisfaction with rewards and recognition	0.33	0.21	0.23	0.17	0.40	0.26	0.22	-0.20	-0.03	-0.08	0.05	0.09	0.23	0.08	0.32	0.20	0.25
21. Satisfaction with communication	0.37	0.24	0.28	0.24	0.43	0.38	0.31	-0.12	0.05	0.05	0.12	0.15	0.41	0.17	0.48	0.29	0.45
22. Satisfaction with openness	0.33	0.14	0.21	0.15	0.41	0.32	0.22	-0.17	0.02	-0.02	0.08	0.14	0.36	0.11	0.54	0.32	0.43
23. Satisfaction with work-life balance	0.25	0.16	0.22	0.16	0.39	0.29	0.20	-0.12	-0.07	-0.11	0.12	0.12	0.27	0.09	0.44	0.20	0.33
24. Satisfaction with co-workers	0.32	0.36	0.61	0.38	0.34	0.28	0.37	0.02	0.06	0.03	0.11	0.18	0.34	0.25	0.23	0.19	0.33
25. Contract type	0.00	-0.02	-0.01	0.00	-0.04	-0.07	-0.04	-0.01	-0.18	-0.08	0.00	-0.13	0.10	0.03	0.08	0.16	0.11
26. Average working hours per week	-0.08	-0.07	-0.03	-0.06	0.03	0.09	0.04	0.03	0.23	0.19	0.04	0.09	-0.07	0.07	-0.06	-0.09	-0.10
27. Organization tenure	-0.05	-0.09	-0.05	-0.08	0.12	0.05	0.03	-0.08	0.01	-0.06	0.04	-0.03	-0.15	-0.22	-0.12	-0.22	-0.21
28. Job tenure	-0.02	-0.05	-0.04	-0.06	0.08	0.02	0.00	-0.07	-0.01	-0.04	0.09	-0.05	-0.19	-0.21	-0.13	-0.20	-0.26
29. Company-specific education	0.29	0.26	0.23	0.24	0.06	0.24	0.19	0.04	0.35	0.18	-0.04	0.16	0.04	0.49	0.17	0.21	0.31
30. Age	-0.09	-0.03	-0.12	-0.05	-0.06	-0.14	-0.10	-0.05	-0.18	-0.14	0.02	-0.16	-0.13	-0.12	-0.08	-0.11	-0.09
31. Gender	-0.04	-0.07	-0.09	-0.08	0.10	0.11	0.06	-0.10	0.07	0.02	0.05	-0.03	-0.17	-0.21	-0.10	-0.25	-0.22
32. Marital status	0.04	0.10	0.05	0.08	-0.03	-0.11	0.02	-0.10	-0.13	-0.07	0.09	-0.11	0.03	0.02	0.03	0.00	0.20
33. Parental status	-0.09	-0.08	-0.04	-0.03	-0.11	-0.10	-0.09	0.04	-0.08	-0.07	-0.02	-0.05	0.08	0.06	0.03	0.16	0.09

Correlation matrix – Continued

	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1. Affective commitment to the work																
2. Normative commitment to the work																
3. Affective commitment to co-workers																
4. Normative commitment to co-workers																
5. Affective commitment to co-workers																
6. Normative commitment to co-workers																
7. Organizational citizenship behavior																
8. Turnover intention																
9. Skill variety																
10. Task significance																
11. Task identity																
12. Autonomy																
13. Feedback																
14. Growth need strength																
15. Perceived organizational support																
16. Transactional leadership																
17. Transformational leadership																
18. Role clarity	1.00															
19. Role conflict	-0.06	1.00														
20. Satisfaction with rewards and recognition	0.25	-0.13	1.00													
21. Satisfaction with communication	0.45	-0.18	0.44	1.00												
22. Satisfaction with openness	0.30	-0.13	0.42	0.59	1.00											
23. Satisfaction with work-life balance	0.30	-0.13	0.39	0.45	0.60	1.00										
24. Satisfaction with co-workers	0.31	-0.06	0.30	0.40	0.32	0.31	1.00									
25. Contract type	-0.02	-0.09	0.03	0.03	0.10	0.08	0.13	1.00								
26. Average working hours per week	0.02	0.17	-0.13	-0.07	-0.11	-0.14	-0.12	-0.32	1.00							
27. Organization tenure	0.00	0.06	0.06	-0.08	-0.05	-0.03	-0.14	-0.33	0.17	1.00						
28. Job tenure	0.07	0.05	0.03	-0.08	-0.04	-0.01	-0.09	-0.26	0.14	0.68	1.00					
29. Company-specific education	0.06	0.03	0.22	0.24	0.14	0.19	0.17	-0.09	-0.29	-0.31	-0.26	1.00				
30. Age	-0.05	-0.06	0.03	-0.09	-0.09	-0.03	-0.02	0.20	-0.18	-0.10	-0.02	-0.07	1.00			
31. Gender	0.02	0.07	0.03	-0.06	-0.02	-0.03	-0.21	-0.40	0.22	0.74	0.58	-0.32	-0.09	1.00		
32. Marital status	0.06	-0.14	0.07	0.10	0.08	0.16	0.07	0.05	-0.41	-0.20	-0.15	0.01	0.16	-0.18	1.00	
33. Parental status	-0.06	-0.01	-0.06	-0.05	0.00	0.00	0.08	0.30	-0.17	-0.27	-0.21	0.06	0.07	-0.49	0.04	1.00