

Master Assignment Cehave Landbouwbelang

Master Thesis

You reap what you sow

Research on commitment of the employees
of Cehave Landbouwbelang's Dutch subsidiary companies

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Summary

This study is conducted among the employees of Cehave Landbouwbelang's Dutch subsidiary companies. Cehave Landbouwbelang is a cooperation and has approximately 5,500 Dutch members. The company produces and markets superior quality animal feed. It has production plants in several countries (i.e., the Netherlands, Belgium, Germany, Poland, Hungary, and China) and a total workforce of 2,000 employees.

The Dutch employees have an average long-time tenure of 23 years at the organization. Future retirements are foreseen and difficulties in attracting and retaining new employees are expected. Therefore, it will be of vital importance to be able to attract new employees in the future and to retain them. It is therefore relevant to examine why people want to work for the company or, in other words, to what extent the employees of Cehave Landbouwbelang's Dutch subsidiary companies are committed. Besides, employees' commitment is important in order to solicit people's discretionary effort for the company.

Commitment characterizes the relationship of an employee with his or her organization and affects the decision to stay or leave the organization. This relationship exists because of affective, normative, and calculative reasons, which represent a desire, moral obligation, and need to maintain employment in the organization, respectively (Meyer & Allen, 1991). Meta-analyses (e.g., Meyer, Stanley, Herscovitch & Topolnytsky, 2002) have reported that above all affective commitment, and to a somewhat smaller degree also normative commitment, are positively related to productive behavior (e.g., performance), whereas continuance commitment shows a negative or no relationship with desired employee behavior. Besides, according to Torka (2003) research should pay attention to more than just organizational commitment because, in fact, employees are likely to be more strongly committed to less abstract foci such as the work and the co-workers than toward the organization. Therefore, this study focused on affective and normative commitment to the work, co-workers, and the organization.

For this study a company-specific questionnaire was developed in order to measure the levels of commitment of the employees of the Dutch subsidiary companies. All 1179 employees were asked to fill in and return the questionnaire. Only agency workers, members of the management team, and the employees of the Dutch locations of subsidiary company Vitamex were excluded. The overall response rate was 58%.

The results of this study show that the employees are reasonably to very committed to their work, their co-workers, and the subsidiary company they work for. As expected – and in line with research of, for example, Torka (2003) – they are most strongly committed to less abstract foci (i.e., their work and their co-workers) than toward the organization. However, contrary to expectations the employees of Cehave Landbouwbelang's Dutch subsidiary companies have higher levels of normative than affective commitment. Thus, the employees are committed especially because of moral obligations and

somewhat less – although still reasonably good – because of affection or desire. This points toward a strong work ethos.

Several antecedents of commitment had an effect on the levels of commitment. Some job dimensions (i.e., competence factors) were of particular influence. The employees of the Dutch subsidiary companies perceive a relatively high degree to which their jobs demand for a variety of different skills and talents, and this has positively influenced the levels of commitment. Furthermore, the significance of their tasks, and the autonomy the employees get, have positively influenced the levels of their affective commitment to the work, and their affective and normative commitment to the subsidiary company. Besides, the employees have expressed a high need for personal growth and development, which results into appreciating a challenging job content. Remarkably, the results of this study have shown that the impact of feedback on the levels of commitment is negative. Apparently, the feedback that the employees receive is assessed negatively. This is remarkable and undesirable and therefore we may raise some doubts with respect to the quality of the feedback.

Furthermore, some comfort factors influenced the levels of commitment. The employees are satisfied with the clarity of their roles and the relative absence of role conflicts. Especially the unambiguity of their roles has positively influenced their commitment. Besides, the presence of transactional and transformational leadership styles was satisfactorily in proportion. This resulted into higher levels of commitment since transformational leadership is more apparent, and has a positive effect on commitment, and transactional leadership is only minimally present. Besides, the employees are satisfied with their colleagues. This has positively affected all levels of commitment and, especially, the employees' affective commitment to their co-workers.

Some comfort factors call for improvement, because somewhat negative results have influenced the levels of commitment. Both the slightly negative judgement of the organization's support and the dissatisfaction with communication within the organization have negatively and significantly influenced the level of the employees' affective commitment to the work and the levels of affective and normative commitment to the subsidiary company. Furthermore, dissatisfaction with the rewards and recognition has negatively affected all levels of commitment, and especially the employees' affective commitment to the subsidiary company. Finally, the somewhat negative judgement of the balance between work and private life has been of a somewhat negative influence on the employees' levels of both affective and normative commitment to the subsidiary company.

The reasonably good to high levels of commitment are important for several reasons. It was demonstrated that all commitment variables have positively influenced the level of organizational citizenship behavior. Thus, this study has shown that employees' commitment is important in order to solicit people's discretionary effort for the company. Besides, because of the sufficient and high levels of commitment, the employees of Cehave Landbouwbelang's Dutch subsidiary companies have a relatively low intention to leave the organization.

Preface

In order to be able to graduate from the Master Business Administration at the University of Twente, I have worked on my master thesis. I joined a graduation project under the supervision of Dr. Maarten van Riemsdijk and dr. Nicole Torka from the Faculty Management & Governance; department of Operations, Organisations & Human Resources (OOHR).

This graduation project is focussed on the level of commitment of the Dutch employees of the cooperation Cehave Landbouwbelang. The cooperation is specialized into the production and marketing of quality animal feed and ingredients. Due to foreseen difficulties in attracting and retaining new employees for the organization it is important to get insight into the levels of the employees' commitment, since research has shown that commitment can influence, among others, turnover (intention).

I would like to thank some people who supported me during this graduation project. Firstly, the supervisors from the University of Twente, dr. Maarten van Riemsdijk, and dr. Nicole Torka for their support, advice, and feedback. Secondly, dr. Peter Geurts from the University of Twente for guiding me through the statistical analyses that were performed for this study. Thirdly, the director HRM of Cehave Landbouwbelang, Theo Vervoort, for the opportunity to conduct this research at the organization. Finally, thanks to my fellow student Jasper Drenth for sharing thoughts and cooperating during parts of this research.

This master thesis forms one of the last parts of this graduation project. The master thesis is composed of five chapters. The first chapter contains an introduction to the current study. In the second chapter a theoretical background of the study is given. The third chapter discusses the methodological issues concerning the research. The fourth chapter reports the results of this study. Finally, in the last chapter conclusions and recommendations are made.

Kampen, October 2008

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1. Introduction

In this section the current study will be introduced. Paragraph 1.1 gives a brief introduction to the initiating company of this study. In paragraph 1.2 a background of the current study is given, followed by the purpose of the study in paragraph 1.3. The central questions are addressed in paragraph 1.4. In paragraph 1.5 the relevance of the study is elaborated on. Finally, in paragraph 1.6 a short overview will be given of the way the rest of this master thesis is organized.

1.1 Cehave Landbouwbelang

Cehave Landbouwbelang is a cooperation of approximately 5,500 Dutch members. These members, which are the owners of the cooperation, all purchase a certain amount of Cehave Landbouwbelang's products. The company's goal is to produce and market superior quality animal feed (i.e., non-compound animal feed, compound feed, special nutritional feed, concentrates, premixes, liquid feed and residual products from the food industry that can and may be used as animal feed ingredients). Cehave Landbouwbelang's mission is to "generate value in the form of optimal business performance for customers, both members and non-members. This also means that the cooperative acts as a good employer in a sustainable and socially responsible way".¹

In recent years many acquisitions have taken place by Cehave Landbouwbelang. These have led to an expansion of the production plants in the Netherlands, Belgium, Germany, Poland, Hungary, and China. For example, in 2006 the KOFU plant in Germany was acquired, and in 2007 the Polish organization Karmex and Hungarian plant Kabai Táp.

Cehave Landbouwbelang is one of the leading animal feed companies in Europe. It has a turnover of almost EUR 1 billion per year. The company focuses on profitable growth in the Netherlands and abroad, and is known for its innovation in the sector. Investing in research and development is very important for knowledge creation and subsequent innovation.

One of the values of the organization is "to be the best place for the best employees to perform to the best of their abilities".² Cehave Landbouwbelang wants to be an attractive employer for (prospective) employees. The workforce contains approximately 2,000 employees.

1.2 Background of the study

This study is focused on the employees of Cehave Landbouwbelang's Dutch subsidiary companies. Many of these employees are semi- or unskilled blue-collar workers (e.g., operators, truck-drivers, and mechanics). Others are working, for example, as salesmen, controllers, and laboratory workers.

¹ Cehave Landbouwbelang (2008). *Annual Report 2007*. Veghel, The Netherlands (p. 6)

² Cehave Landbouwbelang (2007). *Corporate Social Responsibility Report 2006*. Veghel, The Netherlands (p. 7)

The current Dutch employees of Cehave Landbouwbelang have a long-time tenure within the organization (i.e., an average of 23 years). Therefore, the work force is ageing. The employees' future retirements from Cehave Landbouwbelang lead toward a situation in which new employees will have to be attracted. However, the organization foresees difficulties in attracting new employees. This is also a perceived trend in the rest of the Netherlands. Attracting employees will become more and more difficult because of several reasons. For example, the labor market is getting tighter because of a bigger increase in employment than of the labor force. ROA (2007) estimated that, up to 2011, growth of employment will be 0.8%. However, the influx on the labor market (3.5%) will be counterbalanced by the amount of efflux on the labor market (also 3.5%). This can be partly explained by an ageing population and declining birth rates. Besides, ROA (2007) expects that the industry sector, among others, will experience the largest bottlenecks with respect to staffing.

It is therefore essential for Cehave Landbouwbelang to be able to attract new employees in the future and to retain current and future ones. One of the important issues in this respect is to know what makes the employees of Cehave Landbouwbelang want to work for the organization. Or even better, what makes them committed to the organization, their work, or the working community they are a part of. Many organizations want to create commitment of their employees because, to speak with González & Guillén (2008):

Among the reasons that may explain this fact are the characteristics of today's markets and organizations. The involvement of people in organizations becomes crucial when innovation, continuous improvement, high quality standards, and competitive prices are demanded of companies, and employee discretionary effort comes to be an essential resource. (p. 401)

Furthermore, quite often organizational commitment has been linked to turnover intentions and actual turnover, or other forms of work and nonwork behavior (Allen & Meyer, 1996). Thus, the level of the employees' commitment of Cehave Landbouwbelang can predict whether current and future employees will be retained.

Therefore, for reasons of attracting employees in the future, and subsequently retaining them, but also to solicit people's discretionary effort for the company and to make work an enjoyable experience altogether, it is relevant to examine to what extent the employees of Cehave Landbouwbelang's Dutch subsidiary companies are actually committed.

1.3 Purpose of the study

Because of the necessity to be able to attract new employees in the future and to retain them, the management of Cehave Landbouwbelang is interested in, and considers it important to have insight into, the level of their employees' commitment.

The purpose of this study is twofold. The first purpose is to develop a company-specific instrument that measures the level of the employees' commitment so that Cehave Landbouwbelang can use this instrument to measure these topics regularly in years to come at all subsidiary companies. Secondly, this study is initiated in order to give insight into the current level of commitment of the employees of the Dutch subsidiary companies.

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 Landbouwbelang's Dutch subsidiary companies be measured?
2. To what extent, and to which foci, are the employees of Cehave Landbouwbelang's Dutch subsidiary companies committed?

1.5 Relevance of the study

This study is of relevance for Cehave Landbouwbelang for two reasons. Firstly, it provides the organization a company-specific instrument to measure the commitment of its employees in the future. Thus, Cehave Landbouwbelang can measure employees' perceptions independently. The outcomes of these measurements are of relevance because they provide Cehave Landbouwbelang steering information on employee affairs. Secondly, this current study will measure the level of commitment to relevant foci of the employees of Cehave Landbouwbelang's Dutch subsidiary companies. Thus, this study will provide the management of Cehave Landbouwbelang essential information on their employees' commitment. Knowing what makes them committed is fundamental for making decisions on how to attract new employees in the future and how to retain them. Besides, this study has some scientific relevance since it provides data that may be used in the future in a larger-scale study.

1.6 Organization of this research proposal

Chapter two contains a theoretical background of the study in which the construct commitment, its antecedents, and outcomes will be elaborated on. In chapter three the methodological approach of this study is addressed. The results of this study will be discussed in chapter four. Based on these results, chapter five contains conclusions and recommendations.

2. Theoretical background

In this chapter a theoretical background will be given of the central issues of the current study. In paragraph 2.1 the construct commitment is shortly introduced. An extensive elaboration on commitment will be given in paragraph 2.2. Paragraph 2.3 and 2.4 give insight into the antecedents and outcomes of commitment, respectively. A summary of the theoretical background of this study, resulting in a conceptual model, is given in paragraph 2.5. Finally, in paragraph 2.6 research questions are formulated with respect to proposed relationships between the variables of interest for the employees of Cehave Landbouwbelang's Dutch subsidiary companies.

2.1 Introduction

Researchers have been very interested in investigating work attitudes and behavior (Allen & Meyer, 1996). One of the constructs of interest is commitment, because it has been demonstrated to be linked to several outcomes such as performance, turnover (intention) and other forms of work and non-work behavior. In fact, several researchers have argued that commitment seems to predict employee behavior better than job satisfaction (e.g., Tett & Meyer, 1993; Torka & Schyns, 2007).

Commitment has been studied intensively for the last few decades. Different views on the topic have dominated the literature. These views, and today's most widely accepted conceptualization of commitment will be addressed by means of an elaboration on, among others, definitions, conceptualizations, antecedents, and outcomes.

2.2 Commitment

One of the first views on commitment is presented by Becker (1960) who saw commitment as behavioral. The author stated that "commitments come into being when a person, by making a side bet, links extraneous interests within consistent lines of activity" (p. 32). Thus, as employees recognize that they make side bets (or, in other words, investments) that are at stake when leaving an organization, commitment increases. A lot of researchers (e.g., Hrebiniak & Alutto, 1972; Meyer & Allen, 1984; McGee & Ford, 1987; Shore & Wayne, 1993; Tett & Meyer, 1993; Swailes, 2002) have referred to this view on organizational commitment in order to investigate the construct.

Another view on commitment is attitudinal. This approach is taken by Porter, Steers, Mowday & Boulian (1974) who defined organizational commitment as:

The strength of an individual's identification with and involvement in a particular organization. Such commitment can generally be characterized by at least three factors: (a) a strong belief in and acceptance of the organization's goals and values; (b) a willingness to exert considerable effort on behalf of the organization; (c) a definite desire to maintain organizational membership. (p. 604)

Mowday, Steers & Porter (1979) developed an instrument, the Organizational Commitment Questionnaire (OCQ), to measure organizational commitment. Many researchers (e.g., Angle & Perry, 1981; Curry, Wakefield, Price & Mueller, 1986; Riketta, 2002; Swailes, 2002) have referred to this definition of commitment and used the OCQ in their research. However, research of Benkhoff (1997) has shown that the OCQ appears to consist of three separate concepts, whereas organizational commitment was proposed to be one-dimensional. Thus, instead of measuring a homogeneous construct, the questionnaire appeared to be heterogeneous. Therefore the author correctly argued that the definition of commitment as defined by Porter et al. (1974) and the OCQ should not be used anymore.

The most widely accepted conceptualization of commitment is that of Allen & Meyer (1990, 1996; Meyer & Allen, 1991; Meyer, Stanley, Herscovitch & Topolnytsky, 2002), however. They integrated existing conceptualizations of commitment into a three-component model of commitment. The model proposes affective, continuance, and normative commitment as three separable components of commitment, of which the first corresponds with Becker's (1960) view on commitment, and the second one with Porter et al's. (1974) view. Meyer & Allen (1991) defined commitment as "a psychological state that (a) characterizes the employee's relationship with the organization, and (b) has implications for the decision to continue or discontinue membership in the organization" (p. 67).

2.2.1 Bases of commitment

As mentioned, Allen & Meyer (1990, 1996; Meyer & Allen, 1991; Meyer et al., 2002) distinguished affective, continuance, and normative commitment as three separable components (or, in other words, bases) of organizational commitment. The authors defined these three components as follows:

The affective component of organizational commitment, proposed by the model, refers to employees' emotional attachment to, identification with, and involvement in, the organization. The continuance component refers to commitment based on the costs that employees associate with leaving the organization. Finally, the normative component refers to employees' feelings of obligation to remain with the organization.

(Allen & Meyer, 1990, p. 1)

Thus, the components represent a desire, need, and obligation to maintain employment in an organization, respectively. The degree of these three reflects an employee's commitment profile. Researchers (e.g., Meyer et al., 2002; Meyer & Herscovitch, 2001) have stated that commitment is a multidimensional construct and that "it should be possible to distinguish among antecedents of affective, continuance, and normative commitment" (Meyer & Herscovitch, 2001, p. 315).

Meyer & Allen (1984; Allen & Meyer, 1990) developed the affective, continuance, and normative commitment scales to measure the three components. The three-component model of organizational commitment was supported by many researchers (e.g., Meyer & Allen, 1991; Meyer, Allen & Smith,

1993; Shore & Wayne, 1993; Tett & Meyer, 1993; Hackett, Bycio & Hausdorf, 1994; Dunham, Grube & Castañeda, 1994; Lok & Crawford, 2001; Herscovitch & Meyer, 2002; Meyer et al., 2002; Stinglhamber, Bentein & Vandenberghe, 2002). The scales were indicated to be internally consistent, because of satisfactory Cronbach's alpha's (0.70 or higher is generally accepted as satisfactory). For example, Meyer & Allen (1991) argued that prior research has shown that the internal consistency estimates ranged from 0.74 to 0.89 for the affective component, from 0.69 to 0.84 for the continuance component, and from 0.69 to 0.79 for the normative component.

However, the model has also been criticized. McGee & Ford (1987) reported that continuance commitment contains two distinct dimensions, the first reflecting commitment that is based on a low degree of employment alternatives, and the second representing commitment that is based on employees' personal sacrifices, which is associated with leaving the organization. Recently, Solinger, Van Offen & Roe (2008) also criticized the model and, especially, the research instruments. According to these authors, Allen & Meyer's (1990) three-component model of organizational commitment is inconsistent. Thus, critics have demonstrated shortcomings in Allen & Meyer's instrumentation. Based on the research of Solinger et al. (2008) and others, that have reported affective commitment to be the best distinguished component of commitment, the affective component is of relevance for this current study. Besides, many researchers have found normative commitment to correlate strongly with affective commitment (e.g., an average correlation of .63; Meyer et al., 2002). Meta-analyses (e.g., Meyer et al., 2002) have reported that above all affective commitment, and to a somewhat smaller degree also normative commitment, are positively related to productive behavior (e.g., performance), whereas continuance commitment shows a negative or no relationship with desired employee behavior. Therefore, for the current research it seems evident to focus on affective and normative commitment.

2.2.2 Foci of commitment

Research on commitment so far has predominantly focussed on organizational commitment. However, some researchers (e.g., Reichers, 1985; Becker, 1992; Stinglhamber et al., 2002; Torka, 2003) have argued that, besides organizational commitment, several foci of commitment can be distinguished. Stinglhamber et al. (2002) argued, based on the results of their study, that "commitments directed to foci other than the organization contribute unique variance in intent to quit the organization, above and beyond organizational commitment" (p. 123). According to Torka (2003), not only should research pay attention to more than just organizational commitment, in fact employees are likely to be more strongly committed to less abstract foci such as the work and the co-workers than toward the organization. She therefore states that research should pay attention to several foci of commitment. Therefore, it seems reasonable to not only include organizational commitment in this study, but also other foci of commitment that are of relevance for the research population.

In her study, Torka (2003) investigated which foci of commitment are of relevance for employees in the metal industry. She reported that "commitment towards the department and the organisation is

less important than commitment towards more tangible objects (i.e. work and colleagues)" (p. 184). 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 Landbouwbelang's Dutch subsidiary companies (i.e., a lot of them are blue-collar workers which are semi- or unskilled). For practical reasons this study distinguishes three foci of commitment: the work, co-workers, and the organization (i.e., the subsidiary company).

Commitment to the work has been characterized by Torka & Schyns (2007) as "the likelihood that an individual will continue working in a particular job because he or she feels psychologically attached to it (Rusbult & Farrell, 1983: 430)" (p. 45). Furthermore, according to Torka & Schyns (2007), commitment to co-workers "refers to the likelihood that a worker feels psychologically attached to his/her colleagues" (p. 45). Just as commitment to the organization can be subdivided into affective and normative commitment, this is also possible for commitment to the work and co-workers.

Therefore, the levels of affective and normative commitment to the work, co-workers, and the organization (i.e., the subsidiary company) of the employees of Cehave Landbouwbelang's Dutch subsidiary companies will be researched. Next to that, it is also relevant to study the antecedents and outcomes of commitment. A lot of research has been conducted for this purpose, although mainly regarding organizational commitment. The guiding principle for distinguishing the antecedents and outcomes, with respect to this current study, is the research of Meyer et al. (2002). They conducted a meta-analysis on commitment by means of examining many existing studies on the construct. Therefore, the relationships between commitment and proposed antecedents and outcomes that Meyer et al. (2002) reported are considered to be more reliable than conclusions of any single research.

2.3 Antecedents of commitment

According to Meyer et al. (2002) the following variables are antecedents of affective or normative commitment: personal and work related characteristics, work experiences, job satisfaction, socialization experiences, and organizational investments. These variables will be addressed and it will be concluded which of these antecedents are of relevance for this current study.

2.3.1 Personal and work related characteristics

Personal and work related characteristics were identified as antecedents of both affective and normative commitment in Meyer et al.'s (2002) meta-analysis on organizational commitment. Age, organization tenure, and position tenure were the characteristics with a positive, but weak, relationship with affective and normative commitment (correlations of 0.15 and 0.12 for age, 0.16 and 0.17 for organization tenure, and 0.07 and 0.15 for position tenure, respectively). Therefore, the authors concluded that these characteristics only played a minor role.

Nevertheless, Cohen's (1992) research on antecedents of commitment showed that the relationships between several personal and work related characteristics (i.e., tenure, education, marital status, gender, and motivation) and commitment were stronger for blue-collar workers than for white-collar workers. He explained this as follows: "The OC [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). Since a large group of operational employees is one of the target groups in this study, the argumentation of Cohen (1992) is relevant. Therefore, and in order to be able to make statistical distinctions with respect to proposed relationships, several personal and work related characteristics will be included in the current study.

2.3.2 Work experiences

Meyer & Allen (1991) characterized work experiences as the "objective and subjective characteristics of work" (p. 69). Although they concluded that work experiences were only antecedent variables of affective commitment, in later work of Meyer et al. (2002) these were also reported to be antecedents of normative commitment. Related to these conclusions Torka & Schyns (2007) argue that:

(...) we assume that for both affective and normative commitment work experiences – thus, HR practices – serve as antecedents. A meta-analysis by Meyer et al. (2002) supports this idea: work experiences (organizational support, transformational leadership, role ambiguity, role conflict and justice) not only correlate significantly and positively with affective, but also with normative commitment. (p. 47)

Allen & Meyer (1990; Meyer & Allen, 1991) grouped the work experience variables into "those that satisfy employees' needs to feel comfortable in their relationship with the organization and to feel competent in the work-role" (Allen & Meyer, 1990, p. 8-9). This corresponds with Herzberg's Two factor theory in which he distinguished motivators and hygiene factors. According to Herzberg (2003) "the things that make people satisfied and motivated on the job are different in kind from the things that make them dissatisfied" (p. 87). He argued that job content factors are motivators that make employees satisfied. On the contrary, environmental factors, which are called the hygiene factors, will result in (no) dissatisfaction. The work experience variables that Allen & Meyer (1990) called comfort factors can be considered the hygiene factors, whereas the competence factors can be considered the motivators. Therefore, the work experience variables that are antecedents of affective and normative commitment can be grouped into comfort factors and competence factors.

Meyer et al. (2002) distinguished seven work experience variables that can be distinguished as comfort factors:

- Organizational support, which was reported to correlate positively with affective and normative commitment (correlations of 0.63 and 0.47, respectively). According to Rhoades & Eisenberger (2002) organizational support means that "employees develop global beliefs concerning the extent to which the organization values their contributions and cares about their well-being" (p. 698).

Moideenkutty, Blau, Kumar & Nalakath (1998) furthermore stated that perceived organizational support can be regarded as an indicator of an organization's commitment to the employees. These authors, and others, have reported perceived organizational support to be positively related to commitment;

- Transformational leadership, of which Den Hartog, Van Muijen & Koopman (1997) stated that "transformational leaders broaden and elevate the interests of followers, generate awareness and acceptance among the 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). This is in contrast with transactional leadership in which leaders motivate their employees to perform as expected, which will negatively influence the level of commitment. Den Hartog et al. (1997) furthermore stated that "Bass (1985) argues that transformational leadership builds on transactional leadership (...)" (p. 21). According to Meyer et al. (2002) the positive correlation between transformational leadership and affective commitment was 0.46. For normative commitment the correlation was 0.27;
- Role ambiguity, which 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 between role ambiguity and affective and normative commitment (correlation of -0.39 and -0.21, respectively);
- Role conflict, which, according to Rizzo, House & Lirtzman (1970), 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" (p. 155). The meta-analysis of Meyer et al. (2002) reported negative relationships between role conflict and affective commitment (correlation of -0.30) and normative commitment (a correlation of -0.24);
- Interactional justice, which can be defined as "the interpersonal treatment people receive as procedures are enacted (Bies & Moag, 1986). Interactional justice is fostered when decision makers [i.e., employers] treat people [i.e., employees] with respect and sensitivity and explain the rationale for decision thoroughly" (Colquitt, 2001, p. 386). According to Colquitt (2001) two dimensions of interactional justice can be distinguished that have been shown to have independent effects: interpersonal and informational justice. Meyer et al. (2002) reported a correlation between interactional justice and affective commitment of 0.50. For normative commitment this correlation was 0.52;
- Distributive justice, which is "fostered where outcomes are consistent with implicit norms for allocation, such as equity or equality" (Colquitt, 2001, p. 386). It has been reported by Meyer et al. (2002) to have a positive relationship with affective commitment (correlation of 0.40) and normative commitment (correlation of 0.31);
- Procedural justice, denoting "justice of the processes that lead to decision outcomes", as stated by Colquitt (2001, p. 386). According to Meyer et al. (2002) a correlation of 0.38 between procedural justice and affective commitment was measured. For normative commitment a correlation of 0.30 has been reported. Colquitt, Conlon, Wesson, Porter & Ng (2001) reported in a meta-analysis that, although the correlations between distributive, procedural and interactional justice are high, they

are "not so high that they seem to be multiple indicators of one underlying construct" (p. 432). In fact, they should be seen as distinct constructs.

These comfort factors, except for the justice variables, will be included in the measurement instrument for this current study as antecedents of affective and normative commitment. Interactional, distributive, and procedural justice will not be measured since there is considerable overlap between these constructs and satisfaction with some job facets that will be addressed in paragraph 2.3.3.

Some comfort and competence factors are concerned with job satisfaction. After introducing job satisfaction these comfort and competence factors will be elaborated on.

2.3.3 Job satisfaction

Research so far has been inconclusive about the relationship between commitment and job satisfaction. Four relationships have been reported: (1) job satisfaction influences commitment (e.g., Porter et al., 1974; William & Hazer, 1986; Lok & Crawford, 2001); (2) commitment influences job satisfaction (e.g., Bateman & Strasser, 1984); (3) job satisfaction and commitment are reciprocally related (e.g., Farkas & Tetrick, 1989); and (4) there is co-variation between job satisfaction and commitment (e.g., Curry et al., 1986; Meyer et al., 2002; Rayton, 2006).

Although research has shown contradictory results with respect to the relationship between job satisfaction and commitment, the majority of the evidence of the studies showed job satisfaction to be causally related to commitment. However, the order of causality is just not known. In this current study job satisfaction is assumed to be an antecedent of commitment.

What is job satisfaction?

According to Locke (1969) "job satisfaction is the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values" (p. 316). He furthermore defined job dissatisfaction as "the unpleasurable emotional state resulting from the appraisal of one's job as frustrating or blocking the attainment of one's job values or as entailing disvalues" (p. 316). The author stated that three aspects are important in this respect. Firstly, the perception of some aspects of the job. Secondly, an implicit or explicit value standard, which has two attributes: a content issue (i.e., what a person wants to gain and/ or keep) and an intensity issue (i.e., how much a person wants to gain and/ or keep). Thirdly, a conscious or subconscious judgment of the relationship between (e.g., discrepancy between) one's perception(s) and one's value(s).

A distinction could be made between global or 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).

Global job satisfaction

Global satisfaction has to do with the overall satisfaction with the job. In order to measure global job satisfaction a single-item global measure indicating the job satisfaction can be used. It can be measured with, for example, one item, stated like: "Considering everything, how would you rate your overall satisfaction with your job?" (Highhouse & Becker, 1993, p. 119). Research has reported that measures of global job satisfaction are better predictors of satisfaction than are measures of facet job satisfaction (e.g., Highhouse & Becker, 1993).

Facet job satisfaction

According to Rice, Gentile & McFarlin (1991) "facet satisfactions are affective evaluations of individual job facets" (p. 31). They further defined job facets as "the individual components that make up one's experience at work" (p. 31). The advantage of measuring facet job satisfaction, as compared to global job satisfaction, is that it portrays more specifically the factors that employees are satisfied or dissatisfied with, and to what extent. Therefore, it provides an organization, and in this case Cehave Landbouwbelang, useful information for making subsequent decisions with respect to employee affairs. Thus, although measures of global job satisfaction are reported to predict satisfaction better than measures of facet job satisfaction, the latter will be included in the current research since it can provide steering information on employee affairs.

Some facets of job satisfaction can be considered comfort factors (in line with the reasoning of Allen & Meyer, 1990). 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 that corresponds with the large group of operational employees of Cehave Landbouwbelang's Dutch businesses are the workers. The authors identified rewards and recognition, communication, openness and work-life balance to be important for explaining workers' commitment. 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)

Besides, the authors argued that three of these HR practices are linked to the commitment of all employee groups: rewards and recognition, communication, and work-life balance. 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.

Besides, Hackman & Oldham (1975, 1976; Oldham, Hackman & Pearce, 1976) described job facets that are of relevance for the relationship between job satisfaction and commitment, that can be considered competence factors. Their model (i.e., the Job Characteristics Model) specifies job satisfaction as a variable that is influenced by five core job dimensions. Their theory is an extension of, among others, Herzberg's two-factor theory. Hackman & Oldham (1976) stated that "the Herzberg theory specifies that a job will enhance work motivation and satisfaction only to the degree that 'motivators' are designed into the work itself. Changes that deal solely with 'hygiene' factors should not lead to increases in employee motivation" (p. 251). The core job dimensions that influence job satisfaction can be considered as facets of job satisfaction. These dimensions are:

- Skill variety: "the degree to which a job requires a variety of different activities in carrying out the work, which involve 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).

Hackman & Oldham (1976) furthermore defined three psychological states (i.e., experienced meaningfulness of the work, experienced responsibility for work outcomes, and knowledge of results) that were influenced by the core job dimensions and that would, among others, lead to job satisfaction. However, later research has criticized this assumption. The research of James & Jones (1980) showed that these three psychological states are not mediating the proposed relationship between the core job dimensions and the outcome variable job satisfaction.

Two important moderator variables that Hackman & Oldham (1976) reported are satisfaction with the work context, and employee growth need strength. According to Oldham et al. (1976) satisfaction with the work context has to do with "the degree to which the immediate work environment is satisfying to employees" (p. 396). These could be classified as the hygiene factors of Herzberg's theory and the comfort factors that Allen & Meyer (1990) discussed. In paragraph 2.2.2 these variables, that are called work experiences, were already addressed. With respect to employee growth need strength, Hackman & Oldham (1976) predicted that "people who have high need for personal growth and development will respond more positively to a job high in motivating potential than people with low

growth need strength" (p. 258). This moderating variable was confirmed by other researchers (e.g., Stone, Mowday & Porter, 1977; Tiegs, Tetrick & Fried, 1992; De Jong, Van der Velde & Jansen, 2001). It is expected that growth need strength influences the relationship between the facets and job satisfaction in the current study.

Thus, satisfaction with job facets is also proposed to influence commitment. Some of the facets can be considered as comfort factors (i.e., rewards and recognition, communication, openness, and work-life balance), the other ones as competence factors (i.e., skill variety, task identity, task significance, autonomy, and feedback).

2.3.4 Socialization experiences and organizational investments

Socialization experiences and organizational investments were distinguished by Meyer et al. (2002) as antecedents of normative commitment. However, 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, these proposed antecedents of normative commitment will not be included in this current study.

Concluding, several personal and work related characteristics, work experience variables and facets of job satisfaction (categorized into competence and comfort factors) will be included in the current study.

2.4 Outcomes of commitment

The outcomes of commitment that are proposed by several authors can be described as behavioral. The meta-analysis of Meyer et al. (2002) identified several outcomes of affective and normative commitment, which will be elaborated on. These are: withdrawal cognition, turnover intention, turnover, on-the-job behavior (i.e., absenteeism, organizational citizenship behavior, and job performance), and employee health and well-being. The outcome variables that are of relevance for this study will be distinguished.

2.4.1 Withdrawal cognition, turnover intention, and turnover

As expected, the results of the meta-analysis of Meyer et al. (2002) showed that affective and normative commitment are negatively related to withdrawal cognition, turnover intention and actual

turnover. The more committed an employee is, the less intention he or she has to leave, or actually leaves, the organization. This result is consistent with findings of other researchers (e.g., Mathieu & Zajac, 1990).

However, the company that initiated this study, Cehave Landbouwbelang, does not experience problems with retaining its current employees. Concern is, however, with 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.

2.4.2 On-the-job behavior

With respect to on-the-job behavior the study of Meyer et al. (2002) reported relationships between affective and normative commitment, and absenteeism, organizational citizenship behavior, and job performance. Firstly, whereas affective commitment correlated negatively with absenteeism, normative commitment had a positive relationship with absenteeism, although close to zero. Secondly, both affective and normative commitment related positively to organizational citizenship behavior (correlations of 0.32 and 0.24, respectively). According to Organ & Lingl (1995), organizational citizenship behavior has to do with "individual contributions that are neither contractually rewarded nor enforceable by supervision or job requirements (...)" (p. 339). Thirdly, both affective and normative commitment related positively to job performance (correlations of 0.16 and 0.06, respectively).

Since organizational citizenship behavior is a desired outcome variable, and has been reported to correlate with affective and normative commitment, this variable will be included in this study as an outcome of affective and normative commitment. Job performance, although relevant for this study, will not be included in the measurement instrument because performance may be linked to commitment by the organization itself after the study is performed.

2.4.3 Employee health and well-being

The results of the study of Meyer et al. (2002) showed that for normative commitment the relationship with stress could not be measured because there were too few studies that could be included in the analysis. The relationship between normative commitment and work-family conflict was negatively, but close to zero. Affective commitment related negatively to self-reported stress (correlation of -0.21) and work-family conflict (correlation of -0.20). Reilly (1994) also reported this relationship but, next to that, stated that for more committed employees "there is a stronger link between the occurrence of stressful incidents and the burnout that they do report" (p. 408).

Concluding, with respect to the relevance for this study, the factors that are proposed to be outcomes of commitment are organizational citizenship behavior, turnover intention, and performance.

2.5 Conceptual model

The variables that will be studied in this current research are composed into a conceptual model, which is depicted in figure 1. In the centre of the model the central construct is portrayed: commitment. Following from the research of Allen & Meyer (1990, 1996; Meyer & Allen, 1991; Meyer & Herscovitch, 2001; Meyer et al., 2002), Solinger et al. (2008), and Torka (2003) it appears evident to focus on affective and normative commitment to the work, co-workers, and the subsidiary company.

The proposed antecedents of affective and normative commitment are portrayed on the left side of the model. In line with Meyer et al.'s (2002) meta-analysis, personal and work related characteristics are considered to be antecedents of both affective and normative commitment. Besides, work experiences are antecedents of affective and normative commitment. These can be subdivided into: (1) competence factors, represented by five core job dimensions that, influenced by growth need strength, will result into job satisfaction and subsequent commitment (Hackman & Oldham, 1975, 1976; Oldham, Hackman & Pearce, 1976); and (2) comfort factors (represented by organizational support, transactional leadership, transformational leadership, role (un)ambiguity, role conflict, satisfaction with rewards and recognition, satisfaction with communication, satisfaction with openness, satisfaction with work-life balance, and satisfaction with co-workers).

In line with the research of Meyer et al. (2002), the assumed outcomes of affective and normative commitment are organizational citizenship behavior, turnover intention, and performance. The outcomes are pictured on the right side of figure 1.

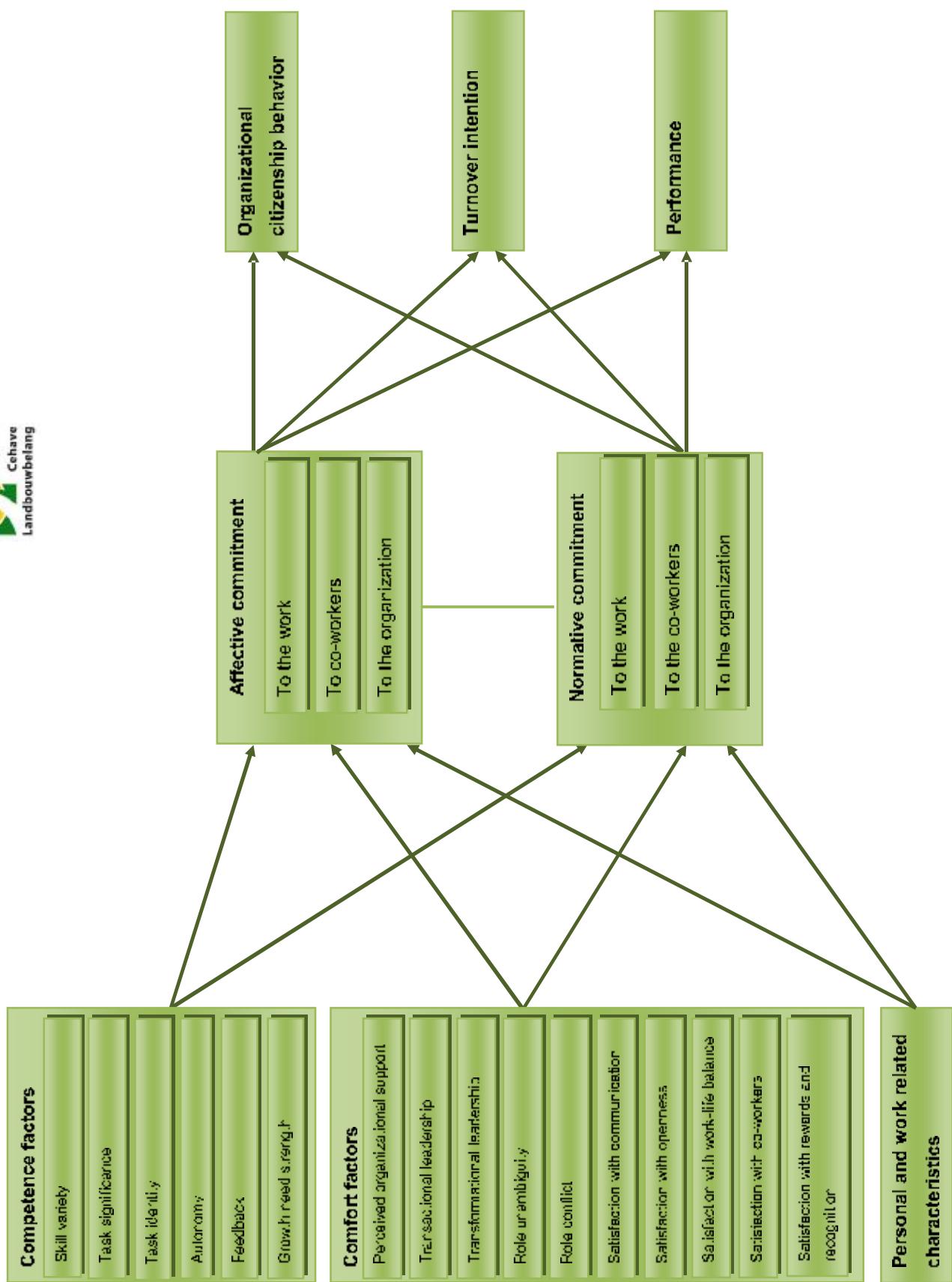


Figure 1. Conceptual model

2.6 Research questions

Based on the practical and theoretical background of this study, research questions can be formulated. Answering these research questions should allow for answering the central questions.

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

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

3. Methodology

This chapter discusses the methodological issues of the study. In paragraph 3.1 the research sample is addressed. In paragraph 3.2 the research design is described. Next, the research instruments are elaborated on in paragraph 3.3. The data collection and analysis are discussed in paragraph 3.4. Finally, in paragraph 3.5 the procedure of the research is elaborated on.

3.1 Research sample

This study is aimed at giving insight into the levels of affective and normative commitment to the work, co-workers, and the subsidiary company of the Dutch employees. A lot of the employees are blue-collar workers that work, for example, as operators, mechanics, and truck drivers. Others are higher educated and work for instance as controllers or salesmen. These employees are the units of analysis.

The research sample consists of 1179 employees, spread out over the following subsidiary companies of Cehave Landbouwbelang:

- Abemec, a dealer organization of Agricultural equipment and vehicles, with 14 sites. Abemec has 185 employees;
- Agerland, which is a supplier of products and services for the agricultural sector. It has two distribution centres (located in Emmeloord and Roermond) and several depots. This company has 169 employees;
- Agrarische Unie, a purchase and selling organization in the agriculture and horticulture. It has 72 employees;
- Bonda Veevoeders (hereafter called: Bonda), which markets and sells wet animal feeds, mostly co-products from the food, drinks, and bio fuel industry. Bonda has plants in Hillegom, Den Bosch, and Zoeterwoude, next to two sites abroad. Bonda has 60 employees in the Dutch locations;
- CCL, an expertise centre for the food production chain. CCL consists of two main work domains: nutricontrol (i.e., food and feed laboratory work in order to enhance food safety) and research (i.e., scientific research into the production of animal feeds). CCL has 106 employees;
- Cehave Landbouwbelang Cooperation (hereafter called: Cooperation), the holding company of the subsidiary companies. It has six employees that are included in this study;
- Cehave Landbouwbelang Voeders (hereafter called: Voeders), which produces and markets quality animal feed, premixes and concentrates. It has plants in Veghel, Wanssum, Maasbracht, and Oss and a headquarter in Veghel. This subsidiary company has 581 employees.

Due to practical considerations the Dutch employees of the subsidiary company Vitamex will not be included in the current research. Besides, agency workers and members of the Management Team are not included in this research.

3.2 Research design

The employees of Cehave Landbouwbelang's Dutch subsidiary companies were questioned by means of a cross-sectional study. This means that the study is "based on observations representing a single point in time" (Babbie, 2007, p. 102). The advantage of such a study is that it can be conducted in a relatively short time period. A disadvantage is that a cross-sectional study cannot determine whether a relationship or correlation between variables is causal, or in what direction the one construct influences the other. However, this study is not conducted as a means of fundamental research (i.e., advancing knowledge), but it can be considered as applied research. Therefore, for this current study, relationships between the central construct (i.e., commitment) and its proposed antecedents and outcomes that have been reported by existing research, are assumed to exist.

3.3 Research instruments

This research is conducted by means of a survey. The employees of Cehave Landbouwbelang's Dutch subsidiary companies were asked to fill in a questionnaire for this study. This questionnaire exists of several scales, each representing a variable that is investigated. For this research existing scales were used that have been reported to be reliable. Due to limitations on the length of the questionnaire, mainly short scales with satisfactory internal consistency reliabilities were used. Furthermore, for reasons of readability some of the items of the scales were slightly adjusted; however, the content of the items was not changed. Those items that were originally formulated in English were translated into Dutch for this current research. The scales will be addressed in the following subsections. An overview of the Dutch items per variable is included in appendix 1.

3.3.1 Personal and work related characteristics

Some items were included in the questionnaire with respect to demographic data. It concerns the following personal and work related characteristics: 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.

3.3.2 Work experiences

The work experience variables that were measured are: satisfaction with core job dimensions (influenced by growth need strength), organizational support, transactional and transformational leadership, role unambiguity, role conflict, satisfaction with rewards and recognition, satisfaction with communication, satisfaction with openness, satisfaction with work-life balance, and satisfaction with co-workers.

3.3.2.1 Satisfaction with core job dimensions

Satisfaction with the five core job dimensions was measured with five scales, each representing one of the job dimensions (i.e., skill variety, task significance, task identity, autonomy, and feedback).

Skill variety, task significance, and task identity were measured with scales from the Work Design Questionnaire (WDQ) from Morgeson & Humphrey (2006). Their aim was to develop and validate a comprehensive measure for assessing job design and the nature of work. Contrary to existing scales from other researchers, who have not been able to report satisfactory internal reliability coefficients, high reliability coefficients were reported in the research of Morgeson & Humphrey (2006). Cronbach's alpha's for skill variety, task significance, and task identity in their research were 0.86, 0.87, and 0.88, respectively. The three scales exist of four items each. Examples are: "The job requires me to utilize a variety of different skills in order to complete the work" (skill variety), "The job has a large impact on people outside the organization" (task significance), and "The job is arranged so that I can do an entire piece of work from beginning to end" (task identity). For this study the items have been translated into Dutch.

The variable autonomy was measured with three items from a scale from Janssen, Schoonebeek & Van Looy (1997). The items were already formulated in Dutch. In their research, Cronbach's alpha for this subscale was reported to be 0.85.

A scale for measuring feedback is adapted from the research of Emans, Turusbekova, Broekhuis & Molleman (2004). The scale consists of five items and their research reported a Cronbach's alpha of 0.82. The items are originally formulated in Dutch.

3.3.2.2 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). The scale includes items such as: "I would like to have stimulating and challenging work", and "I would like to have opportunities for personal growth and development in my job". The researchers reported an alpha of 0.88 and 0.91, based on two studies.

3.3.2.3 Organizational support

Perceived organizational support was 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 and a Cronbach's alpha of 0.80 was reported in their research. The scale includes items such as: "Help is available from the organization when I have a problem". For the current study the items have been translated into Dutch.

3.3.2.4 Transactional and transformational leadership

Transactional and transformational leadership were measured with a scale developed by Den Hartog, Van Muijen & Koopman (1994) and adjusted by Janssen (2002). In his research, Janssen (2002) restricted the number of items due to limitations on the length of the questionnaire. Transactional and transformational leadership were measured with five and twelve items, respectively, and the items are

formulated in Dutch. Janssen (2002) reported satisfactory internal consistency reliabilities of the scales (i.e., Cronbach's alpha's of 0.74 and 0.94, respectively).

3.3.2.5 Role unambiguity and role conflict

A scale from De Jong & Janssen (2005) was used to measure role unambiguity. This scale is adapted from González-Roma & Lloret (1998) and it consists of six Dutch items. De Jong & Janssen (2005) reported a satisfactory internal consistency reliability of the scale (i.e., Cronbach's alpha of 0.79). Role conflict was measured with a scale from the research of González-Roma & Lloret (1998), adapted from Rizzo et al. (1970). This scale has eight items, for example: "I receive incompatible requests from two or more people". González-Roma & Lloret (1998) reported a satisfactory internal consistency reliability (i.e., Cronbach's alpha of 0.85), based on results of two samples. Items were translated into Dutch for this current research.

3.3.2.6 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 were adapted from Kinnie et al. (2005). Rewards and recognition were measured with four items (e.g., "How satisfied do you feel with your pay?"). A Cronbach's alpha of 0.71 was reported in their research. Both openness and work-life balance were measured with one item. All items were translated into Dutch.

Satisfaction with communication was measured with three items from a scale from Torka (2007). The internal consistency reliability of the scale has been reported to be satisfactory. In several studies, in which different populations have been studied, Cronbach's alpha's have been reported to be 0.75 and higher. Items were already formulated in Dutch.

Satisfaction with co-workers was measured with the subscale 'satisfaction with co-workers', adapted from the 1967, long-form, version of the Minnesota Satisfaction Questionnaire from Weiss, Dawis, England & Lofquist (1967). It contains five items and a median Hoyt reliability coefficient of 0.85 was reported (with the highest reporting 0.93 and the lowest 0.66) for 27 normative groups. The scale includes items such as: "On my present job, this is how I feel about the spirit of cooperation among my co-workers". For the current study the items have been translated into Dutch.

3.3.3 Affective and normative commitment to the work, co-workers, and the organization

Affective and normative commitment were not measured with the scales that Allen & Meyer (1990) developed in order to measure the components of commitment. Although several researchers have reported a satisfactory internal consistency reliability of the scales, there has also been criticism on the scales that pleaded for revision of the items (e.g., Swailes, 2002). Torka (2003) also criticized existing measurement instruments of commitment and, consequently, developed scales to measure several foci and bases of commitment. In this current study, normative and affective commitment toward the work, co-workers, and the organization (i.e., subsidiary company) were measured with six scales from Torka (2003). She reported satisfactory internal consistency reliabilities for all six scales (i.e.,

Cronbach's alpha's ranging from 0.67 to 0.92). The scales contain three to eight items which are all stated in Dutch.

3.3.4 Turnover intention

Turnover intention was measured with a scale from Sanders & Roefs (2002) which they adapted from McGee & Ford (1987). The scale consists of four Dutch items. Sanders & Roefs (2002) reported a satisfactory internal consistency reliability (i.e., Cronbach's alpha of 0.77).

3.3.5 Organizational citizenship behavior

Organizational citizenship behavior was also measured with a scale from Sanders & Roefs (2002). The scale has eight items which are formulated in Dutch. The internal consistency reliability of the scale has been reported to be satisfactory (i.e., Cronbach's alpha of 0.83 for the composite measure in their study).

3.4 Data collection and analysis

This research is a quantitative research and therefore the data are quantitative. The data were gathered from the questionnaires that were filled in. First, quantification took place, which is "the process of converting data to a numerical format" (Babbie, 2007, p. 405). These data were entered into a computer statistics program (i.e., SPSS) for which a code book was developed. Then the data were analyzed. Several measures (e.g., means, standard deviations, Cronbach's alpha's, eigenvalues, and total effects) were computed. These results were the basis for formulating conclusions and recommendations for Cehave Landbouwbelang.

3.5 Procedure

Before the survey was spread out, an informational letter was sent to the employees in which the goal of the research was discussed. The supervisors and HR directors of the subsidiary companies were informed as well. Then the survey was spread out to the employees of Cehave Landbouwbelang's subsidiary companies and they were asked to fill in the questionnaire. A response period of approximately two weeks was given. During this period the employees were reminded to fill in and return the questionnaire by means of a follow-up letter. Next to the follow-up letter, another letter that stressed the anonymity of the research was sent to the employees because some employees expressed doubts with respect to the anonymity of the respondents. The questionnaires could be returned in two different ways: (1) by means of returning the questionnaires in a stamped, addressed envelope that was sent together with the survey, and (2) by putting the questionnaires into response boxes at one of the companies' locations.

4. Results

This chapter discusses the results of the study. The response is addressed in paragraph 4.1. The construct reliability is discussed in paragraph 4.2. Results on the commitment variables are given in paragraph 4.3, followed by the results on the antecedent variables in paragraph 4.4, and the results on the outcome variables in paragraph 4.5. The conceptual model, presented at the end of chapter 2, will be tested in paragraph 4.6. In paragraph 4.7 a final model will be presented.

4.1 Response

This research was conducted within the entire population of 1179 employees. Only agency workers, members of the management team, and the employees of the Dutch locations of subsidiary company Vitamex were excluded. 689 questionnaires were returned, of which two were not suitable. The overall response rate is 58%, which is moderate but not very high. The response rates for the subsidiary companies range from 51% (i.e., Agerland) to 72% (i.e., Agrarische Unie). An overview of the response structured by subsidiary company is included in appendix 2.

Table 1 shows the response structured by work related characteristics (i.e., contract type, average formal working hours per week, organization tenure, job tenure, and company-specific education in the last five years).

Table 1. Response structured by work related characteristics

Work related characteristics		Response (in percentage)
Contract type ^a	Permanent Temporary	88% 11%
Average formal working hours per week ^b	< 20 hours per week 20 to 34 hours per week > 34 hours per week	8% 14% 74%
Organization tenure ^c	≤ 10 years 11 to 20 years 21 to 30 years 31 to 40 years > 40 years	44% 16% 22% 14% 1%
Job tenure ^d	≤ 10 years 11 to 20 years 21 to 30 years 31 to 40 years > 40 years	65% 14% 11% 7% 0%
Company-specific education in the last five years ^e	Yes No	55% 43%

Notes

^a 10 respondents did not specify their contract type

^b 27 respondents did not specify the average formal working hours per week

^c 18 respondents did not specify their organization tenure

^d 22 respondents did not specify their job tenure

^e 14 respondents did not specify whether they attended company-specific education in the last five years

The majority of the respondents has a fixed contract and works for more than 34 hours per week. Most respondents have been working for less than ten years in the same function. However, a considerable part of the respondents has been working at the organization for more than ten years, although still 44% of the respondents has been working at the organization for less than ten years.

Since the response rate is not particularly high, there may be a selective non-response. The employees who did not fill in or return the questionnaire may be less committed to their work, the co-workers or the subsidiary company than the employees who returned the questionnaire. The employees who responded may be the ones that are more committed. In order to test for this potential non-response the response group and the entire population were compared with each other based on the work related characteristics. Since no striking deviations were found, we may prudently state that the sample is representative for the entire population.

4.2 Construct reliability

The questionnaire contains several scales, each representing a variable that was investigated. Even though the internal consistency reliability has been proven to be reliable in earlier publications, it is of importance to determine whether the reliability of the scales in the current research is satisfactory. The reliability of the scales can be measured with the coefficient for the internal consistency: Cronbach's alpha (α). This coefficient ranges between 0 and 1. The closer it is to 1, the more reliable the scale. In social science a rule of thumb is that the coefficient should be at least 0.70 in order to be considered satisfactory.

Next to measuring the internal consistency reliability of the scales it is of relevance to execute an exploratory factor analysis. With an exploratory factor analysis it is possible to determine whether each scale is homogeneous (i.e., whether the items of a scale load on the same factor) and whether one or more items can be dropped. A widely used criterion for determining the homogeneity of a scale is whether the eigenvalue of the first component (λ_1) is equal or greater than one (i.e., the Kaiser criterion).

Table 2 reports the number of items per variable, Cronbach's alpha's, and the eigenvalue of the first component.

Table 2. Number of items per variable, 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 unambiguity	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 subsidiary 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 subsidiary 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

Since the Cronbach's alpha's range from 0.75 to 0.96, all scales may be considered reliable. Besides, results of the factor analysis show that we may consider the scales as being homogeneous. Based on the factor analysis, and a subsequent analysis of the Cronbach's alpha's of the scales, there is no reason to delete any items (i.e., all factor loadings are higher than 0.4 and Cronbach's alpha's were satisfactory).

4.3 Results on commitment variables

In this paragraph the results will be presented with respect to the commitment variables. These are the central constructs of this research and can be divided into affective and normative commitment to the work, co-workers, and the subsidiary company. The mean scores for the commitment variables range on a scale from 0 to 1. Mean scores between 0 and 0.40 are considered as insufficient, scores between 0.40 and 0.60 are insufficient to sufficient, and scores between 0.60 and 1 are sufficient to good.

4.3.1 Levels of affective commitment to the work, co-workers, and the subsidiary company

Table 3 shows the means and standard deviations (i.e., SD) for affective commitment to the work, co-workers, and the subsidiary company.

Table 3. Means and standard deviations (i.e., SD) for affective commitment to the work, co-workers, and the subsidiary company

Subsidiary company	Affective commitment to the work		Affective commitment to co-workers		Affective commitment to the subsidiary company	
	Mean	SD	Mean	SD	Mean	SD
Overall	0.68	0.17	0.66	0.16	0.62	0.18
Abermec	0.68	0.15	0.67	0.11	0.61	0.16
Agerland	0.69	0.15	0.70	0.13	0.62	0.16
Agrarische Unie	0.68	0.14	0.69	0.14	0.61	0.19
Bonda	0.70	0.13	0.65	0.16	0.69	0.17
CCL	0.68	0.19	0.69	0.14	0.55	0.17
Voeders & Cooperation	0.67	0.18	0.64	0.18	0.63	0.20

The overall mean scores for affective commitment to the work, co-workers, and the subsidiary company show that these are sufficient to good. Except for the subsidiary company CCL, of which the employees are not sufficiently affective committed to CCL, all mean scores range between sufficient to good. The standard deviations range from 0.11 to 0.20 and are rather small; thus, there is little dispersion of the respondents' answers around the mean scores. A one way ANOVA was used to test for significant differences in mean scores at the 5% significance level, followed by Bonferroni's post hoc test. First of all, differences in mean scores between the subsidiary companies are significant for affective commitment to co-workers ($F(5, 678) = 2.727, p = 0.019$); however, the Bonferroni post hoc test did not show significant differences in mean scores. Secondly, there are significant differences in mean scores for affective commitment to the subsidiary company ($F(5, 678) = 4.004, p = 0.001$). Both the employees of Bonda (i.e., 0.69) and Voeders & Cooperation (i.e., 0.63) are significantly more affectively committed toward their subsidiary company than the employees of CCL (i.e., 0.55).

Overall, 73.2% of the employees is affectively committed to the work, 69.9% to the co-workers, and 57.5% to the subsidiary company.

Consistent with findings of published scientific research (e.g., Torka, 2003), the results show that the employees are more affectively committed to their work and co-workers than toward the subsidiary company. The only exception are the employees of Bonda, who are more affectively committed to the subsidiary company than to their co-workers.

4.3.2 Levels of normative commitment to the work, co-workers, and the subsidiary company

Table 4 shows the means and standard deviations (i.e., SD) for normative commitment to the work, co-workers, and the subsidiary company.

Table 4. Means and standard deviations (i.e., SD) for normative commitment to the work, co-workers, and the subsidiary company

Subsidiary company	Normative commitment to the work		Normative commitment to co-workers		Normative commitment to the subsidiary company	
	Mean	SD	Mean	SD	Mean	SD
Overall	0.85	0.14	0.80	0.15	0.64	0.17
Abemec	0.85	0.11	0.81	0.11	0.65	0.14
Agerland	0.85	0.12	0.84	0.13	0.64	0.18
Agrarische Unie	0.85	0.12	0.81	0.12	0.64	0.15
Bonda	0.87	0.11	0.82	0.12	0.70	0.16
CCL	0.88	0.11	0.82	0.12	0.58	0.16
Voeders & Cooperation	0.83	0.16	0.79	0.18	0.64	0.19

The overall mean scores for normative commitment to the work, co-workers, and the subsidiary company show that these are sufficient to good. With the exception of the subsidiary company CCL, of which its employees are not sufficiently normative committed to CCL, all mean scores are between sufficient to good. The standard deviations range from 0.11 to 0.20 and are rather small. In other words, there is little dispersion of the respondents' answers around the mean scores. Differences in mean scores are significant only for normative commitment to the subsidiary company ($F(5, 678) = 2.874$ $p = 0.014$), which is caused by the differences in mean scores for Bonda (i.e., 0.70) and CCL (i.e., 0.58). Thus, the employees of Bonda are significantly more normatively committed to the subsidiary company than the employees of CCL.

Overall, as much as 98.5% of the employees is normatively committed to the work, 95.2% to the co-workers, and 59.2% to the subsidiary company.

The results show that the employees' normative commitment is strongest toward the work, followed by normative commitment to co-workers, and finally toward the subsidiary company. These results are consistent with findings of published scientific research (e.g., Torka, 2003). However, it is remarkable that in all cases the employees are more normatively than affectively committed. This is in contrast with findings of, for example, Allen & Meyer (1990), and Meyer, Allen & Smith (1993). Although an explanation for this result is unknown, it points toward a rather high work ethos. The special character of Cehave Landbouwbelang may be of influence and will be mentioned in paragraph 5.1.1.

4.4 Results on antecedent variables

The antecedent variables are divided into competence factors, comfort factors, and personal and work related characteristics. In this section the overall mean scores and standard deviations (i.e., SD) are given with respect to the competence and comfort factors. Results on the level of subsidiary company are shown in appendix 3. The effects of the personal and work related characteristics will be discussed in paragraph 4.6.

The mean scores for the antecedent variables range on a scale from 0 to 1. For all variables, except for transactional leadership and role conflict, scores between 0 and 0.40 are considered insufficient, scores between 0.40 and 0.60 are insufficient to sufficient, and scores between 0.60 and 1 are

sufficient to good. Since low mean scores for transactional leadership and role conflict are advantageous with respect to the levels of commitment, scores between 0 and 0.40 are considered sufficient to good, scores between 0.40 and 0.60 are insufficient to sufficient, and scores between 0.60 and 1 are insufficient.

4.4.1 Competence factors

Skill variety

The amount of skill variety as perceived by the employees is sufficient to good (Mean = 0.78, SD = 0.15). However, the differences in mean scores between the subsidiary companies are significant ($F(5, 678) = 3.537, p = 0.004$). Bonferroni's post hoc test reports that both the mean scores for Abemec (i.e., 0.81) and CCL (i.e., 0.81) differ significantly from the mean score for Agerland (i.e., 0.73). Thus, the employees of Abemec and CCL experience significantly more skill variety than the employees of Agerland. Overall, 91.5% of the employees is satisfied with the variety of skills that is needed in order to perform the work.

Task significance

There is an insufficient to sufficient amount of task significance (Mean = 0.57, SD = 0.20). Only for the employees of Abemec the degree of task significance is sufficient to good (i.e., 0.62). However, there is no evidence that the mean scores between the subsidiary companies are significant ($F(5, 678) = 1.930, p = 0.087$). Overall, 45.9% of the employees is satisfied with the significance of their tasks.

Task identity

The amount of task identity as perceived by the employees is sufficient to good (Mean = 0.64, SD = 0.21). Only for the employees of the Agrarische Unie the degree of task identity is insufficient to sufficient. Differences in mean scores between the subsidiary companies are significant ($F(5, 678) = 2.499, p = 0.03$). Bonferroni's post hoc test reports that the mean scores for the Agrarische Unie (i.e., 0.58) and CCL (i.e., 0.71) differ significantly from each other. Thus, the employees of CCL experience a significantly larger task identity than the employees of the Agrarische Unie. Overall, 65.9% of the employees is satisfied with the identity of the tasks.

Autonomy

The degree of autonomy is perceived as sufficient to good (Mean = 0.70, SD = 0.25). There is no significant difference in mean scores between the subsidiary companies ($F(5, 678) = 1.372, p = 0.233$). The respondents' answers are somewhat dispersed around the mean; therefore, the mean score has to be interpreted with some care. Overall, 72.8% of the employees is satisfied with the autonomy they have.

Feedback

The degree of feedback is insufficient to sufficient (Mean = 0.53, SD = 0.21). Based on a one way ANOVA we can conclude that there is no evidence that the differences in mean scores are significant

($F(5, 678) = 1.854$, $p = 0.1$). Overall, only 44.2% of the employees is satisfied with the feedback they receive.

Growth need strength

The employees have a high need for personal growth and development (Mean = 0.76, SD = 0.18). There are no significant differences between the mean scores for the subsidiary companies ($F(5, 678) = 1.654$, $p = 0.144$). Besides, we tried but failed to distinguish a pattern in which groups of employees differ in the levels of growth need strength. No groups of employees were identified that have a low need for personal growth and development. Overall, 86.1% of the employees experiences a need for personal growth and development.

4.4.2 Comfort factors

Perceived organizational support

The organization's support is insufficient to sufficient (Mean = 0.51, SD = 0.18). Only for the employees of Bonda the organizational support is perceived as sufficient to good (i.e., a mean score of 0.61). Differences in mean scores between the subsidiary companies are significant ($F(5, 678) = 3.744$, $p = 0.002$). Results of Bonferroni's post hoc test show that the mean score for Bonda (i.e., 0.61) is significantly higher than for both Abemec (i.e., 0.50) and Voeders & Cooperation (i.e., 0.50). Thus, the employees of Bonda experience significantly more organizational support than the employees of Abemec and Voeders & Cooperation. Overall, only 34.4% of the employees is satisfied with the support the organization provides.

Transactional leadership

The employees interpreter the leadership style of their supervisor only slightly as transactional (Mean = 0.38, SD = 0.20). A one way ANOVA reports significant differences in mean scores for the subsidiary companies ($F(5, 678) = 2.778$, $p = 0.017$). Results of Bonferroni's post hoc test show that the mean score for Agerland (i.e., 0.44) is significantly higher than for Voeders & Cooperation (i.e., 0.36). In other words, the leadership style of the supervisors at Agerland is experienced as more transactional than at Voeders & Cooperation. Overall, 55.1% of the employees experiences just a limited degree of a transactional leadership style of their supervisor.

Transformational leadership

The leadership style of the supervisor is perceived as more transformational (Mean = 0.49, SD = 0.24), as compared to transactional leadership. The respondents' answers are somewhat dispersed around the mean; therefore, the mean score has to be interpreted with some care. There is evidence that the differences in mean scores for the subsidiary companies are significant ($F(5, 678) = 4.188$, $p = 0.001$). The results of Bonferroni's post hoc test show that the mean score for Voeders & Cooperation (i.e., 0.45) is significantly lower than for both Agerland (i.e., 0.55) and CCL (i.e., 0.55). Thus, the leadership style of the supervisors at Agerland and CCL is experienced as significantly more

transformational than at Voeders & Cooperation. Overall, 36.8% of the employees considers the leadership style of their supervisor as transformational.

Role unambiguity

There is a sufficient to good amount of role unambiguity (Mean = 0.69, SD = 0.14). However, differences in mean scores between the subsidiary companies are significant ($F(5, 678) = 9.279, p = 0.0$). Results of the Bonferroni test show that the mean score for the Agrarische Unie (i.e., 0.58) is significantly lower than for both Abemec (i.e., 0.68), Agerland (i.e., 0.72), and Voeders & Cooperation (i.e., 0.70). In other words, employees of Abemec, Agerland, and Voeders & Cooperation experience significantly more role clarity than employees of the Agrarische Unie. Overall, 79.7% experiences certainty about job demands and control.

Role conflict

The presence of role conflicts is relatively small (Mean = 0.37, SD = 0.17). However, results of a one way ANOVA show that the differences in mean scores for the subsidiary companies are significant ($F(5, 678) = 3.741, p = 0.002$). Bonferroni's post hoc test reports that the mean score for Abemec (i.e., 0.42) is significantly higher than for both Agerland (i.e., 0.34), CCL (i.e., 0.34), and Voeders & Cooperation (i.e., 0.36). Thus, employees of Abemec experience significantly more role conflicts than employees of Agerland, CCL, and Voeders & Cooperation. Overall, 56.1% experiences role conflicts just in a limited sense.

Satisfaction with rewards and recognition

The satisfaction with rewards and recognition as perceived by the employees is insufficient to sufficient (Mean = 0.52, SD = 0.18). There are significant differences in mean scores between the subsidiary companies ($F(5, 678) = 5.216, p = 0.0$). Results of Bonferroni's post hoc test show that employees of Abemec (i.e., 0.47) are significantly less satisfied with the rewards and recognition than employees of Bonda (i.e., 0.61), CCL (i.e., 0.55), and Voeders & Cooperation (0.52). Besides, the average score for Bonda (i.e., 0.61) is significantly higher than for both the Agrarische Unie (i.e., 0.49) and Voeders & Cooperation (i.e., 0.52). Overall, 34.1% is satisfied with the rewards and recognition they get.

Satisfaction with communication

The employees are insufficiently to sufficiently satisfied with the communication within the organization (Mean = 0.53, SD = 0.17). However, there is evidence that the differences in mean scores for the subsidiary companies are significant ($F(5, 678) = 3.189, p = 0.007$). Results of Bonferroni's post hoc test report that the mean score for the Agrarische Unie (i.e., 0.46) is significantly lower than for both Agerland (i.e., 0.57) and Voeders & Cooperation (i.e., 0.54). Thus, the employees of Agerland and Voeders & Cooperation are significantly more satisfied with the communication in the organization than the employees of the Agrarische Unie. Overall, 31.7% of the employees is satisfied with the communication within the organization.

Satisfaction with openness

Overall, the employees are insufficiently to sufficiently satisfied with the openness within the organization (Mean = 0.52, SD = 0.24). The respondents' answers are somewhat dispersed around the mean; therefore, the mean score has to be interpreted with some care. There is evidence that the differences in mean scores of the subsidiary companies are significant ($F(5, 678) = 2.578, p = 0.025$). Employees of Agerland (i.e., 0.58) are significantly more satisfied with the openness within the organization than the employees of the Agrarische Unie (i.e., 0.45). Overall, 37.9% of the employees is satisfied with the openness within the organization.

Satisfaction with work-life balance

The employees are insufficiently to sufficiently satisfied with their work-life balance (Mean = 0.52, SD = 0.23). However, differences in mean scores between the subsidiary companies are significant ($F(5, 678) = 3.918, p = 0.002$). Bonferroni's post hoc test shows that the mean score for Bonda (i.e., 0.61) is significantly higher than for both Abemec (i.e., 0.46), and the Agrarische Unie (i.e., 0.45). In other words, employees of Bonda are significantly more satisfied with the balance between work and private life than the employees of Abemec and the Agrarische Unie. Overall, 32.2% of the employees is satisfied with the balance between their work and private life.

Satisfaction with co-workers

The employees are satisfied with their co-workers (Mean = 0.67, SD = 0.17). However, the differences in mean scores between the subsidiary companies are significant ($F(5, 678) = 5.770, p = 0.0$). Results of Bonferroni's post hoc test show that the employees of Bonda (i.e., 0.61) are significantly less satisfied with their co-workers than the employees of the Agrarische Unie (i.e., 0.72) and Agerland (i.e., 0.72). Besides, the employees of Voeders & Cooperation (i.e., 0.65) are significantly less satisfied with their co-workers than the employees of Agerland (i.e., 0.72). Overall, 76.2% of the employees is satisfied with their colleagues.

4.5 Results on outcome variables

In this section the overall mean scores and standard deviations (i.e., SD) are reported for the outcome variables. The mean scores range on a scale from 0 to 1. For organizational citizenship behavior, scores between 0 and 0.40 are considered insufficient, scores between 0.40 and 0.60 are insufficient to sufficient, and scores between 0.60 and 1 are sufficient to good. Since low mean scores for turnover intention are advantageous for Cehave Landbouwbelang, scores between 0 and 0.40 are considered sufficient to good, scores between 0.40 and 0.60 are insufficient to sufficient, and scores between 0.60 and 1 are insufficient. Means scores and standard deviations by subsidiary company are shown in appendix 3.

4.5.1 Organizational citizenship behavior

The employees perceive they show sufficient to good levels of organizational citizenship behavior (Mean = 0.72, SD = 0.12). There is no evidence that the differences in mean scores between the

subsidiary companies are significant ($F(5, 678) = 1.428, p = 0.212$). Overall, most employees (i.e., 87.4%) perceive that they make individual contributions that are neither contractually rewarded nor enforceable by supervision or job requirements.

4.5.2 Turnover intention

The employees have little intention to leave the organization (Mean = 0.36, SD = 0.20). However, the differences in mean scores between the subsidiary companies are significant ($F(5, 678) = 2.609, p = 0.024$). Results of Bonferroni's post hoc test show that the employees of Voeders & Cooperation (i.e., 0.34) have a significant lower intention to leave the organization than the employees of Abemec (i.e., 0.41). Overall, 60.7% of the employees has no intention to leave the organization.

4.6 Testing the conceptual model

A linear structural analysis (i.e., LISREL analysis) was performed in order to test the relationships between the variables within the conceptual model. This analysis reports the total effects – that is, both the direct and indirect effects – of the independent variables on the dependent variables. Besides, the linear structural analysis is able to explain how well the conceptual model fits the data that were gathered during this research. In other words, it shows the percentage of the variance of the dependent variables which is explained by the independent variables. The correlation matrix is depicted in appendix 4.

4.6.1 Effects of competence factors, comfort factors and control variables

In table 5 the total effects of the antecedent variables on commitment, organizational citizenship behavior, and turnover intention are reported. Besides, the explained variances for the commitment variables are reported by the R^2 . Note that the explained variances for organizational citizenship behavior and turnover intention are reported in paragraph 4.6.2.

Table 5. Total effects (i.e., beta coefficients) of antecedents on commitment, organizational citizenship behavior 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	0.03	-0.03
Task significance	0.11	0.00	0.13	0.01	0.03	0.12	0.03	-0.05
Task identity	0.11	0.03	0.01	0.06	0.02	-0.08	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	-0.14	-0.01	0.06
Transformational leadership	0.17	0.12	0.35	0.25	0.12	0.19	0.10	-0.10
Role unambiguity	0.08	0.06	0.06	0.16	0.20	0.08	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	0.19	0.04	-0.10
Satisfaction with communication	0.10	-0.02	0.15	0.07	0.04	0.18	0.05	-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	0.12	0.02	0.20	0.04	0.04	0.16	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 (fixed-term; (2) fixed; (2) honorary)	-0.02	-0.04	-0.15	-0.09	-0.05	-0.06	-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 (1) business; (1) law; taken into account; (2) business; (2) law; taken into account; (2) 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
Gander (1) male; (2) female	-0.06	-0.05	-0.13	-0.08	-0.04	0.14	0.05	0.08
Marital status (1) single; (2) married; (2) living together; (2) unpartnered; (2) partner; (2) married; (2) married	-0.05	0.01	-0.22	-0.06	-0.01	-0.18	-0.06	0.07
Parental status (1) single; (2) living in home; (2) cohabiting; (2) on their own; (2) in children)	-0.06	-0.09	-0.07	-0.12	-0.05	-0.02	-0.03	0.02
							R² = 0.67	R² = 0.58
								R² = 0.61
								R² = 0.69

Notes

- Total effects (β) that are depicted in bold are significant ($p < .05$, one-sided)
- Goodness of fit statistics: $\chi^2 = 264.90$ ($p = 0.0$), $df = 46$; RMSEA = 0.011; RMR = 0.014
- 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.

Next the influences of the competence factors, comfort factors, and personal and work related characteristics will be elaborated on.

Competence factors

The influence of the competence factors on the commitment variables is largely as expected. Skill variety has a positive influence on affective and normative commitment to the work, co-workers, and the subsidiary company. All relationships are significant, except for the effect of skill variety on affective commitment to the co-workers.

The positive influence of task significance on commitment is significant for affective commitment to the work and the subsidiary company, and normative commitment to the subsidiary company. The effect on the other foci of affective and normative commitment is negligible.

Task identity – although positively influencing commitment – has no significant effects on commitment, except for normative commitment to the work. Thus, the influence of task identity on commitment is rather small, as opposed to what may be expected.

A positive influence on commitment is caused by autonomy. However, the total effects are only significant for affective commitment to the work and for affective and normative commitment to the subsidiary company. Autonomy has the largest significant effect on affective commitment to the work. The impact on commitment toward the subsidiary company is not that large.

Remarkably, the effect of feedback on commitment is negative. All relationships are significant, except for the effect of feedback on affective commitment to the co-workers. Based on empirical evidence, which is reported in published scientific research, a positive influence of feedback on commitment was expected. Apparently the feedback that the employees receive is assessed negatively.

Besides, growth need strength correlates strongly with skill variety, task significance, and autonomy (see correlation matrix in appendix 4). Thus, employees with a high need for personal growth and development will appreciate a job with a challenging content. Furthermore, growth need strength has a rather large significant and positive effect on organizational citizenship behavior. Thus, employees with

a high need for personal growth and development show high levels of organizational citizenship behavior. Although growth need strength is measured infrequently in social science, the importance of the effect of growth need strength stresses the significance of including growth need strength in studies like this.

Comfort factors

The influence of the comfort factors on the commitment variables is also largely as expected. However, although 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 to an improvement in satisfaction and subsequent commitment – 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. The influence of the comfort factors on commitment will be discussed.

Perceived organizational support has a significant effect on affective commitment to the work and the subsidiary company and on normative commitment to the subsidiary company. These effects have a positive direction and are strongest for affective and normative commitment to the subsidiary company.

Transactional leadership has a negative effect on commitment, as expected, but the effects are only significant for affective commitment to the subsidiary company and normative commitment to the work.

Transformational leadership, on the other hand, has a significant and rather large effect on all commitment variables. The direction of the effects is, as expected, positive. Thus, the more the supervisors behave as transformational leaders, the more affectively and normatively committed the employees will be toward the work, their co-workers, and the subsidiary company they are working for.

The influence of role unambiguity on commitment, as expected, is positive and in most cases significantly so. There are significant effects of role unambiguity on affective commitment to the co-workers and the subsidiary company. Besides, the effects on all three foci of normative commitment are significant.

However, the influence of role conflicts on commitment is unexpected. Role conflict has a significant and positive effect on all commitment variables except for affective commitment to the work. Thus, employees that experience many role conflicts are more committed than employees that experience less role conflicts. Based on published empirical evidence a negative relationship between role conflicts and commitment would be expected (i.e., the more role conflicts employees experience, the less committed they are expected to be). A direct explanation for the negative and significant effects of role conflict on commitment is unknown, but it may be explained by the supervisors who usually

experience more role conflicts and are highly committed at the same time. However, with the data of this current research we could not test for this potential effect.

It is furthermore remarkable that role conflicts have a significant and positive effect on turnover intention, which is rather large. Thus, there is considerable influence of the amount of role conflicts on the intention of the employees to leave the organization. The less role conflicts they experience, the less intention they have to leave the organization.

Satisfaction with rewards and recognition has a positive influence on affective and normative commitment to the work, co-workers, and the subsidiary company. All relationships are significant, except for the effect on affective commitment to the co-workers. The effect is strongest on affective commitment to the subsidiary company.

Satisfaction with communication influences commitment only partly as expected. The effects are significant only for affective commitment to the work, and for affective and normative commitment to the subsidiary company. Satisfaction with the communication within the company has the largest influence on both affective and normative commitment to the subsidiary company.

Contrary to expectations, satisfaction with openness has almost no influence on affective and normative commitment to the work, the co-workers, and the subsidiary company.

The employees' satisfaction with the balance between work and private life has a significant and positive influence on affective and normative commitment to the subsidiary company. The impact of the satisfaction with the work-life balance is strongest for affective commitment to the subsidiary company.

Finally, satisfaction with co-workers has a positive and significant effect on all commitment variables. However, the effect on affective commitment to the co-workers is tremendously larger than toward the other commitment foci and bases.

Personal and work related characteristics

In most cases the control variables have only relatively small effects on commitment. However, it is worth mentioning the rather large effect of company-specific education on both affective and normative commitment to the subsidiary company, and normative commitment to the work. Employees that have attended company-specific education in the last five years have far higher levels of these commitment variables than the employees that have not attended company-specific education in this time period. Also noteworthy are the relationship between the contract type and affective commitment to the subsidiary company, and the relationship between the average working hours per week and almost all levels of commitment.

4.6.2 Effects of commitment

Table 6 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 6. Total effects (i.e., beta coefficients) of commitment on organizational citizenship behavior 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
	$R^2 = 0.48$	$R^2 = 0.29$

Notes

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

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.

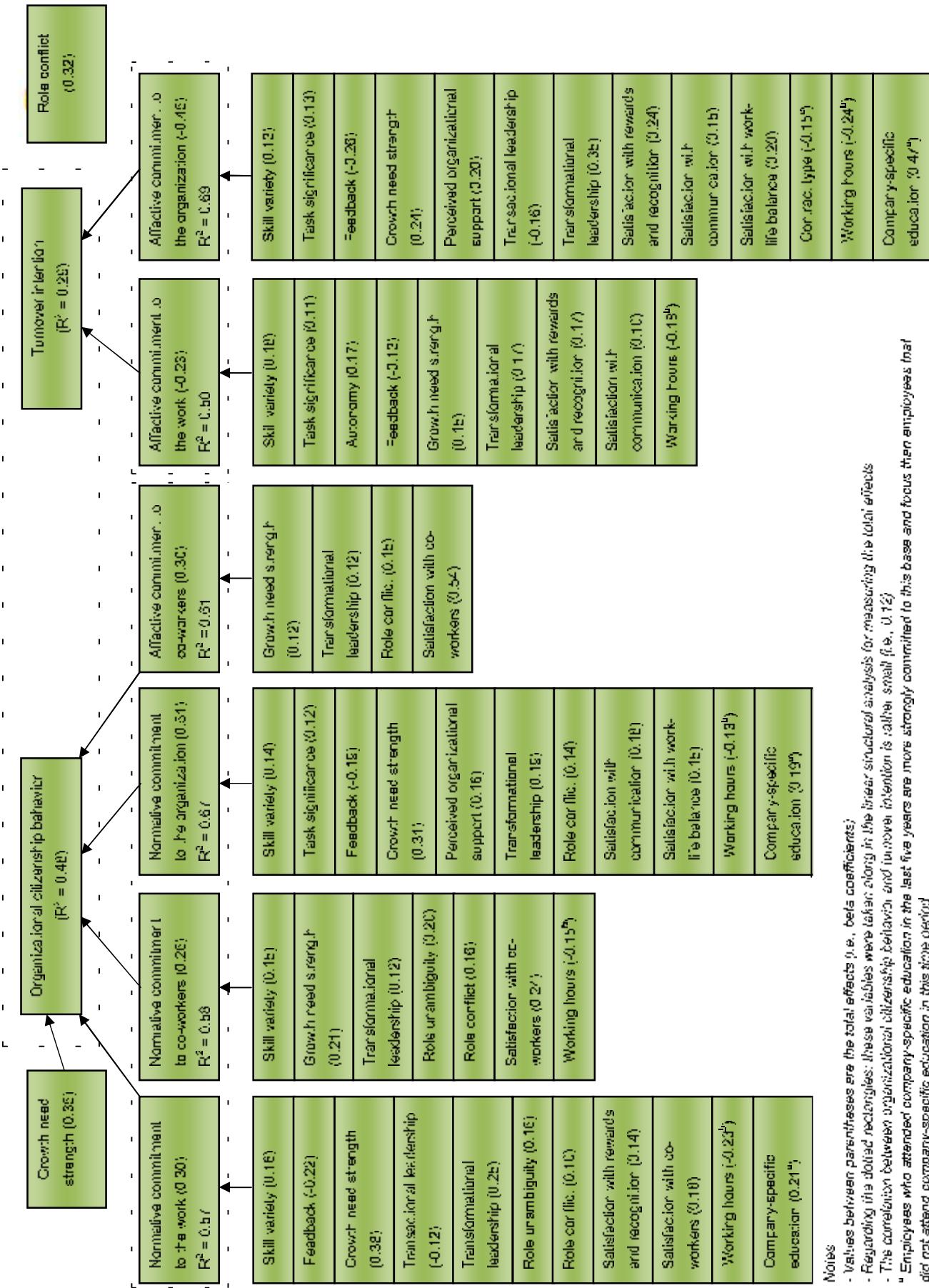
The total effects show that – as expected – all commitment variables have a positive effect on organizational citizenship behavior. Thus, highly committed employees show high levels of organizational citizenship behavior. All relationships are significant, except for the effect of affective commitment to the work.

However, the effects of commitment on turnover intention vary. Both affective commitment to the work and to the subsidiary company have a significant and negative effect on the intention of the employees to leave the organization. Thus, employees that are affectively committed to their work and the subsidiary company that they work for, have a lower intention to leave the company. 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, as is reported in the correlation matrix in appendix 4, the correlation between organizational citizenship behavior and turnover intention is rather small (i.e., 0.12). Thus, there is little cohesion between these two outcome variables.

4.7 Final model

The conceptual model can be adjusted based on the results of the linear structural analysis that were discussed in paragraph 4.6. Two criteria were set for including relationships in the final model. The first is that the relationships must be significant. The second criteria is that the relationships should have a strength (i.e., total effect) of at least 0.10. 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
- This correlation between organizational citizenship behavior and turnover intention is rather small (i.e., 0.15^b)
- ^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 last chapter conclusions and recommendations are discussed, based on the results of this study. In paragraph 5.1 the research questions, as formulated in paragraph 2.6, are answered. The levels of commitment of the employees of Cehave Landbouwbelang's Dutch subsidiary companies are elaborated on, followed by the causes and outcomes of commitment. In paragraph 5.2 recommendations are given. Directions for future research will be discussed in paragraph 5.3. This chapter will conclude with limitations of this study in paragraph 5.4.

5.1 Conclusions

For this research a reliable and valid instrument was developed, based on existing instruments, in order to measure the levels of commitment, their causes, and consequences of the employees of Cehave Landbouwbelang's Dutch subsidiary companies. Besides, the purpose of this study was to determine to what extent, and to which foci, the employees were committed. Conclusions regarding the levels, causes, and effects of commitment will be discussed.

5.1.1 Levels of commitment

The levels of affective and normative commitment to the work, co-workers, and the subsidiary company range between sufficient and good. In other words, the employees of Cehave Landbouwbelang's Dutch subsidiary companies are reasonably to very committed to their own work, their colleagues, and the company they work for. This commitment is expressed both because of moral obligations and because of affective reasons. The only exception is the subsidiary company CCL, of which the employees have no sufficient affective and normative commitment to their subsidiary company.

As expected – and consistent with findings of published scientific research (e.g., Torka, 2003) – the levels of the employees' affective commitment to the work and the co-workers are higher than the level of affective commitment to the organization (i.e., subsidiary company). The only exceptions are the employees of Bonda, who are more affectively committed to their subsidiary company than to their co-workers. This is rather unexpected since employees are likely to be more strongly committed to less abstract foci such as the work and the co-workers than toward the organization. Furthermore, the employees of the subsidiary companies are normatively committed above all to their work, then to their co-workers, and finally to the subsidiary company.

Unexpectedly, the employees of Cehave Landbouwbelang's Dutch subsidiary companies have a higher level of normative than affective commitment. Thus, the employees are committed above all because of moral obligations and somewhat less – although still reasonably well – because of affections. 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 there is no

straight explanation for these results, this points toward a strong work ethos. The special character of the cooperation may have had an influence on this remarkable result. Cehave Landbouwbelang's employees could have these high levels of normative commitment because of relationships with the organization apart from the employer-employee relationship. Employees may well be part of a farmer family that is customer or even member of the cooperation. This could subsequently have created moral obligations, which are expressed in the high levels of normative commitment.

5.1.2 Causes of commitment

Several variables influenced the levels of commitment of Cehave Landbouwbelang's employees. Some of these variables are competence factors, others are comfort factors, or work related characteristic.

Competence factors

As reported, the influence of the competence factors on commitment is largely as expected. Skill variety has a rather large influence on all levels of commitment, and was perceived as sufficiently to good. Therefore, we may conclude that the employees perceive a relatively high degree to which their jobs demand for a variety of different skills and talents, and that this has positively influenced the levels of commitment. The significance of the employees' tasks is just a little below a sufficient level, and has therefore slightly and negatively influenced the levels of affective commitment to the work, and affective and normative commitment the subsidiary companies. The positively judged identity of the employees' tasks had almost no effect on commitment. The one exception is a positively influenced level of normative commitment to the work. However, the satisfactory degree of autonomy has positively influenced the levels of both affective commitment to the work, and affective and normative commitment to the subsidiary companies. Although the employees have expressed that the level of feedback is not sufficiently, it is furthermore remarkable that feedback has a negative influence on the levels of commitment. Apparently the feedback that the employees receive is assessed negatively. Finally, the employees have expressed a high need for personal growth and development and this resulted into appreciating a challenging job content.

Comfort factors

The employees' judgement of the comfort factors varied. The employees of Cehave Landbouwbelang have expressed that they are satisfied with the clarity of their roles and the relative absence of role conflicts. Especially the satisfaction with the unambiguity of their roles has positively influenced the levels of commitment. The presence of role conflicts have negatively influenced the levels of commitment, but fortunately there is a relative absence of role conflicts. Besides, the presence of transactional and transformational leadership styles was satisfactorily in proportion. A positive influence on the levels of commitment will occur when transformational leadership is more apparent than transactional leadership. However, one should keep in mind that only over one third of the response group considers the leadership style of their supervisor as transformational. The last

positively judged antecedent of commitment is the satisfaction with the co-workers, which has positively affected all commitment variables and, especially, affective commitment to the co-workers.

Less positive results were reported for the organizational support, and satisfaction with rewards and recognition, openness, communication, and the balance between work and private life. Both the slightly negative judgement of the perceived organizational support and the dissatisfaction with the communication within the organization have negatively and significantly influenced the level of the employees' affective commitment to the work and the levels of affective and normative commitment to the subsidiary company. Furthermore, the dissatisfaction with the rewards and recognition has negatively affected all levels of commitment, and especially the level of the employees' affective commitment to the subsidiary company. However, the openness within the organization, which was judged as not sufficiently, has had almost no effect on their commitment. Finally, the somewhat negative judgement of the balance between work and private life has been of a little negative influence on the employees' levels of both affective and normative commitment to the subsidiary company.

Personal and work related characteristics

In most cases the personal and work related characteristics had only a relatively small effect on the level of the employees' commitment. However, it is worth mentioning the rather large effect of company-specific education on affective commitment to the subsidiary company. The employees of Cehave Landbouwbelang that have taken company-specific education in the last five years are much more affectively committed to their subsidiary company than the employees that have not taken company-specific education in this time period.

5.1.3 Outcomes of commitment

It was demonstrated that all commitment variables have a positive influence on the level of organizational citizenship behavior. The levels of the employees' commitment – which are sufficient to good – have been of influence on the high levels of organizational citizenship behavior.

Besides, the influence on turnover intention by both the levels of the employees' affective commitment to the work and to the co-workers was shown. The sufficient levels of affective commitment to the work and the co-workers have been of influence on the relatively low level of turnover intention.

5.1.4 Overall impression

With respect to the levels of commitment, but also with respect to its causes and consequences, it is striking that the results for the different subsidiary companies do not differ that much from each other. More differences would have been expected because of differences between the Dutch subsidiary companies (e.g., with respect to their products and services, and the content of the employees' work). Besides, some of the subsidiary companies are part of Cehave Landbouwbelang already for a relatively long time, whereas others have been acquired more recently. For example, the Agrarische

Unie was acquired at the beginning of 2007. Its activities "have been naturally integrated within the group with retention of their own identity as much as possible"³. Thus, despite these differences the results for the subsidiary companies are quite similar. This may be because of common (agricultural) backgrounds.

Besides, it is remarkable that we failed to distinguish a pattern in which groups of employees differed in the levels of, for example, growth need strength and organizational citizenship behavior. Less similarities in study results would have been expected.

5.2 Recommendations

This paragraph discusses several recommendations. In paragraph 5.2.1 recommendations with respect to the levels of commitment, their causes, and consequences will be given. These are based on the results and subsequent conclusions as discussed in chapter 4 and 5.1, respectively. Recommendations with respect to the measurement instrument will be elaborated on in paragraph 5.2.2.

5.2.1 Improving the causes of commitment

In the preceding paragraph, conclusions were discussed with respect to the levels of Cehave Landbouwbelang's employees' commitment, their causes, and consequences. The levels of commitment are rather high, despite of some negative influences because of negatively judged antecedent factors. Improvements for these factors will positively influence the levels of commitment even more, and will subsequently also raise the level of organizational citizenship behavior and lower the turnover intention. Recommendations regarding these factors, which serve as a starting point for Cehave Landbouwbelang for policy-making with respect to employee affairs, will be discussed.

Feedback

With respect to the competence factors, a change in feedback is recommended. This study has shown that the received feedback results into lower levels of commitment and especially into less affective commitment to the subsidiary company and normative commitment to the work. This is very remarkable and undesirable and therefore we may raise doubts with respect to the quality of the feedback at the organization. Adjustments in the way the feedback is given may be necessary in order to accomplish positive effects on commitment. A closer inquiry toward feedback at Cehave Landbouwbelang is needed in order to be able to make adjustments.

Comfort factors

Besides, Cehave Landbouwbelang's employees are not satisfied with some of the comfort factors that were investigated. Not all of them have a considerable influence on the levels of their commitment.

³ Cehave Landbouwbelang (2008). *Annual Report 2007*. Veghel, The Netherlands (p. 10)

Therefore, attention should be drawn to those comfort factors that have considerable influence on the levels of commitment and that are judged as not sufficient. The first comfort factor that asks for improvement is the perceived organizational support. Improvements in the support that the organization provides will positively influence the level of affective commitment to the work and affective and normative commitment to the subsidiary company even more. Besides, the leadership style of the supervisors needs to be focused more on transformational leadership. Closer inquiry toward the leadership styles of the supervisors is needed in order to determine which supervisors do not have a transformational leadership style. Subsequently, training and coaching may be needed in order to make improvements with respect to the leadership styles of the supervisors. Another factor that calls for improvement has to do with the rewards and recognition the employees receive for their work. Advancements in the rewards and recognitions will positively influence all levels of commitment, and will have the strongest effect on affective commitment to the subsidiary company. Furthermore, the levels of affective commitment to the work and affective and normative commitment to the subsidiary company could be upgraded even more when the quality of the communication within the organization raises. Thus, improvements could be made with respect to communicational activities. The last comfort factor that may be worth improving is the balance between work and private life, since this will positively influence the levels of affective and normative commitment to the subsidiary company. At this moment the employees of Cehave Landbouwbelang and the subsidiary companies are not satisfied enough with the possibilities the organization offers for creating a balance between work and private life.

Performance indicators

Finally, Cehave Landbouwbelang and the subsidiary companies are recommended to compare performance results with the employees' commitment on the level of the subsidiary companies. For this purpose, this study can be seen as a starting point, and comparisons can be made in future studies toward the levels of commitment of the employees of Cehave Landbouwbelang and their performance.

5.2.2 Adjusting the measurement instrument

In this study a company-specific questionnaire was used as a measurement instrument. Most probably a study toward employee commitment at Cehave Landbouwbelang will be repeated in the future. Therefore, recommendations will be given with respect to those aspects of the questionnaire that call for adjustments.

Reducing the length of the questionnaire

First, the length of the questionnaire should be reduced. The questionnaire is relatively large in length. Although it was intended to delete several items from the questionnaire based on results of the factor analysis, there are no reasons for deleting items since the items did not fail on one or both of the criteria (i.e., with respect to the factor loadings and Cronbach's alpha's). However, based on the

results of the linear structural analysis as discussed in chapter 4.6 we could argue about the relevance of some constructs.

Both task identity and satisfaction with openness are not strongly related to commitment. The constructs were therefore not included in the final model and subsequently need not necessarily be included in the questionnaire. Thus, the items regarding task identity and satisfaction with openness could be deleted from the questionnaire. This may be somewhat overhasty, however. Therefore, Cehave Landbouwbelang will be recommended to repeat the study toward employee commitment with the original questionnaires. Then, if the results show that the influence of both task identity and satisfaction with openness on commitment are again not strong, the items should be deleted from the questionnaire.

Furthermore, no particular striking relationships were found between commitment and both organization tenure, job tenure, age, gender, marital status, and parental status. Based on this conclusion, the questions with respect to these personal and work-related characteristics may be deleted from the questionnaire, although these characteristics were also included for reasons of being able to report some demographic data. Thus, for this reason it may be decided to keep including these aspects in the measurement instrument. Finally, it would be recommended to delete the item which asks the respondent to fill in the company-specific education he or she has attended in the last five years. The preceding item, which asks whether the respondent has taken company-specific education in the last five years, is sufficient for receiving the relevant data for this construct. Optionally, Cehave Landbouwbelang could choose to exclude the questions for evaluation that were included at the end of the questionnaire.

Replacing the current scale for measuring growth need strength

In studies that use questionnaires for gathering data there is a risk that respondents give socially desirable answers. In this particular study we may question whether the results for growth need strength are influenced by the wording of the items, since no particular groups of employees were identified with low needs for personal growth and development. Therefore, in case of a repeated study toward employee commitment at Cehave Landbouwbelang in the future, one may consider using a different scale for measuring employees' growth need strength. In this current study, and in many others, the concept has been measured with the (adjusted) items of Hackman & Oldham's (1975) Job Diagnostic Survey. Warr, Cook & Wall (1979) argued that "the content and complexity of these items present difficulties and that a more comprehensible scale is particularly required for blue-collar respondents" (p. 131). They developed a scale in order to measure the concept, consisting of six items and with Cronbach's alpha's of 0.91 and 0.82, as measured in two studies. In future studies toward employee commitment at Cehave Landbouwbelang, this scale may be used instead of the one that was used in this current study. The items of the scale are presented in appendix 5.

5.3 Future research toward employee commitment

Research toward employee commitment has been conducted intensively during the last few decades. Its conceptualization, although widely accepted, will continue to develop because of new study results and understandings. In this current study toward employee commitment at Cehave Landbouwbelang's Dutch subsidiary companies many of the broadly demonstrated relationships between commitment, its antecedents and consequences were confirmed. However, this current research has also yielded some remarkable results that cannot be explained completely by former research (e.g., the higher levels of normative than affective commitment). Perhaps future research will be able to give explanations for these unexpected results.

5.4 Limitations

This study has at least three limitations. First of all, this current study is conducted as a type of applied research in one organization. Therefore, the extent to which the results of this study can be generalized toward other populations is limited. However, generalizations toward other populations were not intended with this research. In fact, it is applied research and was aimed at developing a company-specific research instrument in order to get insight into the levels of employees' commitment at Cehave Landbouwbelang's Dutch subsidiary companies.

Secondly, this study has a cross-sectional design. Although this type of research design has several advantages (e.g., with respect to a relatively small time period and low expenses), a cross-sectional study cannot determine whether the relationships between the variables are causally related, or in what direction the one construct influences the other. However, this study was not conducted as a means of fundamental research (i.e., for advancing knowledge), but instead results of earlier conducted studies were the basis for this study. Relationships between commitment and its proposed antecedents and outcomes that have been reported by existing research, were assumed to exist.

Thirdly, there is a risk that respondents have given socially desirable answers. In this particular study, as already discussed in paragraph 5.2.2, we may question whether the results for growth need strength are influenced by the phrasing of the items, since no groups of employees were identified that have a low need for personal growth and development. Therefore, the use of a different scale for measuring the construct is recommended in case of future research toward employee commitment at Cehave Landbouwbelang.

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Websites

<http://www.cehave.nl>
<http://www.cehave.com>

Appendix 1. Overview of items per variable

Taakvariatie

- Mijn werk vereist een aantal verschillende vaardigheden.
- Mijn functie vergt van mij dat ik een aantal verschillende vaardigheden gebruik om mijn werk af te krijgen.
- Voor mijn functie is het noodzakelijk om een aantal vaardigheden te gebruiken die complex en van hoog niveau zijn.
- Mijn functie vereist het gebruik van een aantal vaardigheden.

Taakbelangrijkheid

- De resultaten van mijn werk zullen de levens van andere mensen waarschijnlijk veelbetekend beïnvloeden.
- Mijn werk is erg veelbetekend en belangrijk in een bredere context.
- Mijn werk heeft een grote invloed op mensen buiten [de werkmaatschappij].
- Het werk dat ik uitvoer voor mijn functie, heeft een veelbetekende invloed op mensen buiten [de werkmaatschappij].

Taakidentiteit

- In mijn functie voer ik taken uit die een duidelijk begin en einde hebben.
- Mijn functie is zo samengesteld, dat ik een totaal gedeelte van het werk van begin tot het eind kan uitvoeren.
- Mijn functie biedt mij de mogelijkheid om de gedeelten van het werk waar ik aan begin, volledig af te maken.
- Mijn functie biedt mij de mogelijkheid om het werk af te maken waaraan ik begin.

Autonomie

- Ik beslis in aanzienlijke mate hoe ik mijn werk uitvoer.
- Ik kan zelfstandig beslissen hoe ik mijn werk uitvoer.
- Ik beschik over aanzienlijke mogelijkheden om onafhankelijk en in vrijheid mijn werk uit te voeren.

Feedback

- Ik krijg genoeg feedback die me aangeeft hoe ik presteer in mijn werk.
- Mijn leidinggevende laat me geregeld weten hoe goed ik mijn werk uitvoer.
- Mijn collega's laten me geregeld weten hoe goed ik mijn werk uitvoer.
- Mijn leidinggevende stimuleert me om mijn werk goed te doen.
- Mijn collega's stimuleren me om mijn werk goed te doen.

Groeibehoeft

- Ik heb behoeft aan stimulerend en uitdagend werk.
- Ik heb behoeft aan zelfstandigheid in mijn werk.
- Ik heb er behoeft aan om nieuwe dingen te leren in mijn werk.
- Ik heb de behoeft om creatief te zijn in mijn werk.
- Ik heb behoeft aan werk dat mogelijkheden biedt voor persoonlijke groei en ontwikkeling.
- Ik wil graag iets bereiken in mijn werk.

Ondersteuning vanuit de organisatie

- [De werkmaatschappij] geeft om mijn mening.
- Wanneer ik een probleem heb, dan biedt [de werkmaatschappij] mij hulp aan.
- [De werkmaatschappij] geeft echt om mijn welbevinden.

Transactioneel leiderschap

- Mijn leidinggevende vestigt de aandacht op onregelmatigheden en afwijkingen in mijn werk.
- Mijn leidinggevende let op fouten in mijn prestaties die correctie behoeven.
- Mijn leidinggevende vertelt me welke beloning ik voor welke inspanningen krijg.
- Mijn leidinggevende maakt duidelijk wat het me zal opleveren als ik doe wat vereist wordt.
- Mijn leidinggevende houdt fouten goed in de gaten.

Transformationeel leiderschap

- Mijn leidinggevende fungeert voor mij als een voorbeeld.
- Mijn leidinggevende toont een buitengewone bekwaamheid in alles wat hij/ zij onderneemt.
- Mijn leidinggevende inspireert mij om zo goed mogelijke prestaties te leveren.
- Mijn leidinggevende creëert een gemeenschappelijk gevoel aan een belangrijke opdracht / missie te werken.
- Mijn leidinggevende maakt dat ik trots ben met hem/ haar samen te werken.
- Mijn leidinggevende vergroot de uitstraling van zijn/ haar bekwaamheid door middel van zijn/ haar woorden en daden.
- Mijn leidinggevende maakt mij bewust van belangrijke gemeenschappelijke waarden, aspiraties en idealen.
- Mijn leidinggevende geeft mij vertrouwen dat hij/ zij elke hindernis kan nemen.
- Mijn leidinggevende zorgt dat ik volledig vertrouwen in hem/ haar heb.
- Mijn leidinggevende is voor mij een symbool van succes en bekwaamheid.
- Mijn leidinggevende draagt een duidelijke visie op mogelijkheden in de toekomst uit.
- Mijn leidinggevende luistert naar zaken die voor mij van belang zijn.

Rolondubbelzinnigheid

- Ik voel me zeker over de hoeveelheid zeggenschap die ik heb.
- Voor de uitvoering van mijn functie bestaan duidelijke, vastgestelde doelstellingen.
- Ik weet dat ik mijn tijd op de juiste wijze verdeel.
- Ik weet wat mijn verantwoordelijkheden zijn.
- Ik weet precies wat er van mij verwacht wordt.
- De uitleg over datgene wat in mijn functie gedaan moet worden, is helder.

Rolconflict

- Ik moet dingen doen die eigenlijk anders uitgevoerd zouden moeten worden.
- Ik moet regels of beleid overtreden om een opdracht uit te kunnen voeren.
- Ik ontvang opdrachten zonder de mankracht om het uit te voeren.
- Ik werk met twee of meer groepen/ teams die behoorlijk verschillend werken.
- Ik ontvang tegenstrijdige verzoeken van twee of meer mensen.
- Ik doe dingen die gauw door de een worden geaccepteerd, maar niet door een ander.
- Ik ontvang een opdracht zonder geschikte hulpmiddelen en materialen om het uit te voeren.
- Ik werk aan onnodige dingen.

Tevredenheid met beloning en waardering

- Hoe tevreden ben jij met jouw salaris?
- Hoe tevreden ben jij met jouw salaris in vergelijking met het salaris van andere mensen die hier werken?
- Hoe tevreden ben jij in het algemeen met de beloning en waardering die jij voor jouw prestaties ontvangt?
- Hoe tevreden ben jij met de arbeidsvooraarden die jij naast jouw salaris ontvangt?

Tevredenheid met communicatie

- Hoe tevreden ben jij over informatie omtrent (verandering van) jouw taken?
- Hoe tevreden ben jij over informatie omtrent afdelingszaken?
- Hoe tevreden ben jij over informatie die betrekking heeft op [de werkmaatschappij] als geheel?

Tevredenheid met openheid

- Hoe tevreden ben jij over de mogelijkheden die [de werkmaatschappij] jou biedt om klachten en persoonlijke bezorgdheden te uiten?

Tevredenheid met balans werk-privéleven

- Hoe tevreden ben jij over de mogelijkheden die [de werkmaatschappij] biedt om medewerkers te helpen een balans tussen het privéleven en het werk te creëren?

Tevredenheid met collega's

- Hoe tevreden ben jij over de sfeer van samenwerking onder jouw collega's?
- Hoe tevreden ben jij over de kans om hechte vriendschappen met jouw collega's op te bouwen?
- Hoe tevreden ben jij over de vriendschappelijkheid van jouw collega's?
- Hoe tevreden ben jij over de mate waarin het gemakkelijk is om vrienden te worden met jouw collega's?
- Hoe tevreden ben jij over de manier waarop jouw collega's met elkaar omgaan?

Affectieve betrokkenheid bij het werk

- Het werk dat ik uitvoer, vind ik interessant.
- Het werk dat ik uitvoer, doe ik met plezier.
- Zelfs als ik het geld niet nodig zou hebben, zou ik dit werk blijven uitvoeren.
- Ik ben trots op het werk dat ik uitvoer.

Affectieve betrokkenheid bij de collega's

- Ik zou mijn nek uitsteken voor mijn directe collega's.
- Als ik over mijn directe collega's praat, dan zeg ik eerder "wij" dan "zij".
- Ik voel mij thuis bij mijn directe collega's.
- Ik vind het leuk om met mijn directe collega's om te gaan.
- Met mijn directe collega's praat ik regelmatig over dingen die niets met het werk te maken hebben.
- Ik praat met mijn directe collega's ook over privézaken.
- Ik ga met één of meerdere collega's privé om.
- Als directe collega's privéproblemen hebben, dan trek ik mij dat aan.

Affectieve betrokkenheid bij de werkmaatschappij

- Ik ben er trots op dat ik bij [de werkmaatschappij] werk.
- Ik behoor echt bij de "[werkmaatschappij] familie".
- Dit is een leuk bedrijf om voor te werken.
- [De werkmaatschappij] betekent veel voor mij.
- Ik voel me thuis bij [de werkmaatschappij].
- Ik zou bijna iedere baan accepteren om bij [de werkmaatschappij] te kunnen blijven werken.

Normatieve betrokkenheid bij het werk

- Ik vind het belangrijk dat ik mijn werk zo goed mogelijk uitvoer.
- Ik voel me verantwoordelijk als er fouten ontstaan.
- Ik voel me verantwoordelijk voor mijn werk.
- Ik voel me verantwoordelijk voor verbeteringen in mijn werk.
- Ik vind het belangrijk om netjes te werken.
- Ik vind het belangrijk om oplettend te zijn bij het uitvoeren van mijn werk.
- Ik vind het belangrijk dat men tevreden is over het werk dat ik uitvoer.

Normatieve betrokkenheid bij de collega's

- Elkaar helpen vind ik belangrijk.
- Ik vind het een goede zaak om de handen uit de mouwen te steken voor een collega.
- Wij zijn samen verantwoordelijk voor een goede gang van zaken.

Normatieve betrokkenheid bij de werkmaatschappij

- Als iets mis gaat bij [de werkmaatschappij], dan trek ik mij dat aan.
- Ik voel me mede verantwoordelijk voor de gang van zaken bij [de werkmaatschappij].
- Ik voel me verantwoordelijk voor alle producten en diensten van [de werkmaatschappij].
- De doelen van [de werkmaatschappij] zijn ook mijn doelen.
- Ik voel me mede verantwoordelijk voor veranderingen bij [de werkmaatschappij].
- Ik voel me mede verantwoordelijk voor verbeteringen bij [de werkmaatschappij].
- Ik voel me mede verantwoordelijk voor de goede naam van [de werkmaatschappij].
- Ik voel dat ik verplichtingen heb ten opzichte van [de werkmaatschappij].

Organizational citizenship behavior

- Ik grijp ongevraagd in als daardoor fouten bij anderen voorkomen kunnen worden.
- Als ik klaar ben, dan help ik mijn collega zodat die ook sneller klaar is met zijn/ haar werk.
- Ik ben aanwezig bij bijeenkomsten, ook al zijn deze niet verplicht.
- Ik ga toch werken, ook al heb ik een excus om weg te blijven.
- Als anderen in de problemen komen, dan verricht ik extra werk, ondanks dat het me niet is opgedragen.
- Wanneer ik zie dat iemand problemen heeft met het uitvoeren van het werk help ik hem/ haar daarbij.
- Ik denk mee over voorstellen die het leven binnen mijn afdeling verbeteren.
- Ondanks een verandering zal ik toch zoveel mogelijk proberen mee te doen met het werk.

Vertrekintentie

- Ik heb sinds mijn indiensttreding er weleens over gedacht om ander werk te gaan zoeken.
- Als het aan mij ligt, zal ik over twee jaar nog bij [de werkmaatschappij] werken.
- Zodra ik de gelegenheid krijg om bij een ander bedrijf te gaan werken, grijp ik de kans.
- Over niet al te lange tijd ga ik weer actief op zoek naar een functie bij een ander bedrijf.

Appendix 2. Response profile

Table 7. Response structured by subsidiary company (in numbers and per cent)

Subsidiary company	Population (in numbers)	Response (in numbers)	Response (in per cent)
Abemec	185	112	61%
Agerland	169	86	51%
Agrarische Unie	72	52	72%
Bonda	60	41	68%
CCL	106	73	69%
Cooperation	6	4	67%
Voeders	581	316	54%
Overall ^a	1179	684	58%

Note

^a 3 respondents did not specify the subsidiary company

Table 8. Response structured by personal characteristics (in per cent)

Personal characteristics	Response (in per cent)	
Gender ^a	Men	81%
	Women	19%
Age ^b	≤ 20 years	5%
	21 to 30 years	12%
	31 to 40 years	20%
	41 to 50 years	29%
	51 to 60 years	32%
	> 60 years	2%
Educational level ^c	Lower school	3%
	VMBO	28%
	HAVO	4%
	VWO	3%
	MBO	34%
	HBO	24%
	WO	4%
Marital status ^d	Married	69%
	Living together	11%
	Unmarried, with partner	6%
	Unmarried, no partner	14%
Family status ^e	Children, living at home	55%
	Children, living on their own	17%
	No children	28%

Notes

^a 6 respondents did not specify their gender

^b 24 respondents did not specify their age

^c 8 respondents did not specify their educational level

^d 9 respondents did not specify their marital status

^e 12 respondents did not specify their family status

Appendix 3. Results on antecedent and outcome variables

Table 9. Means and standard deviations (i.e., SD) for skill variety

Subsidiary company	Skill variety	
	Mean ^a	SD
Overall	0.78	0.15
Abemec	0.81	0.15
Agerland	0.73	0.16
Agrarische Unie	0.77	0.20
Bonda	0.81	0.14
CCL	0.81	0.17
Voeders & Cooperation	0.78	0.13

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 10. Means and standard deviations (i.e., SD) for task significance

Subsidiary company	Task significance	
	Mean ^a	SD
Overall	0.57	0.20
Abemec	0.62	0.19
Agerland	0.54	0.20
Agrarische Unie	0.56	0.16
Bonda	0.59	0.22
CCL	0.56	0.20
Voeders & Cooperation	0.56	0.20

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 11. Means and standard deviations (i.e., SD) for task identity

Subsidiary company	Task Identity	
	Mean ^a	SD
Overall	0.64	0.21
Abemec	0.64	0.21
Agerland	0.65	0.17
Agrarische Unie	0.58	0.21
Bonda	0.64	0.29
CCL	0.71	0.19
Voeders & Cooperation	0.64	0.21

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 12. Means and standard deviations (i.e., SD) for autonomy

Subsidiary company	Autonomy	
	Mean ^a	SD
Overall	0.70	0.20
Abemec	0.72	0.17
Agerland	0.68	0.22
Agrarische Unie	0.66	0.28
Bonda	0.74	0.18
CCL	0.67	0.22
Voeders & Cooperation	0.70	0.19

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 13. Means and standard deviations (i.e., SD) for feedback

Subsidiary company	Feedback	
	Mean ^a	SD
Overall	0.53	0.21
Abemec	0.53	0.18
Agerland	0.59	0.17
Agrarische Unie	0.52	0.23
Bonda	0.50	0.18
CCL	0.55	0.18
Voeders & Cooperation	0.52	0.22

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 14. Means and standard deviations (i.e., SD) for growth need strength

Subsidiary company	Growth need strength	
	Mean ^a	SD
Overall	0.76	0.18
Abemec	0.79	0.13
Agerland	0.78	0.16
Agrarische Unie	0.74	0.24
Bonda	0.76	0.16
CCL	0.77	0.18
Voeders & Cooperation	0.75	0.19

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 15. Means and standard deviations (i.e., SD) for perceived organizational support

Subsidiary company	Perceived organizational support	
	Mean ^a	SD
Overall	0.51	0.18
Abemec	0.50	0.17
Agerland	0.55	0.14
Agrarische Unie	0.50	0.15
Bonda	0.61	0.16
CCL	0.50	0.18
Voeders & Cooperation	0.50	0.20

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 16. Means and standard deviations (i.e., SD) for transactional leadership

Subsidiary company	Transactional leadership	
	Mean ^a	SD
Overall	0.38	0.20
Abemec	0.41	0.16
Agerland	0.44	0.17
Agrarische Unie	0.35	0.21
Bonda	0.38	0.22
CCL	0.40	0.16
Voeders & Cooperation	0.36	0.23

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered sufficient to good; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are insufficient

Table 17. Means and standard deviations (i.e., SD) for transformational leadership

Subsidiary company	Transformational leadership	
	Mean ^a	SD
Overall	0.49	0.24
Abemec	0.50	0.19
Agerland	0.55	0.21
Agrarische Unie	0.47	0.20
Bonda	0.44	0.31
CCL	0.55	0.21
Voeders & Cooperation	0.45	0.26

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 18. Means and standard deviations (i.e., SD) for role ambiguity

Subsidiary company	Role ambiguity	
	Mean ^a	SD
Overall	0.69	0.14
Abemec	0.68	0.13
Agerland	0.72	0.13
Agrarische Unie	0.58	0.23
Bonda	0.72	0.11
CCL	0.70	0.14
Voeders & Cooperation	0.70	0.12

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 19. Means and standard deviations (i.e., SD) for role conflict

Subsidiary company	Role conflict	
	Mean ^a	SD
Overall	0.37	0.17
Abemec	0.42	0.16
Agerland	0.34	0.18
Agrarische Unie	0.40	0.20
Bonda	0.34	0.15
CCL	0.34	0.17
Voeders & Cooperation	0.36	0.18

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered sufficient to good; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are insufficient

Table 20. Means and standard deviations (i.e., SD) for satisfaction with rewards and recognition

Subsidiary company	Satisfaction with rewards and recognition	
	Mean ^a	SD
Overall	0.52	0.18
Abemec	0.47	0.17
Agerland	0.52	0.16
Agrarische Unie	0.49	0.19
Bonda	0.61	0.19
CCL	0.55	0.18
Voeders & Cooperation	0.52	0.18

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 21. Means and standard deviations (i.e., SD) for satisfaction with communication

Subsidiary company	Satisfaction with communication	
	Mean ^a	SD
Overall	0.53	0.17
Abemec	0.52	0.16
Agerland	0.57	0.15
Agrarische Unie	0.46	0.17
Bonda	0.55	0.18
CCL	0.55	0.18
Voeders & Cooperation	0.54	0.18

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 22. Means and standard deviations (i.e., SD) for satisfaction with openness

Subsidiary company	Satisfaction with openness	
	Mean ^a	SD
Overall	0.52	0.24
Abemec	0.52	0.25
Agerland	0.58	0.21
Agrarische Unie	0.45	0.26
Bonda	0.59	0.23
CCL	0.50	0.24
Voeders & Cooperation	0.52	0.24

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 23. Means and standard deviations (i.e., SD) for satisfaction with work-life balance

Subsidiary company	Satisfaction with work-life balance	
	Mean ^a	SD
Overall	0.52	0.23
Abemec	0.46	0.24
Agerland	0.55	0.20
Agrarische Unie	0.45	0.28
Bonda	0.61	0.27
CCL	0.52	0.25
Voeders & Cooperation	0.53	0.22

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 24. Means and standard deviations (i.e., SD) for satisfaction with co-workers

Subsidiary company	Satisfaction with co-workers	
	Mean ^a	SD
Overall	0.67	0.17
Abemec	0.69	0.15
Agerland	0.73	0.16
Agrarische Unie	0.72	0.15
Bonda	0.61	0.23
CCL	0.66	0.17
Voeders & Cooperation	0.65	0.17

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 25. Means and standard deviations (i.e., SD) for organizational citizenship behavior

Subsidiary company	Organizational citizenship behavior	
	Mean ^a	SD
Overall	0.72	0.12
Abemec	0.74	0.11
Agerland	0.75	0.13
Agrarische Unie	0.71	0.12
Bonda	0.72	0.11
CCL	0.73	0.12
Voeders & Cooperation	0.72	0.12

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered insufficient; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are sufficient to good

Table 26. Means and standard deviations (i.e., SD) for turnover intention

Subsidiary company	Turnover intention	
	Mean ^a	SD
Overall	0.36	0.20
Abemec	0.41	0.20
Agerland	0.37	0.20
Agrarische Unie	0.39	0.22
Bonda	0.32	0.18
CCL	0.36	0.20
Voeders & Cooperation	0.34	0.19

Note

^a Ranging on a scale from 0 to 1. Means between 0 and 0.40 are considered sufficient to good; means between 0.40 and 0.60 are insufficient to sufficient; means between 0.60 and 1 are insufficient

Appendix 4. Correlation matrix

Table 27. 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	0.78	1.00													
6. Normative commitment to co-workers	0.52	0.54	0.68	0.73	1.00												
7. Organizational citizenship behavior	0.37	0.54	0.51	0.59	0.69	1.00											
8. Turnover intention	-0.22	0.06	0.05	0.08	-0.29	-0.33	0.12	1.00									
9. Skill variety	0.28	0.21	0.17	0.21	0.12	0.26	0.06	1.00									
10. Task significance	0.22	0.13	0.10	0.15	0.24	0.17	-0.06	0.22	1.00								
11. Task identity	0.12	0.16	0.11	0.13	0.15	0.07	0.17	-0.08	0.05	0.15	1.00						
12. Autonomy	0.39	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	0.17	0.27	0.17	0.26	0.25	0.21	-0.08	0.10	0.12	0.13	0.31	1.00				
14. Growth need strength	0.31	0.38	0.32	0.32	0.20	0.40	0.47	-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	0.18	0.08	0.20	0.10	0.17	0.23	0.19	0.04	0.03	0.11	0.00	0.08	0.18	0.26	0.54	1.00	
17. Transformational leadership	0.32	0.23	0.31	0.22	0.35	0.31	0.27	-0.08	0.06	0.13	0.07	0.12	0.59	0.26	0.57	0.58	1.00
18. Role unambiguity	0.31	0.37	0.20	0.34	0.37	0.30	0.34	-0.10	0.09	0.14	0.53	0.20	0.26	0.15	0.22	0.17	1.00
19. Role conflict	-0.05	0.02	0.12	0.13	-0.03	0.3	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	0.39	0.21	0.29	0.17	0.40	0.26	0.22	-0.20	-0.23	-0.08	0.05	0.08	0.23	0.08	0.32	0.20	0.25
21. Satisfaction with communication	0.37	0.22	0.28	0.24	0.45	0.38	0.31	-0.12	0.05	0.05	0.12	0.15	0.1	0.17	0.48	0.28	0.55
22. Satisfaction with openness	0.33	0.12	0.21	0.15	0.41	0.32	0.22	-0.17	0.02	-0.02	0.08	0.14	0.26	0.11	0.52	0.32	0.23
23. Satisfaction with work-life balance	0.25	0.16	0.22	0.18	0.39	0.29	0.20	-0.12	-0.07	-0.11	0.12	0.12	0.27	0.08	0.22	0.20	0.33
24. Satisfaction with co-workers	0.32	0.36	0.61	0.36	0.34	0.26	0.37	0.02	0.06	0.23	0.11	0.18	0.34	0.25	0.23	0.18	0.33
25. Contract type	0.01	-0.112	-0.111	0.110	-0.09	-0.07	-0.04	-0.01	-0.18	-0.118	0.110	-0.15	0.10	0.09	0.10	0.16	0.11
26. Average working hours per week	-0.08	-0.07	-0.03	-0.06	0.03	0.08	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	-0.05	-0.05	0.12	0.05	0.09	0.09	-0.04	0.01	-0.06	0.01	-0.03	-0.15	-0.22	-0.12	-0.22	-0.21
28. Job tenure	-0.02	-0.05	-0.01	-0.06	0.08	0.02	0.00	-0.07	0.01	-0.04	0.08	-0.05	-0.19	-0.21	-0.13	-0.20	-0.26
29. Company-specific education	0.21	0.26	0.24	0.26	0.24	0.19	0.24	0.04	0.35	0.14	-0.01	0.16	0.04	0.19	0.17	0.21	0.41
30. Age	-0.08	-0.13	-0.12	-0.05	-0.06	-0.17	-0.10	-0.05	-0.14	-0.14	0.02	-0.16	-0.13	-0.12	-0.08	-0.11	-0.09
31. Gender	-0.01	-0.07	-0.08	0.10	0.11	0.06	-0.10	-0.10	0.02	0.02	0.05	-0.03	-0.17	-0.12	-0.10	-0.25	-0.22
32. Marital status	0.07	0.10	0.05	0.03	-0.11	0.02	-0.10	-0.13	-0.07	0.08	-0.1	0.03	0.02	0.04	0.01	0.20	0.09
33. Parental status	-0.05	-0.02	-0.04	-0.05	-0.05	-0.10	-0.09	-0.08	-0.07	-0.02	-0.05	0.08	0.06	0.03	0.16	0.09	

Table 28. 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 unambiguity																
19. Role conflict																
20. Satisfaction with rewards and recognition	0.25	-0.13	1.30													
21. Satisfaction with communication	0.25	-0.18	0.17	1.00												
22. Satisfaction with opportunities	0.30	-0.13	0.42	0.59	1.00											
23. Satisfaction with work-life balance	0.30	-0.13	0.38	0.45	0.80	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	-0.08	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	-0.06	-0.05	-0.03	-0.14	-0.33	0.17	1.00						
28. Job tenure	0.07	0.05	0.03	-0.06	-0.04	-0.01	-0.09	-0.26	0.14	0.68	1.00					
29. Company-specific education	0.16	0.04	0.22	0.12	0.13	0.19	0.17	-0.04	-0.24	-0.51	-0.26	1.00				
30. Age	-0.05	-0.06	0.03	-0.08	-0.08	-0.03	-0.22	0.20	-0.18	-0.10	-0.32	-0.07	1.00			
31. Gender	0.02	0.07	0.03	-0.06	-0.02	-0.03	-0.21	-0.10	0.22	0.77	0.58	-0.32	-0.08	1.00		
32. Marital status	0.06	-0.17	0.07	0.10	0.08	0.16	0.07	0.05	-0.11	-0.15	0.01	0.16	-0.18	1.00		
33. Parental status	-0.06	-0.21	-0.06	-0.05	0.00	0.01	0.04	0.06	-0.17	-0.21	0.06	0.07	-0.19	0.04	-1.00	

Appendix 5. Scale for measuring growth need strength

Scale for measuring growth need strength from Warr, Cook & Wall (1979)

Introduction

Now let's look at the things that matter to you in a job. What things are important in a job and what things are less important in your opinion? I'd like you to think about paid work in general—any paid job you might do or might like to do, not just your present job. I'm going to mention a number of characteristics which you might look for in a job. Please show me on (...) [a scale ranging from 'not at all important' to 'extremely important'] how important each one is when you think about jobs you would like to have.

- Using your skills to the maximum
- Achieving something that you personally value
- The opportunity to make your own decisions
- The opportunity to learn new things
- Challenging work
- Extending your range of abilities