The Relationships Between Ethical Climates, Ethical Ideology, and Organisational Commitment

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THE RELATIONSHIPS BETWEEN
ETHICAL CLIMATES, ETHICAL IDEOLOGY,
AND ORGANISATIONAL COMMITMENT

A THESIS

BY

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This thesis is presented for the degree of
Doctor of Philosophy of the University of Notre Dame Australia
2008
Declaration of Authorship

This thesis is my own work and contains no material which has been accepted for the award of any degree or diploma in any other institution.

To the best of my knowledge, the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Martinus Parnawa Putranta
ABSTRACT

A critical problem which faces higher education institutions in Indonesia is that of being able to generate staff’s commitment notwithstanding the inability of the institutions to provide their staff with comparable remuneration. This research sought to ascertain the potential of alternatives to extrinsic rewards in facilitating staff’s commitment in the Indonesian Catholic higher education institutions context. Two ethics-related variables, namely, institutional ethical climates and staff’s ethical ideology were chosen as the possible predictors. The choice was deemed relevant in respect of the endeavours of the institutional leaders to introduce codes of ethics to their institutions.

A conceptual model delineating the relationships between organisational commitment, ethical climates, and ethical ideology was developed and tested in this research. A two-step structural equation modelling procedure was used as the primary statistical technique to test the hypothesised relationships.

This research built upon the work of Cullen, Parboteeah, and Victor (2003) by focusing on the relationships between ethical climates and organisational commitment through an examination of the nexus between ethical climates types, not only with affective but also with continuance and normative commitment. Additionally, ethical ideology was put to the examination to test the potentiality of this variable for mediating the relationships.

The research involved permanent staff of nine Catholic higher education institutions in seven cities on the island of Java, Indonesia. It was conducted during the period of July to September 2005. A cross-sectional survey was employed as the primary method to collect the data. The fieldwork comprised the distribution of a self-administered questionnaire to potential respondents through direct contact. A purposive or judgmental sampling was used to identify and invite respondent participation. A total of 1,000 questionnaires were distributed of which 642 were usable, representing the overall response rate of 68.15%.

Findings of this research demonstrated that the validity of Allen and Meyer’s (1990) three-component model of organisational commitment, Victor and Cullen’s (1987; 1988) multidimensional model of ethical climates, and Forsyth’s (1980) two-dimension model of ethical ideology were confirmed in the research sample.

Of the theoretical nine ethical climates types, only six were identified in this research. The six emergent climates involved two egoistic, one benevolent, and three principle-based climates. One of the egoistic climates, namely, company profit was undocumented. However, all egoistic and principle-based climates emerged in this research were found to be consistent with the theoretical ethical climates typology. The three types of theoretical benevolent climates did not appear as discrete climates. Instead, they merged together as a single climate. This climate was perceived by the majority of the staff as being more dominant (M = 3.543) in their institutions than the other climates.
Of the three commitment forms, the means for the normative and affective commitment were found to be relatively equal (\( M = 5.251 \) and \( M = 5.234 \), respectively). The lower mean (\( M = 4.689 \)) was shown in continuance commitment. These findings indicated that the commitment of the staff to their institutions was largely based on their desires to identify with and be involved in the institutions and their sense of obligation to stay, rather than on their perceived costs of leaving the institutions.

With regard to staff’s ethical ideology, it was shown that the mean of idealism (\( M = 7.649 \)) was somewhat higher than that of relativism (\( M = 5.480 \)). This implied that the majority of staff of the institutions were relatively more reliant on universal moral principles (idealism) than on the rejection of such principles (relativism) in making their decisions.

Results from the research also revealed that affectively committed staff were less likely to be developed when the staff perceived their institutions as having egoistic climates. Conversely, benevolent climate was shown to have potential for generating not only affective, but also continuance and affective commitment of the staff. However, statistical results suggested the potentiality of this climate for cultivating continuance commitment need to be tested further. Principle-based climates were found to have potential for facilitating staff’s affective commitment through their direct positive impacts on staff’s adherence to moral principles (or idealistic ethical ideology). As expected, the principle-based climate of professional codes was shown to have a negative influence on relativism. Finally, the findings of this research suggested a significant, positive direct effect of affective commitment on normative commitment.

These findings contributed greatly to the understanding of the employment relationship within a high context employment setting. As such this research had a number of scholarly and managerial implications and these have been outlined accordingly. Given the limitations of this research a number of directions of future studies have also been discussed.

**Keywords**: ethical climate, ethical ideology, organisational commitment, Catholic higher education institutions, Indonesia.
DEDICATION

This thesis is dedicated to the memory of my dearest parents – Paulus and Catharina Soeparna – both of whom passed from this life while the research project was in progress.
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Heartfelt appreciation is extended to the following persons who have been instrumental in the research and writing of this thesis.

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LIST OF DEFINITIONS


Affective commitment - an employee’s emotional attachment to, identification with, and involvement in the organisation (Allen & Meyer, 1990).

Continuance commitment - an employee’s tendency to continue employment in the organisation based on the employee’s recognition of the costs associated with leaving the organisation (Allen & Meyer, 1990).

Normative commitment - an employee’s feeling of obligation to remain with the organisation (Allen & Meyer, 1990).

Ethical climate - the organisational members’ shared perceptions of norms, values, and practices regarding appropriate behaviour in the organisation (Victor & Cullen, 1987).

Egoistic climate - a climate where company norms support the satisfaction of self-interest (Victor & Cullen, 1987).

Benevolent climate – a climate where company norms endorse caring for the well-being of each other (Victor & Cullen, 1987).

Principle-based climate – a climate where company norms support following abstract principles independent of situational outcomes (Victor & Cullen, 1987).

Ethical ideology - a system of ethics used to make moral judgments, which often offers guidelines for judging and resolving behaviour that may be ethically questionable (Henle, Giacalone & Jurkiewicz, 2005).
**Idealism** - the extent to which an individual adheres to universal moral values when making moral judgments (Forsyth, 1980).

**Relativism** - the extent to which an individual tolerates deviation from universal moral values when making moral judgments (Forsyth, 1980).

**Permanent staff** – those who join an organisation with the expectation of a long and close relationship with the organisation (McDonald & Makin, 2000).
CHAPTER ONE
INTRODUCTION

Introduction

This research built upon the work of Cullen, Parboteeah, and Victor (2003). It ascertained how personal and organisational ethics might be employed to cultivate organisational commitment. The ultimate purpose of the research was to develop and test a conceptual model delineating the nexus between ethical climates types, ethical ideology, and various forms of organisational commitment.

The research was conducted in the context of denominational higher education institutions in Indonesia - a collectivistic, non-Western culture. This context has been relatively unexplored in prior studies.

This chapter begins with the rationales for conducting this research followed by the identification of the central problem of the research. Purpose of the research is elaborated in the subsequent section. The chapter continues with the details of research questions that were developed in the research. The significance of the research is then discussed. Next, the assumptions, delimitations and limitations, as well as ethical considerations of the research are explained respectively. The organisation of the research will be outlined before concluding remarks end this chapter.

1.1 Background to the Research

Globalisation – which is marked by the accelerating movement of goods, services, people, institutions, and information across national borders – has drastically changed the nature of economy and trade in the world. Countries with low labour costs or plentiful natural resources can no longer utilise these comparative advantages in isolation.
advantages as the main sources of survival in the highly competitive global market. Globalisation has also shifted the manufacturing-and-service-based economies to knowledge-based economies (The Futures Project, 2000). Consequently, the knowledge quality of people becomes the primary basis of competitive advantages for every nation (Bloom, 2002). Given that knowledge can be obtained through education, the roles of higher education institutions are vital to the development of such competitiveness (Enemark, 2005). These institutions cannot serve as traditional learning institutions any more since they have to be the knowledge creators that continuously access ideas and technologies developed everywhere in the world and then put them into practice (Bloom, 2002; Brodjonegoro, 2002).

For developing countries, these forces generate great challenges (Brodjonegoro, 2002) in viewing the fact that higher educations in these countries are falling further behind due to poor quality, lack of significant contributions to knowledge and failure to advance the public interests (World Bank, 2002). Educational reforms then become alternatives to help the quality of these higher educations meet the demands of globalisations (Bloom, 2002).

To meet these demands, the Indonesian government has implemented reforms in higher education in which quality assurance is foremost. All Indonesian public and private higher education institutions are subject to these reforms. The Indonesian Catholic higher education institutions are not exempted since they are integral part of the Indonesian private higher education institutions.

Under this new scheme, centralistic practices that had been experienced by the Indonesian public and private higher education institutions over the last decades, in which the government had controlled the management of these institutions, are removed (Idrus, 1999). Since the role of the government will be shifted from regulating to facilitating the higher education institutions, the scheme requires drastically changes in the attitudes of all staff of higher education institutions in Indonesia (Guhardja, 2005). Implicit in the requirement is that institutional or organisational commitment is a key aspect to implementation of the scheme. This aspect of the reforms underlined the rationale of this research.
Organisational commitment, as its name denotes, has been regarded as having work behavioural impacts that are instrumental in organisational success (Meyer & Herscovitch, 2001). Highly committed employees are found to exhibit better job performance (Stephens, Dawley, & Stephens, 2004) and higher levels of attendance (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). The potential of commitment for facilitating employee’s intention to participate in professional activity is also confirmed (Snape & Redman, 2003). In addition, commitment has been considered influential in the development of organisational citizenship behaviour - the employee’s willingness to do more than is required by organisations (Chen & Fransesco, 2001; Kuehn & Al-Busaidi 2002).

Conversely, employees who are less committed to their organisations tend to show higher levels of absenteeism (Sommers, 1995). A similar pattern of relationship is found in regard to employee’s turnover (Gautam, van Dick, & Wagner, 2001; Sommers, 1995). Commitment is also found as the determinant of intention to leave, that is, the less committed the employees the more likely they will leave their organisations (Cuskelly & Boag, 2001; Turner & Chelladurai, 2005). There is no doubt that these behaviours are detrimental in any organisations. Employee’s voluntary turnover, for example, will lead to the organisations having to put considerable efforts in recruiting, selecting and training replacements (Buck & Watson, 2002; Rosser & Townsend, 2006). Clearly, the lack of committed employees would be dysfunctional to the organisations.

Borrowing from these findings, one might conclude that preserving employee’s commitment is indisputable. Therefore, discerning factors that contribute to the development of organisational commitment is crucial. The same may be said of all higher education institutions in Indonesia, particularly, with respect to the needs of these institutions of having committed staff’s in response to the reforms. Moreover, it is essential for the leaders of the institutions to design managerial approaches that enable the cultivation of staff’s commitment.

Efforts to determine the predictors of organisational commitment in higher education institutions have been conducted. Marchiori and Henkin (2004) reveal that tenure, gender, and age are found to be the most important determinants of organisational
commitment of full-time and part-time faculty in the United States and Canada. Chughtai and Zafar (2006) demonstrate the significant influence of job satisfaction in developing the commitment of full-time lecturers in Pakistan. However, little is understood as to whether these studies have relevance in an Indonesian context.

Whilst commitment is indispensable in higher education institutions, maintaining committed staff in these institutions has been considered problematic. It has been argued that one of the problems lies in the inability of the institutions to provide their staff with comparable remuneration. In addition, the members of the institutions very often have to perform additional duties that are unaccompanied by any financial rewards (Oberholster & Taylor, 1999). Similar phenomena are also prevalent in many higher education institutions in Indonesia (Idrus, 1999).

Considering that the government reforms are requiring more efforts in the short-term while the reforms take effect, these phenomena might put the leaders of the Indonesian higher education institutions in a quandary. Discovering alternatives to extrinsic rewards that might contribute to the development of commitment amongst the staff of these institutions is deemed necessary.

1.2 Research Problem

The need of discovering alternatives to extrinsic rewards underpins the central managerial problem facing the institutional leaders, namely, what alternatives to extrinsic rewards should be manipulated to generate and maintain committed staff of higher education institutions?

Prior studies have shown that perceived work environment (or climate) is one of the alternatives to extrinsic reward that is influential in enhancing academic staff’s commitment to their institution. That is, the academics would feel more inclined to help the institution achieve its goals when they perceive the institution provides them with organisational supports (Fuller, Hester, Barnett, & Frey, 2006; Winter & Sarros, 2002). A call is also proposed to identify the climate aspects that might facilitate the academics’ commitment (Winter & Sarros, 2002).
Although the studies have added significantly to the importance of climate in cultivating organisational commitment in educational contexts, none specifically tapped the underlying moral values of the organisation that employees are exposed in their daily tasks. This is an important facet of such moral-based organisations because it is essential to examine whether the moral values that are practiced towards external stakeholders also hold with internal stakeholders.

With this in mind, the ethical aspect of climate (or ethical climate) was examined as the possible predictor in this research. On this point, there is a paucity of studies investigating the potential of this aspect for fostering organisational commitment in the context of denominational higher education institutions.

In this regard, a link between organisational commitment and moral-related variables is likely to exist because the conception of organisational commitment carries moral overtones, such as a sense of identification and reciprocation (Coughlan, 2005; Schrag, 2001).

Conceptual and empirical arguments for this relationship can be made (Weeks, Loe, Chonko, & Wakefields, 2004). Employees who perceive their organisation as having ethical considerations in organisational decision making will exhibit stronger desires to stay in the organisations. This is likely to occur, particularly, when employees feel that their personal ethical values fit those of the organisation (Schwepker, 1999; Sims & Kroeck, 1994).

Empirical studies in business settings have confirmed this argument. Employees are found to be affectively committed to their organisations when they perceive their organisation as encouraging members to consider the well-being of each other. A negative association is shown when the employees perceive their organisation as facilitating the self interest of the members Cullen, Parboteeah, & Victor, 2003; Kelley & Dorsch, 1991).

These findings inspired this research to examine whether similar relationships might be found in denominational educational institutions sites. The understanding of the
relationships might help the leaders of the institutions become aware of moral-based managerial approaches that encourage or discourage the commitment of their staff.

The potential of personal ethics or ethical ideology for mediating the relationship between ethical climate and organisational commitment was also examined in this research. The examination was considered necessary given that previous studies have shown the significant relationship of ethical ideology with ethical climate (Karande, Rao, & Singhapakdi, 2000; Ming & Chia, 2005) as well as with organisational commitment (Shaub, Finn & Munter, 1993).

Stemming from this central research problem, a number of key research questions needed to be addressed and these are discussed in section 1.4.

1.3 Purpose of the Research

The main purposes of this research were twofold. First, it developed a conceptual model delineating the relationships between the multidimensional constructs of organisational commitment and ethical climate as well as the two dimensional construct of ethical ideology. Second, it tested the direct and indirect effects of certain types of ethical climates on certain facets of organisational commitment. Ethical ideology was designated as a potential mediating variable in these relationships. The proposed conceptual model representing the nexus between the three constructs which was drawn from literature and empirical studies is presented in Figure 2.1 in Chapter Two.

Three pre-existing scales were chosen to measure the constructs. Allen and Meyer’s (1990) three-component model of organisational commitment was used to assess the staff’s commitment to their institutions. To measure the perceptions of the staff towards the ethical climates of their institutions, the revised version of Victor and Cullen’s (1987; 1988) ethical climate questionnaire refined by Cullen, Victor and Bronson (1993) was employed. The ethical ideology of the staff was tapped using Forsyth’s (1980) two-dimension model of ethical ideology. The reliability and validity of the three scales have been confirmed by previous studies (e.g., Cetin,
Prior to the examination of the relationships, the three scales were assessed in respect of their applicability to the Indonesian context by considering a sample in the research. This assessment was considered necessary given that the scales were originated in Western countries. The main objectives of the assessments were to test the validity of their dimensionality.

Therefore, the first three purposes of this research were to scrutinise (1) whether various types of ethical climates are present; (2) whether different forms of organisational commitment are found, and (3) whether two dimensions of ethical ideology are valid in the Catholic higher education institutions in Indonesia.

Once the dimensionality of the three constructs was assessed, the fourth purpose was (4) to examine whether the particular types of ethical climates of the institutions, as perceived by the staff, had specific relationships with different forms of organisational commitment exhibited by the staff.

Empirical studies in business contexts (Karande, Rao, & Singhapakdi, 2000; Ming & Chia, 2005) reveal that organisational ethical climates contribute to the shaping of the ethical ideology of their members. Ethical ideology refers to an individual’s orientation in approach to ethical judgment, which can be classified into two categories: idealism and relativism (Forsyth, 1980). Individuals with high levels of idealism adhere to moral absolutes, natural laws, and traditional norms when making ethical judgements (Chonko, Wotruba, & Loe, 2003; Steenhaut & van Kenhove, 2006). Those with high degrees of relativism tend to discount personal gains derived from a strict adherence to any standardised ethical codes (Tansey, Brown, Hyman, & Dawson, 1994).

With reference to these findings, the fifth purpose of this research was to (5) examine whether significant relationships were found between particular types of ethical climates of the institutions and the ethical ideology of the staff, namely, idealism and
relativism. In keeping with the fundamental natures of idealism (i.e., the adherence to moral principles) and relativism (i.e., the rejection of moral principles) the main focus of the examination was on the relationships between these two types of ethical ideology and ethical climates based upon rules (or principle-based climates).

Cullen et al. (2003) note that the relationships between principle-based climates and individuals’ organisational commitment would only be relevant when the individuals have strong needs of adherence to rules and find that the organisational codes fit their personal values, or when they have internalised values that come from outside organisations, such as professional codes, religious values, and universal moral values.

Principle-based climates were considered relevant in this research for two reasons. Firstly, the ethical ideology (or personal moral philosophy) of the staff was examined. Secondly, the sites under which this research was conducted were denominational institutions where Catholic values form the basis of their operations and were assumed to be translated into their organisational codes or to be internalised in their staff. Therefore, the sixth purpose of this research was (6) to investigate whether the idealistic orientation of the staff was associated with the affective commitment to their institutions.

Finally, this research also aimed (7) to ascertain whether the staff’s orientation to universal moral rules (or idealism) mediated the relationships between the principle-based climates and the affective commitment of the staff.

The specific research questions that address these points, and will highlight a potential solution to the managerial problems are now discussed.

1.4 Research Questions

Based on the forgoing statement of the identified managerial problems, the following research questions will be shown through the analysis of the literature review in
order to provide some indications as to how managers can solve this problem. With this in mind, the following research questions were developed:

1. Is the notion of organisational commitment, as proposed by Allen and Meyer (1990) valid within the Indonesian Catholic higher education institutions context?

2. Is the notion of ethical climate, as conceptualised by Victor and Cullen (1987; 1988) valid within the Indonesian Catholic higher education institutions context?

3. Is the notion of ethical ideology, as suggested by Forsyth (1980) valid within the Indonesian Catholic higher education institutions context?

4. How do various types of institutional ethical climates relate to different facets of staff’s commitment towards the higher education institution they are working within?

5. How do various types of institutional principle-based climates relate to staff’s ethical ideology dimensions?

6. How does the idealistic ethical ideology of staff relate to their affective commitment towards the higher education institutions they are working within?

7. Does the idealistic ethical ideology of staff mediate the relationship between the institutional principle-based climates and the staff’s affective commitment to the higher education institutions?

1.5 Significance of the Research

As was discussed earlier, a critical problem which faces higher education institutions in Indonesia is that of being able to generate staff’s commitment notwithstanding the inability of the institutions to provide their staff with comparable remunerations. In this regard, exploring alternatives to extrinsic rewards that might contribute to the formation of staff’s commitment is essential.
This research endeavoured to ascertain such alternatives by way of testing the potential of institutional ethical climate and staff’s ethical ideology for enhancing staff’s commitment towards their institutions. Hence, this research imparted institutional leaders with the understandings of how organisational and individual ethics might be employed to inculcate organisational commitment. In the context of the research, this understanding was considered important in respect of the efforts of the leaders to introduce codes of ethics to their institutions.

The validity of Allen and Meyer’s (1990) three-component model of organisational commitment, Victor and Cullen’s (1987; 1988) model of multiple types of ethical climates as well as Forsyth’s (1980) two-dimension model of ethical ideology were examined in this research. Considering that this research was conducted in the Indonesian Catholic higher education institutions, it also provided empirical evidence of these models from institution that ground in moral values and from a collectivistic, non-Western culture.

In contrast to prior studies addressing the impact of ethical climate on organisational commitment (e.g., Cullen et al., 2003; Kelley & Dorsch, 1991) this research addressed the impact not only on the affective dimension but also on the continuance and normative dimensions of organisational commitment. Therefore, this research contributed to filling the gaps in prior studies concerning these relationships, particularly, in denominational educational institution settings.

Empirical studies have confirmed the significant relationship between ethical climate and ethical ideology (Karande, Rao, & Singhapakdi, 2000; Ming & Chia, 2005) as well as the significant association between ethical ideology and organisational commitment (Shaub, Finn & Munter, 1993). On the basis of these findings, it can be argued that ethical ideology has potential to mediate the relationship between ethical climate and organisational commitment. However, this possible relationship left unexamined. Thus, this research contributed to overcoming this deficiency.
1.6 Assumptions of the Research

The self-report questionnaire used to gather the data assumed that genuine and accurate information was provided by the respondents. In viewing of the fact that all data was collected at a single point in time, it was also presumed that there have been no changes in the perceptions of the respondents since that time in relation to the issues that were put to them.

1.7 Delimitations and Limitations

This research was delimited and limited by a number of factors. The accessible population of this research was limited to permanent staff of the Indonesian Catholic higher education institutions on the island of Java that were registered as members of the association of the Indonesian Catholic higher education institutions in the year 2005. Therefore, the results drawn from the findings might not be generalised to any definable populations.

The meanings of organisational commitment, ethical climate, and ethical ideology of the staff were confined to those as operationally and conceptually defined by the three pre-existing scales used in this research. Although the scales have shown distinguished records of robustness, any other dimensions related to the conceptions of the three variables might have been uncovered.

The further limitation of this study was that the respondents were not asked whether they were likely to leave their institutions either for retirements or for other jobs in other organisations in the next few years.

1.8 Ethical Considerations

To ensure that this research was conducted according to the Research Ethics Committee of the University of Notre Dame Australia, the following principles were adopted. Firstly, an ethical clearance was sought and gained from the Research
Ethics Committee of the University of Notre Dame Australia. Secondly, an official request letter to collect data was sent to, and an approval was obtained from, each host institution. Thirdly, a consent form was provided to the respondent giving a brief description and explaining the benefits of the research, warning of a possible uneasiness due to personal questions asked in the research, and giving an assurance of confidentiality and the voluntary nature of participation. Finally, information obtained from the research participant was only presented in aggregate formats. No raw data was given to the host institutions.

1.9 Organisation of the Research

This research is presented through five chapters. The first chapter describes the rationale of the research, research problems, research purpose, research questions, and the significance of the research. Included in this chapter are assumptions, delimitations and limitations as well as ethical considerations of this research. Chapter Two details a literature review. In this chapter basic theories of the variables of interest (organisational commitment, ethical climate, and ethical ideology) are discussed. Empirical studies regarding these variables are also explored. On the basis of the theoretical frameworks and the empirical studies, research hypotheses and a conceptual model are proposed in line with the research questions. Chapter Three addresses the methodology used in this research. It consists of the design of the research, the data collection method, the portrayal of the research context and the sampling method. The measures used in this research are also explored in this chapter including the translation procedures of the measures and a pre-test of the translated measures. The final section of the chapter concerns the technical aspects of the questionnaire of the research to elicit information from research participants. Chapter Four reports the results of the research and the statistical analyses with regard to the proposed hypotheses. Finally, Chapter Five provides the discussion of the findings, scholarly and managerial implications, some limitations of the research as well as suggestions for future research in this area of inquiry.
1.10 Concluding Remarks

In response to the demands of globalisation, the Indonesian government has implemented new reforms to upgrade its higher education systems. The idea of the new reforms is among others to improve the quality of higher education through a quality assurance mechanism. The mechanism involves a continuous process which requires the commitment of all staff of the higher education institutions. This requirement calls for the leaders of the institutions to recognise the importance of maintaining committed staff. However, the inability of the institutions to provide their staff with comparable remuneration has resulted in difficulties for the leaders with preserving staff’s commitment. Thus, discovering alternatives to extrinsic rewards that might contribute to the formation of commitment is considered necessary.

This research aimed to response this call. Of particular interest in this research was perceived work climate regarding ethics (or ethical climate) and ethical ideology (or personal moral philosophy). Specifically, this research attempted to examine the potential of these organisational and personal ethics for facilitating various institutional commitment forms of permanent staff’s in the Indonesian Catholic higher education institutions context
CHAPTER TWO
LITERATURE REVIEW

Introduction

This chapter concerns the theoretical and empirical frameworks of this research. The main purpose of the chapter is to show how and why various types of ethical climates are differently correlated with specific dimensions of organisational commitment. The rationales for examining idealistic ethical ideology as the potential moderating variable on the relationship between principled-based climates and affective commitment will also be explained. This chapter begins with an understanding of organisational commitment - the dependent variables within this research. An overview of moral theories will precede the discussion of the independent variables used in this research given these variables, namely, ethical climate and ethical ideology, ground in the moral theories. Empirical studies regarding the relationship between organisational commitment and the three ethics-related variables will also be reviewed. Proposed hypotheses will be outlined in relevant sections. A conceptual model representing the nexus of ethical climate, ethical ideology, and organisational commitment will also be demonstrated. Concluding remarks are presented in the last section.

2.1 Commitment

In general terms, commitment refers to “a firm promise or agreement” (Collins Cobuild English Language Dictionary 1988, p. 278). The agreement requires a person to take up some of his/her time. This dictionary also uses the term “commitment” to describe a strong belief in an idea or system of an individual reflected in his/her behaviours or actions. Implicit in these definitions is that once people feel being committed to an object they will take a course of action that is consistent with what the object requires.
In literature, various conceptions of commitment have been offered by authors. Becker (1960, p. 32), for example, states “commitments come into being when a person, by making a side bet, links extraneous interests with a consistent line of activity”. Others describe commitment as “the process through which individual interests becomes attached to the carrying out of socially organized patterns of behavior which are seen as fulfilling those interests” (Kanter, 1968, p. 500); “a stabilizing force that acts to maintain behavioural direction when expectancy/equity conditions are not to met and do not function” (Scholl, 1981, p. 593); “the strength of the forces that maintain congruity between one’s identification standard and the reflected appraisals or identity-relevant meanings from the social setting” (Burke & Reitzes, 1991, p. 245); “an obliging force which requires that the person honour the commitment, even in the face of fluctuating attitudes and whims” (Brown, 1996, p. 241).

The various conceptions suggest that commitment is viewed by these authors according to their perspectives or the purposes of their studies. Therefore, a precise definition of commitment is difficult to be described.

Meyer and Herscovitch (2001) strive to underline the core essence of the meaning of commitment. These researchers compile a list of the existing definitions of commitment and then examine their similarities and differences. The similarities suggest that commitment is “a force that binds an individual to a course of action that is of relevance to a particular target” (Meyer & Herscovitch, 2001, p. 301). They believe that the key to the force is a mind-set or psychological state experienced by a person. The differences lie deep in the origins or the nature underlying the binding force. The nature of this force is diverse and these indicate that commitment can take different forms (Brown, 1996; Meyer, Becker, & Vandenberghe, 2004). As will be seen later in this chapter, this conception was adopted in this research.
2.2 The Foci of Commitment

Commitment has an object or foci - a party to which the commitment is made (Brown, 1996; Meyer et al., 2004). This might be a person (e.g. supervisor), a group of persons e.g. work team), an idea (e.g. feminism), or an entity made of people (e.g. organisation). Consistent with the purpose of this research, the discussion of commitment in this chapter will be confined to the commitment of an employee towards his/her organisation or institution which is presented below.

2.3 Organisational Commitment

Morrow (1983) describes organisational commitment as being one of individuals’ commitment forms at work. Furthermore, McElroy, Morrow, and Wardlow (1999) consider work commitment as a constellation of four constructs. The constellation includes commitment to the work itself as a valued activity (work ethic endorsement), commitment to the worth of an individual’s job (career/professional commitment), commitment to one’s job - the extent to which individuals are involved in their daily work activities (job involvement), and commitment to an individual’s organisation as an entity (organisational commitment). Of the four constructs, organisational commitment has been regarded the one that attracts the most intention in the studies of work commitment (McElroy et al., 1999).

As with commitment, the terms “organisational commitment” have been conceptualised in different views. Porter, Steers, Mowday, & Boulian (1974, p. 604) define organisational commitment as “the relative strength of an individual’s identification with and involvement in a particular organization”. Other researchers view commitment as “the psychological attachment felt by the person for the organization; it will reflect the degree to which the individual internalizes or adopts characteristics or perspectives of the organization” (O’Reilly & Chatman, 1986, p. 493); “the totality of internalized normative pressures to act in a way that meets organizational goals and interests” (Wiener 1982, p. 421).
Common to these definitions is that organisational commitment is a bond between an individual and his/her organisation.

Of the various definitions of organisational commitment, the one of Porter et al. (1974) has been considered as the most influential in literature (Elizur & Koslowky, 1999; Hartman & Bambacas, 2000; Matthews & Shepherd, 2002; Reicher, 1985; Shore, Tetrick, & Shore, 2000; Wasti, 2003; Zangaro, 2001). This definition has been referred by authors in their efforts to advance the concepts of organisational commitment (Ketchand & Strawser, 2001; Mowday, 1999; Swailes, 2002).

Irrespective of its popularity and frequent use, Porter’s definition of organizational commitment has been subjected to criticisms. Of the criticisms is that it views a desire to stay in an organisation is a consequence of commitment rather than as part of the definition (Swailes, 2002). Another shortcoming inherent in this definition lies in its inability to show the multidimensional nature of organisational commitment (Jong, Price & Mueller, 1986; Reicher, 1985), a view that is now widely accepted in organisational commitment literature. Given this drawback this view was not adopted in this research to address the research problem.

2.4  Approaches to Organisational Commitment

There have been two dominant schools of thought in organisational commitment studies, namely, behavioural and attitudinal (Cuskelly & Boag, 2001; Meyer & Allen, 1991; Zangaro, 2001). Meyer and Allen state the former views commitment to an organisation as a behavioural persistence whereas the latter as a psychological state. These researchers also note that the other difference between these two approaches lies in research traditions accompanying to each.

The focus of behavioural commitment is upon the way individuals become locked into certain organisations (Mowday, Porter, & Steers, 1982). This approach maintains that commitment is the tendency of a person to continue a
course of action (e.g., remaining in an organisation) because it will be costly to disengage from the actions (Brown, 1996; Meyer & Allen, 1991). According to this approach, individuals’ commitment develops through explicit agreements and/or through their exhibited behaviours that reflect their positions and will bind them to a specified future course of action (Brown, 1996). Thus, the primary objective of research under this approach is to identify conditions that enable such exhibited behaviours to be repeated (Meyer & Allen, 1991). In short, the issue needs to be addressed as to what causes an employee to exhibit organisational commitment – reflected through their action “to stay”.

Attitudinal commitment, on the other hand, concerns the ways people think about their linkage with the organisation (Mowday et al., 1982). This view regards organisational commitment as a psychological state reflecting employee’s relationship to an organisation (Allen & Meyer, 1990). This approach assumes that commitment develops from positive feelings about an organisation. These feelings result from some combination of work experiences, perceptions of the organisation, and personal characteristics (Brown, 1996). Thus, this type of commitment emerges without making an explicit pledge but mainly within the affective domains result from positive attitudes towards the organisation’s goal and values (Brown, 1996; Cuskelly & Boag, 2001). Research on commitment within the attitudinal perspective aims to identify the antecedent conditions that might develop commitment and examine its consequences on work behaviour (Meyer & Allen, 1991).

This research adopted the perspective pertaining to attitude in that it follows the notion of organisational commitment as a psychological attachment. With this in mind, this research also examined ethics-related variables as possible antecedent conditions that might contribute to the development of organisational commitment in higher education institutions contexts.
2.5 The Dimensionality of Organisational Commitment

The main issue of organisational commitment within the attitudinal framework concerns the dimensionality of its construct. Earlier studies on this area (Becker, 1960, Kanter, 1968, Porter et al., 1974, Wiener, 1982) regard this type of commitment as a singular construct. However, more recent studies reveal the multi-dimensional nature of the construct (Allen & Meyer, 1990, Clugston, Howell, & Dorfman, 2000; Wasti, 2003). Mowday (1999) maintains that the distinct interests and focus of the studies contribute to these differences.

Porter et al.’s (1974) Organisational Commitment Questionnaire (OCQ) has been regarded as the most popular scale to measure organisational commitment as a uni-dimensional (or single) construct. The 15-item scale, refined by Mowday et al. (1982), is initially designed to tap the three proposed elements of organisational commitment, namely, identification with, involvement in and a desire to stay in an organisation. However, the results of its factor analysis reveal that all items loaded on a single factor. This suggests that the OCQ is in fact a uni-dimensional scale (Mowday, 1999) measuring emotional aspect of organisational commitment (Mowday, Steer, & Porter, 1979).

Some other uni-dimensional perspectives regard organisational commitment as the extent to which an employee identifies him/herself to his/her organisation (e.g. Cheney, 1987) or an obligation to remain with the organisation (e.g. Wiener, 1982).

Following the attempts of Porter et al., efforts to broaden the concept of organisational commitment have been endeavoured by subsequent studies. According to Meyer and Herscovitch (2001) the rationales for these efforts can be classified into four categories: (1) examining the existing findings (2) drawing a distinction among the earlier uni-dimensional conceptualisations, (3) using established theoretical framework to conceptualise commitment, and (4) some combination of the above three.
Two similar studies by Angle and Perry (1981) and Bar-Hayim and Berman (1992) test Porter’s et al. (1974) uni-dimensional conceptualisation of OCQ. The findings demonstrate two factors underlie the OCQ items. Angle and Perry (1981) label the factors as commitment to stay (for items assessing the willingness to remain) and value commitment (for items assessing support for organisation goals). Bar-Hayim and Berman (1992) name the factors as: (1) passive commitment - identification and involvement, and (2) active commitment - desire to remain.

O’Reilly and Chatman (1986) propose a model based on the work of Kelman (1958) on attitude and behaviour change. Organisational commitment is considered a form of attachment consisting three distinct components, namely, (1) compliance (the adoption of certain attitudes and corresponding behaviours to gain specific rewards), (2) identification (showing accepted behaviour for maintaining satisfying relationship), and (3) internalisation (showing accepted behaviours because of the congruence between individual and organisational values).

Continuing the work of Angle and Perry, Mayer and Schoorman (1992) develop a bi-dimensional conceptualisation of organisational commitment. The two dimensions are: (1) continuance commitment (a desire to remain), and (2) value commitment (the willingness to exert effort).

Drawing on the work of Etzioni (1961) on organisational involvement, Penley and Gould (1988) conceptualise organisational commitment as a multi-dimensional view. Their view is that commitment to an organisation can take three distinct forms, namely, (1) moral commitment (the acceptance and identification with the organisation’s goals), (2) calculative commitment (the congruence between an employee’s contribution and what he/she receives), and (3) alienative commitment (staying in an organisation due to environmental pressures).

Common to these findings is a view of organisational commitment as a multi-dimensional construct. This view appears to be widely accepted within the
literature because it offers a deeper or more specific understanding of organisational commitment.

Of the various multi-dimensional conceptualisations, the three-component model of Allen and Meyer (1990) has been considered as being superior because of the psychometric stability of its scale (McMurray, Scott, & Pace, 2004). This model formed one of the central pillars underpinning this research and will be outlined in more detail in the following section.

2.5.1 Allen and Meyer‘s Three-Component Model of Organisational Commitment

Prior to developing their three-component model, Meyer and Allen (1984) introduce a bi-dimensional model of organisational commitment and label them affective and continuance commitment. In their later study, Allen and Meyer (1990) add a third dimension called normative commitment and incorporate it along with affective and continuance commitment into their model.

The three-component model is developed by way of integrating the similarities and differences in existing conceptualisations of attitudinal commitment. Based on the similarities, these researchers arrive to a conclusion that organisational commitment is “a psychological link between the employee and his or her organization that makes it is likely that the employee will voluntary leave the organization” (Allen & Meyer, 1990; Allen & Meyer, 1996; Meyer & Allen, 1991).

There are a number of differences to an employee’s psychological state (or mind-sets) and these are assumed by researchers to typify commitment (Meyer & Herscovitch, 2001). These various mind-sets depicted in the literature, pertaining to organisational commitment, fall into three distinct themes, namely: (1) emotional attachment to the organisation, (2) perceived cost of leaving, and (3) a sense of moral obligation to remain.
Allen and Meyer use these three themes as the basis in conceptualising the commitment components. Firstly, affective commitment describes the employee’s emotional attachment, identification with, and involvement in an organisation. Secondly, continuance commitment describes commitment based upon perceived cost of leaving an organisation. Finally, normative commitment characterises an employee’s sense of moral obligation to remain in an organisation.

Whilst each of these themes depicts an approach to explaining organisational commitment they believe that the nature of the mind-sets accompanying affective, continuance, and normative commitment are different but they are not mutually exclusive. In short, this indicates an employee might experience all the three forms of commitment in different degrees at the same time. This is highly feasible considering that the mind-set of affective commitment is desire while that of continuance commitment is the perception that it would be costly to disengage from a line of activity and the mind-set accompanying normative commitment is an obligation to carry out that line of activity (Meyer & Herscovitch, 2001).

Furthermore, these researchers describe highly affective committed employees remain in their organisations because they want to. Employees with strong continuance commitment decide to stay in the organisations because they need to do so. Those with high levels of normative commitment continue their organisation memberships because they ought to. Thus, managerial decision makers will benefit from understanding which of the dimensions “drive” commitment, and, what factors are likely to impact upon each of these dimensions.

Considering the different nature of the accompanying mind-sets associated with commitment, they maintain that each of the three components is not only affected by different types of antecedents, but it also has different consequences. The antecedents and consequences of each component will be outlined in sections 2.5.2 and 2.5.3 in this chapter.
To tap the three components in their model, Allen and Meyer (1990) devise a 24-item questionnaire with a 7-point scale ranging from strongly disagree (1) to strongly agree (7). Each component is measured using eight (8) items. The scale is then revised by Meyer, Allen, and Smith (1993) into 18 items with six (6) items for each component. The 24-item measure formed the basis of commitment in this research and will be discussed later (in Chapter Three).

The revision of the scale aims to reduce the number of negatively keyed item and to make each sub-scale shortened. A slight difference has been found in the focus of normative commitment between the two versions. The 8-item version concerns the role of internalisation of social values in developing the sense of obligation. The emphasis of the 6-item version is more directly on the feeling of obligation to stay regardless of its origins (Allen & Meyer, 1996).

In their meta-analysis study involving an observation of research on commitment during the period of 1985 – 2000 Meyer, Stanley, Herscovitch, and Topolnytsky (2002) show that the two versions have been widely used in various studies. The two scales also demonstrate acceptable psychometric properties as indicated in the alpha coefficients of each scales. The earlier version reveals the alpha coefficient for affective commitment is 0.82. The coefficients for continuance and normative commitment are 0.67 and 0.80, respectively. The revised version shows alpha coefficients of 0.82, 0.74, and 0.83 for affective, continuance, and normative commitment sub-scales.

### 2.5.1.1 Affective Commitment

The concept of affective commitment has been originated by earlier researchers. Kanter (1968), for example, uses the terms “cohesion commitment” to explain attachment to social relationship in an organisation. Buchanan (1974) views commitment as an affective attachment to an organisation involving identification, involvement, and loyalty (Allen & Meyer, 1990; Randall & Driscoll, 1997)
Meyer and Allen (1991, p.67) define affective commitment as “the employee’s emotional attachment to, identification with, and involvement in the organization”. This type of emotional attachment reflects one of the three forms that might characterise the relationship between employees and their organisations.

Thus, affectively committed academicians decide to remain in their universities because they believe that their personal values are congruent with the institutions’ goals and values. They are also willing to assist the universities to achieve the goals. In short, if academic institutions could select employees with similar values to their own it is highly likely that these employees will be highly committed to their place of employment.

Meyer and Allen’s conceptualisation of affective commitment is similar to Porter et al’s (1974) definition of commitment as shown in the OCQ. Another well-known conceptualisation of affective attachment is that of Cook and Wall (1980) which receives great acceptance in United Kingdom (Allen & Meyer, 1990; Swailes, 2002). Cook and Wall’s model is designed to assess the commitment of blue-collar workers and is known as the British Organisational Commitment Scale (BOCS). The BOCS is a 9-item scale with 3 items measuring each theoretical components of commitment, namely, (1) identification (acceptance of the organisation’s values), (2) involvement (the willingness to exert effort on behalf of the organisation), and (3) loyalty (desire to remain an employee of the organisation).

Along with the OCQ and the BOCS, Allen and Meyer’s affective component scale have been considered the common measures of affective commitment (Mathews & Shepherd, 2002) because of their psychometric stability and adequacy (Swailes, 2002). However, the main shortcoming inherent in the OCQ and the BOCS is their failure to depict the multidimensional nature of organisational commitment (Jong, Price & Mueller, 1986; Reicher, 1985).

Brown (1996) argues that employees’ emotional attachment to the organisation is not developed through an explicit pledge, but it is evolved when the employees
experience positive feelings about the organisation which result from some combination of their experiences at work, perception towards the organisation and personal characteristics. In particular, emotional attachment is influenced by the extent to which employees perceive that their individual needs are congruent with the ones of the organisation and their competences can be enhanced (Meyer & Allen, 1991; McDonald & Makin, 2000).

2.5.1.2 Continuance Commitment

Following earlier researchers (e.g., Hrebiniaj & Alluto, 1972; Ritzer & Trice, 1969), Meyer and Allen (1984) adopt Becker’s (1960) side bet theory in developing their continuance commitment concept. Becker argues that commitment results from a person’s engagement in a consistent course of action that is achieved by making a side bet. A side bet refers to anything valuable that a person has invested in an action (such as time, effort, money) and such an investment would be lost when the person discontinues the action. The greater individuals place their side bets, the greater their commitment. Therefore, commitment is a function of side bets ((Meyer & Allen, 1984; Allen & Meyer, 1990).

In organisational contexts, this course of action refers to remaining in an organisation. The side bet relates to perceived costs of leaving the organisation such as time and effort that have been invested in the organisation ((Powell & Meyer, 2004).

Becker’s conceptualisation of commitment is similar to those of behavioural approaches, in which the tendency of an individual to persist with actions becomes the main emphasis. However, in Becker’s view, the persistence of actions (behavioural commitment) requires the individual’s recognition to the costs associated with terminating the action. This type of recognition is a conscious psychological state. Thus, the basic assumption of side-bet theory is consistent with the attitudinal framework (Allen & Meyer, 1990; Meyer & Allen, 1991).
Allen and Meyer describe continuous commitment as “commitment based on the costs that employees associate with leaving the organization”. Implicit in the definition is that continuance commitment is unrelated to emotional attachment (Ketchand & Strawser, 2001; Randall & Driscoll, 1997). It is also calculative in nature (Clugston, Howell, & Dorfman, 2000; Wasti, 2003) in that the employees’ commitment based on costs and rewards considerations (Randall & Driscoll, 1997).

To tap their conceptualisation of continuance commitment, Meyer and Allen (1984) develop an 8-item scale which later is incorporated into their three-component model as a sub-scale. To ensure affect is excluded from the measure as well as to confirm it as a separate construct, all items in the scale are designed to assess the reasons of a person to stay in the organisation (Brown, 1996).

Given the psychological state accompanying continuance commitment is recognition that the cost associated with leaving would be high, such commitment develops from responses to conditions that increase the costs. The cost is a function of the number and magnitude of investment employees make in their organisation (e.g., pension contribution) and the degree to which they feel they have employment alternatives (Allen & Meyer, 1993).

Thus, academic staff whose attachment is based on continuance commitment remains at the universities because they are reluctant to lose the privileges during their tenure after departure - such as accumulated benefits, family arrangement, and future opportunities. Perhaps they may even be unable to find any better work opportunities outside their current employment.

The main issue regarding continuance commitment scale centers on its dimensionality. McGee and Ford (1987) and Sommers (1993), for example, show two distinct sub-dimensions of continuance commitment in their studies and then label them as: (1) high-sacrifice and (2) low-alternatives commitment. The first describes the linkage to the organisations due to benefits foregone upon departure while the latter denotes the organisational attachment due to the limited job alternatives (Ketchand & Strawser, 2001).
As these two aspects are quite different perhaps the key to the issue is whether commitment on the basis of possible loss of investment is the same as, or different from commitment grounds on perceived lack of alternatives. Allen and Meyer’s (1996) validating study of the three-component scale has also considered this issue. However, for the sake of parsimony, the two dimensions - loss of investment and lack of alternatives - are assumed to be the two bases for the same psychological state (Meyer & Herscovitch, 2001). They argue that this is not conclusive and thus invite further investigations to explore this problem further.

Implicit in the side-bet theory is that the number and magnitude of the side bet accumulates over time. However, it should be assumed a positive relationship between continuance commitment and the length of tenure may/may not hold. Meyer and Allen maintain that in certain circumstances, employees with longer tenures and more experiences might be in a better position to quit the organisation (lower continuance commitment) than their younger and less experienced counterparts. Evidence has also shown that the relationship between continuance commitment and tenure is sometimes unclear. For example, in some studies (e.g., Chiu & Ng, 1999; Meyer & Smith, 2000), these are positively correlated but in another studies (e.g. Kuo & Nyhan, 1994; Stephens, Dawley, & Stephens, 2004) they are found to be uncorrelated. Clearly, this needs to be explored more thoroughly but is beyond the scope of this research.

### 2.5.1.3 Normative Commitment

Allen and Meyer’s (1990) normative commitment is developed based on the work of Weiner and Valdi (1980) who conceptualise commitment by way of distinguishing normative and instrumental process of human behaviour determinants. The basis of Weiner and Valdi’s conceptualisation is the model of behavioural intention introduced by Fishbein (1967). Fishbein’s model proposes that the intention of individuals to act is determined by two components: (1) their affect regarding the act, and (2) their perceptions of the totality of the normative pressures (either social or personal) concerning the behaviour.
Referring to the second component, Weiner and Vardi assume that when behavioural acts are guided by internalised normative pressures the acts will be no longer dependant on their initial basis such as reinforcements and punishments. This characteristic leads the second component to be the potential basis of developing commitment (Wiener, 1982).

From this, organisational commitment is then defined as “the totality of internalized normative pressures to act in a way that meets organisational goals and interests” (Wiener, 1982, p. 421). The definition suggests that individuals commit to an organisation not because of their personal benefits, but because of the belief that it is the morally right thing to do (Wiener, 1982). This would have connotations for individuals that are committed (employed) to organisations that are morally based – thus forms part of this research.

In this respect, drawing upon the above definition, Allen and Meyer (1990, p.1) describes normative commitment as “employees’ feelings of obligation to remain with the organisation”. The basis of normative commitment is common accepted rules concerning reciprocal obligations between organisations and their employees (McDonald & Makin, 2000). Employers offer employees something that is perceived by the employees as being above what other ordinary employers can provide and this put the employees under a social obligation to repay it in any way. Including in this category are additional training, payment of study costs, or even personal consideration, such as compassionate leaves and forgiveness for missed deadlines due to family commitment (McDonald & Makin, 2000; Hartman & Bambacas, 2000).

Thus, academicians with a high level of normative commitment feels obliged to remain in the institutions in return for good treatment the institutions have provided to them. Or, they feel ought to do it (Allen & Meyer, 1990).

The main issue regarding normative commitment concerns the correlation between affective and normative commitment constructs. This leads to a question of whether the two commitment components are distinguishable constructs. In response to this question Allen & Meyer (1996) argue that it may not be possible
to feel a strong obligation (normative commitment) to an organisation without also having positive emotional feelings (affective commitment) for it.

Meyer et al.’s meta-analysis study also shows similar patterns of antecedents, correlates, and consequences of affective and normative commitment although the magnitude of their correlations is quite different. Their analysis of the literature indicates that the two commitment forms are closely related but are not identical. However, they acknowledge the need of additional studies to investigate the nature of normative commitment further. This research attempted to bring some further clarity to this issue within the context of Indonesian Catholic higher education institutions and other variables intrinsic to such institutions, and in particular their impact upon commitment.

2.5.2 The Antecedents of Organisational Commitment

Based on accumulated evidences, Meyer et al. (2002) arrive at a conclusion that, in general, the relationships between demographics variables and the three commitment forms are weak. Positive associations have been shown by age and tenure.

In comparison with personal characteristics, work experiences demonstrate much stronger correlations with the three commitment forms especially with affective commitment. Variables involving work experience show the opposite sign of association with continuance commitment compared with affective and normative commitment.

Stronger correlations, however, have been found between variables concerning availability of alternatives and investment with continuance commitment than with affective or normative commitment. Details of antecedents of each commitment form will be presented in the following section.
2.5.2.1 The Antecedents of Affective Commitment

The primary basis for the development of affective commitment is a desire to involve in and to identify with the organisation. Meyer and Allen (1991) classify these antecedents into three main categories: (1) personal characteristics (including demographic characteristics and personal disposition), (2) organisational characteristics, and (3) work experiences.

Evidence suggests work experience has been widely accepted as the most determinant of affective commitment (Mathieu & Zajac, 1990; McDonald & Makin, 2000; Myer et al., 2002). In particular, the formation of affective commitment is determined by work experiences that create psychological comfort in employees’ feelings and enable them to enrich their senses of competences (Allen & Meyer, 1996). The literature shows that this experience is gained in one organisation and this was tested further in this study.

Empirical studies show positive associations between affective commitment and some aspects of work experience, including supervisor support (Dixon, Cunningham, Sagas, Turner, & Kent, 2005), mentorship (Payne & Huffman, 2005), and the availability of training (Ahmad & Bakar, 2003). Job-related factors, such as job satisfaction (Cetin, 2006; Simmons, 2005), and job challenge (Dixon et al., 2005), also demonstrate potential influences to improve affective commitment. Certain leadership styles, such as transformational (Avolio, Zhu, Koh, & Bhatia, 2004; Lee, 2005), consultative (Bourantas, 1988) and consideration (Lok, 2001) styles are other factors that show positive associations with affective commitment.

Negative relationships, however, are found between affective commitment and some “negative” types of work experiences such as role stress (Dixon et al., 2005), role ambiguity (Yousef, 2002); and ethical conflict (Schwepker, 1999).

In terms of these organisational characteristics, outlined above, Meyer and Allen note that the influences of these variables on affective commitment are not direct.
Employees’ perceptions towards the characteristics or work experiences might mediate the relationship.

Other characteristics that can be broadly classified as altruistic in nature are also shown likely to impact upon commitment. For example, several studies show a relationship between affective commitment and certain characteristics of organisations such as organisational ethics (Fritz, Arnett, & Conkel, 1999; Valentine, Godkin & Lucero, 2002), public-private distinction (Balfour & Wechsler, 1990; Kyung & Seok, 2001). The investigations of organisational characteristics also capture some organisation-level policies including human resource management practices (Meyer & Smith, 2000); and organisational justice (distributive and procedural justice) (Chughtai & Zafar, 2006).

With regard to personal characteristics, a meta-analysis study by Mathieu and Zajac (1990) shows that the relationships between demographic variables and affective commitment are neither consistent nor strong. Meyer et al’s (2002) parallel study confirms that finding. Tenure and age, for example, are shown positively associated with affective commitment (Abdulla & Shaw, 1999, Ahmad & Bakar, 2003; Lok, 2003) but they are found uncorrelated in another study (Al Qarioti & Al Enezi, 2004). Other positive association is shown between affective commitment and marital status (Abdulla & Shaw, 1999).

On the other hand, gender (Abdulla & Shaw, 199; Bruning & Snyder, 1983), position (Bruning & Snyder, 1983) and religious affiliation (Chusmir & Koberg, 1988; Simmons, 2005) do not show any relationship with affective commitment.

Personal disposition such as cognitive work values (Elizur & Koslowsky, 1999) and higher-order need strength (Bourantas, 1988) are found to be positively correlated with affective commitment. In contrast, relativism ethical orientation is negatively associated (Shaub, Finn, & Munter, 1993).
2.5.2.2 The Antecedents of Continuance Commitment

Allen and Meyer suggest anything that increases perceived cost of leaving - side bets (investments) and the availability of alternatives – would be considered as the primary antecedent of continuance commitment. The side bets can take various forms and maybe work or non-work-related, such as loosing of time and efforts spent in acquiring non-transferable skills, giving-up seniority-based privileges, losing of attractive benefits, and having to uproot family (Meyer & Allen, 1991).

Some organisational arrangements might serve as potential side-bets for their contribution to providing special types of benefits that could be difficult to obtain elsewhere (Meyer & Allen, 1991). The perceived loss of these benefits “commits” the employee but the question here is whether they are remaining committed because they need to be committed or because they want to?

Irrespective of the answer to this question the literature shows a positive association between continuance commitment and such arrangements, including the size of employee stock ownership plan (Culpepper, Gamble, & Blubaugh, 2004); work flexibility (Scandura & Lankau, 1997); and disruption of personal relationship, such as ending mentorship and career-related supports (Payne & Huffman, 2005).

2.5.2.3 The Antecedents of Normative Commitment

It has been acknowledged that both personal predisposition and organisational intervention play important roles in developing normative commitment (Wiener, 1982). In particular, the internalisation of normative pressure might develops prior to entry into organisations (familial or cultural socialisation) and post entry (organisational socialisation), and as result of rewards in advance that stimulate a need to reciprocate, such as paying cost college tuition, costs associated with job training (Allen & Meyer, 1990; Meyer & Allen, 1991). In a wider context, cultures emphasising on collectivistic rather than individualistic aspects might impact on the development of normative commitment although this is still
theoretical rather than empirical view (Meyer & Allen, 1991). This was tested in this research.

Several studies show positive associations between normative commitment and its antecedents, for instance, the availability of training (Ahmad & Bakar, 2003); job satisfaction (Yousef, 2002); and perceived workplace empowerment (Culpepper et al., 2004). Personal disposition, such as work ethics (Carmelli, 2005) also demonstrates a positive association with normative commitment. People with strong levels of work ethics might feel guilty to leave their jobs due to their intrinsic beliefs in hard work. The inference that can be drawn from this is that they ultimately stay committed because they believe hard work is the right thing to do.

In response to Wiener’s (1982) proposition that culture might be a potential determinant of normative commitment, Clugston et al. (2000) investigate the relationship between normative commitment and cultural dimensions. The findings reveal that individual measures of power distance and uncertainty avoidance are positively related to normative commitment. This may also have implications for Indonesian academicians because Indonesia has a high level of power distance but lower levels of uncertainty avoidance (Hofstede, 1980). This was also tested further in this research.

2.5.3 The Consequences of Organisational Commitment

Meyer et al. suggest that there are work behavioural implications of organisational commitment. Given the definition of organisational commitment as a bond between employees with the organisation, in general, the three commitment forms should associate negatively to work behaviour concerning leaving organisations, such as turnover and withdrawal cognition (Meyer & Herscovitch, 2001). Support on this proposition is shown in Turner and Chelladurai’s (2005) study on the intention to leave among intercollegiate coaches.
It also has been proposed that each commitment form associates differently to other type behaviours such as job performance, organisational citizenship behaviour and attendance (Meyer et al., 2002). The strongest positive correlations are proposed between these behaviours and affective commitment, followed by normative commitment. Continuance commitment, on the other hand, is considered as being unrelated or negatively associated to such behaviours (Meyer et al., 2002; Meyer et al., 2004).

Furthermore, Meyer & Allen (1991) note that the relationship between each commitment component and work-related behaviours would be complicated. This is because all three components might exert independent and interactive impacts on a particular behaviour.

Empirical studies confirm this notion. For instance, affective commitment shows the most predictor of turnover, but continuance and normative commitment are not (Gautam, van Dick, & Wagner, 2001; Sommers, 1995). A similar relationship is also found in regards to absenteeism (Sommers, 1995) in which only affective commitment is negatively correlated to this behavioural outcome. In terms of withdrawal cognition, although affective and continuance commitment negatively correlated to such a behaviour, a negative association to normative commitment is identified only when the continuance commitment is low (Snape & Redman, 2003).

Support on different signs of correlations between the three commitment forms to job performance is demonstrated in Stephens et al.’s., (2004) volunteer-oriented study of the directors of chambers of commerce. The strongest positive correlation is found between self-reported job measures with affective commitment, followed by normative commitment. There is no evidence showing such a relationship with continuance commitment. A parallel finding is also found in the relationship between the three commitment components and intention to participate in professional activities among human resource specialists (Snape & Redman, 2003).
With regard to organisational citizenship behaviour, two studies support the non-correlations (Kuehn & Al-Busaidi, 2002) or negative association (Chen & Fransesco, 2001) between this behaviour and continuance commitment. In line with Meyer and Allen’s (1991) notion, these kinds of relationships due to the nature of continuance commitment. Employees whose attachment based on needs might be reluctant to do more than is required by organisations.

The two studies reveal different findings relating to affective and normative commitment. In one study, normative commitment is shown as the most determinant of organisational citizenship behaviour (Kuehn & Al-Busaidi 2002) whereas affective commitment is not. In another study (Chen & Fransesco, 2001) affective commitment is shown positively associated with organisational citizenship behaviour while normative commitment moderates the relationship between affective commitment and the behaviour.

2.5.4 Research on Organisational Commitment In Educational Settings

Allen and Meyer’s three-component model has been used for research in various organisational settings, including hospitals (Bolon, 2000; Cohen & Kirchmeyer, 1995; Sommers, 1995); public sectors (Clugston & Dorfman, 2000; Irving & Coleman, & Cooper, 2003); military (Payne & Huffman, 2005); airline pilots (Culpepper et al., 2004); coaching occupations; Turner & Chelladurai (2005); human resource specialists (Snape & Redman, 2003); volunteer (Stephens et al., 2004); research and development professionals (Lee, 2005); and petrochemical company (Finegan, 2000)

The applications of the three-model in different cultural contexts are also found, such as in Australia (Hartman & Bambacas, 2000); United Kingdom (Snape & Redman, 2003); Malaysia (Ahmad & Bakar, 2003); United Arab Emirates (Yousef, 2002); the Sultanate of Oman (Kuehn & Al-Busaidi, 2002); and Singapore (Lee, 2005).
Attempts to examine the validity of the model outside northern America – where the model was introduced – have been conducted. Although one study in Jordan (Suliman & Iles, 1999), fail to demonstrate the existence of normative commitment in its study sample, others confirm the validity of the construct in their samples such as studies in Australia (Hartman & Bambacas, 2000); China (Chen & Fransesco, 2003; Cheng & Stockdale, 2003); Nepal (Gautam, van Dick, & Warner, 2001); South Korea (Jong et al., 1997; Lee, Allen, Meyer, & Kyung, 2001); Turkey (Cetin, 2006); and the United Kingdom (Snape & Redman, 2003).

In line with the purpose of this research, however, this section focuses on the findings of studies using the three-component model (Allen & Meyer, 1990) in higher education institutions settings.

Using a sample of 609 full-time and part-time chiropractic faculty working in the United States and Canada, Marchiori and Henkin (2004) show the normative commitment had the highest average score of 3.8 followed by affective commitment ($M = 3.7$), and continuance commitment ($M = 3.4$). Respondents with long careers in higher education, not necessarily in their current institutions, seem to be affectively committed to their organisations. In terms of continuance commitment, full-time senior faculty – based both academic rank and tenure – appear more likely to stay with organisations in exchange for salary and benefits. Female faculty members show higher level of normative commitment than their male counterparts. There is no report on the validity of the three-component construct.

In their attempt to examine the impact of human resource management strategies on organisational commitment, Buck and Watson (2002) use a sample of 130 full-time staff of six at public institutions of higher education. The term “staff” in this study refers to employees in occupations that are not categorised as executive, administrative and managerial, or faculty. Although the general human resource management strategies do not show any significant impact on the three dimensions of employees’ commitment, certain individual strategies demonstrate significant relationships with affective and normative commitment, but not with continuance commitment. Wages show a positive correlation with affective
commitment whereas job enrichment is positively associated with normative commitment. General training, however, is negatively related with normative commitment. The validity of the construct is not mentioned.

Adopting the revised version (18 items) of Allen and Meyer’s (1993) three-component model, Cetin (2006) investigates the relationship between job satisfaction, occupational and organisational commitment in Turkish context. The sample consists of 132 academics of Educational faculties at state universities in Istanbul, Turkey. The Turkish version of the scale is factor analysed through principal component methods and varimax rotation. The three components of organisational commitment are identified with the alpha coefficient of 0.85 for affective commitment, 0.69 for continuance commitment, and 0.80 for affective commitment. Some of the findings concerning correlation analysis between the scales indicate that job satisfaction is strongly correlated with affective and normative commitment to both organisation and occupation. There are no significant differences found in job satisfaction, organisational commitment and occupational commitment levels of the academics based on gender and marital status variables.

As can be seen, previous research across a number of organisational and cultural contexts exists. However, there is a paucity of studies specifically examining the educational setting in a high context culture such as Indonesia. Thus, of particular interest in this study is the application of the Meyer and Allen (1990) model within an Indonesian Catholic higher education context. Institutions such as these are rich in terms of moral and ethical values, and thus likely to have some bearing on the various forms of commitment previously outlined. More specifically, the paradigm of moral and ethical values of the employee and the institutions that work in were examined in more detail. Relevant literature and theory is now discussed, and this will form the basis of the hypotheses to be tested as represented by the proposed conceptual model – depicted in Figure 2.1.
2.6 Moral Philosophy

Morality, in general, relates to practices and activities that are considered right or wrong in a society (Boatright, 1993; Velasquez, 2006). Sometimes, morality is viewed in a narrow sense referring to a person’s values, ideals, and aspirations that regulate the person’s conduct and relations with others (Shaw, 2002).

People are often not satisfied with only conforming to the morality of a society. They question why certain conduct is judged to be good or right whilst the others are not (Beauchamp & Bowie, 2004). Ethics is a branch of philosophy that attempts to address such a question. Although the terms “moral” and “ethics” are often used interchangeably, the latter refers to attempts to seek the clarity, substance and the precision of an argument in regards to morality specified in a society (Beauchamp & Bowie, 2004; Boatright, 1993).

Moral philosophy or ethical theories provide some principles for determining right actions from wrong actions (Shaw, 2002). From a scholarly perspective, these theories can be classified into two main categories, namely: (1) consequentialist (teleological), and (2) nonconsequentialist (deontological) (Hartman, 1998; Shaw, 2002).

Teleological theories view the rightness of an action can be determined from consequences result from the action (Hartman, 1998). Two main perspectives of teleological theories that often used in decision making are egoism and utilitarianism (Ferrell, Fraedrich, & Ferrel, 2005). According to egoism, an action is morally right if it maximises the long-term interest of the actor, which can be a single person or a particular group or organisation (Shaw, 1993). Utilitarianism thus defines a moral action in terms of the achievement of the greatest benefits for all the parties affected by an action (Ferrell et al., 2005).

The deontological theories, on the other hand, believe that an action is right because of the very nature of the action or the applied rules from which the action follows (Boatright, 1993). A brief overview of these theories is presented below.
2.6.1 Egoism

Egoism defines self-interest as acting on any interest an individual has (Beauchamp & Bowie, 2004). In other words, self-interest is defined differently by each individual and can take various forms such as pleasure, physical well-being, knowledge, a good family life, wealth or power (Ferrell et al., 2005; Shaw, 2002). Although egoism does not suggest individuals should not assist one another, it maintains that individuals do not have moral duty to do so (Shaw, 2002).

Egoism can be classified into two categories, namely: (1) ethical egoism, and (2) psychological egoism (Beauchamp & Bowie, 2004). According to ethical egoism the only good thing that individuals pursue in their life is their own well-being above everyone else’s, thus, individuals ought to act according to their perceived self-interest (Beauchamp & Bowie, 2004). Psychological egoism believes truly unselfish actions are impossible (Shaw, 2002) in that there is always a self-interest desire behind individuals’ actions although the actions sometimes appear to promote other’s general welfare, thus, the individuals do act on the basis of perceived self-interest (Beauchamp & Bowie, 2004). From the psychological egoism’s point of view, for example, underneath the motivation of staff in a higher education institution to follow the institutional codes is mainly to fulfill their own self-interest such as for the development of their career instead of the intent to facilitate the achievement of the institutional goals.

A similar motive might also apply when, for instance, higher education institutions develop educational programmes for empowering people in remote areas. The general welfare of the people might not be the primary intent of the institutions, however, by doing so good image of the institutions will be gained.

The problems with egoism arise when the self-interests of different individuals in organisations are in conflict. It seems unlikely for egoism to resolve the conflict since in the world of egoism individuals are endorsed to do whatever is necessary to promote their own self-interests. If this was to be the case, the world would be unstable as individuals would not hesitate to break the rules defined in a society.
Also, there are situations where doing actions for others’ interests are not necessarily self-interested- reasons (Shaw, 2002).

2.6.2 Utilitarianism

Different from egoism, utilitarianism puts emphasis on promoting human welfare by minimising harms and maximising benefits for all those affected by an action (Beauchamp & Bowie, 2004). For this reason, utilitarianism is able to explain why certain actions such as lying and stealing are considered wrong and their opposites truth-telling and respect for properties are deemed right (Boatright, 1993). As a result, utilitarianism relatively fit with the intuitive criteria when people discussing moral conduct, which very often involves the assessment of the effect of the conduct on other people (Velasquez, 2006).

Utilitarianism assumes that the goodness and the badness of consequences of an action can be measured and compared (Boatright, 1993). If the goodness offset the badness, the action is morally right or vice versa (De George, 1995). One issue that can be applied to this research setting is whether people see good or bad in being committed or non-committed to an organisation. From this vantage point the criteria to judge the morality of an action need to be considered. Utilitarianism can be categorised into two aspects, namely: (1) act utilitarianism and (2) rule utilitarianism (Beauchamp & Bowie, 2004; Boatright, 1993; De George, 1995; Ferrell et al., 2005).

According to act utilitarianism, the rightness of an action can be determined by examining the specific action itself (Ferrell et al., 2005), in that whether the action will lead to the greatest good for the greatest number (Beauchamp & Bowie, 2004). From the perspective of act utilitarianism, rules serves only as guidelines and are not necessarily to be followed when they will not lead to the promotion of greatest utility (Ferrell et al., 2005). In other words, telling a lie or breaking a promise is right when they offer better consequences than any other alternative (Boatright, 1993).
Rule utilitarianism determines the goodness of an action on the basis of principles, or rules, that are designed to promote the greatest utility (Ferrell et al., 2005). Thus, in determining whether a particular action is right, the first question is not whether the action will produce the greatest utility, but whether the action is required by the correct moral rules, those that provide the greatest amount of utility if everyone followed them (Velasquez, 2006). According to this view, an action is right if and only if it conforms to a set of general accepted rules, of which the greatest amount of utility will be obtained (Boatright, 1993). As a result, a certain action that results in the greatest amount of utility is not necessarily right from an ethical point of view (Velasquez, 2006).

The main problems with utilitarianism ground in its assumption that the “goodness” and the “badness” of an action can be measured, and, its ignorance to non-utilitarian factors that need to be considered in ethical decision making (Beauchamp & Bowie, 2004; Velasquez, 2006). There are situations where values are impossible to be quantitatively measured in decision making (Velasquez, 2006). The action that produces the greatest benefits for the greatest number of people might lead to the unjust treatment for a minority (Beauchamp & Bowie 2004).

2.6.3 Deontology

Deontology holds that the rightness of actions is not determined by their consequences, but it is dependent on the principles that govern the actions (De George, 1995; Hartman, 1998). Deontological theories have been influenced by Immanuel Kant’s view of ethics (Ferrel et al., 2005). According to this view, individuals’ actions are morally right when they spring from the individuals’ recognitions of duties and their decisions to discharge the duties. In order to understand the rightness of the duties deontologists refer to the categorical imperative introduced by Immanuel Kant that requires individuals to act on the principles, of which they will want other people to follow (Boatright, 1993; Hartman, 1998; Shaw, 2002). Implicit in this principle is that individuals should act in such a way that their actions respect for people and conform to universal
moral laws (Beauchamp & Bowie, 2004; Boatright, 1993, Shaw, 2002).

The principles that govern individuals’ actions might come from the perspective of religion. These principles are not different from that of Kant except they are from faiths rather than reasons, intuitions, or secular knowledge (Hartman, 1998). It is possible the people with high ethical values are guided by those values rather than organisations’ that foster ethical values as their modus operandi.

To understand this further the deontological perspective can be considered. In this regard, deontology can be classified into two categories, namely: (1) rule deontology, and (2) act deontology (Ferrell et al., 2005). Rule deontology maintains that the rightness of actions is determined by the conformity to general principles, such as the categorical imperative, or the Golden Rule. The principles might also come from the basic rights of the individual or rules of conduct.

Act deontology posits that people simply know what actions are considered as being right or wrong, irrespective of their outcomes or any appeal to deontological principles. Thus, principles are only used as guidelines and past experience are more emphasised in determining right actions. To complicate matters, there are two main problems inherent to deontology.

The first concerns the justification of the rightness of the principles. It is likely that an obvious or self-evident truth at one time turns out to be false (Shaw, 2002). The second relates to possible conflicting principles. Deontology does not explicitly offer the solution when individuals disagree about the rightness of certain moral principles (Shaw, 2002).

Thus these various perspectives of moral philosophy suggest different bases in examining the rightness of an action. The differences lead to an issue of whether there is the most correct perspective regarding the determination of moral actions, or what individuals should do in dealing with different moral standards. The relativism perspective attempts to address this issue.
2.6.4 Relativism

The fact that cultures or people have different moral standards leads to relativism to believe that there is no absolute ethical standard than can be applied to people of all societies (Velasquez, 2006). Thus, when two cultures or two people hold different views of the rightness of a particular action, both can be right (De George, 1995).

According to relativism, the rightness of a particular action is determined by the consensus of the members of some relevant groups with regard to the action (Ferrell et al., 2005). The action is considered right when the groups arrive to a positive conclusion with respect of the action. However, such a judgment will not be valid forever, in that a previously acceptable action may turn to be considered unacceptable, or vice versa, when some circumstances have made changes in the group.

Velasquez does note however that the positive side of the relativism’s view lies in its recognition that certain societies have different moral beliefs that cannot be dismissed when the beliefs are incongruent with those of other cultures. However, implicit in the perspective of relativism is that a society’s moral standard or practices such as abortion and child slavery would be acceptable in some cultures. Thus the major failing with relativism is that the approach does not recognise that there could / should be a universal standard of morality.

The following sections show how these various perspectives on moral philosophy are utilised to develop the concepts of ethical climate and ethical ideology, the independent variables of this study. Given that the operational definition of ethical climate built upon the concept of organisational climate the following section begins with the discussion of the latter. In particular, the section will compare the concepts of organisational climate and organisational culture. This comparison is deemed necessary since the two concepts are often used interchangeably.
2.7 Organisational Climate and Organisational Culture

As has been mentioned, the ethical climate concept derived from the idea of organisational climate (Victor & Cullen, 1987) which refers to the way people perceive the environment of their workplace (Glisson & James, 2002). Aspects of the work environment that are usually perceived as part of climate include organisational policies, procedures, and practices - both formal and informal (Neal & Griffin, 2002).

In organisational contexts, “climate” and “culture” are two different concepts that are sometimes used interchangeably (Moran & Volkwein, 1992). The two concepts share a common interest in examining the internal social psychological environment of organisations and its relationship to individual meaning (Denison, 1996). The primary distinction lies in the level of the examination.

Culture attempts to gain insight into values, beliefs and assumptions held by organisational members whilst climate aims to provide a general description of the organisational environment that is consciously perceived by organisational members (Denison, 1996). In other words, organisational climate is a manifestation of the broader concept of organisational culture (Schein, 1985). New organisations may be deficient in common beliefs and values so that they may not have any culture at all. However, climate is always present either in new or old organisations since it concerns individuals’ perceptions towards their work environments (Al Shammani, 1992).

Organisational climate and psychological climate are interwoven. The latter refers to individual perceptions of the work environment (Baltes, Bauer, Bajdo, & Parker, 2002) and the events that take place within it (Kickul & Liao-Troth, 2003). These perceptions, when shared among the individuals in an organisation, are labeled as organisational climate (Neal & Griffin, 2002; Swift & Campbell, 1998). The perception, however, remains a property of the individual in the organisation (Glisson & James, 2002).
Organisational climate, on the other hand is described as “a set of attributes which can be perceived about a particular organisation and/or its subsystems, and that may be induced from the way that organisation and/or its subsystems deal with their members and environment” (Hellriegel & Slocum 1974, p. 256).

 Implicit in the definition is that the nature of organisational climate is more descriptive than evaluative. Hence, to assess the climate of an organisation one should ask individuals to tell what they feel in their work environment rather than requesting them to say what they see as good or bad (Wimbush & Shepard, 1994).

### 2.8 Ethical Climate

The notion of ethical climate is introduced by Victor and Cullen (1987). Their work is inspired by Schneider’s (1975) argument that various types of climates can exist in a single organisation. By the time these researchers introduced their concept, research on organisational climate types fell into two broad classifications (Victor & Cullen, 1988). The first category relates to the aggregated perceptions towards structure and procedure forms for the use of rewards and control. The second concerns the aggregated perceptions of the existence of organisational norms supporting certain values.

Victor and Cullen believe that climate types under the second classification have an ethical basis and have been unexplored in previous studies. Based on this premise combined with Schneider’s (1975) conceptualisation of multiple climates in an organisation, Victor and Cullen (1987; 1988) hold that there should be a climate that guides organisational members to determine what is considered right and wrong behaviour at work, which they name ethical climate. Thus, as with other types of climates, ethical climate is one dimension of organisation climate.

Ethical climate refers to the shared perceptions of organisational members regarding what is considered correct behaviour in the organisation and how the organisation deals with ethical issues (Cullen, Victor & Stephens, 1987). To clearly define the ethical climate of an organisation, Victor and Cullen (1987;
1988) employed theories derived from philosophy, psychology, and sociology. The three theories include (1) three basic ethical theories (2) Kohlberg’s (1984) theory of cognitive moral development and (3) Merton’s (1957) and Gouldner’s (1957) theories of roles and reference group. A two-dimensional model is then devised to describe possible various ethical climate types in organisations.

The first dimension called ethical criterion. This dimension refers to the considerations that individuals take into account when making ethical decisions. The basis of this dimension is the three basic ethical theories, namely, (1) egoism, (2) benevolence or utilitarian, and (3) principled or deontology. That is, whether the decisions associated with their own self interest (egoism), the interests of as many people as possible (utilitarian), or the adherence to certain principles of right or wrong (deontology) respectively.

Ethical criterion has been considered as being parallel with Kohlberg’s theory of cognitive moral development (Malloy & Agarwal, 2003). Kohlberg (1984) describe that the individuals’ cognitive ability to resolve moral problems developed over time through three levels, each containing two stages. The first level - the pre-conventional refers to the use of egoistic reasoning to resolve moral problems that are based upon punishment and obedience (stage one), and, individuals’ desires to satisfy their own needs (stage two).

In the second level – the conventional, moral reasoning takes the expectation of others into account that consists of the “good boy/nice girl orientation” (stage three) and the “law and order orientation” (stage four). Finally, the post-conventional level refers to the use of abstract principles in dealing with ethical dilemma, involving societal standards (stage five) and universal moral values (stage six).

The second dimension called locus of analysis. It concerns the referent from which individuals receive their cues regarding what is considered ethically appropriate in decision making (Peterson, 2002a).
This dimension is derived from sociological theories of roles and references group as proposed by Merton (1957). Merton suggests the distinction between a local and a cosmopolitan referent that might help shape the behaviours and attitudes of role incumbents in social system. The sources of role definitions for the local incumbents are contained within the social system. For the cosmopolitan role incumbents, the referents of role definition are in social system external to the system in which the actor is embedded.

Gouldner (1957) apply these conceptions in organisational contexts. The local referent refers to the organisation itself (e.g., the organisation’s standards and policies). The cosmopolitan referent pertains to the organisation, such as the community or religious values (Martin & Cullen, 2006). Victor and Cullen (1988) extend the work of Gouldner (1957) to include another referent called individual. This referent is located within the individuals themselves (i.e. their own personal ethics). They develop a typology comprising nine theoretical ethical climate types as shown in Table 2.1 (below)

<table>
<thead>
<tr>
<th>Ethical Criteria</th>
<th>Locus of analysis</th>
<th>Individual</th>
<th>Local</th>
<th>Cosmopolitan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egoism</td>
<td>Self-interest</td>
<td>Company interest</td>
<td>Efficiency</td>
<td></td>
</tr>
<tr>
<td>Benevolence</td>
<td>Friendship</td>
<td>Team play</td>
<td>Social responsibility</td>
<td></td>
</tr>
<tr>
<td>Principle</td>
<td>Personal morality</td>
<td>Rules and procedures</td>
<td>The law or professional codes</td>
<td></td>
</tr>
</tbody>
</table>

Source: Victor and Cullen (1987, p.56)

In the context of the egoism criterion, the loci of analysis identify the particular “self” in whose interests one is expected to act (Victor & Cullen, 1988) with no consideration of other constituents’ interests. Therefore, in the self-interest (egoism-individual) climate, the egoism criteria (the maximisation of self interest) are used for the needs of one’s own self, such as personal gain.
In the company profit climate (egoism-local), these criteria are used for the preference of the organisations, for instance, corporate profit. Finally, in the efficiency climate (egoism-cosmopolitan), the criteria are utilised for the larger social or economic system’s interests, for example, the efficiency of the social system.

In the context of benevolence criteria, the loci of analysis both identify for organisational members “who we are” and set the boundaries for “our concerns” (Victor & Cullen, 1988). Thus, in the friendship climate (benevolence-individual), the benevolence criteria (e.g., concerns for others) is defined in this research as the consideration of other people without reference to organisational membership, such as providing assistance each other. In the team play (benevolence-local), the criteria are applied for the organisational collective, for instance, esprit de corps. In the social responsibility climate (benevolence-cosmopolitan) the criteria are considered for other constituents outside the organisation, for example, being socially responsible to the community.

In the context of the principle criterion, the loci of analysis define sources of principles expected to be used in the organisation (Victor & Cullen, 1988). In the personal morality (principle-individual) climate, organisational members are expected to be guided by their own personal ethics. In the rules, standard operating procedures climate, the source of principles comes from the organisation itself, such as organisational policies and codes of conduct. In the laws, professional codes climate the source of principles is outside the organisations, for instance, legal system, professional codes and religious values.

### 2.8.1 Ethical Climate Questionnaire

In light of the nature of a climate, Victor and Cullen assume that the best way to understand the ethical climate of an organisation is to ask the people who work in the organisation. Operationally, the Ethical Climate Questionnaire (ECQ) is devised for this purpose. The underlying assumption of the ECQ is that the ethical climates of organisations are the functions of aggregated individual
perceptions. Therefore, the questionnaire is designed to tap respondent’s perception of how the members of an organisation deal with ethical-related issues (Victor & Cullen, 1987; Victor & Cullen, 1988). There have been a number of derivatives of this instrument over more recent years but the ECQ has become a widely accepted measure of ethical climate because the scale has been considered as the most fully developed one (Fritzsche, 2000).

The earliest version of the questionnaire consists of 26 items (Victor & Cullen, 1988). This scale is modified and expanded by Cullen, Victor and Bronson (1993) into 36 items. The questionnaire asks respondent to indicate the accuracy of each item in describing the general climate of their organisations on a six-point scale. In other words, the statement of each item does not highlight whether the respondents like or do not like the climate of their organisations (Victor & Cullen, 1987) but rather what ethical climate employees perceive exists.

Initial validation of the construct has been conducted by Victor and Cullen (1987). The results of factor analysis of the 26 items show an eight-factor solution. However, only six factors are interpretable. The first factor consists of items from the cosmopolitan dimension, and, other items from both the benevolence and principle dimensions. The emergent climate is labelled *professional*. The second factor - *caring*, comprise of loading items from the individual and local dimensions of the benevolence criteria. The third factor is made up of items from the local and principle dimensions and called *rules*. The fourth factor – *instrumental*, involve items from the local and individual dimensions as well as other items from the egoism dimension. The fifth consists of items from the cosmopolitan and the egoism dimensions and called *efficiency*. The last factor – *independence*, involve items from the individual and principle dimensions.

The second validation of the construct (Victor and Cullen, 1988) results in the emergence of five types of ethical climates. The first factor – *caring*, consists of items from the individual, local and cosmopolitan dimensions and other items from the benevolence dimension. The second is shown by items from the cosmopolitan and the principle dimension and called *law and code*. The third –
rules, comprise of items from the local and the principle dimensions. The fourth consists of items from the individual and local dimensions and combined with items from the egoism dimension and is named instrumental. The last factor – independence, is characterised by items from the individual and the principle dimensions.

In the third attempt, the questionnaire is revised by adding another 10 items resulting in a total of 36 items (Cullen, Victor & Bronson, 1993). On this occasion factor extraction reveals seven types of climate. These are self-interest, efficiency, friendship and team interest (loaded on the same factor), social responsibility, personal morality, rules, standard operating procedures, and laws, professional codes.

Using the expanded 36-item version of the ECQ, Wimbush, Shepard and Markham (1997) examine whether it can be applied to the sub-units of a multi-unit organisation. Factor extraction reveals four types of ethical climate, namely: law and rules, independence, instrumental and service.

Agarwal and Malloy (1999) also test the 36 item version of the ECQ in a non-profit sector. A combination of exploratory factor analysis and confirmatory factor analysis is used to validate the construct. Five types of ethical climates is identified, however, these are different from the previous climates found by Victor and Cullen (1988). On this occasion these authors name the climates as: machiavellianism, individual caring, independence, social caring, and law and code.

Using a sample of 197 employees from various industries, VanSandt (2001) examine the relationship between ethical climate and moral awareness. The results of factor analysis of the 36 items ECQ demonstrate seven emergent factors, namely: self-interest, efficiency, caring, service, independence, rules and law & code. The climate representing egoism-local dimension is undocumented in this study.
Further attempts to validate the structure of ECQ have also been conducted in a wide range of other studies. As with the previous investigations, outlined above, these studies also reveal inconsistent findings in the dimension of ethical climate. For example, Barnett and Vaicys’ (2000) finding suggests four emergent ethical climates types, namely, self-interest, team/friendship, social responsibility and rules/code. Likewise, Vardi (2001) shows three types of ethical climates in his study, namely, rules, caring, and instrumental.

From the literature it is fairly evident that the conceptual and operational definitions are very unclear. However, this research attempted to bring some clarity within an Indonesian context. Some discussion related to the variety of issues associated with ethical climate now precedes the conceptual model and hypotheses.

### 2.8.2 Issues In Ethical Climate

As has been shown, the findings of validating studies pertaining to ethical climate suggest that there have been inconsistencies in the number of its dimensions. A possible explanation is that because the loci of analysis dimension often combines in unique ways for different organisations (Cullen, Parboteeah, & Victor, 2003).

Irrespective of these inconsistencies the empirical studies share two common findings. First, the multidimensionality of the ethical climate construct is supported. Second, the empirical studies confirm the presence of climates based on the ethical criteria dimension (egoistic, benevolent, and principle-based).

The absence of consistency in the ethical climate dimension resulted in the difficulty of this research to develop predetermined hypotheses regarding the relationship between specific types of ethical climates with organisational commitment and ethical ideology – the other two variables investigated in this research. For this reason, all hypotheses regarding ethical climates were developed on the basis of the ethical criteria dimension. Similar hypotheses are
also formulated by other studies in examining the relationship between ethical climate and covenantal relationship (Barnett & Schubert, 2002) and organisational commitment (Cullen et al., 2003). Details of the hypotheses are presented in the section of Hypotheses in this chapter.

2.8.3 Antecedents of Ethical Climate

Based on their study, Victor and Cullen (1988) arrive at a conclusion that there are three broad categories that might determine the perceived ethical climates of an organisation. The three categories include: (1) social norms, (2) organisational forms or structures, and (3) firm-specific factors.

Social norms - this is based on the idea that to gain legitimacy, organisations need to conform to external pressures that force the organisations. Therefore, the structures of the organisations might be determined by the rules of society (Victor & Cullen, 1988).

Deshpande, George & Joseph (2003) replicate the ECQ in the newly emerging Russian organisations that had a chaotic past history and totalitarian political regimes. This study involves a sample of managerial employees in the Russian organisations. The findings reveal that the national culture influences the ethical climates of the organisations within the country. Most of the respondents in their sample report that they perceive their organisations as having rules climate whilst independence climate is the least reported.

Organisational forms - based on their initial study, Victor and Cullen (1987) believe that organisational forms have potentials to influence the perceptions of ethical climates. A key finding here is that different administration (e.g., profit versus non profit) is one of the indicators of different organisational forms (Malloy & Agarwal, 2003).

In a qualitative study, Rasmussen, Malloy & Agarwal (2003) examine possible differences in ethical climate between government and non-for-profit
organisations. Their study involves a selected sample of mid-level managers in the health and social services sectors in a single Canadian province. The results of the study indicate significant differences in both the sources of ethical climates and the criteria used to judge ethical climate between the two types of institutions. Public servants tend to rely on sources external to the organisations (cosmopolitan) in dealing with ethical problems. The managers of non-profit organisations are found to have stronger beliefs that the decision making should be guided by personal ethics.

Similarly, Brower and Shrader (2002) examine whether there are significant differences in ethical climates between for-profit and not-for-profit organisations. The sample of the study involves board members of the two institutions types in a major mid-western state of the United States of America. The findings reveal that for-profit organisations have climates higher in egoism than do not-for-profit organisations. Not-for-profit organisations indicate higher scores in benevolence factors than their for-profit counterparts. No significant difference is found in terms of the principled climates between the two types organisations.

**Firm-specific factors** - the third determinant of ethical climate is the unique characteristics of the organisations. These factors include the organisations’ histories and the members’ history in the organisation (Victor & Cullen, 1988).

A study that specifically addresses this antecedent (Malloy & Agarwal, 2003), within a provincial sports federation context (Canada), do not find any significant differences in the perceptions of ethical climates based on individual specific-factors (gender, education and length of service). These authors also find similar results with regard to two organisational-specific factors (the organisation size and the code of ethics). The only organisational-specific factor that influences the perceptions of ethical climate is the decision making styles as perceived by the organisations’ members. Despite these findings there are a number of implications of having an ethical climate within the firm. These are now discussed.
2.8.4 Consequences of Ethical Climate

Based on their meta-analytic review of the existing studies on ethical climates, Martin and Cullen (2006) classify the consequences of ethical climate into four categories, namely: (1) dysfunctional behaviour, (2) job satisfaction, (3) psychological well-being, and (4) organisational commitment. A number of subsequent studies have addressed these issues.

For example, Peterson (2002b) investigates the influences of ethical climates on deviant workplace behaviours. The findings of the study show that organisations that foster caring climate are less likely to experience problems related to political deviance, such as gossiping. Rules and laws based climates have potentials to reduce property deviance such as stealing from the organisations.

Deshpande (1996) demonstrate relationships between some types of ethical climates with certain aspects of job satisfactions. Supervisory satisfaction, for example, is found to be positively associated with benevolent climate and is negatively related to egoistic climates.

Psychological well-being refers to individuals’ subjective feeling-states, such as life satisfaction, personal morale or anxiety (Petersen & Roy, 1985). Martin and Cullen (2006) note that psychological well-being might result from trust, cooperation, cohesion, autonomy, mutual support or various combination of these. In a covenantal relationship, a relational contract between employees and their organisations based on mutual commitment and supporting shared values, has been considered one of various factors contribute to the development of psychological well-being (Martin & Cullen, 2006).

Barnett and Schubert (2002) investigate the relationships between various types of ethical climates and covenantal relationships. The findings of the study suggest principle-based climates are positively related to affective commitment since these climates emphasise on inviolate standard of behaviour. Similar relationships are also found in the benevolent climates, since the characteristics of these climates are similar to those of covenants. The characteristics of egoistic
climates, on the other hand, are inconsistent with covenantal relationships which are characterised as being based upon mutual commitment and shared values.

The following section addresses ethical ideology – the third construct of this research that is hypothesised to have a potential to mediate the relationship between ethical climate and organisational commitment.

2.9 Ethical Ideology

Forsyth (1980) holds that when individuals involve in a discussion on a subject matter, they might arrive at the same judgement. However, opposite conclusions might occur when the judgement carries moral overtones. Forsyth argues that the differences lie in the personal system of ethics that each individual has. On the basis of these differences, Forsyth believes that the ethical ideology of a person needs to be taken into consideration when examining moral judgement. Ethical ideology is “a system of ethics used to make moral judgements, which often offers guidelines for judging and resolving behaviour that may be ethically questionable” (Henle, Giacalone & Jurkiewicz, 2005, p. 219).

There have been various efforts to measure individual differences in moral thought that basically aim to describe the moral guidelines that the individuals adopt in viewing situation as right or wrong (e.g. Hogan, 1970; Hogan & Dickstein, 1972; Reidenbach & Robin, 1988; Shultz & Illan, 2004). Reidenbach and Robin (1988), for example, attempt to gauge the degree to which individuals adhere to the principles of justice, relativism, egoism, utilitarian, and deontology. A similar measure is also developed by Shultz and Illan (2004). However, the work of Forsyth (1980) has been regarded as being superior than the others’ given its ability to capture many conceptualisations of moral philosophy such as teleology, ethical skepticism, ethical egoism, utilitarianism, and deontology (Karande & Rao, 2000) in a more parsimonious way (Douglas, Davidson & Schwartz, 2001).
Schlenker and Forsyth (1977) posit that individuals’ approaches to moral judgement can be classified into two main categories, namely: (1) relativism, and (2) idealism.

The first approach refers to the extent to which the individuals reject universal moral values. Highly relativistic individuals believe that moral actions are dependent upon the nature of the situation and the individuals involved, and hence they are not reliant on universal moral rules (e.g. do not steal, do not tell a lie) when facing moral problems (Forsyth, 1980; Forsyth, 1992). Those who are low in relativism believe that one should act in accordance with the moral values (Davis, Anderson, & Curtis, 2001; Dubinsky, Nataraajan, & Wen, 2004).

The second concerns the extent to which the individuals are convinced that moral actions result in desirable outcomes. Highly idealistic individuals simultaneously put emphasis on the inherent goodness of universal moral values and the importance of not to do any harm even in urgent situations (Tansey, Brown, Hyman & Dawson, 1994). In opposition, less idealistic individuals maintain that an action that causes harm to others is not necessarily bad (Redfern, 2005).

Thus, the two-dimension model of ethical ideology presumes individuals have different moral orientations according to the degree of their emphasis on principles as well as upon consequences (Forsyth, 1992). In earlier works, Forsyth (1980) develop an instrument called the Ethics Position Questionnaire (EPQ) to measure the two general dimensions of ethical ideology. The questionnaire consists of 20 items with 2 ten-item sub-scales to which respondents indicate their agreement on a 9-point scale ranging from “completely disagree” to “completely agree”.

The first ten items are designed to tap the extent to which an individual believes that desirable outcomes will always be possible without violating moral guidelines (idealism), such as “It is never necessary to sacrifice the welfare of others”. The remaining questions concern the extent to which an individual believes in the universal moral values (relativism), such as “What is ethical varies from one situation and society to another”. Dichotomising these two dimensions
into high and low category, Forsyth (1980) develops a 2x2 matrix representing four distinct ethical ideologies as shown in Table 2.2.

Table 2.2 Taxonomy of ethical ideologies

<table>
<thead>
<tr>
<th>Idealism</th>
<th>Relativism</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Situationists</td>
</tr>
<tr>
<td></td>
<td>Rejects moral rules; advocates individualistic analysis of each act in each situation; relativistic</td>
</tr>
<tr>
<td>Low</td>
<td>Subjectivists</td>
</tr>
<tr>
<td></td>
<td>Appraisals based on personal values and perspective rather than universal moral principles; relativistic</td>
</tr>
</tbody>
</table>

Source: Forsyth (1980, p. 176)

As shown in the table, situationists are individuals who refuse to consult universal moral principles in determining the rightness of their actions (high relativism) but they believe that the actions should result in beneficial outcomes for all involved (high idealism). Thus, this orientation is parallel to utilitarianism (Forsyth, 1992).

Similar to situationists, subjectivists do not use universal moral values as referents for their moral actions (high relativism). However, they tend not to consider societal gains resulting from their moral decision. As a result, this view is consistent with the moral philosophy of egoism (Forsyth, 1992).

Absolutists maintain that moral decisions are those that result in beneficial outcomes for people affected by the decisions (high idealism) and are made on the basis of strict adherence to universal moral values (low relativism). Forsyth
(1992) argues that individuals with this type of ethical orientation condemn any actions that harm people, and, in particular those that violate fundamental moral absolutes. Hence, absolutism parallels to deontology.

Exceptionists, in general, acknowledge the importance of universal moral principles to guide moral actions though in some circumstances, deviations from the principles are permissible (low relativism). However, they believe that doing any harm to other people sometimes cannot be avoided in their attempt to maximise the interests of a larger society (low idealism). Therefore, they are deontological (i.e. following principles) as well as utilitarian (i.e. maximising societal gains) in nature. This type of characteristic corresponds to the moral philosophy view of rule-utilitarian (Forsyth, 1992).

Although Forsyth’s (1980) typology of ethical ideology consists of four distinct ethical views, a large number of studies on ethical ideology have focussed only on the two main dimensions – relativism and idealism – underlying the ethical ideology construct, including those studies validating the construct (Davis, Anderson & Curtis, 2001; Redfern & Crawford, 2004). This conceptual grounding has been adopted in this research.

2.9.1 The Antecedents of Ethical Ideology

Forsyth (1980) do not explicitly mention factors contribute to idealism. However, empirical research suggests that individual, organisational, and national cultures have influenced the idealistic and the relativistic orientations of the individuals.

Singhapakdi, Vitell & Franke (1997), for example, show that more religious individuals are more idealistic than the less religious ones. The more educated individuals, however, are less idealistic than less educated individuals. Organisations with ethical culture are also found to have positive influence upon the idealistic orientations of the employees (Douglas et al., 2001; Karande, Rao & Singhapakdi, 2000; Ming & Chia, 2005). In terms of national culture, Davis, Johnson & Ohmer’s (1998) show that Indonesian students are highly relativist,
whereas American students show lower levels in this dimension. In a non-western context, another study shows that Egyptian business students are more idealistic than American students (Marta, Attia, Singhapakdi & Atteya, 2003). In a similar context, Lee and Sirgy (1999) demonstrate Korean and American managers are equally low on relativism, but the Koreans are relatively higher on idealism than the Americans.

2.9.2 The Consequences of Ethical Ideology

Forsyth and Berger (1982) posit that ethical ideology might predict individual differences in moral judgment but not individual differences in moral behaviour. Idealism is found to have positive influence on moral intensity whilst negative influence is found in relativism (Dorantes, Hewitt & Goles, 2006). However, a study conducted by Vittell, Bakir, Paolillo, Hidalgo, Al-Khatib, and Rawwas (2003) involving marketing managers from four countries (United States; the United Kingdom; Spain and Turkey) reveal that neither relativism and idealism have any influence on ethical judgments nor behaviour intentions of the managers. Another study shows idealism is positively related to ethical judgements of peer wrong doing, whereas relativism is negatively associated (Barnett, Bass & Brown, 1996).

Having thoroughly discussed the theoretical framework of the main constructs used in this research (i.e., ethical climate, ethical ideology, and organisational commitment), the following section outlines the relationships between each construct as revealed from the findings of previous studies. These relationships were used as the basis for developing hypotheses to be tested in this research.

2.10 The Relationships between the Constructs Used In the Research

This research built upon the work of Cullen et al., (2003) that investigates the relationships between ethical climate types and organisational commitment. Contrast to this work, this research examined the relationships between ethical
climate types not only with affective commitment, but also with continuance and normative commitment. This research was also designed to assess whether the relationships between principle-based climates and affective commitment were mediated by the idealistic ethical ideology (or idealism).

Prior studies have confirmed the validity of Allen and Meyer’s (1990) three-component model of organisational commitment outside Northern America, including the two studies conducted in higher education institutions settings (Cetin, 2006; Hartman & Bambacas, 2000). Central to these studies was the existence of the three forms of organisational commitment – which in turn was postulated herein to be the feature underpinning successful employer-employee relationships. Thus with this in mind, and in light of these findings outlined above, the following proposition was made:

**P1:** The three forms of organisational commitment as proposed by Allen and Meyer (1990) are present within the Indonesian Catholic higher education institutions context.

Victor and Cullen’s (1987; 1988) typology of ethical climates is developed from two dimensions, namely, the criteria of moral judgment (egoistic, benevolent and principled), and, the locus of analysis (individual, local and cosmopolitan). As was early mentioned the combination of these two dimensions results in nine possible types of climates: three egoistic, three benevolent, and three principle-based. However, none of prior studies validating the construct of ethical climate (e.g., Agarwal & Malloy, 1999; Cullen et al., 1993 Cullen et al., 2003; Trevino, Butterfield, & McCabe, 1998; VanSandt, 2001; Victor & Cullen, 1987; Victor & Cullen, 1988; Wimbush, Shepard & Markam, 1997) confirm the presence of these nine theoretical climates. The number of the emergent climates reveal in their study samples ranged from five to eight.

Irrespective of their inconsistent findings, these empirical studies have shown that the multidimensionality of the ethical climate construct is supported. Whilst the dimensionality of the ethical climate construct within the Indonesian context is
still unclear it was however posited that the construct does exist within the employment relationship. Thus, the following proposition was made:

\[ \textbf{P2:} \] The multiple types of ethical climates as proposed by Victor and Cullen (1987; 1988) are present within the Indonesian Catholic higher education institutions context.

Forsyth (1980) classifies his ethical ideology construct into four distinct ethical views: situationists, subjectivists, absolutists, and exceptionists. This research however concerned the validity of the two dimensions underlying the construct, namely idealism and relativism. In particular, this research attempted to examine whether the dimensionality of the construct was valid in the Indonesian Catholic higher education institutions context.

Prior studies validating ethical ideology in China – an Eastern country (Redfern, 2005; Redfern & Crawford, 2004) confirm the dimensionality of its construct. Borrowing on this finding, the following proposition was offered:

\[ \textbf{P3:} \] The two dimensions of ethical ideology as proposed by Forsyth (1980) are present within the Indonesian Catholic higher education institutions context.

2.10.1 The Relationships between Ethical Climates and Organisational Commitment

The relationships between ethical climates types and organisational commitment have been confirmed in which affective commitment is negatively influenced by egoistic climates (Cullen et al., 2003; Kelly & Dorsch, 1991; Kroeck & Sims, 1994).

Organisations with egoistic climates tend to encourage their members to maximise self-interest and there is no duty for them to consider the well-beings of the others (Barnett & Schubert, 2002). The maximisation of self-interest can be based on those of the individuals, the organisations or wider societies (Victor &
Cullen, 1988). Cullen et al. believe that self-interested behaviours and attitudes (e.g. lying and stealing) would be acceptable in egoistic climates. This, in turn, might cause the employees feel less attached to the organisations. Therefore, it seems unlikely to expect employees’ affective commitment in organisations that put an emphasis on self interest. With respect to this rationale, the following hypotheses regarding the three egoistic climates were made:

\[ \text{H1a: Self-interest climate is negatively related to affective commitment.} \]
\[ \text{H1b: Company profit climate is negatively related to affective commitment.} \]
\[ \text{H1c: Efficiency climate is negatively related to affective commitment.} \]

Ethical climates characterised by benevolence or utilitarian ideals take into consideration the impacts of decisions on others that include an individual’s immediate work-group, organisational members as a whole, and, the organisations’ stakeholders (Barnett & Vaicys, 2000). Cullen et al. indicate organisations with these types of climates expect their members to be more sensitive and more willing to assist each other. This cooperation will facilitate the cohesiveness of the members, which then lead to their higher involvement in and commitment towards the organisations. Furthermore, these authors maintain that benevolent climates will cultivate high levels of employees’ perceived organisational support since the climates put the well-being of employees as their primary concern. These positive experiences would lead employees to reciprocate with commitment as a manifestation of affectional exchange. In this regard, positive associations between perceived organisational supports and affective commitment have been confirmed in previous research (Fuller, Hester, Barnett, Frey, & Relyea, 2006). Thus, it was also anticipated that this relationship would exist within the Indonesian Catholic higher education institutions context, reflected through the following hypotheses:

\[ \text{H2a: Friendship climate is positively related to affective commitment.} \]
\[ \text{H2b: Team interest climate is positively related to affective commitment.} \]
\[ \text{H2c: Social responsibility climate is positively related to affective commitment} \]
With regard to normative commitment, the positive experiences might lead employees to feel a greater sense of obligation to remain (normative commitment) when they consider their organisation as supportive (Meyer & Smith, 2000). As a result, these three following hypotheses were made:

- **H3a**: Friendship climate is positively related to normative commitment.
- **H3b**: Team interest climate is positively related to normative commitment.
- **H3c**: Social responsibility climate is positively related to normative commitment.

Although the antecedents of continuance commitment are based largely on economic reasoning, they may include assessments of both tangible and intangible benefits (Stephens et al., 2004). Therefore, it was speculated that caring of employees’ well-being would be perceived by employees as being those psychological costs associated with leaving their employer institutions. It is likely that “caring” is perceived as something that might not be obtained everywhere and, thus result in higher commitment, as reflected through the following hypotheses:

- **H4a**: Friendship climate is positively related to continuance commitment.
- **H4b**: Team play climate is positively related to continuance commitment.
- **H4c**: Social responsibility climate is positively related to continuance commitment.

2.10.2 The Relationships between Ethical Climates and Ethical Ideology

Organisations with principle-based or deontological climates encourage their members to adhere to universal principles of morality in making decisions (Barnett & Schubert, 2002; Victor & Cullen, 1988). The principles include individual’s moral beliefs (e.g., religious beliefs); the organisational context (e.g., organisational procedures, professional codes); and, the principles external to the organisations - such as societal regulations and laws (Barnett & Vaicys, 2000).
Therefore, the relationships between principle-based climates and individuals’ organisational commitment would only be possible when the individuals have strong needs of adherence to rules. Similarly when employees find that the organisational codes fit their personal values, or when they have internalised values that come from outside organisations, such as professional codes, religious values, and universal moral values they become more committed (Cullen et al., 2003).

These three requirements, to some extent, fit the characteristics of individuals with ideological orientations. Although such orientations initially developed from their cultural environments and personal experiences they can be shaped by the organisations through the creations of ethical environment (Karande et al., 2000; Ming & Chia, 2005; Shaub et al., 1993; Singhapakdi et al., 1999). Therefore, the following hypotheses are made to reflect these relationships:

\[ H5a: \] Personal morality climate is positively associated with idealism.
\[ H5b: \] Rules and procedures climate is negatively associated with idealism.
\[ H5c: \] Professional code climate is negatively associated with idealism.

However, the enforcement of such principles might restrict individuals with relativistic orientation who believe that there is no absolute moral rule to guide behaviour (Shaub et al., 1993). Previous studies (Karande et al., 2000; Ming & Chia, 2005) have also shown that the ethical values of organisations were positively related to the idealism and negatively associated with the relativism of their members. With this specifically in mind the following hypotheses are made:

\[ H6a: \] Personal morality climate is negatively associated with relativism.
\[ H6b: \] Rules and procedures climate is negatively associated with relativism.
\[ H6c: \] Professional code climate is negatively associated with relativism.
2.10.3 The Relationships between Ethical Ideology and Organisational Commitment

There is a paucity of studies investigating the relationships between ethical ideology and organisational commitment. There have been only two empirical studies addressing these relationships. Using a sample of business professionals who had graduated from a large state in the USA, Peterson (2003) showed that there is no direct relationship between the relativistic orientation of professionals and their commitment to the organisation. The idealistic orientation of the professional is not specifically addressed in the study. In another study involving auditors Shaub et al. (1993) demonstrate that the relativistic auditors show less commitment to their organisations compared to idealistic auditors.

However, affective commitment can be developed when employees feel their personal values fit those of the organisations so that they can identify with the organisations (Sims & Kroeck, 1994). Therefore, individuals with idealistic orientations would be affectively committed when the organisations have orientations that closely match those of their employees (Shaub et al., 1993). The setting of this research comprised denominational institutions that adopted Catholic values as the basis for their operations. Since these organisational values are quite similar to the idealism principles, such as the avoidance of harm and telling the truth, there is a reason to believe that the staff with idealistic orientations would find it easier to identify with and involve in the goals of the institutions. Therefore, this following hypothesis was made to reflect this relationship:

\[ H_7 \]: Idealism is positively related to affective commitment.

2.10.4 The Relationships between Ethical Climates, Ethical Ideology, and Organisational Commitment

Since the imposition of the institutions’ values would lead to higher affective commitment when the individuals have strong idealistic orientations, it was expected that the principle-based climates would not have a direct impact on
affective commitment. Instead, the imposition would nourish the ideological orientations of the staff. Once the ideological orientations are nurtured, the staff would find that the institutions’ values fit their orientations, which in turn, lead to the development of their affective commitment.

Along these lines, ethical ideology has also been found to have mediating effects in previous studies (Ming & Chia, 2005; Steenhaut & van Kenhove, 2006). Given the orientations of the institutions (Catholic higher education institutions) in this research it was felt that a mediating effect of ethical ideology (i.e. idealism) upon the relationship between ethical climate and organisational commitment would likely exist. Consequently, the following hypotheses were made to reflect these relationships:

- **H8a**: The positive relationship between personal morality climate and affective commitment is mediated by idealism.
- **H8b**: The positive relationship between rules and procedures climate and affective commitment is mediated by idealism.
- **H8c**: The positive relationship between professional code and affective commitment is mediated by idealism.

This chapter presented a review of relevant literature and empirical studies with regard to the three constructs used in this research. Theoretical backgrounds and previous studies upon organisational commitment – the dependent variables of this research - were firstly discussed. Similar discussions were also reported in respect of the independent variables, namely, ethical climate and ethical ideology. An overview of moral theories was outlined prior to the discussions of ethical climate and ethical ideology concepts given the two concepts were developed on the basis of moral theories. Hypotheses were then derived from the theoretical frameworks and empirical studies investigating the relationships among the three constructs.

The key ethics variables upon employee commitment within the Indonesian Catholic higher education institutions context have thus been modelled through the above mentioned hypotheses. A graphical representation of the specific
relationships between each of these variables is shown in Figure 2.1.

**Figure 2.1.** The relationships between ethical climates, ethical ideology, and organisational commitment
2.11 Concluding Remarks

This chapter presented a review of relevant literatures and empirical studies in respect of the three constructs used in this research, namely, organisational commitment, ethical climate, and ethical ideology. From this review it can be concluded that empirical studies have confirmed the robustness of the measures of these constructs. However, as indicated in the review, the key issue to the constructs lies in their dimensionality. There has been disagreement among the researchers over the dimensionality of the ethical climate construct. Previous studies revealed inconsistent findings regarding the dimension. None of these studies reporting the presence of the nine theoretical ethical climates dimensions as proposed by the originator. A similar issue is found in the construct of organisational commitment. There has been no conclusion of whether continuance commitment is unidimensional or bidimensional. Additionally, the main issue regarding normative commitment concerns the correlation between this commitment and affective commitment. This leads to a question of whether the two commitment components are distinguishable constructs.

Irrespective of this controversial issue, empirical studies have provided supports to the significant relationships amongst these three constructs. Stemming from this, a conceptual model representing propositions and hypotheses concerning the relationships was then developed and tested.
CHAPTER THREE
RESEARCH METHODOLOGY

Introduction

The main objective of this chapter is to describe the methodology used to carry out this research. The chapter commences with the design of the research followed by a description of the data collection methods. The context of the research is then explained. The following sections detail the population, the sampling methods, the sample size and the response rate of the research. Next, the measures used in this research will be discussed respectively. Included in the discussion is an explanation of the steps taken to translate the research instrument. A report on the pre-test procedures follows. Technical aspects of the questionnaire design are explored in the subsequent section. Data collection procedures are discussed prior to the concluding remarks of this chapter.

3.1 Research Design

Research design is a framework or plan for a researcher to answer research problems that is used to guide the methods and procedures of data collection and analysis (Burns & Bush, 1995; Churchill, 1996; Zikmund, 1997). An explanatory cross-sectional design was used in this research.

Based on its purpose, research can be designed according to three categories: exploratory, descriptive, and explanatory or causal (Babbie, 1986; Burns & Bush, 1995; Churchill, 1996; Neuman, 2003). Exploratory research concerns an examination of a new topic or issue that is relatively new or unstudied. Descriptive research is designed to observe a phenomenon and details the picture of the phenomenon. Explanatory research is developed on the basis of exploratory and descriptive research and seeks to determine cause-and-effect in the relationships of

This research aimed to scrutinise whether the perceptions of respondents towards their institutions’ ethical climates had any effect on the various forms of their institutional commitment. The potential role of respondents’ ethical ideology for mediating the relationship was also ascertained. Thus, the design of this research could be classified as explanatory in nature.

A conceptual model representing this nexus was developed. The model was then tested to determine whether it fitted the sample data using a statistical procedure called structural equation modelling.

In terms of its time dimension, the design of the research can also be categorised into cross-sectional and longitudinal (Babbie, 1986; Neuman, 2003). The main characteristic of a cross-sectional design is that all information of variables is collected just once, at a single point in time. On the contrary, a longitudinal design involves collecting data from the same respondents over a period of time in order to observe the direction and changes in their responses over time (Shaughnessy & Zechmeister, 1994; Zikmund, 1997).

Cross-sectional design is regarded as being relatively low in cost and time because it only takes a snapshot of an on-going phenomenon (Hussey & Hussey, 1997). This reason, among other things, underlined the choice of such a design for this research. A lack of assurance in respect of accessing to the same respondents for a possible follow up research was another reason not to select a longitudinal design.

Although a cross-sectional study has inherent problems in understanding a causal process, it is still possible to draw approximate conclusions about the process using logical inferences (Babbie, 1986). In other words, this type of design can be applied to explanatory studies (Babbie, 1986; Neuman, 2003). In addition, cross-sectional designs have also been widely used in studies investigating the relationships between ethics-related variables and commitment (e.g., Cullen, Parbooteah, & Victor, 2003; Fritz, Arnett, & Conkel, 1999; Hunt, Wood, & Chonko, 1989; Kelley & Dorsch,
3.2 Data Collection Methods

The data used in this research was mostly quantitative in that it was collected in the form of numbers. Neuman (2003) classifies the methods of collecting quantitative data into four categories: experiments, content analysis, existing statistics, and surveys. Experiments involve splitting subjects into two or more groups and providing one group a special treatment in order to investigate whether the treatment causes different responses in the groups. Content analysis entails observing the information of written or symbolic materials to discover any specific contents of the materials, and then, presenting the findings as numbers in the form of graphs or tables. Existing statistics relates to identifying information collected by a previous source and reorganising the information in new ways for specific purposes.

Considering that all information collected by this research involved psychological matters such as perception, attitude, belief, and orientation, the first three data collection methods were regarded as being inappropriate. An experiment was unsuitable because manipulating information on psychological matters through certain treatments was deemed unethical. This type of information was also impossible to be observed via content analysis and was difficult to be gained through existing statistics methods.

Survey was therefore considered the indispensable option. A survey is a technique of collecting structured data through a sample drawn from a population in order to describe, explain or explore phenomena (Babbie, 1986; de Vaus, 2002; Kerlinger, 1979). The data in surveys is obtained by means of collecting information provided by research participants in response to a series of questions in a relatively short period (Neuman, 2003). Surveys are efficient methods in gathering data from a large number of people (Babbie, 1986; Chadwick, Bahr, & Albrecht, 1984). These methods have been widely used to collect quantitative and qualitative data (de Vaus, 2002; Hussey & Hussey, 1997; Neuman, 2003). Surveys are also feasible vehicles
for measuring psychological variables such as opinion, attitudes, orientation and beliefs (Chadwick et. al., 1984; Kerlinger, 1979) and can provide insights about causal explanations (Zikmund, 1997).

These main features of surveys fitted the nature of this research in that it primarily employed numerical (quantitative) data, examined causal relationships between several psychological variables (explanatory) and used a relatively large number of respondents in dispersed locations.

All quantitative data was collected from the research participants through a self-administered questionnaire in which the participants read and completed a series of questions by themselves. This collection technique has been widely used in surveys given its low demands on time and finances, as well as the ease of administering considerations (Burns & Bush, 1995; Hussey & Hussey, 1997; Neuman, 2003).

A self-administered questionnaire also provides flexibility to research participants. It enables the research participants to complete and to return the questionnaire at their convenience so that they do not feel pressured to respond promptly (Burns & Bush, 1995). It also helps increase the willingness of the research participants to provide information regarding sensitive questions without embarrassment (Tourangeau & Smith, 1996; Wright, Aquilino, & Supple, 2001). In light of the fact that questions on commitment and ethics-related matters might have been sensitive to some research participants, a self-administered questionnaire seemed to be most suitable for this research.

One potential drawback of surveys is that the respondents do not respond at the right times or even do not complete the questionnaire (Burns & Bush, 1995). To minimise these problems, research assistants from host institutions were requested to help approach and remind the respondents. The details of this matter are addressed in the data collection procedures outlined in section 3.12 in this chapter.

Another shortcoming of a self-administered questionnaire is that the understanding of the respondents to the content of the questionnaire depends upon the questionnaire itself (Burns & Bush, 1995). Thus, the questionnaire should be self-explanatory. This
implies that the meaning of questions and the clarity of instructions must be clearly understandable to respondents (de Vaus, 2002; Burns & Bush, 1995; Hussey & Hussey, 1997). In this research, efforts to present a self-explanatory questionnaire to the respondents were carried out by adopting a proper translation procedure and employing a pre-test before the actual survey. The details of translating and pre-testing procedures are described in sections 3.9 and 3.10 in this chapter.

Referring to Bush and Burns’ (1995) terminology, the principal mode of questionnaire delivery in this research was called by hand or drop-off. In this mode, the researcher - with the assistance of persons within the host institutions - approached a prospective research participant and left a questionnaire to be filled out at his or her convenience, and then collected the completed questionnaire on the same day or on the day that suited the prospective research participant. This mode was chosen to ensure each prospective respondent received a questionnaire. A drop-off also aims to gain the prospective respondent’s cooperation (Burns & Bush, 1995) and has been regarded as being effective in improving response rates (Stover & Stone, 1974). In a situation where the potential respondent was unable to be contacted, the questionnaire was sent through the internal mail system of the institution. Further details of the questionnaire delivery mode are provided in the section Data Collection Procedures (section 3.12).

The population and the sample of the research are discussed in the following sections. However, prior to the discussion, the context under which the research was conducted will be outlined so that a better picture of the population and the sample is gained.

### 3.3 Research Context

Predetermined propositions and hypotheses have been developed from the literature and tested upon respondents who were permanent staff of Catholic higher education institutions in Indonesia.
Formal education system in Indonesia was firstly introduced by the Dutch who ruled this country for almost 350 years since early of 16th century. Higher education in the country was established at the end of 19th century when medical education for indigenous doctors was set up in Jakarta (Djanali, 2005).

The Japanese then entered Indonesia and ousted the Dutch in the early 1940s. During this period, the Japanese’s system of education replaced that of the Dutch until the Indonesians gained its independence in 1945 through armed struggle (Idrus, 1999). The struggle still continued until the Dutch abandoned Indonesia in 1949. The long-term colonialism of the Dutch however left an indelible influence on the Indonesian educational system (Idrus, 1999).

The Indonesian national higher education system has two components, namely, public and private higher education institutions. The institutions fall into five categories: academies, polytechnics, tertiary schools, institutes, and universities (Hadihardaja, 1995). Based on 2003/2004 data published by the Indonesian Department of National Education, there were 81 public and 2,347 private higher educational institutions in Indonesia with 3,796,717 students enrolled (The Indonesian Department of National Education, 2006).

The public and private higher education institutions are distinguished by their sources of funding. The funds of public institutions come from the government. Their private counterparts are funded mainly from their owners (foundations) although the government supplies such institutions with subsidies in accordance with existing regulations (Djanali, 2005).

All Indonesian private higher education institutions are supervised by the Directorate of Private Higher Education. This body has been set up by the Indonesian government to perform coordinating and directing functions. At the time this research was conducted, there were 12 regional offices which were spread throughout the 31 provinces of Indonesia to carry out those functions (The Indonesian Department of National Education, 2006). The Indonesian Catholic higher education institutions are integral part of private educational institutions so that they are also under supervision of the Directorate.

The new paradigm removed centralistic practices that had been experienced by the Indonesian public and private higher education institutions over the last decades where the government had controlled the management of these institutions (Idrus, 1999). Since the role of the government will be shifted from regulating to facilitating the higher education institutions, the paradigm requires drastically changes in the attitudes of all staff of higher education institutions in Indonesia (Guhardja, 2005). These underlined the rationales of this research.

### 3.4 Population

Population for a study is a group of units from which a researcher would like to generalise or draw conclusions in regards to the study (Babbin, 1986; de Vaus, 2002). In practice, however, involving all members of a population to be studied is often not feasible. Therefore, the definition of population usually is a realistic choice (Babbin, 1986).

The target population of this research was the permanent staff of Catholic higher education institutions that were registered as members of the APTIK (Asosiasi Perguruan Tinggi Katolik Indonesia), or the Association of the Indonesian Catholic Higher Education Institutions in the year 2005. At the time the research was conducted, the APTIK included 15 institutions consisting of 12 universities and three tertiary schools (APTIK, 2005). The institutions were located in 13 cities on five islands in Indonesia. Of the 15 institutions, nine were located in seven cities on the
island of Java. The others were located in the islands of Sumatra (2), Sulawesi (2), Kalimantan or Borneo (1), and Timor (1). The findings of this research were expected to be generalised to this population.

Although involving the staff of these 15 institutions was desirable, it was impossible for practical and financial reasons. This was primarily due to the dispersed location of the institutions. In viewing of these difficulties, it was considered necessary to determine an accessible population from which the sample of this research was derived. This research thus chose those institutions that were located on the island of Java as a feasible alternative. Ease and accessibility to the researcher were the primary considerations.

The accessible population of this research was therefore the permanent staff of 9 Catholic higher educational institutions in 7 cities on the island of Java in Indonesia that were registered as members of the APTIK in the year 2005. The cities encompassed Jakarta (2 institutions), Bandung (1 institution), Semarang (1 institution), Yogyakarta (2 institutions), Surabaya (1 institution), Malang (1 institution), and Madiun (1 institution). The accessible population comprised approximately 3,600 permanent staff. The survey was conducted during the period of July to September, 2005.

Permanent staff in this research referred to academic and non-academic staff employed by the Catholic higher education institutions on an on-going full-time basis. The choice of permanent status was based on the fact that this research concerned the perceptions and opinions of the respondents towards the daily practices of their institutions. It was assumed that permanent full-time staff have more knowledge about the internal operations of the institution than temporary (part-time or casual) staff. For this reason, all staff hired on a temporary or seasonal basis were excluded from the research.
3.5 Sampling

Sampling is a systematic process of selecting parts of a population to draw conclusions regarding the population of a study (Neuman, 2003; Zikmund, 1997). The best representative sample can be obtained through a probability or random sampling as this technique provides each population member the same chance to be chosen in the sample (de Vaus, 2002; Fink, 2003; Reaves, 1992; Sekaran, 1992). A good random sampling requires a sample frame or a complete list of all population members (Burns & Bush, 1995; Fink, 2003; Zikmund, 1997). However, probability sampling is sometimes impractical so that non-probability sampling becomes a feasible alternative. This particularly applies when the population is spread out over a wide area or when the sampling frame is unavailable (Babbin, 1986; de Vaus, 2002). This was also the case in this research.

A satisfactory sampling frame was unable to be developed in this research due to the inappropriateness of the lists of potential participants that were obtained prior to the real survey. Consequently, a probability sampling technique was too difficult to be implemented.

A purposive or judgmental non-probability sampling was then used to invite the participation of potential research participants of the nine prospective host institutions. Purposive or judgment sampling refers to a sampling technique in which potential respondents are selected on the basis of some predetermined criterion (de Vaus, 2002, Neuman, 2003). In this type of sampling researchers or some individuals with considerable knowledge about the population use their judgments to select potential respondents that they consider a representative sample (Babbie, 1986; Burns & Bush, 1995; Chadwick et al., 1984; Churchill, 1996; Neuman, 2003; Zikmund, 1997). The judgement is often based on the likeliness of the potential respondents providing information (Churchill, 1996; Slaughnessy & Zechmeister, 1994).

Such a judgment was also used in this research to invite respondent’s participation. The identification of the eligible potential respondents was carried out by the
researcher with the assistance of the contact person/s of each institution. The length of time the potential respondents had spent in their institutions (minimum of one year) was used as the main criteria. The availability of potential respondents during the real survey was also identified by asking the contact person/s whether the prospective participants were on long service leave, sabbatical leave, vacation leave, sick leave or study leave.

It has been acknowledged that the drawback of a judgmental or purposive sampling lies in its inability to provide representativeness (de Vaus, 2002; Zikmund, 1997). However, with the absence of an appropriate sampling frame this type of sampling technique was considered more productive in identifying potential respondents than randomly choosing from the list of the names of the respondents. Thus, the inability of this sampling to ensure representativeness was acceptably balanced in this research.

### 3.6 Sample Size

The size of a sample refers to “the number of units that need to be surveyed in order for the findings to be precise and reliable” (Fink, 2003, p. 34). The general rule for samples is the bigger the better (Allison, 1999). The use of statistical means is considered the most appropriate way to determine the sample size, but this technique is not valid for non-probability sampling (Sapsford, 1999). In a situation where the information required by statistical methods is rare, the use of a rule of thumb to determine the sample size is acceptable (Neuman, 2003).

Given that this research adopted a non-probability sampling, a rule of thumb was applied for the determination of the sample size. The appropriate number of cases required by exploratory factor analysis – one of the statistical procedures employed in this research – was used as the basis for determining the sample size.

There have been various rules of thumb regarding the requirement of what the ratio of cases (respondents) to variables (i.e., questionnaire items) should be, ranging from
5:1 to 10:1 (Netemeyer, Bearden, & Sharma, 2003). Field (2000) notes that, in general, over 300 cases are probably adequate but communalities after extraction should be above 0.5. Clark and Watson (1995) mention a number of 100 to 200 as being appropriate to perform factor analysis whereas Hutcheson and Sofroniou (1999) recommend at least 150 – 300. Blaikie (2003), states that a sample of at least 300 respondents will usually provide a reliable result. Netemeyer et al. (2003) propose that a sample of 300 respondents will suffice for pools with large number of items (i.e., more than 20 items).

In this research, 1,000 questionnaires were distributed and a total of 751 were returned (see Table 3.1). Of the 751 questionnaires, 77 were left unopened because the respondents were either unable to be contacted (72) or refused to participate further (5). The refusals were due to a variety of reasons such as inconvenience, fear of confidentiality, and lack of spare time. Nine (9) questionnaires were sent back without any completed item meanwhile another 8 were incomplete and unusable. A total of 19 questionnaires were unable to be processed because the respondents did not meet the requirements to be a research participant (i.e. part-timers). There were another 24 questionnaires that were returned with some uncompleted items but were able to be processed. The number of returned questionnaires with fully completed items was 618. Thus, the total number of usable questionnaires was 642 (or 618 + 24). This figure also indicated the sample size of this research. From the standpoint of the rules thumbs and the principle of the bigger the better, the sample size of 642 certainly met the suggested requirements.

### 3.7 Response Rate

Prior studies have shown that collecting data by personally distributing questionnaires to the respondent’s office gives rise to high rate of responses. The responses varies from 64.7% (Jong, Price, & Mueller, 1997); 68.2% (Kim, 2003); 70% (Vardi, 2001); 72% (Barnett & Schubert, 2003); to 87.3% (Mayer & Schoorman, 1998). The response rate of this research was 68.15%. The detailed calculation of the response rate is depicted in Table 3.1.
Some techniques to increase response rate as recommended by various authors have been implemented in this research, such as having a personalised signature appear on the cover letter (Dodd & Markwiese, 1986; Gendall, 2005), providing prepaid incentives (Porter, 2004), statements of confidentiality (Porter, 2004), and requests for help in the cover letter.

The pre-paid non monetary incentive was provided in the form of a ballpoint pen. It was given to facilitate the prospective respondent’s convenience in completing the questionnaire. Together with an offer of an executive summary of the results in a soft copy form, the pen also served as a token of appreciation for their participation. A previous study (Willimack, Shuman, Pennell, & Lepkowski, 1995) shows that a pre-paid (enclosed with the package itself) non-monetary item of low value (i.e. ballpoint pen) help increase response rates. The detail of these matters is covered in section 3.12 (Data Collection Procedures).

<table>
<thead>
<tr>
<th>Responses from host institutions</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of distributed questionnaires</td>
<td>1,000</td>
</tr>
<tr>
<td>Unopened returned questionnaires (unable to be contacted)</td>
<td>72</td>
</tr>
<tr>
<td>Returned without completing any question</td>
<td>9</td>
</tr>
<tr>
<td>Refused to participate</td>
<td>5</td>
</tr>
<tr>
<td>Returned but incomplete (and unusable)</td>
<td>8</td>
</tr>
<tr>
<td>Returned but did not meet the requirements to be a respondent</td>
<td>19</td>
</tr>
<tr>
<td>Returned with incomplete items but usable</td>
<td>24</td>
</tr>
<tr>
<td>Returned fully completed</td>
<td>618</td>
</tr>
<tr>
<td>Total usable responses</td>
<td>642</td>
</tr>
<tr>
<td>Effective response rate ( \frac{642}{(1,000 - 72 - 5) + 9} ) *100</td>
<td>68.15%</td>
</tr>
</tbody>
</table>

Table 3.1. Summary of responses from the sample
3.8 Measures

All measures used in this research were derived from pre-existing scales developed in English speaking countries. The scales were translated and adapted in order to fit the research context (the Indonesian Catholic higher education institutions). As will be seen from the analysis in Chapter Four, all scales were deemed to be robust and have high reliability as reflected through their alpha coefficients.

The Organisational Commitment Questionnaire developed by Allen and Meyer (1990) was used to assess the relative strength of the respondent bound to an organisation. This three-factor scale determines an individual’s (1) affective attachment to an organisation (affective commitment), (2) perceived costs associated with leaving the organisation (continuance commitment), and (3) felt obligation to remain with the organisation (normative commitment).

The respondents’ perceived ethical work climate was measured using the newest version of Ethical Climate Questionnaire (ECQ) refined by Cullen, Victor, and Bronson (1993) that drew on the shared perception of people regarding norms, values, and accepted behaviours in their organisation. This multi-dimensional scale employ three generic (or nine specific) types of theoretical ethical climates, namely: (1) egoistic consisting of (a) self-interest, (b) company profit, (c) efficiency; (2) benevolent comprising of (d) friendship, (e) team play, (f) social responsibility, and (3) principled encompassing (g) personal morality, (h) rules, standard operating procedures, and (i) law, professional code.

The ethical ideology of the respondents was assessed by the Ethics Position Questionnaire (EPQ) developed by Forsyth (1980). This two-factor scale is designed to tap the orientation of individuals in their approach to moral judgment in terms of whether they adhere to universal moral values (idealism) or allow deviations from universal moral values (relativism).

The survey questionnaire, which consists of the Indonesian versions of these three scales, is presented in Appendix A-2. An overall summary of the measures is depicted in Table 3.2 below.
## Table 3.2. Overview of construct measures used for this research

<table>
<thead>
<tr>
<th>Variable</th>
<th>Conceptual Definition</th>
<th>Operational Definition</th>
<th>Instrument Items</th>
<th>Original Scale Source</th>
<th>Variables Related to and Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethical climate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A shared perception of people regarding norms, values, and accepted behaviours in their organisations.</td>
<td>A climate that endorsed maximisation of self interest of others as (1) individuals (self-interest climate), or SI (2) member of units inside organisations (company profit), or CP (3) members of units outside organisations (efficiency), or EF</td>
<td>Section 3</td>
<td>Cullen et al. (1993)</td>
<td>AC(–)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A climate that emphasises on the well-beings of others as (1) individuals (friendship), or FR (2) members of organisations (team play), or TP (3) members of units outside organisations (social responsibility), or SR</td>
<td></td>
<td></td>
<td>AC(+)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A climate that enforces rules according to (1) individuals’ personal moral values (personal morality), or PM (2) organisation’s rules (rules, standard operating procedures), or RP (3) rules external to organisations (law, professional codes), or PC</td>
<td></td>
<td></td>
<td>ID(+)</td>
</tr>
<tr>
<td><strong>Ethical ideology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The variations of individuals in their approach to moral judgement.</td>
<td>Adherence to universal moral values (idealism), or ID Allowing deviations from universal moral values (relativism), or RL</td>
<td></td>
<td>Forsyth (1980)</td>
<td>AC(+)</td>
</tr>
<tr>
<td><strong>Organisational commitment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The relative strength with which individuals are bound to an organisation.</td>
<td>Affective attachment to an organisation (affective commitment) or AC Perceived costs of leaving the organisation (continuance commitment) or CC Obligation to remain with the organisation (normative commitment), or NC</td>
<td></td>
<td>Allen and Meyer (1990)</td>
<td>ID (+), SI (-), CP (-), EF (-), FR (+), TP (+), SR (+), FR (+), TP (+), SR (+)</td>
</tr>
</tbody>
</table>

Source: Format derived from Pecotich, 1983
3.8.1 Organisational Commitment Measures

Organisational commitment has been defined and measured in various ways. However, the definition suggested by Porter and his colleagues (Mowday, Steers, & Porter, 1979; Porter, Steers, Mowday, & Boulian, 1974) has been considered as the most widely used (Swailes, 2002).

According to this definition, organisational commitment is “the relative strength of an individual’s identification with and involvement in a particular organization” (Mowday et al., 1979, p. 226). It is characterised by three factors: “a strong belief in and an acceptance of the organization’s goals and values, a willingness to exert considerable effort on behalf of the organization and a strong desire to maintain membership in the organization” (Mowday et al., 1979, p. 226).

Since it was introduced in the early 1970’s, this view has been largely adopted for measuring individuals’ commitment to their organisations (Swailes, 2002). To capture the three proposed factors, Porter and his associates design a 15 item questionnaire with a seven-point Likert scale response for each item and tested it on six samples. Although the coefficient alphas ranged from 0.82 to 0.93, factor analysis of the selected samples result in a single factor solution. This denotes the inability of the measure to show the multidimensional nature of organisational commitment (Swailes, 2002).

This research used a three-component model of commitment developed by Allen and Meyer (1990) to measure organisational commitment. This scale was chosen because it has shown its superiority in capturing the multidimensional nature of commitment (McMurray, Scott, & Pace, 2004). The reliability of the scale has been confirmed (e.g., Culpepper, Gamble, & Blubaugh, 2004; Marchiori & Henkin, 2004).

In their first effort, Meyer and Allen (1984) propose a distinction between affective and continuance commitment. Affective commitment refers to an emotional attachment to, identification with, and involvement in the organisation. Continuance commitment relates to the perceived costs associated with leaving the organisation. Later, Allen and Meyer (1990) add a third distinguishable component of commitment
called normative commitment. It denotes a perceived obligation to remain in the organisation. Meyer and Allen (1991) argue that an employee can experience all three forms of commitment in different degrees (Meyer & Allen, 1991).

Allen and Meyer’s (1990) three-component model consists of 24 items with a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7). Each component of commitment is measured using eight items.

Affective commitment is assessed using the first eight items. A sample item (item 1) is, “I would be very happy to spend the rest of my career with this organization”.

Item numbers 9 to 16 of the scale aim to gauge continuance commitment. A sample item (item 10) is, “It would be very hard for me to leave my organization right now, even if I wanted to”.

The remaining items (numbers 17 to 24) are used to identify normative commitment. A sample item (item 20) states, “One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore I feel a sense of moral obligation to remain”.

Of the 24 items, only 17 were used in the final analysis of this research. The decision to discard the seven items was based on a preliminary data analysis, which is detailed in Chapter Four. All the eight continuance commitment items were included, while only five and four items of affective and normative commitments were selected, respectively.

The Organisational Commitment Questionnaire has been widely used in previous studies with reliabilities (assessed by alpha coefficients) of 0.87 for affective commitment, 0.75 for continuance commitment, and 0.79 for normative commitment (Allen & Meyer, 1990). The complete items of this measure are detailed in Appendix B-1.

There have been various instruments to measure organisational commitment, some of which are depicted in Table 3.3.
Table 3.3. Summary of measures of organisational commitment

<table>
<thead>
<tr>
<th>Scale Source</th>
<th>Context</th>
<th>Factors and Items (N)</th>
<th>Reliability</th>
<th>Scale Type</th>
<th>Anchored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mowday et al. (1979)</td>
<td>Divergent work organisations: public, university, hospital, bank, telephone, scientist, engineer, automobile, retailer</td>
<td>Single-factor (15)</td>
<td>α = 0.90</td>
<td>7-point Likert-like</td>
<td>1 = strongly disagree; 7 = strongly agree</td>
</tr>
<tr>
<td>Hrebiniak and Alutto (1972)</td>
<td>Various organisations</td>
<td>Single-factor (12)</td>
<td>Spearman-Brown Reliability = 0.79</td>
<td>3-point scale</td>
<td>1 = yes, definitely; 2 = uncertain; 3 = no, definitely not</td>
</tr>
<tr>
<td>Cheney (1983)</td>
<td>University</td>
<td>Single-factor (25)</td>
<td>α = 0.94</td>
<td>7-point scale</td>
<td>1 = No; 7 = Yes</td>
</tr>
<tr>
<td>Cook and Wall (1980)</td>
<td>Manufacturing blue collar workers</td>
<td>Identification (3)</td>
<td>α = 0.87</td>
<td>7-point Likert</td>
<td>1 = strongly disagree; 7 = strongly agree</td>
</tr>
<tr>
<td>Angle and Perry (1981)</td>
<td>Fixed-route bus services</td>
<td>Identification (3) Involvement (3) Loyalty</td>
<td>α = 0.74; α = 0.82</td>
<td>7-point Likert</td>
<td>1 = strongly disagree; 7 = strongly agree</td>
</tr>
<tr>
<td>Jaros, Jermer, Koehler, and Sincich (1993)</td>
<td>Aerospace firm</td>
<td>Continuance (3) Moral (4) Affective (14)</td>
<td>α = 0.77; α = 0.83; α = 0.94</td>
<td>7-point scale; 7-point scale; 7-point Bipolar Adjective Checklist</td>
<td>1 = strongly disagree; 7 = strongly agree</td>
</tr>
<tr>
<td>Penley and Gould (1988)</td>
<td>Students, public service, financial institution, bakery, municipality.</td>
<td>Alienative (5) Calculative (5) Moral (5)</td>
<td>α = 0.82; α = 0.67; α = 0.80</td>
<td>6-point Likert format</td>
<td>1 = strongly disagree; 6 = strongly agree</td>
</tr>
<tr>
<td>Allen and Meyer (1990)</td>
<td>Full-time, nonunionised employees from two manufacturing firms and a university</td>
<td>Affective (8) Continuance (8) Normative (8)</td>
<td>α = 0.82; α = 0.67; α = 0.80</td>
<td>7-point scale</td>
<td>1 = strongly disagree; 7 = strongly agree</td>
</tr>
</tbody>
</table>

Note: * The scale was employed in this research.
As can be seen in the table, for some measures, the term commitment is used to describe an affective commitment to an organisation (Cook & Wall, 1980; Mowday et al., 1979). Others used the terms “calculative commitment” to describe the desire to stay, based on considerations that are unrelated to affectivity (Hrebiniak & Alutto, 1972).

Having discussed the organisational commitment measure – the dependent variables of this research - the following sections address the measures of the two independent variables, namely, ethical climate and ethical ideology.

3.8.2 Ethical Climate Measures

Ethical climate was measured using the latest version of a questionnaire originally developed by Victor & Cullen (1987, 1988). This consisted of 24 items but has subsequently been revised by Cullen et al. (1993) to include 36 items. The 36 items are based on a six-point scale, ranging from completely false (0) to completely true (5). Until recently, researchers have considered the scale as being the most fully developed one because of its relatively consistent findings across studies (Fritzsche, 2000).

Ethical climate refers to the shared perceptions of organisational members regarding what is considered a correct behaviour in the organisation and how the organisation deals with ethics-related problems (Victor & Cullen, 1987). The theoretical basis for ethical climate derived from two dimensions, each with three positions. The first dimension called ethical criteria when an individual facing an ethical dilemma. It refers to three main categories of ethical theory that can also be found in Kohlberg’s (1984) theory of moral development. Another dimension of ethical climate is labelled level of analysis. It concerns the main source (referent), from which individuals receive their cues in considering acceptable and unacceptable behaviour (Victor & Cullen, 1987; Wimbush & Shepard, 1994).

The ethical criteria types consist of three main classes used in moral philosophy, namely, egoism (maximising one’s own self interest), utilitarianism (maximising the
interests of as many people as possible), and deontology (adherence to moral principles). For the purposes of their ethical climate model, Victor and Cullen (1987) translate these ethical criteria into egoism (E), benevolence (B), and principle (P), respectively.

The main source (referent) can be (a) the individual (I) such as one’s personal moral belief; (b) local (L) or the organisation, such as organisational standard practices; or (c) cosmopolitan (C), which is external to the individual and organisation, such as professional associations (Wimbush & Shepard, 1994).

The combination of the two dimensions results in nine theoretical ethical climate types, namely, self interest (EI), company profit (EL), efficiency (EC), friendship (BI), team interest (BL), social responsibility (BC), personal morality (PI), rules, standard operating procedures (PL), laws and professional codes (PC).

An organisation with laws and professional codes climate (PC), for example, supports its members who adhere to rules and principles (P) external to the organisation (C), such as government regulations or religious values in dealing with moral decision making. An organisation with team interest climate (BL) emphasises on the well-being (B) of the people within the organisation (L). An organisation with self interest climate (EI) facilitates organisational members to promote their own interests (I) to the exclusion of others’ who might be affected by their decisions (E). Several types of climates might be present in an organisation (Cullen et al., 2003).

Although Victor and Cullen (1987) have proposed nine theoretical climate types in their model, there have been no previous studies reporting the existence of all nine climates (Peterson, 2000). However, the studies confirm the multi-dimensionality of the climates (see, for example, Agarwal & Malloy, 1999; Wimbush, Shepard, & Markam, 1997).

To tap one of the nine theoretical ethical climates, the 36 items of the ECQ questionnaire are grouped into 9 sub-scales, each of which consists of 4 items. Details of the 36 items are demonstrated in Appendix B-2.
Each type of ethical climate to be tapped, its related items, and a representative sample of the items are summarised in Table 3.4 below.

<table>
<thead>
<tr>
<th>Ethical Climate Type</th>
<th>Item Numbers</th>
<th>Representative Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-interest</td>
<td>1, 6, 10, 33</td>
<td>“In this company, people are mostly out for themselves” (item 1).</td>
</tr>
<tr>
<td>Company profit</td>
<td>4, 8, 17, 29</td>
<td>“Decisions are primarily viewed in terms of contribution to profit” (item 29).</td>
</tr>
<tr>
<td>Efficiency</td>
<td>2, 19, 25, 36</td>
<td>“Efficient solutions to problems are always sought here” (item 36).</td>
</tr>
<tr>
<td>Friendship</td>
<td>5, 16, 32, 35</td>
<td>“In this company, people look out for each other’s good” (item 5).</td>
</tr>
<tr>
<td>Team interest</td>
<td>12, 21, 27, 31</td>
<td>“People are very concerned about what is generally best for employees in the company” (item 31).</td>
</tr>
<tr>
<td>Social responsibility</td>
<td>26, 28, 30, 34</td>
<td>“It is expected that you will always do what is right for the customer and public” (item 26).</td>
</tr>
<tr>
<td>Personal morality</td>
<td>3, 9, 11, 22</td>
<td>“Each person in this company decides for himself what is right and wrong” (item 9).</td>
</tr>
<tr>
<td>Rules, standard operating</td>
<td>7, 15, 18, 23</td>
<td>“Everyone is expected to stick by company rules and procedures” (item 15).</td>
</tr>
<tr>
<td>Laws, professional codes</td>
<td>13, 14, 20, 24</td>
<td>“The first consideration is whether a decision violates any law” (item 13).</td>
</tr>
</tbody>
</table>

Source: Cullen, et al., 1993.

Of the 36 items, only 25 were considered appropriate to be used in this research. A detailed explanation of this matter is offered in Chapter Four.

The endeavour of the originators of the scale to tap their proposed nine ethical climates types has resulted in only seven identified climates with alpha coefficients ranging from 0.69 (for company profit) to 0.85 (for social responsibility).

There have been other similar measures of ethical climate applied in marketing contexts. Hunt, Wood, & Chonko (1989), for example, use the measure of Corporate Ethical Values to ascertain professional marketers’ perceptions of the ethical actions.
of their managers, the ethical issues in their organisation, and the rewards/punishments regarding ethical/unethical behaviour in their organisation.

Babin, Boles, & Robin (2000) strove to identify the perceptions of marketing employees involved in sales and/or service providing positions regarding the presence of trust/responsibility, ethical peer behaviour, ethical norms violation and ethical/unethical selling practices in their organisation. These various measures are shown in Table 3.5 below.

Table 3.5. Summary of measures of ethical climate

<table>
<thead>
<tr>
<th>Scale Source</th>
<th>Context</th>
<th>Factors and Items (N)</th>
<th>Reliability</th>
<th>Scale Type</th>
<th>Anchored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babin, et al. (2000)</td>
<td>Marketing (salesperson, service providers)</td>
<td>Trust/responsibility (4) Ethical peer behaviour (6) Ethical norm violation (3)</td>
<td>α = 0.80</td>
<td>6-point</td>
<td>1 = strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ethical/unethical selling practices (3)</td>
<td>α = 0.86</td>
<td>Likert type scale</td>
<td>6 = strongly agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>α = 0.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>α = 0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunt, et al. (1989)</td>
<td>Marketing (professional marketers, researchers, advertising agency managers)</td>
<td>Single factor capturing he perceived ethical action of managers (1), the issues of ethics in the organisations (3), the reward-punishment for ethical/unethical behaviour in the organisation (3)</td>
<td>α = 0.78</td>
<td>7-point format scale</td>
<td>1 = strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7 = strongly agree</td>
</tr>
<tr>
<td>Schwepker and Hartline (2005)</td>
<td>Customer-contact employees within units of hotels</td>
<td>Single factor (7)</td>
<td>α = 0.79</td>
<td>7-point scale</td>
<td>1 = strongly disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7 = strongly agree</td>
</tr>
<tr>
<td>Cullen, et al. (1993) *</td>
<td>Accounting firms</td>
<td>Self-interest (4) Company profit (4) Efficiency (4) Friendship (4) and Team interest(4) Social responsibility (4) Personal morality (4) Rules, standard operating procedures (4) Law, professional codes (4)</td>
<td>α = 0.80</td>
<td>6-point type scale</td>
<td>0 = completely false</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>α = 0.69</td>
<td></td>
<td>5 = completely true</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>α = 0.85**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>α = 0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>α = 0.76</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
* The scale was employed in this research.
** The scale is designed to tap nine theoretical/hypothetical ethical climate types. However, in line with some other subsequent studies that used this scale, the findings of the study conducted by the originators did not show the presence of all the nine types of climates. Instead, it only revealed seven identified climate types. Through the use of a factor analysis, some items of friendship and team interest climates loaded on the same factor. The descriptors of company profit climate either did not load on a meaningful factor or did not contribute to the reliability of the factor so that the alpha coefficient (α) of this sub-scale is unavailable.
Following the discussion of ethical climate measure is a description of the scale used in this research to tap ethical ideology, which is presented below.

### 3.8.3 Ethical Ideology Measures

Ethical ideology refers to the system of ethics that individuals use as the guideline for their response to ethically questionable requests and behaviours (Henle, Gialacone, & Jurkiewicz, 2005).

There are various ways to measure personal moral philosophy or ethical ideology, but all measures share a common foundation or the premise of “right making” (Herndorn, Fraedrich, & Quey, 2001). Table 3.6 demonstrates some measures of ethical ideology or personal moral philosophy.

Reidenbach and Robin (1988), for example, attempt to gauge the degree to which individuals adhere to the principles of justice, relativism, egoism, utilitarian, and deontology. A similar measure is also developed by Schultz and Illan (2004). In comparisons to other measures of personal moral philosophy, Forsyth’s (1980) Ethics Position Questionnaire (EPQ) has been regarded as being superior given its ability to reconcile many conceptualisations of moral philosophy such as teleology, ethical skepticism, ethical egoism, utilitarianism, and deontology (Karande & Rao, 2000) in a parsimonious way (Douglas, Davidson & Schwartz, 2001).

For this reason, Forsyth’s (1980) Ethics Position Questionnaire (EPQ) was adopted to measure ethical ideology in this research. Forsyth proposes the dichotomy of idealism and relativism in order to understand individual differences in ethical ideology. A 20-item questionnaire with a 9-point scale response ranging from completely disagree (1) to completely agree (9) is designed to shed light on how ethical ideology operates in individuals.

The first 10 items target the idealism scale while the other 10 target relativism. The idealism scale has a coefficient alpha of 0.80 while the relativism scale has a coefficient alpha of 0.73.
Idealism refers to the degree to which that individuals accept absolute moral values. Idealists believe that desirable outcomes can always be sought through the right action. For example, they are convinced that telling a lie is wrong and attempt to avoid it, even in a situation that requires them to do so (Henle et al., 2005).

Relativism, on the other hand, objects to universal moral values. Relativists tend to disregard universal moral values when determining right and wrong action and refer more to personal values and the situations involved (Henle et al., 2005).

### Table 3.6. Summary of measures of ethical ideology

<table>
<thead>
<tr>
<th>Scale Source</th>
<th>Context</th>
<th>Factors and Items (N)</th>
<th>Reliability</th>
<th>Scale Type</th>
<th>Anchored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shultz and Illan (2004).</td>
<td>Full-time employees from various industries and working part-time students.</td>
<td>Single factor capturing people’s moral preferences, namely, utilitarianism, egoism, deontology, relativism, and justice (5)</td>
<td>Not reported</td>
<td>5-point scale</td>
<td>1 = not at all 5 = to a very great extent</td>
</tr>
<tr>
<td>Reidenbach and Robin (1988).</td>
<td>Retailing (students)</td>
<td>Three scenarios each of which is followed by questions measuring justice, relativism, egoism, utilitarian, and deontology (29)</td>
<td>7-point Bipolar Adjective Phrases</td>
<td>According to questions regarding moral philosophy scales, e.g. 1 = just 7 = unjust</td>
<td></td>
</tr>
<tr>
<td>Forsyth (1980) *</td>
<td>University students</td>
<td>Idealism (10) Relativism (10)</td>
<td>$\alpha = 0.80 \quad \alpha = 0.87$</td>
<td>9-point scale</td>
<td>1= completely disagree 9 = completely agree</td>
</tr>
</tbody>
</table>

Note: * the scale was employed in this research.
In order to assess individuals’ ethical positions, they are requested to indicate their degree of agreement or disagreement with each item. Their scores for idealism and relativism are established by calculating the mean scores of their responses to the idealism and relativism items. The higher scores indicate higher idealism/relativism. A sample item for idealism (item 4) is, “One should never psychologically or physically harm another person”. A representative item for relativism (item 12) states, “What is ethical varies from one situation and society to another”. All of the items can be seen in Appendix B-3.

Of the 20 items, only 14 were finally used in this research (seven items for idealism and seven items for relativism). The deletion of the six items was based on the results of factor analysis which is detailed in Chapter Four.

3.9 Research Instrument Translation

The pre-existing scales used in this research were developed in Western (English speaking) countries and designed for business settings. For the purpose of this research, the research instruments were translated and adapted in order to fit the research contexts (the Indonesian Catholic higher education institutions).

It has been acknowledged that one important issue that needs to be considered in research instrument translation is the equivalence of the translated instrument (Herrera, DelCampo, & Ames, 1993). The quality of translation must also be maintained by minimising translation errors so that any differences of results are due to real cultural differences and not due to errors in translation (Maneesriwongul & Dixon, 2004).

In response to this issue, a back translation process, as recommended by Brislin (1970), was adopted. The process involved the translation of the original (English) questionnaire by two Indonesian bilinguals into the target language (Indonesian). Then, another two bilingual Indonesians translated the Indonesian version back into English. The first and the second group of bilinguals worked separately and independently.
Finally, an editor from an English speaking country - an Australian - examined the equivalence of the two English versions. Some minor errors were found in several items of the back translated version which were then corrected by the editor. Consequently, the related items of the Indonesian version were also modified to ensure their meanings were equivalent to the original English. The back-translated versions of the three scales are demonstrated in Appendix C-1, Appendix C-2, and Appendix C-3.

The four Indonesian bilingualists all hold university degrees in English. Three of them have experience of teaching English for many years at universities or English training institutions. The Australian editor is a professional who has considerable experience in editing English versions of Indonesian publications.

The final Indonesian version was then handed to three colleagues to obtain their opinions regarding the clarity and readability of the research instrument before a pre-test was conducted. Some final minor revisions were made based on their feedback.

### 3.10 Pre-test

The main objective of a pre-test is to examine the reliability of the questionnaire items (de Vaus, 2002; Neuman, 2003). It also aims to detect possible mistakes and to ensure the questionnaire will elicit the real intended information (Webb, 2000). To fulfil these purposes, the Indonesian version of the questionnaire was pre-tested with staff of two Catholic higher educational institutions in Yogyakarta that were prospective host institutions in the real survey.

The pre-test questionnaire was presented in a way similar to that intended for the actual study. It was put in an envelope with a cover letter explaining the purpose of the study. The pre-tested respondents were informed that the questionnaire was still under development and their constructive feedbacks would be welcomed.

Convenience sampling was used for this purpose. A total of 58 questionnaires were sent and 50 of them were returned, two of which were incomplete and therefore
dropped. Hence, the sample number was 48.

The pre-tested sample was asked to complete the questionnaires and put a question mark (?) next to the words of any item or instruction of the questionnaire that they considered unclear or difficult to understand. A separate sheet was also enclosed to enable the respondents to make their written comments. The sheet contained four close-ended questions in a 5-point Likert scale and an open-ended question. The close-ended questions invited general comment of the respondents on instruction clearness, the clarity of the question, ease of answer format, and completion time of the questionnaire. The open-ended one was designed to gauge specific issues raised by the respondents in relation to the questionnaire.

Most of the respondents stated that the instructions, questions, and the choices of possible answers used in the questionnaire were understandable. However, feedback obtained from the open-ended question suggested the use of a numeric symbol in the choice of answers was preferred to an acronym. In the pre-test, the choice was presented in the form of an acronym of the possible answers (for example, SA for Strongly Agree or SDA for Strongly Disagree).

Other feedback from the open-ended question was concerned with the way respondents were asked to their chosen answer. According to the respondents, the use of a cross sign (X) was more convenient than circling.

In regards to completion time, 30 minutes was reported by the majority of the respondents as the average time to complete the questionnaire. Minor grammatical errors were also found in several questionnaire items. Once all feedbacks were obtained, modifications were made accordingly.

### 3.11 Questionnaire Design

Questionnaire design is instrumental in survey research (Burns & Bush, 1995; Churchill, 1996; Zikmund, 1997). According to Dillman (2000), a good questionnaire design will help the researchers reduce non-response and avoid
measurement errors. To create a professional impression to the respondents, care was taken in designing the questionnaire in this research.

In this section, the discussion of the design refers to Dillman’s (2000) four criteria of good design for a self-administered questionnaire. These are the physical format, the order of the questions, the layout of the questionnaire, and the front and back cover.

### 3.11.1 Physical Format

The questionnaire for this research was presented in the form of a portrait (vertical) booklet consisting of 11 pages. The first two pages were single-sided, comprising a cover letter and a detachable consent form. The remaining nine pages were printed on double-sided pages where question items were grouped into four sections. The A3 (297 x 420 mm) size of paper was folded and stapled along the spine to form a booklet measuring 285 x 200 mm. The choice of a booklet form was in line with Dillman’s (2000) assertion that it is physically attractive to the respondents and enables the respondents to turn the pages easier.

An official covering letter from the primary supervisor (in English) was provided apart from the questionnaire. The main purpose of presenting the original English covering letter - with the University of Notre Dame Australia letterhead - was to convey to the respondent that the research was legitimate. The covering letter can be seen in Appendix D.

In viewing of the fact that not all respondents understood English it was considered necessary to provide an introductory letter in Indonesian on the first page of the questionnaire to explain the nature of the research to the respondents.

In order to make the letter friendly and to avoid too many uses of logos, a decorative brown leaves picture was put on the top of the letter. The letter covered:

1. The date
2. Some personal information about the researcher
3. A brief description of the purpose of research
(4) The reasons why the respondent was chosen
(5) A request to invite participation in the research
(6) A brief procedure of completing and returning the questionnaire
(7) An explanation that the research has been officially approved by the respondent’s institution
(8) An explanation that the research has an ethical clearance from the Research Ethics Committee of the University of Notre Dame Australia
(9) Contact details of the researcher and the Dean of Research and Quality Management of the University of Notre Dame Australia
(10) An offer to obtain the summary of the results of the research in an electronic form.
(11) The researcher’s blue ink signature to impress personal invitation to the respondent.

The second page was a consent form with the letterhead of the University of Notre Dame Australia logo printed in black and white. The form contained:

1. A brief description of the purpose of the research
2. Possible benefits of the research
3. The possible uncomfortable feeling of participating in the survey due to personal questions asked in the research
4. The assurance of confidentiality
5. The voluntary nature of participation
6. The time of questionnaire completion (approximately 30 minutes)
7. Invitation to participation
8. Date and respondent’s signature
9. Contact details of the researcher, supervisors, and the Dean of Research and Quality Management, the University of Notre Dame Australia.

### 3.11.2 Order of Questions

There are no hard-and-fast principles regarding the sequence of items of a questionnaire (Churchill & Iacobucci, 2002; Webb, 2000). However, guidelines suggest to put simple and easy questions at the beginning of the questionnaire and
place more difficult and sensitive questions near the end (Dilman, 2000; de Vaus, 2002). This research adopted these guidelines. The questions of this research were grouped into four sections.

Demographic questions were located at the beginning since they were considered as being easy and simple. This was also consistent with the notion of Passmore, Dobbie, Parchman, and Tysinger (2002) that demographics questions may help the respondents warm up before they move to more difficult or sensitive questions.

Questions on organisational commitment were placed immediately after demographic questions because they were considered to be easier and involved less items than those dealing with ethical climate which were put in the third section.

The Ethics Position Questionnaire was presented in the fourth section given its questions were more difficult and the questions required the respondents to choose one of nine response alternatives.

This research employed a closed response format to elicit information. This format is useful when a questionnaire is long and self-administered because it enables the respondents to provide quick answers (de Vaus, 2002). Considering the questionnaire used in this research consisted of nine pages, the choice of such a format was deemed appropriate. The use of a closed-response format also facilitates data analysis (de Vaus, 2002; Passmore et al., 2002).

The response alternative for questions on organisational commitment, ethical climate and ethical ideology were presented in numerical rating scales in accordance with the original questionnaire. Numerical rating scales refer to providing respondents a series of response alternatives that are ordered from low to high, and then the respondents are requested to choose one option between the low and high extremes (de Vaus, 2002).

A combination of response alternatives were used in the demographic questionnaire. These included the choice of one of dichotomous questions (e.g., questions on gender and marriage status), the selection of one option of a series of alternatives that are not
ranked in nature (e.g., questions on age and tenure). To capture certain categories that are not covered in pre-determined alternatives, an option of ‘other (please specify)’ was also provided for certain questions (e.g., questions on job types and employment status).

3.11.3 Layout

The lists of questions – except for the demographic ones – were presented in a webpage grid format. The grid format, as de Vaus (2002) points out, is helpful because it saves space and makes it easier for the respondent to respond. Each question, as well as its alternative responses, was written in black print on each appropriate cell of the grid. In order to help respondents distinguish one question from another, white and light grey background was used alternately in every row of the grid.

A decorative image was put on the top of the title of each section. This aimed to help the respondent distinguish one section from another. For ease of reading, this research used Arial 11 point font for all questions. An expression of gratitude for participation and a request to recheck the completed questionnaire were placed at the bottom of the page of the last section. The title and the instruction of each section were printed in bold type to make them distinguishable from the light printed questions and to make the response task easier.

In response to each question, the respondent was asked to put a cross sign (X) in the appropriate box provided on the right of the question. The use of an X is more convenient because it only needs two movements to make the X sign and the possibility of the sign going beyond the box is minimised (Dillman, 2000).

3.11.4 Front and Back Cover

Although previous studies revealed different findings regarding the impact of questionnaire cover pages on the response rate, it has been acknowledged that an attractive design of a questionnaire cover is necessary (de Rada, 2005). The front
cover, as Dilman (2000) notes, is the first part of a research instrument that respondents see. This cover has a potential to influence their willingness to participate.

To create a positive impression to the respondent, the front cover of the questionnaire was printed on a good quality glossy paper with blue navy colour background. The dark colour was selected to make the questionnaire cover distinguishable. Two colourful university logos were imprinted on the cover. On the upper left corner side was of the logo of the University of Notre Dame Australia while the upper right corner displayed the logo of Atma Jaya Yogyakarta University, the principal sponsor of the survey.

A small white rectangle was provided in the upper right hand corner of the front cover enabling the researcher to put the number of the questionnaire. This allowed the researcher to keep track of the respondents.

To inform the respondent of the content of the booklet, the words KUESIONER PENELITIAN (or research questionnaire), written in capital letters, were put under the logos, respectively. The title of the questionnaire was also written in capital letters and was placed below those words. The questionnaire was entitled PENGARUH FILOSOFI MORAL PRIBADI DAN NILAI-NILAI ETIKA DALAM ORGANISASI TERHADAP KOMITMEN ORGANISATIONAL (the influences of personal moral philosophy and organisational ethical values on organisational commitment). Putting the title on the front cover helps the respondent understand what the questionnaire is about (Dillman, 2000).

A colourful picture of a Board Meeting, downloaded from the Microsoft Clip Art, was presented under the title. The picture was chosen to inform the respondents that the research was being conducted in workplace contexts.

The names of the researcher, the supervisors, and the University of Notre Dame Australia were shown in the bottom of the cover to emphasise the academic nature of the study. All words regarding titles and names were printed in a light blue colour. This was designed to make them eye catching as they contrasted starkly with the
background colour of the cover.

In light of Dillman’s (2000) suggestions, it was thought that putting the names of the university and the supervisors on the cover would create an impression to potential respondents that the questionnaire was sent from a credible and legitimate source. This may help foster trust that the survey is official and useful.

The back cover of the questionnaire was left blank. Its colour was the same as the background colour of the front cover. Leaving the back cover blank is designed to keep the respondents’ focus on the front cover so that they can start reading the questionnaire (Dillman, 2000).

3.12 Data Collection Procedures

Once ethical clearance was gained and an approval to conduct the research was obtained from the Research Ethics Committee of the University of Notre Dame Australia, a request letter was sent by the Rector of Universitas Atma Jaya Yogyakarta to the Rectors of the nine host institutions, seeking permission for data collection. A sample of this letter is presented in Appendix E. The request letter was supplemented an official letter from the Director of Research and Quality Management of the University of Notre Dame Australia. Appendix F depicts a sample of this letter. The draft of the prospective questionnaire was also enclosed to be examined by the Rector of each institution. After permission was gained from all institutions, the researcher approached the contact person/s assigned by the Rector of each institution to get their support. The names of the respondents were acquired from these persons. The contact person/s also assisted the researcher to find persons within each institution (research assistant/s) who were able to help distribute the research instrument to the prospective respondents.

An appointment with the research assistant/s then was made to arrange the distribution of the research instrument package. The package of research instruments consisted of
During the survey period, the researcher visited all the institutions and made contact with the research assistant/s of each institution to deliver the package to the targeted staff in person. Instruction was provided to the research assistant/s.

Each questionnaire was numbered for the researcher’s administrative purposes only. This was explained to the respondent on the first page of the questionnaire. The name of the respondent was handwritten by the researcher on the package to create a personal approach. To assure confidentiality, the package was distributed to and was collected from the respondent in a sealed envelope and the researcher was the only person entitled to see the completed questionnaires. The name of the respondent was not written on the returned envelope.

The questionnaire was delivered to and collected from the respondent on the same day. In cases where the respondent was unable to return the questionnaire on the same day, either the researcher or the research assistant/s collected the completed questionnaires on a day that suited the respondent. The research assistant/s handed the pooled questionnaire to the researcher on a specified day.

In a situation where direct contact with the respondent was unable to be made, the questionnaire was sent to the respondent through the internal mail of the institution by the internal staff in charge. The staff put the questionnaire on the prospective
respondent’s table on the same day. The completed questionnaires were also collected by the staff who then handed them to the researcher on another day.

The researcher’s email addresses and mobile phone number were given to the respondents in case any inquiry arose regarding the questions. Twelve (12) respondents took this opportunity and prompt responses were made by the researcher.

Either an SMS, or a phone call was made on a regular basis to the assistants in order to monitor the progress of the returned questionnaires or to request the respondents or to remind them to complete and return the questionnaires.

3.13 Concluding Remarks

This research concerned the examination of the nexus between perceived ethical work climates, ethical ideology, and organisational commitment. The sample involved permanent staff from nine Catholic higher education institutions in seven cities on the island of Java Indonesia. A cross-sectional survey was employed as the primary method to collect the data. The fieldwork comprised the distribution of a self-administered questionnaire to potential respondents through direct contact. A judgmental or purposive sampling was used to identify and invite respondent participation. The research was conducted during the periods of May to September 2005. A total of 1,000 questionnaires were distributed of which 642 were usable, representing the overall response rate of 68.15%.

The pre-existing scales were used to measure the three variables employed in this research. These scales were translated through a back translation procedure in order to maintain the quality and the equivalence of the translated scales. The translated scales were then pre-tested to ensure that the intended information was elicited. In order to minimise non-response and to avoid measurement errors care was taken in designing the questionnaire used in this research.

Having comprehensively discussed the research methodology, the next chapter presents the findings of the research.
CHAPTER FOUR
RESULTS

Introduction

This chapter details the findings of this research and the results of data analyses. It begins with an explanation of the processes of data preparation. The primary focus will be upon the appropriateness of the obtained data with regard to structural equation modelling (SEM) which is the main statistical procedure utilised in this research. Subsequent to the report of data preparation processes will be offered a portrayal of the characteristics of the respondents.

Following the portrayal of the respondents is a brief description of a two-step approach of SEM as employed in this research. This two-step approach involves measurement model assessment and structural model assessment. A combination of exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were assigned in the first step. EFA was performed to identify and to determine the constructs used in this research whilst CFA was conducted to validate the constructs identified in EFA.

A report on measurement model assessment that contains the findings revealed from EFA and CFA will be discussed respectively in subsequent sections. The discussion then continues with descriptive statistics of the constructs under the research as identified in the measurement model assessment.

The last parts of this chapter concern the assessment of the structural model. In this step, global fit of the model was assessed and the relationships among the constructs were examined. The re-specification of the model was also addressed. The results of this assessment will be reported in order as hypothesised in Chapter Two. Concluding remarks will end this chapter.
4.1 Data Preparation

Data preparation procedures were taken to ensure the quality of the data was suitable for multivariate statistical analyses using the SEM that was employed in this research. The procedures involved assessing the adequacy of the sample size, coding the data, examining and treating the missing values of the data, testing non-response biases, identifying potential univariate and multivariate outliers, and diagnosing the normality of data distribution.

4.1.1 Sample Size

SEM technique requires a large sample size (Kline, 2005). However, there have been various views and recommendations on this issue. As a general rule of thumb, samples with more than 200 cases are deemed large (Hair, Anderson, & Tatham, 1998; Kline, 2005). Others believe that a sample size of 150 or more is required to get parameter estimates that have small standard errors (Anderson & Gerbing, 1998). Another recommendation is to have a sample size of at least 300 cases (Tabachnick & Fidell, 1996). Referring to such guidelines, the sample size of 642 as used in this research was considered more than appropriate.

4.1.2 Coding the Data

As mentioned under the section of Data Collection Procedures in Chapter Three, all questionnaires sent to prospective respondents were numbered. The delivery and return dates of the questionnaires were recorded. Each questionnaire contained 96 questions, of which 91 were pre-coded. Five out of 16 questions on the respondent’s profiles were in the ‘other’ option.

Once the raw data was collected, responses to these questions were examined. Any entry errors were corrected and all reverse-coded items were recoded. A total of 642 questionnaires were found to be eligible for further analyses.
4.1.3 Missing Values

Following data coding, the data was subject to examination for missing values. Although the final analysis showed that only 11 constructs were present in the data set, in order to screen the data the Missing Value Analysis function of SPSS was assigned to all the variables that constituted the 14 constructs. To reiterate, the 14 constructs of interest in this research included affective commitment, continuance commitment, normative commitment (Allen & Meyer, 1990), idealism, relativism (Forsyth, 1980), self-interest climate, company profit climate, efficiency climate, friendship climate, team interest climate, social responsibility climate, personal morality climate, rules and procedures climate, and the laws or professional codes climate (Victor & Cullen, 1987).

Having examined the data files, a number of missing values were found in 13 out of these 14 constructs. Details of the amount, percentage and case number of the missing values are presented in Appendix G. As shown in the appendix, the missing values for any individual item across all constructs ranged from 0.2 percent to 0.5 percent.

There have been no fixed guidelines about the accepted range for the amount of missing values (Tabachnick & Fidell, 1996). However, the proportion of less than 10% in missing values can be considered as being small (Malhotra, 1993).

Next, the missing values were individually assessed for their levels of randomness. Values that are non-randomly missing, even in a small number, will impair the conclusions that can be drawn from the study (Tabachnick & Fidell, 1996). In this research, Little’s Chi-square test provided in SPSS was assigned to examine whether the missing values were missing completely at random (MCAR). MCAR occurs when the missing response is unrelated to its unknown value and to the values of responses to variables in the data set subject to analysis (de Leeuw, Hox, & Huisman, 2003). Little’s Chi-square test aims to diagnose whether biases in the pattern of missing values exist. From this, a comparison is made between the actual pattern of missing values and the expected pattern of the missing values if they are randomly distributed (Hair et al., 1998). A significance level greater than 0.05 of
the MCAR test indicates missing values are missing completely at random.

The results of Little’s Chi-square tests for the 13 constructs containing missing values are reported in Table 4.1. The outputs of the table show all significance levels of MCAR exceed 0.05, suggesting that all missing values in this research were missing completely at random. Thus, any method to remedy the missing values can be applied without making allowances for the impact of any other variables (Hair et al., 1998).

Table 4.1. Little’s Chi-square test of the randomness of missing data

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Chi-square</th>
<th>Degree of Freedom</th>
<th>Significance Level</th>
<th>Level of Randomness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective commitment</td>
<td>51.855</td>
<td>42</td>
<td>0.142</td>
<td>MCAR*</td>
</tr>
<tr>
<td>Continuance commitment</td>
<td>9.645</td>
<td>14</td>
<td>0.788</td>
<td>MCAR</td>
</tr>
<tr>
<td>Normative commitment</td>
<td>18.957</td>
<td>21</td>
<td>0.588</td>
<td>MCAR</td>
</tr>
<tr>
<td>Idealism</td>
<td>72.588</td>
<td>72</td>
<td>0.458</td>
<td>MCAR</td>
</tr>
<tr>
<td>Relativism</td>
<td>67.494</td>
<td>63</td>
<td>0.326</td>
<td>MCAR</td>
</tr>
<tr>
<td>Self-interest climate</td>
<td>10.070</td>
<td>6</td>
<td>0.122</td>
<td>MCAR</td>
</tr>
<tr>
<td>Company profit climate</td>
<td>5.347</td>
<td>6</td>
<td>0.500</td>
<td>MCAR</td>
</tr>
<tr>
<td>Efficiency climate</td>
<td>1.470</td>
<td>3</td>
<td>0.689</td>
<td>MCAR</td>
</tr>
<tr>
<td>Friendship climate</td>
<td>8.480</td>
<td>6</td>
<td>0.205</td>
<td>MCAR</td>
</tr>
<tr>
<td>Team interest climate</td>
<td>7.546</td>
<td>6</td>
<td>0.273</td>
<td>MCAR</td>
</tr>
<tr>
<td>Social responsibility climate</td>
<td>6.232</td>
<td>6</td>
<td>0.398</td>
<td>MCAR</td>
</tr>
<tr>
<td>Rules and procedures climate</td>
<td>0.323</td>
<td>3</td>
<td>0.956</td>
<td>MCAR</td>
</tr>
<tr>
<td>Laws or professional codes climate</td>
<td>11.523</td>
<td>9</td>
<td>0.242</td>
<td>MCAR</td>
</tr>
</tbody>
</table>

Note * MCAR = missing completely at random

In attempts to retain the data as much as possible, imputation was used to remedy the missing data. This was done instead of using other types of remedies, such as using cases with no missing data (complete case approach) or deleting case(s) and/or variable(s) with missing data (see: Hair et al., 1998). As recommended by Schafer and Graham (2002), maximum likelihood estimation with expectation maximisation (EM) method was employed to replace the values of missing data since this method gives reasonably consistent estimates for most variables (Hair et al., 1998). Replace Missing Value function of SPSS was run to perform the replacement. The data containing imputed values was then used in further analyses.
4.1.4 Non-response Biases

Non-response refers to a failure on the part of respondents to supply usable responses to the questionnaire (Burns & Bush, 1995). This might be due to various reasons including inaccessibility, inability, carelessness and non-compliance of the respondents (Rogelberg & Luong, 1998).

Non-response in and of itself is not indicative of a non-response bias (Rogelberg & Luong, 1998). The bias occurs when a number of respondents included in a sample are substantially different from those who do not respond to the study in terms of demographic or attitudinal variables (Lindner, 2002; Sax, Gilmartin, & Bryant, 2003).

Attempts to minimise possible non-response biases should be taken both before and after data collection (Rogelberg & Luong, 1998). Chapter Three has outlined steps taken prior to data collection in preventing possible non-responses such as using a direct contact to deliver the questionnaire, presenting a personalised cover letter, providing a consent form assuring confidentiality and conducting a pre-test and proper translation procedures to ensure the self-explanatory nature of the questionnaire.

This section describes how steps were taken to investigate possible non response biases after all data were collected and missing values had been imputed. Such biases were detected by way of examining the presence of differences between respondents and non-respondents. The absence of differences suggests the non-existence of non-response biases which means that generalisations from the respondents to the sample are justified (Armstrong & Overton, 1977).

Armstrong and Overton also note that respondents who return the questionnaires late can be regarded similar to the non-respondents, while those who provide early responses constitute respondents. This procedure was then followed due to the impractical nature of contacting non-respondents. Therefore, a test of non-response biases in this research was conducted by way of comparing the responses of early and late respondents.
Early and late respondents were classified on the basis of the length of time it took a respondent to return the questionnaire. As was mentioned earlier, this research used a direct contact to deliver the questionnaire. Each respondent was expected to complete and return the questionnaire ranging between one day and one week. Respondents who returned the questionnaire on the day and/or one day after the questionnaire was delivered were classified as early respondents. Those who submitted the questionnaire within a week after the deadline were categorised as late respondents. A number of 137 respondents met the criteria of early respondents, while another 145 were classified as late respondents.

The means of responses to the questions of each construct under the research was examined. Comparisons were made between early and late respondents. A series of Levene’s tests for the equality of variances were performed to examine the homogeneity of variances between the two groups. Then, a series of Independent t-tests were conducted to assess statistical differences in the means of the responses of the two groups. The summary of the results of these tests is presented in Table 4.2.

With exceptions in the constructs of team play, social responsibility and rules, standard operating procedures, the Levene’s tests showed that the variances in the two groups were equal for all constructs ($p > 0.05$). Independent t-tests statistics revealed the two-tailed values of $p > 0.05$ for all constructs, indicating there were no significant statistical differences in the means of responses between early and late respondents. Unlike the other constructs, the independent t-tests for the constructs of team play, social responsibility and rules and procedures were conducted on the basis of equal variances not assumed due to the inequality of variance for these constructs.

The absence of significant differences between early and late respondents suggested non-response biases were not serious problems in this study. Thus, the sample was appropriate to be analysed further because it was deemed to accurately represent respondents and non-respondents.
Table 4.2. Independent t-test for non-response biases between early and late respondents

<table>
<thead>
<tr>
<th>Construct</th>
<th>Early Respondent</th>
<th>Late Respondent</th>
<th>Significant Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective commitment</td>
<td>137 5.215</td>
<td>145 5.143</td>
<td>NO</td>
</tr>
<tr>
<td>Continuance commitment</td>
<td>137 4.618</td>
<td>145 4.817</td>
<td>NO</td>
</tr>
<tr>
<td>Normative commitment</td>
<td>137 4.595</td>
<td>145 4.562</td>
<td>NO</td>
</tr>
<tr>
<td>Idealism</td>
<td>137 7.112</td>
<td>145 7.057</td>
<td>NO</td>
</tr>
<tr>
<td>Relativism</td>
<td>137 5.083</td>
<td>145 5.113</td>
<td>NO</td>
</tr>
<tr>
<td>Self-interest climate</td>
<td>137 2.190</td>
<td>145 2.236</td>
<td>NO</td>
</tr>
<tr>
<td>Company profit climate</td>
<td>137 1.903</td>
<td>145 1.967</td>
<td>NO</td>
</tr>
<tr>
<td>Efficiency climate</td>
<td>137 1.764</td>
<td>145 1.805</td>
<td>NO</td>
</tr>
<tr>
<td>Friendship climate</td>
<td>137 2.753</td>
<td>145 2.767</td>
<td>NO</td>
</tr>
<tr>
<td>Team interest climate</td>
<td>137 3.242</td>
<td>145 3.197</td>
<td>NO</td>
</tr>
<tr>
<td>Social responsibility climate</td>
<td>137 3.625</td>
<td>145 3.516</td>
<td>NO</td>
</tr>
<tr>
<td>Personal morality climate</td>
<td>137 2.589</td>
<td>145 2.595</td>
<td>NO</td>
</tr>
<tr>
<td>Rules and procedures climate</td>
<td>137 3.515</td>
<td>145 3.472</td>
<td>NO</td>
</tr>
<tr>
<td>Professional codes climate</td>
<td>137 3.427</td>
<td>145 3.394</td>
<td>NO</td>
</tr>
</tbody>
</table>

4.1.5 Outliers

Outliers refer to cases with distinctive scores from the other cases in a data set (Hair et al., 1998; Kline, 2005). There are two types of outliers, namely, univariate and multivariate (Tabachnick & Fidell, 1996). The former relates to variables with an extreme score on a single variable whereas the latter refers to variables with an extreme combination scores on two or more variables.

Univariate outliers can be detected by way of inspecting the frequency distribution of the z scores of cases (Hair et al., 1998; Kline, 2005). This approach requires a conversion of each value of all cases into a standard score (z) which has a mean of 0 and a standard deviation of 1 (Hair et al., 1998). In a small sample (less than 80 cases), rules of thumb suggest z scores greater than 2.50 are indicative of cases to be potential univariate outliers (Hair et al., 1998). However, in a large sample as in this research, the threshold of the z score is 3.29 (Tabachnick & Fidell, 1996).

Having examined z-scores in the data file, 13 cases with z scores greater than 3.29 were identified, indicating these cases resembled univariate outliers. The constructs
on which these outliers were found were affective commitment, idealism, and rules and procedures as shown in Table 4.3.

Table 4.3. Uni-variate outliers with z score exceeding ± 3.29

<table>
<thead>
<tr>
<th>Construct</th>
<th>Z Score</th>
<th>Case Number</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective commitment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC6</td>
<td>- 4.10530</td>
<td>118, 119, 257</td>
<td>3</td>
</tr>
<tr>
<td>AC7</td>
<td>- 3.97115</td>
<td>47, 118, 119</td>
<td>3</td>
</tr>
<tr>
<td>Idealism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDE3</td>
<td>- 3.74423</td>
<td>326, 430</td>
<td>2</td>
</tr>
<tr>
<td>IDE6</td>
<td>- 3.30048</td>
<td>118, 119, 390</td>
<td>3</td>
</tr>
<tr>
<td>The laws or professional codes climates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL2</td>
<td>-3.68359</td>
<td>335, 500</td>
<td>2</td>
</tr>
<tr>
<td>Total outliers</td>
<td></td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

Considering that this research concerned the personal perception of individuals toward organisational experiences, it was likely that an individual may have extreme opinions that were different from the others. For this reason, it was decided to leave these univariate outliers untreated.

The basis for multivariate outlier examination is Mahalanobis distance for each case (Kline, 2005; Tabachnick & Fidell, 1996). Mahalanobis distance refers to the position of a case in comparison with the centre of all cases on a set of data (Hair et al., 1998). To determine whether a particular case is a multivariate outlier, the squared Mahalanobis of the case is compared against the appropriate critical value of $\chi^2$ (Kline, 2005). Squared Mahalanobis distances are Chi-square ($\chi^2$) statistics with degrees of freedom equal to the number of variables (Hair et al., 1998). Tabachnick and Fidell (1996) suggest a probability of $p < 0.001$ for a case being a multivariate outlier.

An examination of Mahalanobis distance of all cases in each construct suggested that the number of 13 multivariate outliers were present in 7 of the 14 constructs. Table 4.4 details these outliers.
Table 4.4. Mahalanobis distance square of multivariate outliers with $p < 0.001$

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mahalanobis Distance Square</th>
<th>Degree of Freedom</th>
<th>Critical Value $\chi^2$</th>
<th>Case Number</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20.439</td>
<td>4</td>
<td>18.467</td>
<td>79</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>24.824</td>
<td>4</td>
<td>18.467</td>
<td>432</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>29.811</td>
<td>4</td>
<td>18.467</td>
<td>371</td>
<td>1</td>
</tr>
<tr>
<td>Friendship climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24.380</td>
<td>4</td>
<td>18.467</td>
<td>500</td>
<td>1</td>
</tr>
<tr>
<td>Team play climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>27.193</td>
<td>4</td>
<td>18.467</td>
<td>382</td>
<td>1</td>
</tr>
<tr>
<td>Social responsibility climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21.191</td>
<td>4</td>
<td>18.467</td>
<td>320</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>23.199</td>
<td>4</td>
<td>18.467</td>
<td>395</td>
<td>1</td>
</tr>
<tr>
<td>Personal morality climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21.261</td>
<td>4</td>
<td>18.467</td>
<td>163</td>
<td>1</td>
</tr>
<tr>
<td>Rules and procedures climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>23.711</td>
<td>4</td>
<td>18.467</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>28.186</td>
<td>4</td>
<td>18.467</td>
<td>484</td>
<td>1</td>
</tr>
<tr>
<td>The laws or professional codes climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18.656</td>
<td>4</td>
<td>18.467</td>
<td>604</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>19.656</td>
<td>4</td>
<td>18.467</td>
<td>391</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>25.965</td>
<td>4</td>
<td>18.467</td>
<td>178</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Outliers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

In response to the presence of outliers, Hair et al., (1998) note that outliers “should be retained unless there is demonstrable proof that they are truly aberrant and not representative of any observations in the population” (p. 66). With this in mind, it was decided to retain the outliers because it was felt that they would not impact upon the overall analysis.

### 4.1.6 Normality

Cases in a data set would be considered normally distributed when they are clustered around the mean in a symmetrical, uni-modal pattern (Hair et al., 1998). Normality occurs on two levels. The first concerns the normal distributions of individual variables, called univariate normality (Kline, 2005). The second is multivariate normality in which the individual variables are univariate normal and their combinations are also normal (Hair et al., 1998).
Skewness and kurtosis are two ways that a data distribution can be non-normal (Kline, 2005; Tabachnick & Fidell, 1998). These researchers also note that skewed distribution exists when most of the data is either below the mean (positive skew) or above it (negative skew). Kurtosis concerns a relative excess of data in the tails of a distribution relative to a normal curve. It can be either positive (too peaked distributed) or negative (too flat distributed).

The absolute values of skewness and kurtosis indexes are two of the common statistical methods to assess normality (Kline, 2005). Rules of thumb suggest that the skewness indexes greater than 3.00 indicate data are skewed distributed. There has not been an agreement on the threshold of kurtosis indexes though the absolute value of 10.00 is indicative of a normality problem (Kline, 2005).

The absolute values of skewness and kurtosis indexes for individual cases are displayed in Appendix H. As reported in the appendix, all the values met the thresholds of both indexes, indicating all univariate items were considered normally distributed. Therefore, multivariate normality can be assumed (Kline, 2005) and non-normality was not problematic in this research. Despite this finding of normality, the Maximum Likelihood estimation method was used in this research since the method is quite robust against any violation of non-normality of data (Anderson & Gerbing, 1988; Bollen, 1989; Kline, 2005).

### 4.2 Descriptions of Respondents

After data screening was completed, a description of the respondents’ profiles is reported in this section in order to convey the context in which this research was investigated.

A total of 642 permanent staff members from nine (9) Catholic higher education institutions on the island of Java, Indonesia participated in this research. As shown in Table 4.5, of the 642 respondents, 296 (46.1%) were academics. The remaining 346 (53.9%) were non-academic staff, in which 65.6% of this group were administrative staff, representing 35% of total respondents. The other types of
respondents’ occupations of this group varied from librarians (3.6%), computer technicians (4.0%), laboratory technicians (2.2%), treasurer (0.6%), secretary (1.1%) and other types of non-academic occupations (0.5%). A number of non-academic staff were in managerial positions at university levels (2.5%) or at faculty levels (4.0%). The grade of the non-academic staff varied from level 2 (23.2%), Level 3 (24.9%), level 4 (4.4%) and other types of levels (1.4%).

With regard to the academic staff, 19.5% respondents from this group were lecturers, followed by senior lecturers (15.3%), Associate Professors (14.9%), Associate Lecturers (8.5%) and Professors (1.3%).

Of the 296 academics, 21.7% occupied managerial positions ranging from the Deputy Vice Chancellor (0.9%), Dean of faculty (2.5%), Assistant Dean (3.7%), Head of Department (4.4%), Assistant Head of Department (1.2%) and other positions at faculty (1.4%) or university (2.3%) levels. The majority of respondents (51.1%) had been in their positions for 1 to less than 3 years.

The respondents were almost equal in gender, with 340 (53%) males and 302 (47%) females. In terms of marital status, the majority of the respondents (80.1%) were married, of which 57.2% had spouses who were in the workforce. 19.9% of the respondents were recorded as unmarried.

Irrespective of the marital status, a total of 404 respondents (62.9%) had 1 – 3 dependants. Those who had more than three dependants, accounted for 24.1% whilst the remaining 12.9% had no dependants.

In terms of formal education, 34% of the total respondents had Master degrees. The remaining 66% completed their doctorate (3.7%), Undergraduate (25.2%), Academy (13.6%) and Senior High School (23.5%).

A total of 28 respondents (4.4%) were 55 to 60 years old. The majority of the respondents were in the age groups of 31 to 36 years (26.6%), 37 to 42 years (23.7%), 43 to 48 years (19.0%), 49 to 54 years (9.8%) and less than 25 years (1.2%).
The specific religious context of this research was indicated by the majority of the respondents (79.9%) who were Catholic. The other respondents reported their religions as Islam (10.0%), Protestant (8.6%), Hindu (0.8%) and Buddhist (0.8%).
The high levels of organisational commitment were shown by 58.3% of respondents who had been with their organisations for 10 to less than 25 years. Some respondents (4.4%) had been working for their organisations for 25 to less than 30 years and while others (1.9%) for 30 to 35 years. The remaining 13.2% had less than 5 years in their organisations.

### 4.3 Statistical Data Analysis Procedures

Structural equation modelling (SEM) was utilised in this research to analyse the data. The following section briefly describes a general overview of SEM and how the steps involved in SEM were applied in this research to test the research hypotheses. Details and results of these processes will be presented in subsequent sections.

### 4.4 An Overview of Structural Equation Modelling

SEM is a comprehensive statistical procedure to examine relationships among variables in a model (Hoyle, 1995). The variables in the model include both measured (observed) variables and latent variables - hypothetical constructs that cannot be directly measured (MacCallum & Austin, 2000).

SEM offers various advantages that most other multivariate procedures are incapable of providing (Byrne, 2001; Schumacker & Lomax, 2004). It permits the relationship between multiple independent (exogenous) variables and dependent (endogenous) variables to be tested simultaneously in a model (Buhi, Goodson, Torsen, & Neilands, 2007).

SEM also has an ability to perform a simultaneous examination of dependence relationship in that an endogenous variable becomes an exogenous variable in successive relationships within the same analysis (Shook, Ketchen, Hult, & Kacmar, 2004). Unlike other traditional multivariate procedures, SEM is able to provide explicit estimates of measurement errors in the exogenous and exogenous
variables of a model (Byrne, 2001). These advantages motivated this research to utilise SEM to address the hypotheses involving dependence relationship between multiple exogenous and endogenous variables.

SEM consists of two basic assessments: the measurement model and the structural model (Hoyle, 1995; Kline, 2005; Streiner, 2006). The first assessment tests the relationships between individual constructs and their corresponding observed variables used in the model. The second examines the relationships between these individual constructs as hypothesised in the whole model (Buhi et al., 2007).

The two assessments can be assigned either simultaneously (one-step approach) or separately (two-step approach). However, Anderson and Gerbing (1988) recommend the second option since it allows one to detect misspecifications and to assess whether any structural model provides an acceptable fit. Following this recommendation, a two-step approach was used in this research.

The measurement model assessment resembles a confirmatory factor analysis (CFA) - a multivariate technique to test (confirm) a predetermined relation between observed variables to their underlying constructs (Anderson & Gerbing, 1988; Hair et al., 1998). This technique is usually used when the measurement models have a well-developed underlying theory for hypothesised patterns of loading (Hair et al., 1998).

In this research, exploratory factor analysis (EFA) was employed in addition to CFA. EFA is a multivariate technique that aims to define the relationship between observed variables and their underlying latent variables (constructs or factors) in a situation where links between the observed variables and latent variables are unknown (Byrne, 2001; Hair et al., 1998). Unlike CFA, EFA is not designed to confirm a predetermined relationship between observed and latent variables since in EFA the nature of the relationship between these two types of variables is defined by the data and the method used (Hair et al., 1998).

EFA was employed in this research for two reasons. First, all the constructs used in this research derived from the pre-existing measures developed in Western
countries through translation processes. Second, by the time this research was conducted, the validated Indonesian versions of the measures were unavailable. The absence of the validated versions combined with possible contextual differences, have made it difficult for this research to set **a priori** hypotheses about how the observed variables (questionnaire items) were to be grouped together, manifesting their respective underlying constructs for each measure. Consequently, the identified constructs revealed from EFA served as an individual hypothesised model to be confirmed in measurement model assessment. This was also in line with the findings of Gerbing and Hamilton’s (1996) study that show the contribution of EFA when assigned prior to cross-validation using CFA.

In this research, a five-step standard procedure recommended by Schumacker and Lomax (2002) applied in the assessments of the measurement model and the structural model. The five steps include (1) model specification, (2) model identification, (3) model estimation, (4) model evaluation and (5) model identification (Schumacker & Lomax, 2002).

Model specification involves the development of hypothesised relationships between a set of variables used in each assessment. Bollen and Long (1993) suggest theoretical literatures and/or empirical studies as the basis of model specification. As has been mentioned, the hypothesised measurement models in this research were specified in EFA whilst the hypothesised structural model was developed from the theoretical literatures and empirical studies as has been discussed in Chapter Two.

The aim of model identification is to assess whether the covariance matrix of the sample data has provided sufficient information so that the hypothesised relationships of the variables can be estimated. As discussed later in this chapter (in the section on Confirmatory Factor Analysis), three of the 11 hypothesised measurement models in this research had to be imposed in order to make the three models identified.

Once the identification problem has been addressed, the next step is to obtain an estimate for each of the specified parameters in the model (model estimation). The
estimation method of maximum likelihood was chosen in this research. Despite its wide use, the method has been quite robust against any violation of normality assumptions (Chou & Bentler, 1995; West, Finch, & Curran, 1995).

After the parameter estimates are obtained, the following step is to evaluate how well each model fits the data (model evaluation). In line with Byrne’s (2001) recommendations, multiple goodness-of-fit indices were employed for this purpose. Details of the indices used in this research are presented in the section on Confirmatory Factor Analysis.

Prior to the model evaluation the estimated coefficients that exceeded acceptable limits (offending estimates) need to be examined. The examinations include negative error variances (Heywood cases), standardised coefficients exceeding or close to 1.00 and large standard errors associated with any estimated coefficient (Hair et al., 1998). In this research, no offending estimate was found in both the measurement and structural models.

The final step concerns possible modification for specified models with unsatisfactory goodness-of-fit indices. Following the recommendation of Byrne (2001) and Schumacker and Lomax (2002), two techniques were used to respecify the models, namely the modification index (MI) and the t-value of each parameter.

The MI was used in this research as the basis for inclusions of additional parameters to obtain better models. The MI for a parameter indicates the decrease of the expected $\chi^2$ (Chi-square) value if the parameter were included with the larger MI values indicate the more potentially useful the parameter (Schumacker & Lomax, 2002).

The t-value for each parameter was employed to determine the exclusions of insignificant parameters from the model. Referring to the notion of Byrne (2001), the t-value of 1.96 or greater at $\alpha = 0.05$ or less was used in this research as the threshold for statistical significance of the parameter since the value indicate the parameter is significantly different from zero.
The ultimate purpose of the measurement model assessment is to obtain the uni-dimensionality, reliability and validity of each construct. Following the suggestions of Garver and Mentzer (1999) and Hair et al. (1998), in this research tests for uni-dimensionality were conducted prior to reliability and validity tests, since the latter two tests require uni-dimensional constructs. Only uni-dimensional, reliable and valid constructs were included in the structural model assessment.

These constructs were then examined for the significance of their relationships in the structural model assessments. The procedures of structural model assessment were the same with those of the measurement model assessment.

4.5 Measurement Model Assessment

As was stated earlier, both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were employed in this research. EFA was assigned to extract a number of factors (constructs or latent variables) from questionnaire items (observed variables). Statistical Package for Social Science (SPSS) version 15.0 was employed for this purpose.

The extracted factors and their respective measured variables served as the proposed measurement models. CFA then tested the fitness of these proposed models with the sample data. Analysis of Moment Structure (AMOS) version 6.0 was run to conduct the test. The implementation of procedures and the results of EFA and CFA are presented in the following sections.

4.5.1 Exploratory Factor Analysis

A series of EFA were registered to the whole sample \(N = 642\) for the three main measures used in this research. The three measures included Allen and Meyer’s (1990) Organisational Commitment Questionnaire, Victor, Cullen, and Bronson’s (1993) Ethical Climate Questionnaire, and Forsyth’s (1980) Ethics Position Questionnaire. The steps of conducting EFA as suggested by de Vaus (2002), Hair
et al. (1988), and Malhotra (1993) were followed.

As recommended by Hair et al. (1998), EFA in this research began with examinations of the appropriateness of the measured variables to be factor analysed, in which the variables needed to be sufficiently correlated. The Bartlett (1954) test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy were used for these purposes.

The Bartlett test provides the statistical probability that the measured variables in a data set are significantly correlated with each other (Malhotra, 1993). A significant relationship between the items is indicated by a Chi-square value with $p < 0.05$ (Malhotra, 1993). This cut-off value was adopted in this research.

The KMO offers an index indicating the degree of inter-correlations among the variables. The index ranges from 0 to 1.00. The threshold of this index for the appropriateness of EFA is greater than 0.50 (de Vaus, 2002). However, this research used the threshold of greater than 0.80 which was classified by Hair et al. (1998) as a meritorious score.

Once the appropriateness of the data had been met, a number of factors were extracted from the included measured variables. Principal component analysis extraction method was used in this research to reduce the number of variables and to maximise the variability of the new factor (Hair et al., 1998).

Following the suggestions of Hair et al. (1998) and de Vaus (2002), the eigenvalue $> 1.00$ was then used as the criterion for retaining the number of factors for subsequent investigation. The eigenvalue of a factor indicates the total variance in all variables explained by the factor (Malhotra, 1993). A greater explained variance provides a better solution (de Vaus, 2002).

In addition, communalities of the items were examined to maximise the explained variance. A variable with a low communality coefficient (less than 0.40) indicates the variance for the variable is not explained by its underlying factor (Costello & Osborne, 2005). The minimum communality coefficient value of 0.40 for each
item was used as the basis for the removal of an item in this research.

Next, rotation was performed to minimise the number of variables that loaded on a factor in order to make the factor simple (Hair et al., 1998). Orthogonal rotation with Varimax method was utilised for this purpose. Despite its popularity (de Vaus, 2002), this method was also used by the originators of the measures used in this research.

Tabachnick and Fidell (2001) point to a loading coefficient of 0.32 as the minimum threshold for a variable to load on a factor. However, this research used a more conservative approach by applying the minimum factor loading coefficient of 0.50 to classify an observed variable loaded on a factor. This value is categorised by Hair et al. (1998) as a practically significant threshold.

After all factors and their respective observed variables were identified, the individual factors were assessed for their reliabilities. The commonly used method to assess the reliability of a construct is Cronbach’s alpha coefficient. The Cronbach’s alpha value of 0.70 indicates an acceptable reliability of a construct (Nunnally, 1978). Thus, only constructs with the Cronbach alpha’s value of greater than 0.70 were further examined in confirmatory factor analysis.

Finally, each reliable identified construct was named according to the common theme of the constituting measured variables as well as the nomenclature given by the original authors. The results of exploratory factor analysis are reported below.

4.5.1.1 Factor Structure of the Organisational Commitment Questionnaire

The Organisational Commitment Questionnaire is created by Allen and Meyer (1990) to assess the presence of three hypothesised constructs of employees’ commitment to organisations. Each hypothesised construct comprises eight items, measuring affective commitment (AC items), continuance commitment (CC items) and normative commitment (NC items). Therefore, the measure consists of 24 items in total.
The translated version of the 24 items was factor analysed using the steps described earlier. KMO measure of sampling adequacy showed the value of 0.872 which was greater than 0.80. Bartlett’s test revealed the Chi-square value of 4915.529 with 276 degrees of freedom and a significance value of \( p < 0.001 \). Thereby, exploratory factor analysis could proceed.

Principle component analysis yielded a five-factor solution with eigenvalues greater than 1.00, which together explained 55.435% variance in the data. However, two factors (factor 4 and factor 5) had to be eliminated for their insufficient values of Cronbach’s alpha coefficients (0.586 and 0.489, respectively). As a consequence, the items which constituted these two factors were also discarded from this study. The items included NC2, NC3 and NC8 (factor 4) and AC1, AC2 and AC3 (factor 5). Another item (NC1) was abandoned for its failure to load on any factor with the factor loading of 0.5.

The remaining 17 items generated a three-factor solution with eigenvalues of \( > 1.00 \), explaining 58.303% of total data variance. Of the 17 items, eight items loaded on factor 1, five items on factor 2 and four items on factor 3. The first factor had an eigenvalue of 4.082 and explained 24.011% of variance. The eigenvalue of the second factor was 3.238, explaining 19.048% of variance. The last factor had an eigenvalue of 2.591 accounting for 15.244% of the variance in the data.

Individual communalities coefficients for all measured variables were in acceptable level (greater than 0.40). The lowest coefficient was 0.423 whilst the highest was 0.718. The Cronbach alpha coefficient of factor 1 was 0.861. The values of this coefficient for factor 2 and factor 3 were 0.850 and 0.809, respectively.

All the 17 items loaded on three factors as hypothesised in the original measure. Items CC1, CC2, CC3, CC4, CC5, CC6, CC7 and CC8 loaded on factor 1. Factor 2 was made up of items AC4, AC5, AC6, AC7 and AC8. Items NC4, NC5, NC6 and NC7 were grouped together in factor 3. Table 4.6 displays the identified factors and their respective items, factor loadings, eigenvalues, percentages of variance explained, Cronbach’s alpha coefficients and communality coefficients.
Table 4.6. Factor structure of the Organisational Commitment Questionnaire

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Item</th>
<th>Continuance Commitment (Factor 1)</th>
<th>Affective Commitment (Factor 2)</th>
<th>Normative Commitment (Factor 3)</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.9</td>
<td>CC1</td>
<td>0.670</td>
<td></td>
<td></td>
<td>0.466</td>
</tr>
<tr>
<td>2.10</td>
<td>CC2</td>
<td>0.723</td>
<td></td>
<td></td>
<td>0.540</td>
</tr>
<tr>
<td>2.11</td>
<td>CC3</td>
<td>0.776</td>
<td></td>
<td></td>
<td>0.624</td>
</tr>
<tr>
<td>2.12</td>
<td>CC4</td>
<td>0.689</td>
<td></td>
<td></td>
<td>0.486</td>
</tr>
<tr>
<td>2.13</td>
<td>CC5</td>
<td>0.713</td>
<td></td>
<td></td>
<td>0.531</td>
</tr>
<tr>
<td>2.14</td>
<td>CC6</td>
<td>0.665</td>
<td></td>
<td></td>
<td>0.460</td>
</tr>
<tr>
<td>2.15</td>
<td>CC7</td>
<td>0.742</td>
<td></td>
<td></td>
<td>0.578</td>
</tr>
<tr>
<td>2.16</td>
<td>CC8</td>
<td>0.682</td>
<td></td>
<td></td>
<td>0.481</td>
</tr>
<tr>
<td>2.4</td>
<td>AC4</td>
<td>0.643</td>
<td></td>
<td></td>
<td>0.423</td>
</tr>
<tr>
<td>2.5</td>
<td>AC5</td>
<td>0.797</td>
<td></td>
<td></td>
<td>0.683</td>
</tr>
<tr>
<td>2.6</td>
<td>AC6</td>
<td>0.822</td>
<td></td>
<td></td>
<td>0.712</td>
</tr>
<tr>
<td>2.7</td>
<td>AC7</td>
<td>0.823</td>
<td></td>
<td></td>
<td>0.718</td>
</tr>
<tr>
<td>2.8</td>
<td>AC8</td>
<td>0.786</td>
<td></td>
<td></td>
<td>0.675</td>
</tr>
<tr>
<td>2.20</td>
<td>NC4</td>
<td>0.812</td>
<td></td>
<td>0.705</td>
<td></td>
</tr>
<tr>
<td>2.21</td>
<td>NC5</td>
<td>0.714</td>
<td></td>
<td>0.568</td>
<td></td>
</tr>
<tr>
<td>2.22</td>
<td>NC6</td>
<td>0.792</td>
<td></td>
<td>0.675</td>
<td></td>
</tr>
<tr>
<td>2.23</td>
<td>NC7</td>
<td>0.745</td>
<td></td>
<td>0.587</td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalue: 4.082 3.238 2.591
Variance explained (percentage): 24.011 19.048 15.244
Cumulative variance explained (percentage): 24.011 43.059 58.303
Cronbach’s alpha: 0.861 0.850 0.809

Extraction method: principal component analysis
Rotation method: varimax with Kaiser normalisation
Rotation converged in 5 iterations.

In line with the taxonomy of the originators, factor 1 was named “continuance commitment” since its respective items shared a common theme of the desire to continue employment due to the perceived costs of leaving the organisation. A label of “affective commitment” was given to factor 2 whose corresponding items denoted the willingness to remain in an organisation for emotional attachment to the organisation. Factor 3 was called “normative commitment” as it consisted of items addressing perceived obligations to stay in the organisation.
4.5.1.2 Factor Structure of the Ethical Climate Questionnaire

On the basis of the earlier versions of Ethical Climate Questionnaires developed by Victor & Cullen (1987; 1988), Victor, Cullen & Johnson (1993) refine the scale to capture respondents’ perceptions towards what is considered correct behaviour in their organisations. To tap these perceptions, 36 items are used and nine constructs of theoretical ethical climates types are proposed. Each type of climate is assessed with four items according to the two basic dimensions used to classify the proposed climate types. The first is the ethical criteria entailing egoism (E), benevolence (B) and principle (P). The second dimension is the level of ethical analysis consisting of individual (I), local (L) and cosmopolitan (C). The combination of the two dimensions result in nine “cells” representing the nine types of theoretical ethical climates constructs. The proposed nine climates include self-interest (egoism- individual/EI), company profit (egoism- local/EL), efficiency (egoism-cosmopolitan/EC), friendship (benevolence-individual/BI), team interest (benevolence-local/BL), social responsibility (benevolence-cosmopolitan/BC), personal morality (principle-individual/PI), rules, standard operating procedures (principle-local/PL) and laws, professional codes (principle-cosmopolitan/PC). Details of the dimensions are presented in Chapter Two.

As indicated by the values of KMO measure of sampling adequacy and Bartlett’s test, the translated 36 items were deemed appropriate to be factor analysed. The statistic value of KMO measure of sampling adequacy was 0.893, exceeding the value of 0.80. The Chi-square value of Bartlett’s test was 7396.863 with 630 degrees of freedom and the significance value of \( p < 0.001 \).

A principal component analysis revealed nine extracted factors with eigenvalues of > 1.00 explaining 58.327% of the total variance of the data. However, three factors were eliminated for psychometric considerations. Factor 7 (comprised of items BI1, BL1 and BI3) and Factor 8 (made up of items EL1, EL2 and EL4) had Cronbach’s alpha coefficient values of 0.588 and 0.412, respectively, which were lower than the acceptable value of 0.7. A similar treatment applied to factor 9 whose Cronbach’s alpha coefficient was 0.381 and the number of its corresponding items was insufficient (less than three items, namely, PI3 and PC1). The deletion of these
three factors resulted in the omission of their respective items from the analysis.

Two items (EL3 and BI2) did not sufficiently load on any emergent factors since their individual loading factor coefficients were less than 0.50. Thus, these two items were also discarded.

The remaining items generated a six-factor solution with acceptable Cronbach’s alpha coefficient (greater than 0.70), adequate eigenvalues (above 1.00) and sufficient loading factor coefficients (exceeding 0.50). However, these items did not load as theorised in the original model.

The eight items from B/I, B/L and B/C cells, namely, BI4, BL2, BL3, BL4, BC1, BC2, BC3 and BC4 were grouped together into factor 1. In the original measure, the items from each cell are designed to measure the extent to which the organisation’s members are concerned with the well-being of each other as individuals (B/I cell), as members of the organisation (B/L cell) and as members of particular units outside the organisation (B/C cell). The fact that all items from the three cells clustered in one factor was indicative that the respondents of this research were unable to make a distinction between caring for others as individuals (I) and caring for others as members of the organisations (L) or as social units outside the organisations (C). The specific context in which the present study was conducted (i.e. religiously affiliated educational institutions in a collectivistic culture) was perhaps one of possible explanations of why the cluster occurred. More precisely, in a collectivistic culture like in Indonesia people are encouraged to care for each other. Also, the respondents might believe that according to the Catholic values that were incorporated into the institutions as the basis for their operations, caring for others was not necessarily dependent upon the type of relationship between the individuals and “others”. For this reason, it was decided not to do any treatment of this factor.

Factor 2 comprised of three items from the P/C cell (items PC2, PC3 and PC4) and one item from the P/L cell (item PL2). The first three items shared a common theme of the extent to which the organisation’s members adhered to rules and codes based on sources external to individuals and organisations, such as universal
moral values, religious values or professional codes.

As can be seen in Appendix C-2, for example, the statement of item PC2 (number 14) was, “People in this organisation are expected to act in accordance with the religious laws or professional standards, over and above other considerations”. Item PL2 (number 15), on the other hand, concerned the extent to which the members of the organisation relied on organisation-based rules (“Everyone in this organisation is expected to obey the organisation’s rules and procedures”). In order to ensure the validity of this construct it was decided to exclude item PL2 (number 15) from the construct.

The rest of the items loaded on their proposed respective factors. Factor 3 was comprised of all four items from the E/I cell (EI1, EI2, EI3 and EI4). The fourth factor consisted of three items from the P/I cell (PI1, PI2 and PI4). Three items from the P/L cell (PL1, PL3 and PL4) made up the fifth factor. The last factor contained all four items from the E/C cell (EC1, EC2, EC3 and EC4).

In sum, a total number of 11 items (BI1, BI2, BL1, BI3, EL1, EL2, EL3, EL4, PI3, PL2 and PC1) were removed in the initial exploratory analyses. A second exploratory factor analysis was then reassigned to the remaining 25 items.

The second exploratory factor analysis generated a six-factor solution. The Cronbach’s alpha for all factors met the recommended threshold of greater than 0.70. The eigenvalue of each factor was above 1.00. All items loaded sufficiently on their respective factors with each loading factor exceeding the value of 0.50. Across all items, the lowest communality was 0.439 whilst the highest was 0.757. Altogether the six factors explaining 60.548% of the variances in the data. Details of these statistics are reported in Table 4.7.

Factor 1 was comprised of eight items from the B/I, B/L, and B/C cells. Since the theme of the items centred on caring for or filling benevolence to others, irrespective of the type of relationship between the parties involved, a generic name of “benevolence” climate was given to this factor.
Since the four items that constituted factor 2 concerned the encouragement of the individuals’ action to fulfil their own self-interest, the label of “self-interest” climate was then adopted to name this factor.

Factor 3 consisted of all four items from the E/C cell. The items shared a common meaning of the extent to which the organisation expected the employees to act for the interests of a larger social or economic system. Since the originators use the label of “efficiency” climate for the factor, the same label applied to this factor.

The three items of factor 4 addressed the extent to which the organisations facilitated the personal morals and beliefs of individuals within the organisation. Following the nomenclature of the originators, this factor was called “personal morality” climate.

The central focus of the three items constituting factor 5 was on the extent to which organisational rules, policies and procedures were enforced in the organisation. In line with the taxonomy used in the original measure, this factor was named “rules and procedures” climate.

Following the nomenclature of the originator a label of the “professional codes” climate was given to factor 6. This factor consisted of three items concerning the adherence to rules and codes based on sources external to individuals and organisations.
In sum, exploratory factor analysis for the Ethical Climate Questionnaire resulted in the identification of six of the nine theoretical ethical climate constructs. This finding was not surprising since none of the previous studies validating this scale showed the presence of all nine theoretical constructs (Cullen et al., 2003; Peterson, 2000).
4.5.1.3 Factor Structure of the Ethics Position Questionnaire

Forsyth’s (1980) Ethics Position Questionnaire is designed to assess the ethical positions of individuals when making ethical judgments and to ascertain whether their main emphasis is on the adherence to universal moral principles (idealism) or on the rejection of such principles (relativism). Each of these two theoretical constructs is assessed with 10 items. Hence, the scale is comprised of 20 items.

Exploratory factor analysis was assigned to the translated 20 items after the acceptable results of KMO measure of sampling adequacy and Bartlett’s sphericity test. The statistic value of KMO was 0.846 and Bartlett’s test was significant (the Chi-square value = 3981.651; \( df = 190; p < 0.01 \)).

Four factors with eigenvalues > 1.00 emerged during the analysis. Altogether the four factors explained 54.019% of total variance. However, two emergent factors (factor 3 and factor 4) had to be excluded from further analysis due to insufficient values of the Cronbach alpha coefficient and/or inappropriate number of loading items (less than three).

Factor 3 was comprised of one item measuring idealism (IDE) and three items tapping relativism (REL). The four items (IDE7, REL1, REL7 and REL8) had a Cronbach alpha value of 0.582, which was below the minimum limit of 0.70. One of these items (IDE7) had a communality value of 0.324 which was less than the threshold of 0.40.

Factor 4 was comprised of only two items (IDE9, IDE10). The Cronbach alpha value of this factor was 0.560.

Thus, a total of six items were deleted, leaving 14 for further analysis. These remaining items generated a two-solution factor. The eigenvalues of the two factors were 3.784 (factor 1) and 3.674 (factor 2). Although the two-solution factor had eigenvalues of greater than one, the total explained variance fell from 54.019% to 53.269%. The individual communalities values for all items
ranged from 0.418 to 0.622, which were still within the acceptable range. Table 4.8 details the statistics of these two factors.

Factor 1 consisted of seven items (REL2, REL3, REL4, REL5, REL6, REL9, REL10). The factor had an acceptable Cronbach alpha value of 0.855 and an eigenvalue of 3.784, explaining 27.028% of the variance in the data. All statements of the seven items centred on refusals to accept universal moral values. Thus, the original label of "relativism" was given to this factor.

Another seven items (IDE1, IDE2, IDE3, IDE4, IDE5, IDE6 and IDE8) sufficiently loaded on factor 2. The Cronbach alpha coefficient for this factor was 0.844 with an eigenvalue of 3.674 and explained 26.241% of the variance in the data. The seven items shared the common theme of acceptance of universal moral values. Following the nomenclature of the originators, this factor was named "idealism".

**Table 4.8. Factor structure of the Ethics Position Questionnaire**

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.12</td>
<td>REL2</td>
<td>0.792</td>
<td></td>
<td>0.639</td>
</tr>
<tr>
<td>4.13</td>
<td>REL3</td>
<td>0.761</td>
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<td>0.590</td>
</tr>
<tr>
<td>4.14</td>
<td>REL4</td>
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<td></td>
<td>0.438</td>
</tr>
<tr>
<td>4.15</td>
<td>REL5</td>
<td>0.740</td>
<td></td>
<td>0.550</td>
</tr>
<tr>
<td>4.16</td>
<td>REL6</td>
<td>0.709</td>
<td></td>
<td>0.513</td>
</tr>
<tr>
<td>4.19</td>
<td>REL9</td>
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<td></td>
<td>0.625</td>
</tr>
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<td>4.20</td>
<td>REL10</td>
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<td>0.418</td>
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<td>0.688</td>
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<td>4.2</td>
<td>IDE2</td>
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<td>0.709</td>
<td>0.504</td>
</tr>
<tr>
<td>4.3</td>
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<td>0.721</td>
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</tr>
<tr>
<td>4.4</td>
<td>IDE4</td>
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<td>0.741</td>
<td>0.562</td>
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<td>0.622</td>
</tr>
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<td>4.6</td>
<td>IDE6</td>
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<td>0.745</td>
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</tr>
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<td>4.8</td>
<td>IDE8</td>
<td></td>
<td>0.628</td>
<td>0.424</td>
</tr>
</tbody>
</table>

Eigenvalue: 3.784, 3.674
Variance explained (percentage): 27.028, 26.241
Cumulative variance explained (percentage): 27.028, 53.269
Cronbach’s alpha coefficient: 0.855, 0.844

Extraction method: principal component analysis
Rotation method: varimax with Kaiser normalisation
Rotation converged in 3 iterations
A summary of the results of exploratory factor analyses for the three measures are presented in Table 4.9.

The table shows all the 11 identified constructs and their corresponding items. The eigenvalue of each construct was greater than the recommended value of 1.00. The communality coefficients across all items exceeded the recommended thresholds of 0.40. The factor loading coefficient of each item to its respective construct was above the acceptable limit of 0.50.

Altogether, the constructs of continuance commitment, affective commitment and normative commitment explained 24.011% + 19.048% + 15.244%, or 58.303% of total variance in the data.

The cumulative percentage of explained variance of the six factors of ethical climate, namely, benevolence, self-interest, efficiency, personal morality, rules and procedures and professional codes, was 60.548%.

Relativism and idealism constructs accounted for 53.269 of total variance explained. The Cronbach alpha coefficient for each construct was greater than 0.70, indicating that all constructs were reliable. In sum, the inclusions of the constructs in the measurement model assessment were justified.
Table 4.9. Summary of exploratory factor analysis of the constructs used in the research

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Factor loading</th>
<th>% Variance Explained</th>
<th>Eigenvalue</th>
<th>Communality</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
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<td>Continuance</td>
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<td></td>
<td>24.011</td>
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<td>commitment</td>
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<td>4.082</td>
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<tr>
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</tr>
<tr>
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<td>CC4</td>
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</tr>
<tr>
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<td>CC5</td>
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</tr>
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<td>AC8</td>
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<tr>
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<td>0.761</td>
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<td></td>
<td>0.590</td>
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<td></td>
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<td>0.504</td>
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</tr>
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<td>IDE3</td>
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<td>0.622</td>
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</tr>
<tr>
<td></td>
<td>IDE6</td>
<td>0.745</td>
<td></td>
<td></td>
<td>0.566</td>
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</tr>
<tr>
<td></td>
<td>IDE8</td>
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<td></td>
<td></td>
<td>0.424</td>
<td></td>
</tr>
</tbody>
</table>
4.5.2 Confirmatory Factor Analysis

A series of CFA were performed to examine the uni-dimensionality of the factors (constructs) identified in EFA. A uni-dimensionality test aims to assess whether the measured variables truly form one single, underlying latent construct (Garver, 1999), in which the hypothesised relationship between the construct and its respective variables fits the sample data (Buhi et al., 2007).

In this research, the procedures of uni-dimensionality tests followed the five stages of confirmatory factor analysis described earlier (model specification, model identification, model estimation, model testing and model modification). Two criteria of uni-dimensionality tests, namely, the overall measurement model fit and the individual parameters of the measurement model fit (Garver & Mentzer, 1999; Schumacker & Lomax, 2002) were also applied.

The identified constructs revealed from the previous exploratory factor analyses served as the *a priori* specified models. A total of 11 single-construct models were identified. The number of measured variables that constituted each construct ranged from three to eight.

With regard to model identification, three of the 11 proposed models in this research were just-identified. A just-identified model occurs when there is a one-to-one correspondence between the data and the structural parameters (Byrne, 2001). Such a model has no degrees of freedom, so that the parameters involved in the model cannot be estimated (Byrne, 2001).

The three just-identified models were three-item constructs, namely personal morality, rules and procedures, and professional codes.

A procedure recommended by Bagozzi and Heatherton (1994) was assigned to each just-identified model in order to make the parameters of the model estimable. In line with the procedure, constraints on two of the three
measured variables of each model were imposed. The constraints involved setting the individual unstandardised factor loading of the measured variables to be equal. The imposition resulted in the three just-identified models becoming three over-identified models in that each model then had one degree of freedom. This made the models estimable.

An over-identified model is one in which the estimable parameter less than the number of data points (Byrne, 2001). This kind of model has positive degrees of freedom that make it possible for the parameters of the model to be estimated (Byrne, 2001). The remaining nine proposed models in this research were over-identified hence, any treatment was unnecessary.

No under-identified model was found in this research. An under-identified model has estimable parameters that exceed the number of data points (Byrne, 2001). The parameters of this model cannot be estimated since it has negative degrees of freedom.

All estimated parameters in the model were generated through the utilisation of the maximum likelihood estimation method. Examinations of the estimated parameters coefficients indicated no offending estimate was found in all 11 proposed measurement models. Thus, the model evaluation could proceed.

To evaluate the overall measurement model fit, a set of goodness-of-fit indices were employed. Hair et al. (1998) classify the goodness-of-fit indices into three categories: absolute, incremental and parsimonious. Absolute indices are those that assess the fit between the proposed model and the data without using an alternative model as a base of comparison (Hu & Bentler, 1995). Incremental indices, on the other hand, compare the proposed model to another model (sometimes called a baseline model), which can be a single-construct model with all variables perfectly measuring the construct (Hair et al., 1988). The purpose of the comparison is to ascertain whether the proposed model fits the sample data better than the baseline model (Hu & Bentler, 1995). Parsimonious indices take into consideration the number of
estimated coefficients in order to determine whether model fit is achieved by over-fitting the data with too many coefficients (Hair et al., 1998).

One parsimonious index combined with three absolute and four incremental indices were used in this research. The parsimonious index was the Normed Chi-square ($\chi^2/df$). The three absolute indices consisted of Chi-square Statistic ($\chi^2$), Goodness-of-Fit Index (GFI) and Root Mean Square Error of Approximation (RMSEA). The three incremental indices included Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI), and Nonnormed Index (NNFI), or better known as Tucker-Lewis Index (TLI) and Normed Fit Index (NFI). A summary of the indices used in this research is presented in Table 4.10.

The absolute index of Chi-square statistic (Bartlett, 1954) test has been traditionally used as the most popular test to assess the goodness-of-fit of a model (Hair et al., 1998; Shook et al., 2004). The test measures how much the sample data deviates from the hypothesised model.

Unlike the common Chi-square tests, the test of measurement model seeks a non-significant difference ($p > 0.05$) between the hypothesised model and the sample data (Hair et al., 1998). The non-significant value of Chi-square is desirable because it suggests the data is not different from the model, which implies that the model is well-fitting (Streiner, 2006).

However, the potential drawback of the Chi-square test is its sensitivity to sample size (Buhi et al., 2007). In a large sample ($N > 200$), a significant difference ($p < 0.05$) may exist, resulting in a mistaken rejection of the proposed model (Hair et al., 1998). This suggests that research should use multiple indices and not rely on the Chi-square test as the only guide to assess the goodness-of-fit of the models. This principle was adopted in this research.
Table 4.10. Goodness-of-fit measures used in the research

<table>
<thead>
<tr>
<th>Goodness-of-fit Measures</th>
<th>Description</th>
<th>Recommended Values for Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Absolute measures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Chi-Square ($\chi^2$)</td>
<td>The extent to which the sample data deviate from the proposed model</td>
<td>The insignificant value of Chi-Square ($p &gt; 0.05$)</td>
</tr>
<tr>
<td>b. Goodness-of-Fit Index (GFI)</td>
<td>The extent to which the proportion of the variance in the sample variance-covariance matrix is accounted for by the model</td>
<td>$&gt; 0.90$</td>
</tr>
<tr>
<td>c. Root Mean Square Error of Approximation (RMSEA)</td>
<td>The extent to which the hypothesised model fits approximately well in the population.</td>
<td>$0.05 &lt; \text{RMSEA} &lt; 0.08$</td>
</tr>
<tr>
<td><strong>Incremental measures</strong></td>
<td>Comparing the proposed model to a baseline model, in which all parameters are fixed to zero.</td>
<td>$&gt; 0.90$, good fit</td>
</tr>
<tr>
<td>d. Adjusted Goodness-of-Fit Index (AGFI)</td>
<td>An extension of GFI, in which the value of the GFI is adjusted for the number of parameters in the data.</td>
<td>$&gt; 0.85$, acceptable fit</td>
</tr>
<tr>
<td>e. Comparative Fit Index (CFI)</td>
<td>Comparing the proposed model and the baseline model by penalising a small sample in the model.</td>
<td>$&gt; 0.90$</td>
</tr>
<tr>
<td>f. Non-normed Fit Index (NFI) or Tucker Lewis Index (TLI)</td>
<td>Comparing the proposed model and the baseline model by penalising the complexity of the model.</td>
<td>$&gt; 0.90$</td>
</tr>
<tr>
<td>g. Normed Fit Index (NFI)</td>
<td>Comparing the proposed model and the baseline model by dividing the differences between the Chi-Squares value of the two models by the Chi-Square value of the baseline model.</td>
<td>$&gt; 0.90$</td>
</tr>
<tr>
<td><strong>Parsimonious measures</strong></td>
<td>Investigating whether model fit has been achieved by over-fitting the data with too many coefficients.</td>
<td>$&lt; 1.00$, over-fitted. 2 or 3, or $&gt; 5.00$, needs improvement</td>
</tr>
<tr>
<td>a. Normed Chi-Square $\chi^2/df$</td>
<td>Assessing the inappropriateness of a model in that whether the model is over-fitted or it is not truly a representative of data and needs improvement</td>
<td></td>
</tr>
</tbody>
</table>
The GFI is an absolute index introduced by Jöreskog and Sörbom (1981) to test how good a model is in the absence of the baseline model, in which all parameters are fixed to 0 (Schermelleh-Engel & Müller, 2003). The index measures the proportion of variability in the sample covariance matrix explained by the model (Kline, 2005). The coefficient value of GFI ranges from 0 to 1.00, with the value close to 1.00 as being indicative of a good fit model (Hair et al., 1998). The value of 1.00 or greater might be found when a model is just-identified (has no degree of freedom) or is over-identified with almost perfect fit (Kline, 2005). As will be seen later, this was also the case in this study.

The RMSEA index (Steiger & Lind, 1980) has been recognised as one of the most informative criteria in the covariance structure modelling (Byrne, 2001). This index has also been regarded as one of the most recommended indices (Graver, 1999; Kline, 2005; McCallum & Austin, 2000) for its sensitivity to model misspecifications. Hair et al. (1998) explain that the index is designed to overcome the problem of the rejection of the model due to a large sample size. Thereby, the index assesses the approximate fit of the model in the population covariance matrix by examining the discrepancy due to approximation per degree of freedom (Schermelleh-Engel & Müller, 2003). The RMSEA values between 0.05 and 0.08 are deemed acceptable (Hair et al., 1998). The value of less than 0.05 indicates a close fit between the hypothesised model and the data whilst the value of 0 suggests a perfect fit (Brown & Cudeck, 1993; Byrne, 2001).

The incremental index of AGFI (Jöreskog & Sörbom, 1981) is extended from the GFI by taking into consideration the degrees of freedom in measurement. In particular, the GFI is adjusted for a bias resulting from model complexity (Schermelleh-Engel & Müller, 2003). The degrees of freedom of the model are adjusted relative to the number of observed variables, so, less complex models will be rewarded with fewer parameters The range value of this index is from 0 to 1.00 (Schermelleh-Engel & Müller, 2003). Following the common rules of thumb, the cut-off value of 0.90 or greater is indicative of good fit relative to the baseline model while values above 0.85 are regarded as
an acceptable fit (Hair et al., 1998).

The TLI (Bentler & Bonnett, 1980) and CFI (Bentler, 1990) are two of the most recommended incremental indices used by researchers (Garver, 1999; McCallum & Austin, 2000). Both indices compare the proposed model to the baseline model. The difference is that the TLI penalises the complexity of the proposed model by a downward adjustment and rewards the more parsimonious model with an increase in the fit index, whilst the CFI penalises a small sample (Schermelleh-Engel & Müller, 2003). The values of the two indices range from 0 to 1.00 with the values close to 0.95 are being indicative of good fit relative to the baseline model. For the TLI, the value can exceed 1.00 when the model is well-fitted (Byrne, 2001). This was also the case in this research.

The Normed Fit Index (NFI) is another type of incremental index which was introduced by Bentler and Bonnett (1980). This index compares the proposed model and the baseline model by dividing the differences between the Chi-squares value of the two models by the Chi-square value of the baseline model (Schumacker & Lomax, 2002). The common recommended value for the index is 0.90 or greater (Hair et al., 1998).

The parsimonious index of Normed-Chi-Square or $\chi^2/df$ (Jöreskog, 1970) was created to assess the inappropriateness of models that is whether they are over-fitted (indicated by the $\chi^2/df$ index value of < 1.00), or are not truly representative of the data (shown by the $\chi^2/df$ index value of either 2.00 or 3.00, or the more liberal limit of 5.00), so that improvements are required (Hair et al., 1998). The index is obtained by dividing the value of Chi-square ($\chi^2$) by the degrees of freedom ($df$) (Hair et al., 1998; Kline, 2005; Schumacker & Lomax, 2002).

With regard to the assessment of the individual parameters, the magnitude and the statistical significance of the parameter estimates between indicators and latent variables were also considered in this research (Garver & Mentzer, 1999; Schumacker & Lomax, 2002).
Following the recommendation of Cohen (1988), the absolute value of 0.50 or greater was used as the cut-off value for the standardised path coefficient. For statistical significance of the parameters, the $t$ value of $\pm 1.96$ or greater at $\alpha = 0.05$ or less was used as the criteria (Byrne, 2001).

The results of confirmatory factor analysis for each model are discussed below.

4.5.2.1 The Uni-dimensionality Test for the Continuance Commitment Construct

Exploratory factor analysis (EFA) has confirmed that the measurement model for continuance commitment was a single factor model with eight measured variables (CC1, CC2, CC3, CC4, CC5, CC6, CC7 and CC8). The initial test of this factor showed that the Chi-square value of 87.767 with 20 degrees of freedom was statistically significant at $p < 0.05$. However, as was mentioned earlier, the Chi-square test is sensitive to sample size, and in a sample of more than 200 it is likely that a significant Chi-square is found (Hair et al., 1998).

The other fit indices suggested that the model was acceptable (GFI = 0.965; AGFI = 0.937; $\chi^2/df = 4.388$; TLI = 0.947; RMSEA = 0.073; CFI = 0.962; NFI = 0.952). All standardised regressions coefficients met the cut-off value of 0.50. Thus, it was concluded that the uni-dimensionality of this construct was confirmed and the construct was eligible to be used for the structural model assessment.

The statistics of the confirmatory factor analysis results for the construct of continuance commitment are reported in Table 4.11.
Table 4.11. The uni-dimensionality test for the continuous commitment construct

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC1</td>
<td>0.616</td>
<td>0.096</td>
</tr>
<tr>
<td>CC2</td>
<td>0.682</td>
<td>0.076</td>
</tr>
<tr>
<td>CC3</td>
<td>0.750</td>
<td>0.088</td>
</tr>
<tr>
<td>CC4</td>
<td>0.631</td>
<td>0.077</td>
</tr>
<tr>
<td>CC5</td>
<td>0.677</td>
<td>0.070</td>
</tr>
<tr>
<td>CC6</td>
<td>0.614</td>
<td>0.103</td>
</tr>
<tr>
<td>CC7</td>
<td>0.705</td>
<td>0.109</td>
</tr>
<tr>
<td>CC8</td>
<td>0.627</td>
<td>0.117</td>
</tr>
</tbody>
</table>

Goodness-of-fit statistics

Chi-square = 87.767 (df = 20, p < 0.05)
GFI = 0.965
AGFI = 0.937
χ²/df = 4.388
TLI = 0.947
RMSEA = 0.073
CFI = 0.962
NFI = 0.952

4.5.2.2 The Uni-dimensionality Test for the Affective Commitment Construct

As shown in EFA, this single factor was comprised of five measured variables, namely, AC4, AC5, AC6, AC7 and AC8. The initial measurement showed that this model fitted well. The Chi-square value of 16.036 with five degrees of freedom was statistically insignificant (p = 0.007). The other fit indices also demonstrated the model was acceptable (GFI = 0.990; AGFI = 0.971; χ²/df = 3.207; TLI = 0.985 RMSEA = 0.059 and CFI = 0.992; NFI = 0.989). The standardised regression coefficients for each item of this construct ranged from 0.538 to 0.815, which fell with the acceptable range. The inclusion of this construct for further analyses was then deemed reasonable as the uni-dimensionality of the construct was supported.

The summary of confirmatory factor analysis results for this construct is reported in Table 4.12 below.
Table 4.12. The uni-dimensionality test for the affective commitment construct

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC4</td>
<td>0.538</td>
<td>0.081</td>
</tr>
<tr>
<td>AC5</td>
<td>0.776</td>
<td>0.060</td>
</tr>
<tr>
<td>AC6</td>
<td>0.806</td>
<td>0.030</td>
</tr>
<tr>
<td>AC7</td>
<td>0.815</td>
<td>0.032</td>
</tr>
<tr>
<td>AC8</td>
<td>0.775</td>
<td>0.048</td>
</tr>
</tbody>
</table>

Goodness-of-fit statistics

Chi-square = 16.036 (df = 5, p = 0.007)
GFI = 0.990
AGFI = 0.971
χ²/df = 3.207
TLI = 0.985
RMSEA = 0.059
CFI = 0.992
NFI = 0.989

4.5.2.3 The Uni-dimensionality Test for the Normative Commitment Construct.

The confirmatory factor analysis for the model of this four-item factor suggested a perfect fit of the model to the data. All indices revealed excellent fit. The Chi-square value was 0.231 with two degrees of freedom and was statistically insignificant at p = 0.891. Other indices indicated that the model was saturated (GFI = 1.000; AGFI = 0.999; χ²/df = 0.115; TLI = 1.020; RMSEA = 0.000 and CFI = 1.000; NFI = 0.999). All respective items of this construct had standardised regression coefficients greater than the threshold of 0.50. It was then decided to retain the construct in the structural model assessment. Table 4.13 displays the details of the confirmatory factor analysis results.
### Table 4.13. The uni-dimensionality test for the normative commitment construct

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC4</td>
<td>0.800</td>
<td>0.059</td>
</tr>
<tr>
<td>NC5</td>
<td>0.654</td>
<td>0.104</td>
</tr>
<tr>
<td>NC6</td>
<td>0.772</td>
<td>0.069</td>
</tr>
<tr>
<td>NC7</td>
<td>0.652</td>
<td>0.075</td>
</tr>
</tbody>
</table>

**Goodness-of-fit statistics**

- Chi-square = 0.231 (df = 2, p = 0.891)
- GFI = 1.000
- AGFI = 0.999
- $\chi^2/df = 0.115$
- TLI = 1.020
- RMSEA = 0.000
- CFI = 1.000
- NFI = 0.999

### 4.5.2.4 The Uni-dimensionality Test for the Benevolence Climate Construct

Eight items constituted this construct. The initial assessment showed that this model did not fit well. Significant statistic ($p < 0.05$) was found in the Chi-square values of 136.472 with 20 degrees of freedom. Although five fit indices showed acceptable results (GFI = 0.951; AGFI = 0.912; TLI = 0.913; CFI = 0.938 and NFI = 0.929), the other two displayed undesirable values ($\chi^2/df = 6.824; \text{RMSEA} = 0.095$).

The model was then modified on the basis of the recommendations revealed from the modification indices (MI). A modification index of $x$ was used as the basis to determine the modification. Examinations of items BI4 (number 35) and BC4 (number 34) and of items BC3 (number 30) and BC4, suggested that each pair of the items were close in meaning (see Appendix C-2).

Thus, correlating the variance of measurement errors of these items was possible. Both the items of BI4 (“When a decision is made in this organisation, it is expected that each individual is looked after”) and BC4 (“One of the primary
concerns in this organisation is the effect of decisions on students and society”) shared a common meaning of the need to avoid undesirable impacts of decisions, irrespective of the parties affected by the decisions. The latter item (BC4) also had a similar meaning to the item BC3 (“People in this organisation show their concerns for the interests of students and the public through real actions”), in which students and the public were the main concern of the organisation.

The modifications resulted in a better fit between the revised model and the data. Although the decreased Chi-square values of 86.984 with 18 degrees of freedom remained significant, slight improvements in other fit indices were found and resulted these indices falling within the acceptable ranges (GFI = 0.967; AGFI = 0.934; χ2/df = 4.832; TLI = 0.943; RMSEA = 0.077 and CFI = 0.963; NFI = 0.949). The standardised regression coefficients for all items of this construct were above the threshold of 0.50. Hence, this construct was deemed appropriate to be included in the further analyses. Table 4.14 details the findings.

**Table 4.14. The uni-dimensionality test for the benevolence climate construct**

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL2</td>
<td>0.699</td>
<td>0.028</td>
</tr>
<tr>
<td>BC1</td>
<td>0.599</td>
<td>0.023</td>
</tr>
<tr>
<td>BL3</td>
<td>0.564</td>
<td>0.032</td>
</tr>
<tr>
<td>BC2</td>
<td>0.749</td>
<td>0.023</td>
</tr>
<tr>
<td>BC3</td>
<td>0.774</td>
<td>0.020</td>
</tr>
<tr>
<td>BL4</td>
<td>0.677</td>
<td>0.033</td>
</tr>
<tr>
<td>BC4</td>
<td>0.609</td>
<td>0.025</td>
</tr>
<tr>
<td>BI4</td>
<td>0.574</td>
<td>0.030</td>
</tr>
</tbody>
</table>

**Goodness-of-fit statistics**

- Chi-square = 86.985 (df = 18, p < 0.05)
- GFI = 0.967
- AGFI = 0.934
- χ2/df = 4.832
- TLI = 0.943
- RMSEA = 0.077
- CFI = 0.963
- NFI = 0.949
4.5.2.5 The Uni-dimensionality Test for the Self-Interest Climate Construct

The initial test for this four-item construct provided an exact fit between the model of the construct and the data. The RMSEA value of 0.000, combined with the values of 1.000 for GFI, CFI and NFI, were indicative of the perfect fit of the model. This was also supported by excellent values for other fit indices (AGFI = 0.999; TLI = 1.008). An insignificant Chi-square value of 0.188 at $p = 0.910$ with two degrees of freedom was also shown. The $\chi^2/df$ value of 0.094, which was lower than 1.000, indicated that the model was over-fitted.

However, given that the perfect fit shown by the other indices, it was concluded that the model was well-fitted. Finally, all standardised regression coefficients demonstrated desirable results (exceeded the recommended value of 0.50) for the support of the uni-dimensionality of this construct. The findings are detailed in table 4.15.

Table 4.15. The uni-dimensionality test for the self-interest climate construct

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI1</td>
<td>0.703</td>
<td>0.056</td>
</tr>
<tr>
<td>EI2</td>
<td>0.627</td>
<td>0.044</td>
</tr>
<tr>
<td>EI3</td>
<td>0.806</td>
<td>0.054</td>
</tr>
<tr>
<td>EI4</td>
<td>0.626</td>
<td>0.049</td>
</tr>
</tbody>
</table>

Goodness-of-fit statistics

Chi-square = 0.188 ($df = 2$, $p = 0.910$)  
GFI = 1.000  
AGFI = 0.999  
$\chi^2/df = 0.094$  
TLI = 1.008  
RMSEA = 0.000  
CFI = 1.000  
NFI = 1.000
4.5.2.6 The Uni-dimensionality Test for the Efficiency Climate Construct

This factor was comprised of four measured variables. The initial test for the factor provided suitable values for some fit indices. The Chi-square value of 10.649 with two degrees of freedom was significant at \( p = 0.005 \). Four indices fell within acceptable limits (GFI = 0.992; AGFI = 0.960; TLI = 0.947; CFI = 0.982 and NFI = 0.978). However, two other indices showed values slightly above the recommended thresholds, namely, RMSEA = 0.082 and \( \chi^2/df = 5.324 \).

Following the modification indices, the model was respecified by correlating the errors of item number 2, or EC1 (“The primary responsibility of people in this organisation is to think of efficiency first”) and item number 19, or EC2 (“The most efficient way is always the right way in this organisation”) which were very close in meaning.

The subsequent confirmatory factor analysis for the refined model generated new values indices that met the acceptable standards of well-fitting (GFI = 0.996; AGFI = 0.964; \( \chi^2/df = 4.594 \); TLI = 0.956; RMSEA = 0.075; CFI = 0.993 and NFI = 0.991). The decreased Chi-square value of 4.594 with one degree of freedom remained statistically significant at \( p = 0.032 \). As shown in Table 4.16 all standardised regression weights for the items were greater than 0.50. All of these values indicated that the construct was uni-dimensional.
Table 4.16. The uni-dimensionality test for the efficiency climate construct

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC1</td>
<td>0.516</td>
<td>0.054</td>
</tr>
<tr>
<td>EC2</td>
<td>0.577</td>
<td>0.047</td>
</tr>
<tr>
<td>EC3</td>
<td>0.749</td>
<td>0.036</td>
</tr>
<tr>
<td>EC4</td>
<td>0.663</td>
<td>0.034</td>
</tr>
</tbody>
</table>

Goodness-of-fit statistics

Chi-square = 4.594 ($df = 1$, $p <0.05$)

GFI = 0.996

AGFI = 0.964

$\chi^2/df = 4.594$

TLI = 0.956

RMSEA = 0.075

CFI = 0.993

NFI = 0.991

4.5.2.7 The Uni-dimensionality Test for the Personal Morality Climate Construct

This single construct consisted of three items (PI1, PI2 and PI4) with zero degree of freedom so that the examination of its goodness of fit was impossible. However, as stated earlier, such a problem could be resolved by constraining the factor loadings of two selected variables to be equal.

Following this recommendation, the factor loadings of PI2 and PI4 were equally set. This imposition resulted in the presence of one degree of freedom in the factor. The constrained model was then confirmatory factor analysed. The results indicated that the model of this construct fit the data well. The confirmatory factor analysis results of the constrained model are shown in Table 4.17.
Table 4.17. The uni-dimensionality test for the personal morality climate construct

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI1</td>
<td>0.817</td>
<td>0.095</td>
</tr>
<tr>
<td>PI2</td>
<td>0.764</td>
<td>0.021</td>
</tr>
<tr>
<td>PI4</td>
<td>0.732</td>
<td>0.029</td>
</tr>
</tbody>
</table>

Goodness-of-fit statistics

Chi-square = 4.402 (df = 1, p < 0.05)
GFI = 0.995
AGFI = 0.972
χ2/df = 4.402
TLI = 0.984
RMSEA = 0.073
CFI = 0.995
NFI = 0.993

Although the Chi-square test indicated the value of 4.402 with one degree of freedom was significant at $p = 0.036$, the values of remaining indices fell within acceptable ranges (GFI = 0.995; AGFI = 0.972; $χ^2/df = 4.402$; TLI = 0.984; RMSEA = 0.073; CFI = 0.995 and NFI = 0.993). The standardised regression weights of the three items exceeded 0.50 as depicted in the table. This construct was thus included in further analyses.

4.5.2.8 The Uni-dimensionality Test for the Rules and Procedures Climate Construct

Similar to the personal morality climate construct this three-item factor was a just-identified model with items PL1, PL3, and PL4 constituting the factor. A constraint was then made by equally setting the factor loadings of PL3 and PL4 in order to make this factor have one degree of freedom. Confirmatory factor analysis for the constrained model generated acceptable good-fit indices that indicated the model was well-fitting. The constrained model had the Chi-square value of 2.800 with one degree of freedom, which was insignificant at $p = 0.094$. Satisfactory values were also found in other good-fit indices (GFI = 0.997; AGFI
0.983; $\chi^2/df = 2.800$; TLI = 0.989; RMSEA = 0.053; CFI = 0.996 and NFI = 0.994).

As reported in Table 4.18 the three measured variables of this construct had standardised regression coefficients above 0.50. Therefore, the inclusion of this construct in structural model assessment was confirmed.

**Table 4.18. The uni-dimensionality test for the rules and procedures climate construct**

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL1</td>
<td>0.557</td>
<td>0.029</td>
</tr>
<tr>
<td>PL3</td>
<td>0.756</td>
<td>0.044</td>
</tr>
<tr>
<td>PL4</td>
<td>0.817</td>
<td>0.038</td>
</tr>
</tbody>
</table>

**Goodness-of-fit statistics**

- Chi-Square = 2.800 ($df = 1$, $p = 0.094$)
- GFI = 0.997
- AGFI = 0.983
- $\chi^2/df = 2.800$
- TLI = 0.989
- RMSEA = 0.053
- CFI = 0.996
- NFI = 0.994

### 4.5.2.9 The Uni-dimensionality Test for the Professional Codes Climate Construct

This three-item construct was also just-identified with zero degree of freedom. As with the other two just-identified constructs, constraints were made by equally setting the factor loadings of PC3 and PC4. The constraint resulted in an over-identified single construct model with three items and one degree of freedom. The confirmatory factor analysis results of the constrained model indicated that the model fitted the data well as shown in table 4.19.
Table 4.19. The uni-dimensionality test for the professional codes climate construct

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC2</td>
<td>0.744</td>
<td>0.036</td>
</tr>
<tr>
<td>PC3</td>
<td>0.736</td>
<td>0.026</td>
</tr>
<tr>
<td>PC2</td>
<td>0.668</td>
<td>0.032</td>
</tr>
</tbody>
</table>

Goodness-of-fit statistics

Chi-square = 3.395 (df = 1, p = 0.183)
GFI = 0.995
AGFI = 0.979
χ²/df = 3.430
TLI = 0.985
RMSEA = 0.062
CFI = 0.995
NFI = 0.993

All fit indices for this three-item construct suggested acceptable results. The Chi-square value of 3.430 with one degree of freedom was statistically insignificant at $p = 0.064$. Other fit indices confirmed the excellent fit between the hypothesised model and the data (GFI = 0.995; AGFI = 0.979; χ²/df = 3.430; TLI = 0.985; RMSEA = 0.062; CFI = 0.995 and NFI = 0.993). All acceptable standardised coefficients of the construct’s items supported these goodness-of-fit indices. Hence, it was concluded that the uni-dimensionality of this construct was confirmed.

4.4.2.10 The Uni-dimensionality Test for the Relativism Construct

The initial confirmatory factor analysis of this seven-item construct revealed a mediocre fit of the construct’s model with the data. The Chi-square value of 172.408 with 14 degrees of freedom was significant at 0.000. With the notable exceptions of the GFI value of 0.926 and the CFI value of 0.909, none of the other selected indices demonstrated acceptable values of good-fit (GFI = 0.926; AGFI = 0.851; χ²/df = 12.315; TLI = 0.864; RMSEA = 0.133 and NFI = 0.919).
As suggested in the modification indices, the model was then respecified by correlating the error terms of three pairs of items: REL2 (number 12) and REL3 (number 13); REL3 and REL6 (number 16); then REL9 (number 19) and REL10 (number 20) (see Appendix C-3). These refinements were considered reasonable since the two items of each pair were close in meaning. The meaning of item REL2 (“What is considered right can be different from one situation and society to another”) was similar to that of item REL3 (“Judgements pertaining to right or wrong actions should be seen as interpreted individually because what is considered right by one person may be understood as wrong by another”). The latter also had a close meaning to item REL6 (“Judgements pertaining to right or wrong actions only served as a personal guide for individuals’ conducts and are not to be used for judging others”). A close meaning was also found in item REL9 (“No rule of lying can be clearly formulated, whether a person is allowed to lie or not is dependent upon the situation”) and item REL10 (“To consider whether lying is a right or wrong action is dependent on the situation surrounding the action”).

The confirmatory factor analysis for the revised model resulted in improvements to the good-of-fit indices of the model. Although the Chi-square value decreased to 43.212 with 11 degrees of freedom, it was still significant ($p < 0.05$). However, the remaining indices showed considerable improvements that allowed a desirable good-fit model to be achieved (GFI = 0.981; AGFI = 0.952; $\chi^2/df = 3.928$; TLI = 0.965; RMSEA = 0.068; CFI = 0.982 and NFI = 0.975), as shown in Table 4.20. The standardised regression weights of the seven items also exceeded the threshold value of 0.50.
Table 4.20. The uni-dimensionality test for the relativism construct

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL2</td>
<td>0.706</td>
<td>0.094</td>
</tr>
<tr>
<td>REL3</td>
<td>0.688</td>
<td>0.135</td>
</tr>
<tr>
<td>REL4</td>
<td>0.597</td>
<td>0.104</td>
</tr>
<tr>
<td>REL5</td>
<td>0.696</td>
<td>0.121</td>
</tr>
<tr>
<td>REL6</td>
<td>0.693</td>
<td>0.131</td>
</tr>
<tr>
<td>REL9</td>
<td>0.747</td>
<td>0.117</td>
</tr>
<tr>
<td>REL10</td>
<td>0.559</td>
<td>0.141</td>
</tr>
</tbody>
</table>

Goodness-of-fit statistics

Chi-square = 43.212 ($df = 11, p < 0.05$)
GFI = 0.981  
AGFI = 0.952  
$\chi^2/df = 3.928$  
TLI = 0.965  
RMSEA = 0.068  
CFI = 0.982  
NFI = 0.975

4.4.2.11 The Uni-dimensionality Test for the Idealism Construct

This construct consisted of seven measured variables. The initial confirmatory factor analysis suggested the model of the construct did not fit the data well. It had a significant Chi-square value of 131.519 with 14 degrees of freedom. With the exceptions of the GFI value of 0.938, the CFI value of 0.925 and the NFI value of 0.918, all fit indices of this model showed unsatisfactory values (AGFI = 0.876; $\chi^2/df = 9.394$; TLI = 0.888 and RMSEA = 0.114).

In order to improve the good-fit of the model, refinements were carried out according to recommendations of the Modification Indices. Three pairs of measurement errors (of the items IDE1 and IDE2; IDE1 and IDE3; then IDE2 and IDE3) were correlated (see Appendix C-3). The creation of the link was reasonable since the items of each pair shared a common meaning which might contribute to error covariance. Item number 1, or IDE1 ("A person should make certain that his/her action never harms other people on purpose even to a small degree") had a close meaning with that of item number 2, or
IDE2 ("Risk to other people, even to a small degree, should not be accepted"). A similar reason was used to correlate between item IDE1 and item number 3, or IDE3 ("The possibility of causing harm to other people is unacceptable, regardless of the benefits to be gained"). Finally, items IDE2 and IDE3 were also associated for the same consideration.

The confirmatory factor analysis of the refined model resulted in indices that were indicative of a good-fit model. The Chi-square value decreased to 29.266 with 11 degrees of freedom, although it remained significant at $p = 0.002$. The improvements of good-fit indices were found in the remaining indices (GFI = 0.987; AGFI = 0.968; $\chi^2/df = 2.661$; TLI = 0.978; RMSEA = 0.051; CFI = 0.988; and NFI = 0.982) as demonstrated in Table 4.21. The seven items of this construct had standardised regression weights ranging from 0.544 to 0.749. These values confirmed that this construct was uni-dimensional hence the construct was included for further analyses.

In sum, the uni-dimensionality of all 11 measurement models was confirmed. With the exception of the Chi-square tests, all fit indices used in this research showed an acceptable level of fit, with modifications being made in some models. Thus, it was reasonable to consider that all the measurement models in this research fit the sample variance-covariance data and were appropriate to be used in further analyses.
Table 4.21. The uni-dimensionality test for the idealism construct

<table>
<thead>
<tr>
<th>Measured Variables</th>
<th>Standardised Regression Coefficient</th>
<th>Standard Error of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDE1</td>
<td>0.544</td>
<td>0.059</td>
</tr>
<tr>
<td>IDE2</td>
<td>0.546</td>
<td>0.035</td>
</tr>
<tr>
<td>IDE3</td>
<td>0.565</td>
<td>0.029</td>
</tr>
<tr>
<td>IDE4</td>
<td>0.717</td>
<td>0.034</td>
</tr>
<tr>
<td>IDE5</td>
<td>0.806</td>
<td>0.027</td>
</tr>
<tr>
<td>IDE6</td>
<td>0.749</td>
<td>0.044</td>
</tr>
<tr>
<td>IDE8</td>
<td>0.580</td>
<td>0.049</td>
</tr>
</tbody>
</table>

Goodness-of-fit statistics

\[
\chi^2 = 29.266 \text{ (df} = 11, p < 0.05) \\
\text{GFI} = 0.987 \\
\text{AGFI} = 0.968 \\
\chi^2/df = 2.661 \\
\text{TLI} = 0.978 \\
\text{RMSEA} = 0.051 \\
\text{CFI} = 0.988 \\
\text{NFI} = 0.982
\]

The summary of goodness-of-fit indices for all measurement models are reported in Table 4.22. The estimated parameters of the individual scales are depicted in Table 4.23.

As can be seen from Table 4.22, with the exception of the results of the Chi-square tests, all goodness-of-fit indices for the individual constructs met the recommended thresholds, which meant that the models fit the sample data. Only four of the 11 constructs had insignificant values in respect of the Chi-square statistics. The constructs were normative commitment, self-interest, rules and procedures, and professional codes.

However, as was stated earlier, the Chi-square statistics are sensitive to sample size. This was likely to be the case in this study in that it had a sample size of 642. Therefore, it was concluded that all measurement models of this research fit the data.
This was also supported by the values of estimated parameters shown Table 4.23. All estimated parameters in the models were significantly different from zero indicated by their values that greater than ±1.96 and were significant at the 0.05 level. In sum, the uni-dimensionality of all measurement models was confirmed.

Table 4.22. Summary of goodness-of-fit indices for measurement models assessment

<table>
<thead>
<tr>
<th>Construct</th>
<th>Chi-Square</th>
<th>GFI</th>
<th>RMSEA</th>
<th>AGFI</th>
<th>CFI</th>
<th>TLI</th>
<th>NFI</th>
<th>χ²/df</th>
<th>Model Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous commitment</td>
<td>87.767</td>
<td>0.965</td>
<td>0.073</td>
<td>0.937</td>
<td>0.962</td>
<td>0.947</td>
<td>0.952</td>
<td>4.338</td>
<td>acc</td>
</tr>
<tr>
<td>Affective commitment</td>
<td>16.036</td>
<td>0.990</td>
<td>0.059</td>
<td>0.971</td>
<td>0.992</td>
<td>0.985</td>
<td>0.989</td>
<td>3.207</td>
<td>acc</td>
</tr>
<tr>
<td>Normative commitment</td>
<td>0.231</td>
<td>1.000</td>
<td>0.000</td>
<td>0.999</td>
<td>1.000</td>
<td>1.020</td>
<td>0.999</td>
<td>0.115</td>
<td>acc</td>
</tr>
<tr>
<td>Benevolence climate</td>
<td>86.985</td>
<td>0.967</td>
<td>0.077</td>
<td>0.934</td>
<td>0.963</td>
<td>0.943</td>
<td>0.949</td>
<td>4.832</td>
<td>acc</td>
</tr>
<tr>
<td>Self-interest climate</td>
<td>0.188</td>
<td>1.000</td>
<td>0.000</td>
<td>0.999</td>
<td>1.000</td>
<td>1.008</td>
<td>1.000</td>
<td>0.094</td>
<td>acc</td>
</tr>
<tr>
<td>Efficiency climate</td>
<td>4.594</td>
<td>0.966</td>
<td>0.075</td>
<td>0.964</td>
<td>0.993</td>
<td>0.956</td>
<td>0.991</td>
<td>4.594</td>
<td>acc</td>
</tr>
<tr>
<td>Personal morality climate</td>
<td>4.402</td>
<td>0.995</td>
<td>0.073</td>
<td>0.972</td>
<td>0.995</td>
<td>0.984</td>
<td>0.993</td>
<td>4.402</td>
<td>acc</td>
</tr>
<tr>
<td>Rules and procedures climate</td>
<td>2.899</td>
<td>0.997</td>
<td>0.053</td>
<td>0.983</td>
<td>0.996</td>
<td>0.989</td>
<td>0.994</td>
<td>2.800</td>
<td>acc</td>
</tr>
<tr>
<td>Professional codes climate</td>
<td>3.395</td>
<td>0.995</td>
<td>0.062</td>
<td>0.979</td>
<td>0.995</td>
<td>0.985</td>
<td>0.993</td>
<td>3.430</td>
<td>acc</td>
</tr>
<tr>
<td>Relativism</td>
<td>43.212</td>
<td>0.981</td>
<td>0.068</td>
<td>0.952</td>
<td>0.982</td>
<td>0.965</td>
<td>0.975</td>
<td>3.928</td>
<td>acc</td>
</tr>
<tr>
<td>Idealism</td>
<td>29.266</td>
<td>0.987</td>
<td>0.051</td>
<td>0.968</td>
<td>0.988</td>
<td>0.978</td>
<td>0.982</td>
<td>2.661</td>
<td>acc</td>
</tr>
</tbody>
</table>

Note: * p value is not significant
acc = acceptable model fit
<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Unstandardised Regression</th>
<th>Standardised Regression</th>
<th>Standard Error</th>
<th>Critical Ratio</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AC4</td>
<td>1.000</td>
<td>0.538</td>
<td>0.081</td>
<td>n/a</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>AC5</td>
<td>1.157</td>
<td>0.776</td>
<td>0.060</td>
<td>13.255</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>AC6</td>
<td>1.145</td>
<td>0.806</td>
<td>0.030</td>
<td>13.495</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>AC7</td>
<td>1.212</td>
<td>0.815</td>
<td>0.032</td>
<td>13.563</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>AC8</td>
<td>1.345</td>
<td>0.775</td>
<td>0.048</td>
<td>13.242</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC4</td>
<td>1.166</td>
<td>0.772</td>
<td>0.069</td>
<td>13.979</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC5</td>
<td>1.186</td>
<td>0.772</td>
<td>0.069</td>
<td>13.979</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC6</td>
<td>1.000</td>
<td>0.652</td>
<td>0.075</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NC7</td>
<td>1.286</td>
<td>0.699</td>
<td>0.028</td>
<td>13.135</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC8</td>
<td>0.923</td>
<td>0.599</td>
<td>0.023</td>
<td>11.855</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC9</td>
<td>0.966</td>
<td>0.564</td>
<td>0.032</td>
<td>11.352</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC10</td>
<td>1.311</td>
<td>0.749</td>
<td>0.023</td>
<td>13.689</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC11</td>
<td>1.276</td>
<td>0.774</td>
<td>0.020</td>
<td>13.923</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC12</td>
<td>1.332</td>
<td>0.677</td>
<td>0.033</td>
<td>12.873</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC13</td>
<td>0.971</td>
<td>0.699</td>
<td>0.025</td>
<td>13.940</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC14</td>
<td>1.000</td>
<td>0.574</td>
<td>0.030</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NC15</td>
<td>1.246</td>
<td>0.703</td>
<td>0.056</td>
<td>13.349</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC16</td>
<td>0.952</td>
<td>0.627</td>
<td>0.044</td>
<td>12.356</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC17</td>
<td>1.414</td>
<td>0.806</td>
<td>0.054</td>
<td>13.975</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC18</td>
<td>1.000</td>
<td>0.626</td>
<td>0.049</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NC19</td>
<td>1.000</td>
<td>0.516</td>
<td>0.054</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NC20</td>
<td>1.008</td>
<td>0.577</td>
<td>0.047</td>
<td>9.470</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC21</td>
<td>1.324</td>
<td>0.749</td>
<td>0.036</td>
<td>9.222</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>NC22</td>
<td>1.122</td>
<td>0.663</td>
<td>0.034</td>
<td>9.409</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>EC1</td>
<td>1.000</td>
<td>0.817</td>
<td>0.095</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>EC2</td>
<td>0.620</td>
<td>0.764</td>
<td>0.021</td>
<td>22.456</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>EC3</td>
<td>0.620</td>
<td>0.732</td>
<td>0.029</td>
<td>22.456</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>EC4</td>
<td>1.000</td>
<td>0.817</td>
<td>0.038</td>
<td>13.339</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>PL1</td>
<td>1.000</td>
<td>0.557</td>
<td>0.029</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>PL2</td>
<td>1.879</td>
<td>0.756</td>
<td>0.044</td>
<td>13.339</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>PL3</td>
<td>1.879</td>
<td>0.817</td>
<td>0.038</td>
<td>13.339</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>PL4</td>
<td>1.000</td>
<td>0.744</td>
<td>0.036</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>PC1</td>
<td>0.886</td>
<td>0.736</td>
<td>0.026</td>
<td>15.111</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>PC2</td>
<td>0.886</td>
<td>0.668</td>
<td>0.032</td>
<td>15.111</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>REL2</td>
<td>1.139</td>
<td>0.706</td>
<td>0.094</td>
<td>12.292</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>REL3</td>
<td>1.274</td>
<td>0.688</td>
<td>0.135</td>
<td>11.909</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>REL4</td>
<td>0.951</td>
<td>0.597</td>
<td>0.104</td>
<td>11.240</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>REL5</td>
<td>1.274</td>
<td>0.696</td>
<td>0.121</td>
<td>12.318</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>REL6</td>
<td>1.309</td>
<td>0.693</td>
<td>0.131</td>
<td>12.175</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>REL7</td>
<td>1.384</td>
<td>0.747</td>
<td>0.117</td>
<td>14.233</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>REL8</td>
<td>1.000</td>
<td>0.559</td>
<td>0.141</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>IDE1</td>
<td>1.061</td>
<td>0.544</td>
<td>0.059</td>
<td>10.935</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>IDE2</td>
<td>0.821</td>
<td>0.546</td>
<td>0.035</td>
<td>10.979</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>IDE3</td>
<td>0.780</td>
<td>0.565</td>
<td>0.029</td>
<td>11.259</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>IDE4</td>
<td>1.189</td>
<td>0.717</td>
<td>0.034</td>
<td>13.287</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>IDE5</td>
<td>1.285</td>
<td>0.806</td>
<td>0.027</td>
<td>14.126</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>IDE6</td>
<td>1.146</td>
<td>0.749</td>
<td>0.044</td>
<td>13.618</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td></td>
<td>IDE7</td>
<td>1.000</td>
<td>0.580</td>
<td>0.049</td>
<td>n/a</td>
<td>-</td>
</tr>
</tbody>
</table>
4.5.3 Reliability

After the uni-dimensionality of all constructs was confirmed, the next step was to assess the reliability of each uni-dimensional construct. Reliability of a scale refers to the extent to which the scale is repeatable and provides the same results when it is used to measure under a variety of conditions in that it provides the same results (Nunnaly, 1978). In other words, if the scale is administered over time it will generate consistent results (Garver & Mentzer, 1999).

Cronbach’s (1951) alpha coefficient and composite reliability (Fornell & Larcker, 1981) were employed to assess the reliability of each construct. Rules of thumb suggest that the commonly used threshold of Cronbach’s alpha coefficient is 0.70 (Nunnally, 1978) whilst a composite reliability score of greater than 0.70 has been considered as the desirable cut-off value (Fornell & Larcker, 1981).

As shown in the exploratory factor analysis, Cronbach’s alpha coefficient for all identified constructs was greater than 0.70. The composite reliability score for each construct was computed by using the following formula (Fornell & Larcker, 1981):

\[
p_{\eta} = \frac{\left(\sum \lambda_{yi}\right)^2}{\left(\sum \lambda_{yi}\right)^2 + \sum Var (\epsilon_i)^2}
\]

where
- \(\lambda_{yi}\): the standardised factor loading of each item for the factor
- \(Var (\epsilon_i)\): the error variance associated with the individual indicator variables
- \(P_{\eta}\): the composite reliability of the construct.

Table 4.24 demonstrates both Cronbach’s alpha coefficients and the composite reliability scores for each construct.
Table 4.24. Reliability of the constructs under the research

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach’s alpha</th>
<th>Composite reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous commitment</td>
<td>0.861</td>
<td>0.863</td>
</tr>
<tr>
<td>Affective commitment</td>
<td>0.850</td>
<td>0.858</td>
</tr>
<tr>
<td>Normative commitment</td>
<td>0.809</td>
<td>0.812</td>
</tr>
<tr>
<td>Benevolence climate</td>
<td>0.861</td>
<td>0.873</td>
</tr>
<tr>
<td>Self-interest climate</td>
<td>0.784</td>
<td>0.786</td>
</tr>
<tr>
<td>Efficiency climate</td>
<td>0.713</td>
<td>0.764</td>
</tr>
<tr>
<td>Personal morality climate</td>
<td>0.782</td>
<td>0.804</td>
</tr>
<tr>
<td>Rules and procedures climate</td>
<td>0.744</td>
<td>0.781</td>
</tr>
<tr>
<td>Professional codes climate</td>
<td>0.760</td>
<td>0.750</td>
</tr>
<tr>
<td>Relativism</td>
<td>0.855</td>
<td>0.851</td>
</tr>
<tr>
<td>Idealism</td>
<td>0.844</td>
<td>0.836</td>
</tr>
</tbody>
</table>

As shown in the table, all values of both Cronbach’s alpha and composite reliability for all 11 constructs were greater than the recommended value of 0.70, indicating that the reliability of all constructs used in this research were assured.

4.5.4 Validity

Once the uni-dimensionality and reliability of each construct was acceptable, the following step was to assess the validity of the construct (Garver & Mentzer, 1999; Hair et al., 1988). Validity of a scale refers to the capacity of a uni-dimensional, reliable construct to measure what it is supposed to measure (Garver, 1999; Hair et al., 1988; Kline, 2005). Three types of validity were examined in this research, namely, content validity, convergent validity and discriminant validity.

Content validity concerns the extent to which a scale measures relevant aspects of the construct (latent variable) under the investigation (Zikmund, 2003). The content validity of the constructs used in this research was achieved by employing the pre-existing measurements that have been previously used by many researchers. To support the content validity, proper translation (i.e. back translation) procedures and a pre-test were performed. Details of the translation and pre-test procedures have been discussed in Chapter Three.
Convergent validity refers to the degree to which the items designed to measure a latent variable statistically united together (Garver & Mentzer, 1999). The critical ratio values were used in this study to assess the convergent validity of each construct (Anderson & Gerbing, 1988) given that convergent validity exists when the relationship between measured items and a construct is significantly different from zero. As demonstrated in Table 4.23, the critical ratios for all items were significantly different from zero (critical ratio >± 1.96; \( p < 0.05 \)). These results pointed to the convergent validity of the proposed measurement models.

An eigenvalue of greater than 1.00 is another indication of the presence of convergent validity of a construct (Hair et al., 1998). As shown in the summary of exploratory factor analyses presented in Table 4.11, all individual constructs had eigenvalues exceeding 1.00. Normed Fit Index (NFI) can also be employed to examine the convergent validity of a construct (Ahire, Golhar, & Waller, 1996). This index denotes the comparison of the proposed and the baseline models. In the baseline model, all parameters are fixed to zero, thus, it presumes the absence of any hypothesised item loading on a construct. Since all values of NFI for the 11 measurement models were above the recommended cut-off value of 0.90 (Table 4.22), it was concluded that the convergent validity of each construct was assured.

Discriminant validity refers to the extent to which items a construct does not correlate with items measuring other constructs (Malhotra, 1999). Following the recommendations of Sharma and Patterson (1999), the discriminant validity in this research was examined by comparing the alpha coefficients for individual constructs with correlation coefficients of other constructs. Discriminant validity was assured when the alpha coefficients for individual constructs were greater than their coefficient correlations with other constructs.

Table 4.25 reports the alpha coefficient of each construct and the coefficient correlation between each construct. As depicted in the table, individual alpha coefficients were higher than the correlation coefficients across all constructs, suggesting the discriminant validity of the measurement models was assured.
In sum, all of the 11 measurement models in this research could be assessed for their relationships in the structural model assessment since they were uni-dimensional, reliable, and valid.

Table 4.26 presents the summary of descriptive statistics of the final constructs used in this research. The measured variables constituted each construct ranged from three to eight items. As was discussed earlier, both Cronbach alpha and the composite reliability demonstrated the values greater than the recommended thresholds of 0.70, which indicated that all constructs were reliable.

The bivariate relationship between each construct was shown by the Pearson correlation coefficient provided in the table. All constructs were significantly correlated one on another. All the linear relationships between constructs hypothesised in the research were in the expected direction (see Figure 2.1 in Chapter Two). The magnitude of the significant coefficient correlations between individual constructs ranged from 0.101 to 0.466, which fell under the categories of low to medium, respectively (de Vaus, 2002). These magnitudes, however, were deemed reasonable since in social sciences the correlation coefficient of 0.30 tend to be considered as relatively strong (de Vaus, 2002). The inexistence of multicollinearity in this research was marked by the absence of high correlations (0.50 to 0.69, or greater) between the independent constructs (de Vaus, 2002). Multicollinearity might cause separate effects of the independent construct to be undetectable (de Vaus, 2002).

As can be seen in the table, the mean for normative commitment \( (M = 5.251) \) was relatively the same as that for affective commitment \( (M = 5.234) \). However, the means of these two types of commitment was shown to be somewhat higher than that of continuance commitment \( (M = 4.689) \). This indicated, in general, that the respondents’ decisions to remain in their organisations were more determined by the feeling of obligation to stay (normative) and emotional attachments to their organisations (affective), rather than by the perceived costs of leaving their organisations (continuance).
With regard to the respondents’ ethical positions, it was shown that the mean of idealism \( (M = 7.649) \) was higher than that of relativism \( (M = 5.480) \). This implied that respondents were relatively more reliant on universal moral principles (idealism) than on the rejection of such principles (relativism) in making their decisions.

The relatively higher mean for benevolence climate \( (M = 3.543) \) in comparison to the other existing climates, suggested that this type of climate was perceived by the majority of the respondents as being more dominant in their organisations than the other climates. It was likely that the relatively higher mean for normative commitment was due to the relatively more dominant of benevolence climate operating in the institutions. Since benevolence climate is concerned with the well-being of all employees, this might lead to respondents feeling obliged to continue their employment to repay the good treatments they have received from their organisations.

The means of other climates were, respectively, 3.509 (professional codes), 3.284 (rules and procedures), 2.474 (personal morality), 2.178 (self-interest) and 1.798 (efficiency). Efficiency climate refers to a climate, in which the organisations expected their employees to act for the interests of a larger social or economic system. This climate was perceived by the respondents as the least dominant in their organisations.

Relatively low values (less than one) were shown in standard deviations. The lowest was 0.190, whilst the highest was 0.521. These were indicative of the relatively small variations in the responses of the respondents to the questions related to the constructs.
Table 4.25. Cronbach’s alpha coefficients for individual constructs and their correlation coefficients

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Continuance commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>0.861</strong></td>
</tr>
<tr>
<td>2. Affective commitment</td>
<td>0.180**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Normative commitment</td>
<td>0.226**</td>
<td>0.425**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>0.809</strong></td>
</tr>
<tr>
<td>4. Benevolence climate</td>
<td>0.276**</td>
<td>0.353**</td>
<td>0.364**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>0.861</strong></td>
</tr>
<tr>
<td>5. Self interest climate</td>
<td>-0.156**</td>
<td>-0.277**</td>
<td>-0.193**</td>
<td>-0.314**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>0.784</strong></td>
</tr>
<tr>
<td>6. Efficiency climate</td>
<td>-0.172**</td>
<td>-0.305**</td>
<td>-0.320**</td>
<td>-0.400**</td>
<td>0.237**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>0.713</strong></td>
</tr>
<tr>
<td>7. Personal morality climate</td>
<td>0.079*</td>
<td>0.196**</td>
<td>0.138**</td>
<td>0.164**</td>
<td>-0.091*</td>
<td>-0.160**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>0.782</strong></td>
</tr>
<tr>
<td>8. Rules and procedures climate</td>
<td>0.121**</td>
<td>0.330**</td>
<td>0.371**</td>
<td>0.375**</td>
<td>-0.228**</td>
<td>-0.449**</td>
<td>0.167**</td>
<td></td>
<td></td>
<td></td>
<td><strong>0.744</strong></td>
</tr>
<tr>
<td>9. Professional codes climate</td>
<td>0.161**</td>
<td>0.362**</td>
<td>0.309**</td>
<td>0.466**</td>
<td>-0.304**</td>
<td>-0.441**</td>
<td>0.159**</td>
<td>0.454**</td>
<td></td>
<td></td>
<td><strong>0.760</strong></td>
</tr>
<tr>
<td>10. Idealism</td>
<td>0.106*</td>
<td>0.377**</td>
<td>0.335**</td>
<td>0.298**</td>
<td>-0.268**</td>
<td>-0.242**</td>
<td>0.221**</td>
<td>0.306**</td>
<td>0.315**</td>
<td></td>
<td><strong>0.855</strong></td>
</tr>
<tr>
<td>11. Relativism</td>
<td>-0.078*</td>
<td>-0.163**</td>
<td>-0.168**</td>
<td>-0.126*</td>
<td>0.265**</td>
<td>0.232**</td>
<td>-0.090*</td>
<td>-0.107*</td>
<td>-0.215**</td>
<td>-0.270**</td>
<td><strong>0.844</strong></td>
</tr>
</tbody>
</table>

Notes: The bold, italic, underlined numbers in the diagonal indicate the alpha coefficients for individual constructs. The numbers under the diagonal denote the coefficient correlation between the individual constructs. **Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed)
Table 4.26. The inter-correlation coefficients of the final constructs used in the research

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Continuance commitment</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Affective commitment</td>
<td>0.180**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Normative commitment</td>
<td>0.226** 0.425**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Benevolence climate</td>
<td>0.276** 0.353** 0.364**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Self interest climate</td>
<td>-0.156** -0.277** -0.193** -0.314**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Efficiency climate</td>
<td>-0.172** -0.305** -0.320** -0.400** 0.237**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Personal morality climate</td>
<td>0.079* 0.196** 0.138** 0.164** -0.091* -0.160**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Rules and procedures climate</td>
<td>0.121** 0.330** 0.371** 0.375** -0.228** -0.449** 0.167**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Professional codes climate</td>
<td>0.161** 0.362** 0.309** 0.466** -0.304** -0.441** 0.159** 0.454**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Idealism</td>
<td>0.106* 0.377** 0.335** 0.298** -0.268** -0.242** 0.221** 0.306** 0.315**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Relativism</td>
<td>-0.078* -0.163** -0.168** -0.126* 0.265** 0.232** -0.090* -0.107* -0.215** -0.270**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>4.689 5.234 5.251 3.543 2.178 1.798 2.474 3.284 3.509 7.649 5.480</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0.396 0.434 0.316 0.468 0.468 0.190 0.281 0.521 0.192 0.365 0.385</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>5.425 5.505 5.545 3.702 2.705 2.000 2.664 3.874 3.694 8.045 6.044</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>0.861 0.850 0.809 0.861 0.784 0.713 0.782 0.744 0.760 0.855 0.844</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite reliability</td>
<td>0.863 0.858 0.812 0.873 0.786 0.764 0.804 0.781 0.750 0.851 0.836</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of items</td>
<td>8   5   4   8   4   4   3   3   3   7   7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.6 Structural Model Assessment

As previously stated in Chapter One, the purpose of this research was to develop and to examine a conceptual model representing the relationships between ethical climate, ethical ideology, and organisational commitment in the Indonesian Catholic higher education institutions context. Allen and Meyer’s (1990) three-component model of organisational commitment was utilised to tap the staff’s commitment to their institutions. The perception of the staff towards the ethical climates of their institutions was measured by using the newest version of Ethical Climate Questionnaire refined by Cullen, Victor, and Bronson’s (1993). Forsyth’s (1980) Ethics Position Questionnaire was employed to assess the ethical ideology of the staff.

An investigation was conducted to investigate whether particular types of ethical climates had specific relationships with different forms of organisational commitment among the staff of the institutions. In addition, the research sought to explore whether there were relationships between the three principle-based climates and the ethical ideology of the staff, denoted by idealism and relativism. The possible relationship between idealism and affective commitment was also ascertained. Finally, the research attempted to determine whether the relationships between the three principle climates of the institutions and the affective commitment of the staff were mediated by the idealistic orientation of the staff.

Exploratory and confirmatory factor analyses have confirmed the existence of the three types of organisational commitment - affective, continuance, and normative - in the research contexts. With respect to ethical climates, the research confirmed the presence of the three generic ethical climate types, namely, egoistic, benevolent and principled. However, only six of the hypothesised nine specific climate types were identified. These six emergent ethical types were then included in the structural model in order that their relationships to the three forms of commitment could be assessed. The climates included two types of hypothesised egoistic climates (self-interest and efficiency), all three types of principled climates (personal morality, rules
and procedures and professional codes), and a single climate (benevolence) representing the three hypothesised benevolent climate types. The presence of idealistic and relativistic ideology orientation was also supported in the sample of the research.

Figure 4.1 is an illustration of the model, depicting hypothesised relationships between the 11 constructs used in the study. The figure also demonstrates the number of items utilised to measure each construct, derived from the results of exploratory and confirmatory factor analyses.

**Figure 4.1. Theoretical model**
As can be seen in the figure, the egoistic climates were denoted by self-interest and efficiency climates. A single climate called benevolence was the representative of the three types of benevolent climates. Personal morality, rules and procedures, and professional codes acted for the principled climates. The positive and negative signs in the brackets refer to the direction of the hypothesised relationships.

The main purpose of the structural model assessment was to examine these proposed relationships. The five-step stages described earlier applied to the assessment. Following the recommendations of MacKenzie (2001), multiple items were used to conceptualise the latent variables in order to control for measurement errors.

To assess the fit of the hypothesised model, nested model tests were employed. The hypothesised model was compared to the measurement model, in which all of the 11 constructs were correlated instead of hypothesising unidirectional paths between the constructs. Table 4.27 depicts the goodness-of-fit statistics of the two models.

Table 4.27. Model statistics

<table>
<thead>
<tr>
<th>Goodness-of-fit-indices</th>
<th>Measurement Model</th>
<th>Hypothesised Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$</td>
<td>2230.846</td>
<td>2174.381</td>
</tr>
<tr>
<td>Df</td>
<td>1484</td>
<td>1503</td>
</tr>
<tr>
<td>$\chi^2/df$</td>
<td>1.503</td>
<td>1.447</td>
</tr>
<tr>
<td>GFI</td>
<td>0.892</td>
<td>0.895</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.880</td>
<td>0.884</td>
</tr>
<tr>
<td>NFI</td>
<td>0.857</td>
<td>0.860</td>
</tr>
<tr>
<td>TLI</td>
<td>0.943</td>
<td>0.949</td>
</tr>
<tr>
<td>CFI</td>
<td>0.947</td>
<td>0.952</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.028</td>
<td>0.026</td>
</tr>
</tbody>
</table>

As reported in the table, the hypothesised model provided a better fit than the measurement model, which meant that the hypothesised model was appropriate for further examination. The hypothesised model was over-identified with 1503 degrees of freedom, suggesting the parameters in the
model could be estimated. No offending estimate was found. The maximum likelihood was used to estimate the parameters.

All standardised path coefficients for the model are shown in Figure 4.2. Two standardised coefficients from the paths personal morality to relativism and from rules and procedures to relativism, were not significant with critical ratios of 1.064 (p = 0.287) and 0.001 (p = 0.998), respectively.

Some goodness-of-fit indices indicated the model was not well-fitting (GFI = 0.895; AGFI = 0.884; NFI = 0.860). In addition, the Chi-square value of 2174.381 with 1503 degrees of freedom was significant (p < 0.05). Another four indices, however, showed desirable values (χ²/df = 1.447; TLI = 0.949; CFI = 0.952 and RMSEA = 0.026). The statistics of the proposed model are summarised in Table 4.28.

The highest modification index (47.642) suggested the inclusion of the path from affective commitment to normative commitment in the model. The incorporation of this path was possible since previous studies on commitment have shown correlations between affective and normative commitment (Jaros, 1993; Meyer & Hertscovich, 2002). Another possible explanation was that employees who decide to stay in the organisation because of positive experiences (affective) might feel obliged to remain in the organisation (normative) to repay the organisation for such experiences, but the reverse is not necessarily the case (Meyer & Smith, 2000).
Figure 4.2. Standardised coefficients for the proposed model

Notes:
a) significant at $p < 0.05$
b) significant at $p = 0.001$
c) insignificant
d) insignificant
* significant at $p < 0.01$
### Table 4.28. Statistics of the proposed model

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Standardised Regression</th>
<th>Unstandardised Regression</th>
<th>Standard Error</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-interest → affective commitment</td>
<td>-0.116</td>
<td>-0.128</td>
<td>0.052</td>
<td>-2.444*</td>
</tr>
<tr>
<td>Efficiency → affective commitment</td>
<td>-0.183</td>
<td>-0.232</td>
<td>0.072</td>
<td>-3.214**</td>
</tr>
<tr>
<td>Benevolence → affective commitment</td>
<td>0.227</td>
<td>0.320</td>
<td>0.079</td>
<td>4.071***</td>
</tr>
<tr>
<td>Benevolence → normative commitment</td>
<td>0.467</td>
<td>0.930</td>
<td>0.103</td>
<td>9.047***</td>
</tr>
<tr>
<td>Benevolence → continuous commitment</td>
<td>0.327</td>
<td>0.614</td>
<td>0.094</td>
<td>6.552***</td>
</tr>
<tr>
<td>Personal morality → idealism</td>
<td>0.167</td>
<td>0.113</td>
<td>0.031</td>
<td>3.591***</td>
</tr>
<tr>
<td>Rules and procedures → idealism</td>
<td>0.204</td>
<td>0.274</td>
<td>0.081</td>
<td>3.368***</td>
</tr>
<tr>
<td>Professional codes → idealism</td>
<td>0.256</td>
<td>0.257</td>
<td>0.060</td>
<td>4.298***</td>
</tr>
<tr>
<td>Professional codes → relativism</td>
<td>-0.281</td>
<td>-0.436</td>
<td>0.098</td>
<td>-4.431***</td>
</tr>
<tr>
<td>Personal morality → relativism</td>
<td>-0.051</td>
<td>-0.053</td>
<td>0.050</td>
<td>-1.064****</td>
</tr>
<tr>
<td>Rules and procedures → relativism</td>
<td>-0.001</td>
<td>-0.001</td>
<td>0.128</td>
<td>-0.002****</td>
</tr>
<tr>
<td>Idealism → affective commitment</td>
<td>0.262</td>
<td>0.313</td>
<td>0.056</td>
<td>5.353***</td>
</tr>
</tbody>
</table>

**Goodness-of-fit Indices**

- Chi-square = 2,174.381 (df = 1,503; p < 0.05)
- GFI = 0.895
- AGFI = 0.884
- χ²/df = 1.447
- NFI = 0.860
- TLI = 0.949
- CFI = 0.952
- RMSEA = 0.026

**Notes:**

* significant at p < 0.015
** significant at p = 0.001
*** significant at p < 0.0
**** insignificant

The model was then respecified by incorporating the path from affective commitment to normative commitment and deleting the two insignificant paths from personal morality to relativism and from rules and procedures to relativism. The revised model is presented in Figure 4.3.
Although the decrease of the Chi-square value from 2,174.381 to 2,109.314 (with 1,504 degrees of freedom) remained significant ($p < 0.05$), improvements were found in all goodness-of-fit indices (GFI = 0.897; AGFI = 0.887; $\chi^2/df = 1.402$; NFI = 0.865; TLI = 0.954; CFI = 0.957; and RMSEA = 0.025). Thereby, it was concluded that the revised model was better fitting to the data than the theoretical model. The revised model was then used as the final model in this research. The statistics of the revised model is presented in Table 4.29.
### Table 4.29. Statistics of the revised model

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Standardised Regression</th>
<th>Unstandardised Regression</th>
<th>Stdard Error</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self interest $\rightarrow$ affective commitment</td>
<td>-0.120</td>
<td>-0.133</td>
<td>0.053</td>
<td>-2.522*</td>
</tr>
<tr>
<td>Efficiency $\rightarrow$ affective commitment</td>
<td>-0.211</td>
<td>-0.267</td>
<td>0.073</td>
<td>-3.675**</td>
</tr>
<tr>
<td>Benevolence $\rightarrow$ affective commitment</td>
<td>0.187</td>
<td>0.267</td>
<td>0.077</td>
<td>3.461**</td>
</tr>
<tr>
<td>Benevolence $\rightarrow$ normative commitment</td>
<td>0.276</td>
<td>0.550</td>
<td>0.098</td>
<td>5.601**</td>
</tr>
<tr>
<td>Benevolence $\rightarrow$ continuous commitment</td>
<td>0.323</td>
<td>0.609</td>
<td>0.094</td>
<td>6.466**</td>
</tr>
<tr>
<td>Personal morality $\rightarrow$ idealism</td>
<td>0.164</td>
<td>0.111</td>
<td>0.031</td>
<td>3.532**</td>
</tr>
<tr>
<td>Rules and procedures $\rightarrow$ idealism</td>
<td>0.204</td>
<td>0.275</td>
<td>0.082</td>
<td>3.369**</td>
</tr>
<tr>
<td>Professional codes $\rightarrow$ idealism</td>
<td>0.257</td>
<td>0.257</td>
<td>0.060</td>
<td>4.309**</td>
</tr>
<tr>
<td>Professional codes $\rightarrow$ relativism</td>
<td>-0.293</td>
<td>-0.454</td>
<td>0.078</td>
<td>-5.812**</td>
</tr>
<tr>
<td>Idealism $\rightarrow$ affective commitment</td>
<td>0.276</td>
<td>0.313</td>
<td>0.056</td>
<td>5.573**</td>
</tr>
<tr>
<td>Affective commitment $\rightarrow$ normative commitment</td>
<td>0.386</td>
<td>0.542</td>
<td>0.075</td>
<td>7.207**</td>
</tr>
</tbody>
</table>

**Goodness-of-fit Indices**

Chi-square = 2,109.314 (df = 1,504; p < 0.05)

GFI = 0.897
AGFI = 0.887
$\chi^2$/df = 1.402
NFI = 0.865
TLI = 0.954
CFI = 0.957
RMSEA = 0.025

**Notes:**
* significant at $p < 0.05$
** significant at $p < 0.001$
Table 4.30 shows the values of squared multiple correlations ($R^2$) of endogenous constructs of the model. $R^2$ values are indicative of the percentages of total variations of exogenous constructs explained by endogenous constructs (Byrne, 2001; Hair et al., 1998; Schumacker & Lomax, 2002).

<table>
<thead>
<tr>
<th>Endogenous constructs</th>
<th>Squared multiple correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idealism</td>
<td>0.221</td>
</tr>
<tr>
<td>Relativism</td>
<td>0.086</td>
</tr>
<tr>
<td>Affective commitment</td>
<td>0.319</td>
</tr>
<tr>
<td>Normative commitment</td>
<td>0.314</td>
</tr>
<tr>
<td>Continuance commitment</td>
<td>0.104</td>
</tr>
</tbody>
</table>

Referring to the table, it could be determined that 22.1% of the variations associated with idealism were accounted for by personal morality, rules and procedures and professional codes climates. On the other hand, 8.6% of the variations in relativism were explained by professional code climate. Together with the three types of climates (self-interest, efficiency and benevolence), the factor of idealism explained 31.9% of the variations in affective commitment. Then, affective commitment and benevolence climate explained 31.4% of the variations in normative commitment. Finally, 10.4% of the variations related to continuous commitment were explained by benevolence climate.

### 4.7 Direct, Indirect and Total Effects In the Final Model

Kline (2005) notes that direct effects in a structural path diagram refer to the direct influence of one variable on another shown by a line with a single arrowhead originated from a presumed cause and pointed to a presumed effect. The statistical estimates of direct effects are path coefficients than can be interpreted as regression coefficients in multiple regressions.
Indirect effects, on the other hand, relate to one or more intervening (mediator) variables presumed to transmit some of the causal effects of preceding variables to successive variables. Indirect effects are statistically estimated as the product of standardised or unstandardised path coefficients of direct effects that comprise them (Kline, 2005).

The sum of all direct and indirect effects of one variable on another is called total effects (Kline, 2005). They are also interpreted as path coefficients either standardised or unstandardised.

With regard to the standardised estimates of the final model shown in Figure 4.3, it can be said that personal morality, for example, had a direct effect on idealism (0.164), however only 0.276 of the effect was transmitted to affective commitment. The indirect effect of personal morality on affective commitment was \((0.164 \times 0.276) = 0.045\), which meant that affective commitment was expected to increase by about 0.04 standard deviation for every increase in personal morality of one full standard deviation via its prior effect on idealism.

The standardised total effects of personal morality on affective commitment was the sum of its direct effect (0.086, see in Table 4.31 in the column entitled Model without the mediator) and indirect effect through idealism (0.164), or 0.250.

### 4.8 The Results of the Testing of the Propositions and Hypotheses

Three propositions were developed and 22 hypotheses were proposed in this research. The three propositions concerned the examinations of the possible presence of three components of organisational commitment, the multi-types of ethical climates, and the two dimensions of ethical ideology in the study sample. Four of the 22 hypotheses were unable to be tested since the exploratory and confirmatory factor analyses suggested one hypothesised
ethical climate (company profit) was undocumented whilst the three theoretical benevolent climates types merged into a single climate. The results of the testing of the propositions and hypotheses are reported below.

**P1:** The three forms of organisational commitment as proposed by Allen and Meyer (1990) are present within the Indonesian Catholic higher education institutions context.

This proposition aimed to identify the presence of three organisational commitment forms, namely, affective commitment, normative commitment and continuous commitment in the study sample. The exploratory factor analysis in this research had shown that the respondents were able to distinguish the three types of commitment detailed in the theoretical construct. The confirmatory factor analysis had ensured the uni-dimensionality, reliability and validity of each construct. Proposition 1 was then supported.

**P2:** The multiple types of ethical climates as proposed by Victor and Cullen (1987; 1988) are present within the Indonesian Catholic higher education institutions context.

As demonstrated in the exploratory factor analysis, respondents in this research recognised the presence of six of the nine hypothesised ethical climates in their organisations as described in the theoretical constructs. The uni-dimensionality, reliability and validity of each construct had also been confirmed in the confirmatory factor analysis, thus proposition 2 was supported. The six emergent ethical climates included two of the three proposed egoistic climates (self-interest and efficiency), all three proposed principled climates (personal morality, rules and procedures and professional codes), and one benevolent climate (benevolence). The benevolence climate was considered as representative of the three proposed benevolent climates, since these three climates merged into a single climate in this research.
P3: The two dimensions of ethical ideology as proposed by Forsyth (1980) are present within the Indonesian Catholic higher education institutions context.

The aim of this proposition was to examine the presence of two ethical ideology dimensions, namely, idealism and relativism, in the research sample. The exploratory factor analysis in this research had shown that the respondents were able to distinguish the two dimensions of ethical ideology detailed in the theoretical construct. The confirmatory factor analysis had ensured the uni-dimensionality, reliability and validity of each construct. Proposition 3 was then supported.

Hypotheses 1 addressed the relationships between the three egoistic climate types and affective commitment.

H1a: Self-interest climate is negatively related to affective commitment.
H1b: Company profit climate is negatively related to affective commitment.
H1c: Efficiency climate is negatively related to affective commitment.

Since the company profit climate was undocumented in this research, hypothesis 1b was unsupported. As a result, the hypothesis was only tested for the associations between the self-interest and efficiency climates with affective commitment. In Figure 4.1, these relationships are depicted as two lines with a single arrowhead from self-interest to affective commitment and from efficiency to affective commitment.

As shown in the revised structural model (Table 4.29), the relationship between self interest and affective commitment was marked by the standardised path coefficient of -0.120 with the $t$ value of -2.522 that was significant at $p < 0.01$. 
From the same table, it can be seen that the association between efficiency and affective commitment was shown by the standardised coefficient of –0.211 with the t-value of -3.675 that was significant at \( p < 0.01 \). Therefore, hypothesis 1a and 1c were supported.

Hypotheses 2 concerned the associations between benevolent climates and affective commitment.

**H2a**: Friendship climate is positively related to affective commitment.

**H2b**: Team interest climate is positively related to affective commitment.

**H2c**: Social responsibility climate is positively related to affective commitment.

Since the three types of benevolent climates formed a single climate of benevolence in this study, the hypothesis test was applied to the relationship between this single climate type and affective commitment. The relationship was illustrated in Figure 4.1 by a line with a single arrowhead originated from benevolence to affective commitment. As shown in Table 4.29 (revised model), the standardised path coefficient of this relationship was 0.187 with the t-value of 3.461 that was significant at \( p < 0.01 \). The hypothesis was therefore partially supported, in that this study was unable to demonstrate the relationships between each type of benevolent climates and affective commitment, however, the hypothesised positive relationship between the benevolence climate and affective commitment was confirmed.

The following hypotheses related to the link between benevolent climate types and normative commitment.

**H3a**: Friendship climate is positively related to normative commitment.

**H3b**: Team interest climate is positively related to normative commitment.

**H3c**: Social responsibility climate is positively related to normative commitment.
Similar to hypotheses 2, the test for this hypothesis was only applied to the relationship between the benevolence climate and normative commitment. Figure 4.1 portrayed this association with a single arrowhead from benevolence to normative commitment. Table 4.29 (revised model) revealed the standardised path coefficient of 0.276 with the \( t \)-value of 5.601 that was significant at \( p < 0.01 \) for this relationship, suggesting the hypothesis was partially supported. The relationships between each benevolent climates and normative commitment were unable to be shown but the findings of the test suggested the benevolence climate was positively associated with normative commitment.

Hypotheses 4 addressed the relationships between the three benevolent climate types and continuance commitment.

- **H4a**: Friendship climate is positively related to continuance commitment.
- **H4b**: Team play climate is positively related to continuance commitment.
- **H4c**: Social responsibility climate is positively related to continuance commitment.

Parallel to the previous two hypotheses regarding these types of climates, the hypothesis test was only valid for the relationship between the benevolence climate and continuance commitment.

This relationship was indicated by a single arrowhead line from benevolence to continuance commitment in Figure 4.1. The standardised path coefficient of this relationship as depicted in Table 4.29 (revised model) was 0.323 with the \( t \)-value of 6.466 that was significant at \( p < 0.01 \). Thereby, the hypothesis was partially supported. A positive relationship between the benevolence climate and continuance commitment was shown but the association between this kind of commitment and each type of benevolent climates was unidentified.
The fifth hypotheses focussed on the associations between principled climates and idealism.

*H5a:* Personal morality climate is positively associated with idealism.

*H5b:* Rules and procedures climate is positively associated with idealism.

*H5c:* Professional code climate is positively associated with idealism.

Figure 4.1 revealed these relationships with three single arrowhead lines from three different origins (personal morality, rules and procedures, and professional codes) that pointed to the same destination (idealism). According to the results of Table 4.29 (revised model), the standardised path coefficient for the personal morality – idealism relationship was 0.164 with the significant *t*-value of 3.532 (*p* < 0.01). From the same table, the standardised path coefficient for the relationship between rules and procedures and idealism was 0.204 with the *t*-value of 3.369 that was significant at *p* < 0.01. Finally, with respect to the relationship between professional codes and idealism, the standardised path coefficient was 0.257 with the *t*-value of 4.309 that was significant at *p* < 0.01. These results indicate the three hypotheses were confirmed.

With regard to the relationships between principled climates and relativism, these following hypotheses were proposed.

*H6a:* Personal morality climate is negatively associated with relativism.

*H6b:* Rules and procedures climate is negatively associated with relativism.

*H6c:* Professional code climate is negatively associated with relativism.

These relationships were portrayed in Figure 4.1 by three lines with a single arrowhead from personal morality, rules and procedures and professional codes all pointed to relativism. The statistics for these relationships in the initial proposed model (Table 4.28) showed that the standardised path coefficient in the relationship between personal morality and relativism was –0.051 with the *t* value of -1.064 which was less than ±1.96. This indicated that the relationship was insignificant (*p* = 0.287), hence, the hypothesised
relationship depicted in Figure 4.1 was unsupported. As was previously
mentioned, the path of this particular relationship was then excluded from
the revised model (see Figure 4.3). In other words, hypothesis 6a was
unsupported.

A similar case was also found in the association between rules and
procedures and relativism. The proposed relationship was not confirmed as
was evidenced by the standardised path coefficient of – 0.001 and the t-value
of - 0.002 with \( p = 0.998 \) (Table 4.28). The path of this relationship was also
discarded in the revised model (see Figure 4.3). Hypothesis 6b thus was not
confirmed.

With regard to the relationship between professional codes and relativism, it
was found that the standardised coefficient path for the relationship was -
0.293 with the t-value of -5.812 that was significant at \( p < 0.01 \) (see statistics
of the revised model as reported in Table 4.29). Thus, of the three
hypothesised relationships between principled climates and relativism, only
the relationship between professional codes and relativism was confirmed.
This relationship is demonstrated in Figure 4.3.

Hypothesis 7 was designed to test the relationship between idealism and
affective commitment.

\[ H7: \] Idealism is positively related to affective commitment.

Table 4.29 (revised model) depicts the standardised path coefficient of 0.276
with the t-value of 5.573 that was significant at \( p < 0.01 \) for this relationship,
suggesting that this hypothesis was supported.

The remaining hypotheses examined the possible mediating influence of
idealism on the relationships between the three principled climates and
affective commitment.
**H8a:** The positive relationship between personal morality climate and affective commitment is mediated by idealism.

**H8b:** The positive relationship between rules and procedures climate and affective commitment is mediated by idealism.

**H8c:** The positive relationship between professional code and affective commitment is mediated by idealism.

A procedure recommended by Baron and Kenny (1986) was employed to test the mediation relationship. According to this procedure, mediation is occurred when (1) a significant relationship is found between the independent variable and the mediator; (2) a significant relationship is present between the mediator and the dependent variable; (3) the relationship between the independent variable and the dependent variable becomes insignificant with the inclusion of the mediator.

Two models with and without the inclusion of the mediator were then examined. The model without the mediating variable (idealism) is shown in Figure 4.4, whilst the one with the mediating variable is presented in Figure 4.5. A summary of the statistical results for the two models is provided in Table 4.31.

As shown in Table 4.31, in the model without the inclusion of idealism (the mediator), the relationship between personal morality and affective commitment was positively significant with the $t$ value of 1.988 ($p < 0.05$) and the standardised path coefficient of 0.086. However, when the mediator was introduced in the model, the magnitude of the standardised coefficient fell to 0.079 and the relationship between the two variables became insignificant ($t$-value = 1.850, $p = 0.64$). Therefore, the relationship between personal morality and affective commitment was fully mediated by idealism.

The standardised path coefficient for the association between rules and procedures and affective commitment in the model without the mediator was 0.125 with the $t$-value of 1.989 that was significant at $p < 0.05$. The inclusion of the mediator in the model caused the standardised path coefficient to
decrease to 0.116 and the relationship turned out to be insignificant ($t$-value $= 0.116; p = 0.62$), suggesting that idealism mediated the relationship.

Prior to the addition of the mediator to the model, the relationship between professional codes and affective commitment was positively significant ($t$-value $= 2.023; p < 0.05$) with the standardised path coefficient of 0.128. The inclusion of the mediator changed the relationship from significant to insignificant ($t$-value $= 1.868; p = 0.62$). A lower standardised coefficient (0.118) was also shown, indicating that the link between professional codes and affective commitment was mediated by idealism. In sum, the hypothesis concerning the mediating role of idealism in the relationships between the three principle climates types and affective commitment was supported. Therefore, the last three hypotheses were confirmed.

The summary of all propositions and hypotheses results are reported in Table 4.32.
Figure 4.4. The model without the mediating variable

Notes:
* significant at $p < 0.05$
** significant at $p < 0.001$
*** insignificant
Figure 4.5. The model with the mediating variable

Notes:
* significant at $p < 0.05$
** significant at $p < 0.001$
*** insignificant
Table 4.31. Summary of statistics of model with and without mediator

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Model without the Mediator</th>
<th>Model with the Mediator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Std. Reg</td>
<td>t-values</td>
</tr>
<tr>
<td>Self-interest → affective commitment</td>
<td>-0.107</td>
<td>-2.192</td>
</tr>
<tr>
<td>Efficiency → affective commitment</td>
<td>-0.095</td>
<td>-1.410</td>
</tr>
<tr>
<td>Benevolence → affective commitment</td>
<td>0.138</td>
<td>2.432</td>
</tr>
<tr>
<td>Benevolence → normative commitment</td>
<td>0.277</td>
<td>5.690</td>
</tr>
<tr>
<td>Benevolence → continuous commitment</td>
<td>0.323</td>
<td>6.455</td>
</tr>
<tr>
<td>Personal morality → idealism</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rules and procedures → idealism</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Professional codes → idealism</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Professional codes → relativism</td>
<td>-0.267</td>
<td>-5.363</td>
</tr>
<tr>
<td>Idealism → affective commitment</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Affective commitment → normative commitment</td>
<td>0.381</td>
<td>7.137</td>
</tr>
<tr>
<td>Personal morality → affective commitment</td>
<td>0.086</td>
<td>1.988</td>
</tr>
<tr>
<td>Rules and procedures → affective commitment</td>
<td>0.125</td>
<td>1.989</td>
</tr>
<tr>
<td>Professional codes → affective commitment</td>
<td>0.128</td>
<td>2.023</td>
</tr>
</tbody>
</table>

Goodness-of-fit-indices

<table>
<thead>
<tr>
<th></th>
<th>Model without the Mediator</th>
<th>Model with the Mediator</th>
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</thead>
<tbody>
<tr>
<td>$\chi^2$</td>
<td>2215.715</td>
<td>2103.389</td>
</tr>
<tr>
<td>df</td>
<td>1504</td>
<td>1501</td>
</tr>
<tr>
<td>$\chi^2$/df</td>
<td>1.473</td>
<td>1.401</td>
</tr>
<tr>
<td>GFI</td>
<td>0.893</td>
<td>0.897</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.882</td>
<td>0.887</td>
</tr>
<tr>
<td>NFI</td>
<td>0.858</td>
<td>0.865</td>
</tr>
<tr>
<td>TLI</td>
<td>0.946</td>
<td>0.954</td>
</tr>
<tr>
<td>CFI</td>
<td>0.949</td>
<td>0.957</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.027</td>
<td>0.025</td>
</tr>
</tbody>
</table>

Notes:
* significant at $p < 0.05$
** significant at $p < 0.001$
Std. Reg = standardised regression
Sig = significant level
<table>
<thead>
<tr>
<th>Proposition/Hypothesis</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P1</strong></td>
<td>Supported</td>
</tr>
<tr>
<td>The three forms of organisational commitment as proposed by Allen and Meyer (1990) are present within the Indonesian Catholic higher education institutions context.</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>P2</strong></td>
<td>Supported</td>
</tr>
<tr>
<td>The multiple types of ethical climates as proposed by Victor and Cullen (1987; 1988) are present within the Indonesian Catholic higher education institutions context.</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>P3</strong></td>
<td>Supported</td>
</tr>
<tr>
<td>The two dimensions of ethical ideology as proposed by Forsyth (1980) are present within the Indonesian Catholic higher education institutions context.</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H1a</strong></td>
<td>Supported</td>
</tr>
<tr>
<td>Self-interest climate is negatively related to affective commitment</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H1b</strong></td>
<td>Unsupported*</td>
</tr>
<tr>
<td>Company profit climate is negatively related to affective commitment</td>
<td>Unsupported*</td>
</tr>
<tr>
<td><strong>H1c</strong></td>
<td>Supported</td>
</tr>
<tr>
<td>Efficiency climate is negatively related to affective commitment.</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H2a</strong></td>
<td>Partially supported**</td>
</tr>
<tr>
<td>Friendship climate is positively related to affective commitment.</td>
<td>Partially supported**</td>
</tr>
<tr>
<td><strong>H2b</strong></td>
<td>Partially supported**</td>
</tr>
<tr>
<td>Team interest climate is positively related to affective commitment</td>
<td>Partially supported**</td>
</tr>
<tr>
<td><strong>H2c</strong></td>
<td>Partially supported**</td>
</tr>
<tr>
<td>Social responsibility climate is positively related to affective commitment</td>
<td>Partially supported**</td>
</tr>
<tr>
<td><strong>H3a</strong></td>
<td>Partially supported**</td>
</tr>
<tr>
<td>Friendship climate is positively related to normative commitment</td>
<td>Partially supported**</td>
</tr>
<tr>
<td><strong>H3b</strong></td>
<td>Partially supported**</td>
</tr>
<tr>
<td>Team interest climate is positively related to normative commitment</td>
<td>Partially supported**</td>
</tr>
<tr>
<td><strong>H3c</strong></td>
<td>Partially supported**</td>
</tr>
<tr>
<td>Social responsibility climate is positively related to normative commitment</td>
<td>Partially supported**</td>
</tr>
<tr>
<td><strong>H4a</strong></td>
<td>Partially supported**</td>
</tr>
<tr>
<td>Friendship climate is positively related to continuance commitment</td>
<td>Partially supported**</td>
</tr>
<tr>
<td><strong>H4b</strong></td>
<td>Partially supported**</td>
</tr>
<tr>
<td>Team play climate is positively related to continuance commitment</td>
<td>Partially supported**</td>
</tr>
<tr>
<td><strong>H4c</strong></td>
<td>Partially supported**</td>
</tr>
<tr>
<td>Social responsibility climate is positively related to continuance commitment</td>
<td>Partially supported**</td>
</tr>
<tr>
<td><strong>H5a</strong></td>
<td>Supported</td>
</tr>
<tr>
<td>Personal morality climate is positively associated with idealism</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H5b</strong></td>
<td>Supported</td>
</tr>
<tr>
<td>Rules and procedures climate is positively associated with idealism</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H5c</strong></td>
<td>Supported</td>
</tr>
<tr>
<td>Professional code climate is positively associated with idealism</td>
<td>Supported</td>
</tr>
<tr>
<td>Proposition/Hypothesis</td>
<td>Outcomes</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>$H_{6a}$  Personal morality climate is negatively associated with relativism</td>
<td>Unsupported***</td>
</tr>
<tr>
<td>$H_{6b}$  Rules and procedures climate is negatively associated with relativism</td>
<td>Unsupported***</td>
</tr>
<tr>
<td>$H_{6c}$  Professional code climate is negatively associated with relativism</td>
<td>Supported</td>
</tr>
<tr>
<td>$H_{7}$    Idealism is positively related to affective commitment</td>
<td>Supported</td>
</tr>
<tr>
<td>$H_{8a}$  The positive relationship between personal morality climate and affective commitment is mediated by idealism.</td>
<td>Supported</td>
</tr>
<tr>
<td>$H_{8b}$  The positive relationship between rules and procedures climate and affective commitment is mediated by idealism.</td>
<td>Supported</td>
</tr>
<tr>
<td>$H_{8c}$  The positive relationship between professional code and affective commitment is mediated by idealism.</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Notes:
* The company profit climate was undocumented in the research
** The three types of benevolent climates (friendship, team interest, and social responsibility) merged into a single climate and labelled benevolence. This single climate was positively associated with continuance, affective, and normative commitment.
*** The paths between two types of principle climates, namely, personal morality and rules and procedures, and relativism were omitted in the final (revised) model due to the insignificant values of the two standardised coefficients.

4.9 Concluding Remarks

This chapter reports the results of data analyses and the findings revealed from this research. The steps taken to conduct the analyses are described, including data preparation and the procedures of structural equation modelling, the primary statistical technique used in the study. A two-step approach to structural equation modelling was employed. The approach involved the assessment of the measurement and the structural models. In addition to confirmatory factor analysis (CFA), an exploratory factor analysis (EFA) was also utilised in the measurement model assessments since the research adopted pre-existing scales to be used in a different cultural context.

Following the results of exploratory factor analyses, only 11 of the initial constructs were used in the final analysis. The uni-dimensionality, reliability, and
validity of these 11 constructs were supported in confirmatory factor analyses. A theoretical structural model representing the hypothesised relationships between the constructs was then developed and assessed. The assessment suggested this theoretical model needed to be respecified or modified in order to make the model better fit to the data. The modifications involved the inclusion of one unhypothesised path into and the exclusion of two insignificant paths from the model.

The results of the testing of the three propositions and the 22 hypotheses are also presented in this chapter. The outcomes indicated that the three propositions were confirmed. With regard to the hypotheses, 10 were supported and three were unsupported whilst the other nine were partially supported.
CHAPTER FIVE
DISCUSSION AND CONCLUSION

Introduction

The main purpose of this chapter is to discuss the results drawn from this research in terms of managerial and theoretical implications. The general findings of the testing of the hypotheses will be outlined followed by the theoretical and practical implications of the findings. The limitations of the research then are presented. This chapter includes some suggestions of directions that future studies in this area might take. A conclusion will end this chapter.

5.1 Discussion of the Results

The purpose of this research was to test whether various types of perceived ethical climates had different influences on certain organisational commitment forms amongst permanent staff in the Indonesian Catholic higher education institutions context. It also ascertained whether the idealistic ethical ideology of the staff had potential for mediating the relationships between perceived principle-based climate types and staff’s affective commitment. In this regard, three propositions were offered and 22 hypotheses were proposed.

All the three propositions were confirmed. Of the 22 proposed hypotheses, 13 were supported and three were unsupported, whilst the remaining nine were partially supported. The hypotheses were tested using structural equation modelling procedures.
The first proposition concerned the examination of whether Allen & Meyer’s (1990) three-component model of organisational commitment applied to the research sample (P1). The proposition was supported. This result was consistent with those of previous studies conducted outside North America validating the model. The studies include those done in China (Chen & Fransesco, 2003; Cheng & Stockdale, 2003); Nepal (Gautam, van Dick, & Wagner, 2001); South Korea (Jong, Price, & Mueller, 1997; Lee, Allen, Meyer, & Kyung, 2001); and the United Kingdom (Snape & Redman, 2003).

More particularly, the finding was also congruent with those of two studies investigating organisational commitment in educational settings in Australia (Hartman & Bambacas, 2000) and in Turkey (Cetin, 2006). In viewing of the fact that the research was conducted in Indonesia, the presence of the normative commitment in the research sample provided a support to Allen and Meyer’s (1997) argument that this type of commitment might be relevant in collectivistic cultures.

Of the three commitment types, the means for the normative and affective commitment were found to be relatively equal ($M = 5.251$ and $M = 5.234$, respectively). The lower mean ($M = 4.689$) was shown in continuance commitment. These findings indicated that the affective and normative commitment of the staff were relatively more dominant than their continuance commitment. In other words, the commitment of the staff to their institutions was largely based on their desires to identify with and be involved in the institution and their sense of obligation to stay, rather than on the perceived costs of leaving the institutions.

As suggested in the modification index, a path from affective to normative commitment was drawn in the final (revised) model. The standardised regression coefficient for this path was positive and significant. Although it was not hypothesised, the significant positive coefficient was indicative of the direct effect of affective commitment on normative commitment. This effect is possible since work experiences associated with affective commitment often correlate with normative commitment so that having positive experiences at
work might contribute to the development of both affective and normative commitment (Meyer & Smith, 2000). Thus, staff who perceived the ethical climates of their institution as fitting their personal values, for example, tended to experience positive feelings that led to stronger desires to stay in the organisation (affective commitment). These positive experiences, in turn, gave rise the staff feeling obliged to continue their employment (normative commitment).

The second proposition related to the applicability of Victor and Cullen’s (1987; 1988) multidimensional model of ethical climates in the research sample (P2). This proposition was supported. Six distinct factors emerged in the exploratory factor analysis. The uni-dimensionality, reliability, and validity of the individual factors were also shown in the confirmatory factor analysis. The six factors were regarded as being the emergent ethical climates in this research.

Although not all the theoretical nine climate types were identified, this finding was not surprising given that so far there has been no previous study reporting the existence of the nine dimensions (Ambrose, Arnaud, & Schminke, 2007; Cullen, Parboteeah, & Victor, 2003; Peterson, 2002a). In prior studies, the number of the identified dimensions ranged from five to eight (Agarwal & Malloy, 1999; Cullen, Victor, & Bronson. 1993; Cullen et al., 2003 VanSandt, 2001; Victor & Cullen, 1987; Victor & Cullen, 1988; Wimbush, Shepard & Markam, 1997).

The six emergent climates involved two egoistic, one benevolent, and three principle-based climates. With the exception of benevolence, all climate types identified in this research were consistent with the proposed typology. Self-interest climate consisted of items from the egoism-individual dimension. Efficiency climate included all items from the egoism-local dimension. Personal morality climate was made up of all items from the principle-individual dimension. Rules and procedures climate was constituted by items from the principle-local dimension. Professional codes contained items from the principle-cosmopolitan dimension. Finally, benevolence climate was
represented by a variety of items from the benevolence dimension from the three levels (individual, local, and cosmopolitan).

The theoretical company profit (egoistic-local) climate appeared in the data analysis and was comprised theoretically consistent items from the egoistic-local dimension. However, due to the low reliability of the construct, this climate was not included in the final analysis.

Unlike the egoistic and principle-based climates, the theoretical benevolent climates of friendship (benevolence-individual), team play (benevolence-local) and social responsibility (benevolence-cosmopolitan) did not appear as discrete climates in this research. Instead, they merged together as a single climate. The generic name of benevolence was then given to this type of climate.

The highest mean of perceived climate was found in benevolence ($M = 3.543$) whilst the lowest ($M = 1.798$) was shown in efficiency (egoistic-cosmopolitan). These findings implied that the staff perceived their institutions as having stronger concerns for the well-being of each other both within and outside their institutions. Maximisation of the self-interest of society (egoistic-cosmopolitan), however, was perceived by staff as the weakest concern of their institutions.

The merging of the three benevolence climates in this research indicated that staff did not distinguish between being benevolent towards others as individuals and others as members of their institution or other institutions besides their own. This finding supported the notion of Cullen et al. (2003) that the loci of analysis dimension often combines unique ways in certain types of organisations.

A potential explanation for the merging of the three benevolence climate might be found in the context of the research. In collectivistic cultures, like in Indonesia, people are encouraged to practice caring behaviours in their daily lives. Parboteeah, Cullen, Victor, and Sakano (2005) argue that individual in
these types of cultures have strong ties to the collective and their actions are
directed to maximise the well-being and benefit of a group. Furthermore, these
researchers believe that people in these societies are likely to sacrifice their
personal goals when the goals are incongruent with those of the group. The
endorsement of such behaviours, unmistakably, is in accordance with the basic
nature of benevolence. An alternative reason might lie in the specific
characteristics of the sampled institutions (i.e., educational). In general, the
primary purposes of these types of institutions carry benevolent overtones
which very often require the members to display caring behaviours for others.
The denominational nature of the sampled institutions could be another
possible explanation. It was likely that the members of the institutions shared a
common Catholic belief that filling benevolence towards others was part of
their duties in life, irrespective of the relationship type between the individuals
and the “others”. These conjectures, however, need to be tested in similar
samples to see whether a parallel finding would be found.

The third proposition was associated with the validation of Forsyth’s (1980)
concept of ethical ideology (or personal moral philosophy) in the Indonesian
Catholic higher education institutions setting (P3). As shown in the analyses,
the theoretical two dimensions of ethical ideology, namely idealism and
relativism, were confirmed in the research sample. These results were
equivalent to those of studies of Redfern (2005) and Redfern and Crawford

In addition, the research also reported the relatively higher of the mean of
idealsim ($M = 7.649$) in comparison to that of relativism ($M = 5.480$). These
findings suggested that the majority of staff of the institutions were relatively
more reliant on universal moral principles (idealism) than on the rejection of
such principles (relativism) in making their decisions. With regard to these
findings, an argument could be made. Individuals in collectivistic societies, in
general, have tendencies to adhere to existing social norms in determining
their behaviours (Vittell, Nwachukwu, & Barnes, 1988). There is no doubt
that any adherence to principle denotes the basic nature of idealism. Thus, the
relatively higher score of idealism shown in the research sample was likely
due to these general tendencies. Empirical studies in other collectivistic cultures have demonstrated similar findings (e.g., Lee & Sirgy, 1999; Singhapakdi, Vittell & Leelakulthanit, 1994). Another study (Davis, Johnson, & Ohmer, 1998), however, reveals a contradictory result, that is, Indonesian MBA students were found to have relatively high scores in relativism. This finding is suggestive of further investigations of ethical ideology in the Indonesian contexts.

All hypotheses of this research concerned the relationships between ethical climate, organisational commitment, and ethical ideology.

The first three hypotheses addressed the relationships between egoistic climates and affective commitment. As predicted, the perceptions of egoistic climates (i.e. self-interest and efficiency) were negatively associated with the affective commitment (H1a and H1c). These findings were similar to those of Cullent et al. (2003) and Kelley and Dorsch (1991). This negative association implied that the more the staff perceived their institutions opening the doors for their members to maximise the interests either for their own (self-interest climate), or for larger social systems, such as higher educational institutions in general (efficiency climate) the less likely the staff would be affectively committed. The reason for this, perhaps, is because egoistic climates tend to ignore the welfare of others who are not the subjects of interest when organisational decisions are made (Barnett & Schubert, 2001). In other words, these climates promote selfish decisions at the expense of other constituents. In such situations, group cohesion, which is one of the influential factors for generating affective commitment, is less likely to be developed (Cullen et al., 2003). The company profit climate was undocumented in this research thus H1b was unsupported.

Since egoistic climates had negative direct impacts on affective commitment, and normative commitment received direct impact from affective commitment - although this was not hypothesised - it could be concluded that the egoistic climates would also have negative indirect impacts on normative commitment through their direct negative effects on affective commitment. Simply put,
when the staff perceived that any attempts to maximise self-interest were intolerable in their institutions, the more likely they would have stronger emotional attachments to their institutions, which, in turn, heightened their senses of obligation to stay in the institutions, or vice versa.

The specific relationships between each type of benevolent climates and each of organisational commitment forms were unable to be tested since the three benevolent climates merged into a single climate in this research. However, the relationship between this single climate and affective commitment was found to be positive. Therefore, it could be said that the hypotheses between the three types of benevolent climates and affective commitment (H2a, H2b, and H2c) were partially supported. These findings were also in keeping with those of prior studies (Cullen et al., 2003; Kelley & Dorsch, 1991). The positive relationship suggested that the more the staff perceived their institutions were encouraging them to put the well-being of others above any other considerations, the higher the desires of the staff to remain in their institutions. The term “others” includes individual employee’s friends (individual), institutional units (local), or external constituencies (cosmopolitan) such as a community (Barnett & Schubert, 2001; Victor & Cullen, 1988).

Organisations with benevolent climates expect the results of decisions to give maximum collective gains even at the expense of individual needs (Parboteeah et al., 2005). That is, benevolent climates expect that the organisation members are willing to care for and to assist each other. This expectation might result in the development of cohesiveness among the organisation’s members. The cohesiveness will lead to a higher level of involvement of the members to their institutions (Cullen et al., 2003).

As with affective commitment, the relationships between benevolent climates and normative commitment (H3a, H3b, and H3c) were partially supported. The single climate (i.e. benevolence) was found to be positively associated with normative commitment. Regard for the well-being of others, which is the main characteristic of the benevolent climate, might be viewed by staff as
indicative of a supportive institutional environment. This perceived support would encourage the feeling of obligations to stay as the manifestation of reciprocal responses (Meyer & Smith, 2000). The positive relationship suggested that the more staff perceived their institutions as having benevolent orientation the greater their sense of obligation to remain in their institutions.

An interesting finding was shown in the relationship between benevolence climate and normative commitment. The inclusion of the path from affective to normative commitment in the final model indicated that the positive relationship between benevolent climate and normative commitment was also mediated by affective commitment. The latter relationship was not hypothesised in this research. The finding, however, gave a support to the view of Meyer and Smith (2000) that in some circumstances, a sense of obligation to stay (normative commitment) is created from a desire to remain in the organisation (affective commitment).

In respect of continuance commitment, the hypothesised positive relationships between benevolent climates and this type of commitment (H4a, H4b, and H4c) were also partially supported. As earlier mentioned, the individual relationships between each benevolent climate types and continuance commitment were unable to be identified. Nevertheless, the relationship between the single benevolent climate identified in this research (i.e. benevolence) and continuance commitment was found to be positive.

Although the antecedents of continuance commitment are largely based on economic reasoning they may nonetheless include assessments of both tangible and intangible benefits (Stephens, Daley, & Stephens, 2004). Care for the well-being of employees, which is the primary characteristic of benevolence climate, might lead to the perception by the staff that there are psychological costs associated with leaving their institutions. To put the matter more precisely, these intangible benefits might not be obtained outside their institutions. Although the hypothesis was supported, the squared multiple correlation (R²) for this variable was only 0.104, indicating that the benevolence climate only explained 10% in the variations of continuance.
commitment. In other words, there might be more significant factors other than benevolence climate that contributed to the perception by staff of the high staff’s costs involved in leaving their institutions. These could be financial or other extrinsic motivational factors. However, the investigations of these factors were beyond the scope of this research.

The three principle-based climates were found to have positive relationships with idealism (H5a, H5b, and H5c). Altogether the three climates (personal morality, rules and procedures, and professional codes) explained 22.1% of the variations in idealism. The findings indicated that the idealistic orientations of the staff might be nurtured when the adherence to ethical principles was endorsed by their institutions. Although individuals’ idealistic orientations initially developed from their cultural environments and personal experiences (Shaub, Finn, & Munter, 1993; Singhapaldi, Vittell, & Franke, 1999), these orientations, to some extent, can be shaped by the organisations through the creations of ethical environments. These findings were consistent with those of studies examining the relationships between ethical environment and idealism (Karande, Rao, & Singhapakdi, 2000; and Ming & Chia, 2005).

Negative relationships between the three principle-based climates and relativism were proposed in this research (H6a, H6b, and H6c). Of the three climates, however, only the professional codes indicated a significant negative relationship. Although negative relationships were also shown between the other two principle-based climates and relativism, these relationships were statistically insignificant. Therefore, the hypotheses were only partially supported.

Relativists tend to reject universal moral values since they believe there are many ways to look at ethics (Forsyth, 1992; Shaub et al., 1993). The endorsement of ethical principles in organisations, whether they be individual (e.g. personal ethics), organisational (e.g. organisational codes), or external to organisations (e.g. religious values) will make individuals with relativistic orientations feel restricted (Shaub et al., 1993). Thus, the negative association could be interpreted as follows: the more institutions required their staff to
refer to ethical principles in making decisions, the more these staff members with relativistic orientations felt controlled and uneasy. However, the relatively low of squared multiple correlation for the professional codes climate ($R^2 = 0.086$) suggested that this type of climate only contributed approximately 9% to the variations of relativism. Further studies, perhaps, need to be conducted to test this hypothesised negative relationship.

The hypothesised positive relationship between idealism and affective commitment (H7) was supported in this research. Since the institutions used Catholic values as the basis for their operations, it was assumed that they sought to internalise such values and encouraged staff to refer to these values, in addition to the institutional codes, when dealing with ethical problems. The basic precept of idealism is the avoidance of any harm to others (Forsyth, 1980). This principle, to some extent, is similar to basic Catholic values (love your neighbour). Hence, if the institutions strive to endorse such values, it might be easier for staff with idealistic orientations to be committed to the institutional values (Shaub et al., 1993).

As was hypothesised, the relationships between the three principle-based climates (i.e. personal morality, rules and procedures, and professional codes) and affective commitment were fully mediated by the ideological orientation of the staff (H8a, H8b, and H8c). These findings indicated that when the institutions encouraged staff to adhere to ethical principles in decision making, it would not directly impact on the staff’s affective commitment. However, the encouragement might inculcate the idealistic orientations of the staff. When these orientations were nurtured, the staff might find their orientations were congruent with the organisation’s values. This congruence would result in staff to identifying with these values. Thus, employees’ affective commitment is likely to be developed when they perceive that the organisation’s ethical environments match their own idealistic orientations (Shaub et al., 1993).

The overall findings of this research had a number of scholarly and managerial implications which will be outlined in the subsequent sections.
5.2 Scholarly Implications

At a theoretical level, given that this research was conducted in Indonesia, it served to contribute to the validation of Allen and Meyer’s (1990) three-component model of organisational commitment, Victor and Cullen’s (1987; 1988) model of multiple types of ethical climates as well as Forsyth’s (1980) two-dimension model of ethical ideology in collectivistic, non-Western cultures. This research also provided empirical evidence of these models from educational institutions that ground in moral values.

This research was perhaps one of the first studies investigating the simultaneous relationships between various types of ethical climate and the three facets of organisational commitment, namely, affective, continuance, and normative. This type of an investigation has been unexamined in previous studies. Thus, this research added to the literature by providing insights into how various types of ethical climates related not only to affective commitment, but also to continuance and normative commitment.

In addition, the context of this research was specific in that it involved denominational educational institutions. Prior studies assessing the relationships between ethical climate and organisational commitment have not included this type of context. Victor and Cullen (1987) maintain that organisations with specific characteristics might have unique ethical climate types. In this research, the uniqueness of the institutions’ ethical climates was possibly shown by the merging of the three benevolent climate types (i.e., friendship, team interest and social responsibility) into a single climate instead as a theoretical discrete individual climate. Clearly, much works needs to be done to explain this further. Whilst this research has outlined a few trajectories to explore this is by no means exhaustive.

Ethical ideology has been shown to have a significant relationship with ethical climate (Karande, Rao, & Singhapakdi, 2000; Ming & Chia, 2005) as well as with organisational commitment (Shaub, Finn & Munter, 1993). These associations were indicative of the potential of ethical ideology in mediating
the relationship between ethical climate and organisational commitment. However, attempts to ascertain this mediating relationship left unexplored. Hence, this research contributed to overcoming this deficiency.

The following section discusses the managerial implications of this research.

5.3 Managerial Implications

At a practical level, this research provided leaders of higher education institutions with insights into the possible formation of organisational commitment through organisational and individual ethics. These insights were considered beneficial with respect to the efforts of the leaders to introduce codes of ethics to their institutions. At the time this research was conducted, two of the nine institutions involved in this research were preparing drafts of their codes of ethics whilst one institution had been implementing its newly code for a couple of months.

The findings of this research showed the likelihood that the individual staff remained in their institutions could be affected by the ethical climates they perceived. This resulted in two important managerial implications. First, since ethical climate is a manageable factor, it was likely that the institutional leaders to raise staff’s commitment through prudent manipulation of their institutional ethical climates. Second, considering that different climates require different ethics management strategies (Deshpande, George, & Joseph, 2000) it would be necessary for the leaders to identify dominant climates within the institutions before implementing the strategies to cultivate staff’s commitment.

As the findings indicated, staff’s affective commitment was less likely to be developed when the staff perceived their institutions as having egoistic climates, such as being tolerant to lying, cheating, and stealing (Wimbush & Shepard, 1994). Egoistic climates would not motivate the staff to identify with the institutional values (Cullen et al., 2003). These types of climates would
grow in the absence of organisational policies or through the failure of the organisations to enforce laws regarding selfish behaviours (Appelbaum, Deguire, & Lay, 2005). Thus, affectively committed staff would only be acquired when the likelihood of such behaviours was minimised in the institutions. Providing staff with clear organisational codes of conduct regarding ethical and unethical behaviours, and above all, implementing the codes with no exception might help the leaders prevent the occurrences of selfish behaviours. Staff’s desires to stay in the institutions would be undermined when, for example, they perceive their institutions as doing nothing to their peers who violated the codes (Weeks, Loe, Chonko, & Wakefield, 2004).

The creation of benevolent climates in the institutions was shown to have potential for fostering not only affective, but also continuance, and normative commitment amongst the staff within the institutions. Thus, if the staff perceived their institutions concerned for the well-being of people both inside and outside the institution, it would make the staff experience positive feelings towards their institutions, which in turn, led to their increased desires to stay. Such institutional concerns might also result in their higher sense of obligation to stay. It would also be probable that the institutional concerns for people’s well-being inclined staff towards considering the psychological costs of leaving their institution since these concerns might not be obtained in other institutions. Therefore, it is strongly advised that the leaders of institutions seek to create benevolent atmospheres in their institutions.

However, the contribution of benevolent climate to explain the variations of continuance commitment was shown to be relatively low ($R^2 = 0.104$). This begged a question of whether the perceived lost of psychological privileges would lead to the staff continue the employment. Obviously, further tests are suggested to see the potential of this type of institutional climate for developing staff’s continuous commitment.

Principle-based climates were shown to have potential for facilitating the affective commitment of staff through their direct positive impacts on staff’s
adherence to moral principles (or idealistic ethical ideology). In the context of this research it might be interpreted as follows. When staff perceived that any types of adherence to principles were supported then it was likely that the idealistic orientations of the staff would grow. Once these orientations developed they might find that the institutions’ values fit their ethical orientations and this would lead to their desires to stay.

These findings were considered relevant in relation to the endeavours of the leaders to introduce codes of ethics to their institutions. It has been widely accepted that the most obvious way for an organisation to assure its employees that the organisation adheres to moral principles is through the introduction of a code of ethics (Wotruba, Chonko, & Loe, 2001). However, a code of ethics may not be effective in a benevolent climate type (Deshpande et. al., 2000), or in a climate where adherence to principles is not endorsed. Given that the benevolent was found to be the dominant climate in this research it was less likely that introducing codes of ethics would be effective to foster staff’s commitment to their institutions in the short-term. Additionally, the mere existence of a code of ethics would not signify greater concerns of an organisation for moral principles (Wotruba et al., 2001). Thus, to be effective, the code should be communicated, monitored, and enforced. This requires the commitment of the organisational leaders to the codes (Koh & Boo, 2004) and their roles as the models of ethical behaviours (Ming & Chia, 2005).

These requirements, if adopted, might help institutional leaders inculcate adherence to rules orientations among staff, which in turn, would facilitate the effectiveness of the codes implementations. Values inherent in the codes should be translated into institutional practice and all organisational members have to be subject to the codes with no preferential treatment.

As expected, professional codes climate was found to have a negative association with relativism. Unlike idealists, relativists are not fond of any adherence to principles. These divergent views might make promoting codes of ethics in organisations problematical (Chonko, Wotruba, & Loe, 2003). Idealists are people who adhere to codes whereas relativists are flexible in
nature. Undoubtedly, people with relativistic orientations are sometimes needed for certain organisational success. However, these types of people would find codes restrict their flexibilities. One of feasible alternatives to remedy this problem is perhaps to blend the idealistic and realistic viewpoint as a basis for individual decision making (Chonko, et al., 2003). In the context of this research, the most visible way was possibly to enable staff to take the perspectives of exceptionists in institutional decision making. Forsyth (1992) describes such perspectives as balancing moral standards with negative and positive outcomes. That is, adherence to codes of ethics is endorsed and desirable however exceptions to these codes are permissible for pragmatic considerations. Implicit in these perspectives is that the adherence to codes of ethics remains paramount. It is obvious that this contradicts the basic tenet of relativism. Thus, balancing moral standards with outcomes would not be favourable to high relativists. Introducing a code of ethics, without a doubt, might put an organisation in a quandary. It is up to the leaders to take their positions (Chonko, et al., 2003).

5.4 Limitations

As with any research, this research has several limitations. The foremost limitation concerned the socially desirable responses. Given the sensitive nature of the topic these types of responses were likely to be present. However, great efforts have been made to mitigate this possibility by presenting the respondents with a consent form assuring the confidentiality and the withdrawal from the participation was not prejudiced.

A cross-sectional design resulted in the inability of this research to capture any changes in the respondents' perceptions towards the variable interests since the data was collected at a single point in time. The design also made it difficult for this research to draw any firm conclusions about the direction of causality in the model. That is, the causality might operate in the opposite direction (Barnett & Schubert, 2002; Meyer & Smith, 2000). For example, although the hypotheses confirmed that the staff’s perceptions towards certain
types of ethical climates would encourage or discourage certain facets of organisational commitment, it was also possible that the certain forms of commitment on the past of the staff might contribute to the development of certain perceptions towards the ethical climates of their institutions.

The other limitation related to the nature of sampling frames and sampling techniques used in this research. The sample was derived from the permanent staff of Catholic higher educational institutions on the island of Java, Indonesia. Consequently, the findings of this research cannot be generalised to include other denominational or non-denominational institutions or non-educational institutions in general. The use of non-probability sampling techniques (i.e., judgmental or purposive) was another important factor that rendered implausible generalisation of the findings.

A further limitation of this research lay in the measurement of ethical climate. Parallel to prior studies (Barnett & Vaicys, 2000; Spitzmüller & Stanton, 2006), the primary interest of this research was in analysing the possible relationships between ethical climate, ethical ideology, and organisational commitment at the individual level. This research was not intended to capture perceived ethical climate of a particular institution. Thus, the dimensions of ethical climates emerged in this research were representatives of the perceptions of all staff involved in the research towards their respective institutions.

In addition to these four points, a number of other limitations are embedded in the discussion in the remainder of this section.

5.5 Suggestions for Future Studies

In all likelihood, this research was one the first studies investigating the relationship between ethics-related variables and the three forms of organisational commitment among permanent staff in denominational
education institutions context. However, this was a very narrow unit of analysis. Replications with other groups such as other denominational, non-denominational higher education institutions or other non-educational institutions in Indonesia would be desirable. This would help the future studies gain better understandings of possible differences of ethical climates in such institutions. Other extensions might involve the respondents, for example, part-time or casual staff of the institutions.

Given the inherent limitations of the cross-sectional design, a longitudinal design is advised for the future studies so that the precise nature of the relationship between ethical climate and organisational commitment can be determined conclusively.

Although the research instrument performed with reasoned robustness, in-depth interviews might be useful for future studies to explore any other dimensions that could add the semantic value of theoretical ethical climate, organisational commitment, and ethical ideology concepts in the Indonesian context.

Findings of this research indicated that benevolence climate had a positive impact on continuance commitment, which theoretically is determined by economic-based factors. Considering the relatively low contribution of benevolent climate to explain the variations of continuance commitment ($R^2 = 0.104$), future studies needs to test whether psychological cost results from benevolent climate has any impact on continuance commitment.

A similar call is recommended in respect of the potential of principle-based climates for undermining the relativistic orientations of individuals. The findings of this research suggested professional codes climate only contributed approximately 9% to the variations of relativism ($R^2 = 0.086$).

As previously mentioned, the merging of the three benevolent climate types into a single climate was likely due to special characteristics of the sampled institutions of this research (i.e., Catholic-based educational institutions in a
collectivistic culture). This conjecture, however, needs to be tested in a similar context. Therefore, repeated investigations are recommended.

This study found positive relationships between the three principle-based climates and idealism. In a general sense, these findings paralleled those of studies examining the relationship between ethical climate and idealism (Karande et al., 2000; Ming & Chia, 2005). However, given that these two previous studies do not specifically address principle-based climates, it is strongly advised that future studies assess whether the idealistic orientations of employees will be nurtured when their organisations endorse the adherence to moral principles, such as introducing codes of ethics.

Consistent with the finding of a prior study (Shaub et al., 1993), a positive association between idealism and affective commitment was also found in this research. Due to the limited number of empirical studies ascertaining this relationship, future studies need to explore the relationship further.

This research demonstrated a significant role of idealistic ethical ideology in mediating the relationships between principle-based climates and affective commitment. Considering that this research was probably the first study investigating the potentiality of idealism as a moderating variable in the relationships, it would be useful for future studies to test this mediating role in the same context to see if similar outcomes will be found.

5.6 Conclusion

In concluding, this research has shown how personal and organisational ethics might be employed to cultivate organisational commitment. In contrast to the previous effort, this research endeavoured to test the potential of various types of ethical climates for developing not only affective but also continuance and normative commitment. Additionally, ethical ideology was put to the test to see the potentiality of this variable for mediating the relationships. The results
of this additional test indicated the significant role of idealistic orientation in mediating the relationships between principle-based climates and affective commitment.

The findings of the research revealed different patterns of associations between specific types of ethical climates and organisational commitment forms. In viewing of the fact that different climates require different ethics management strategies, it was important for the institutional leaders to identify the dominant climates in their institutions prior to the implementation of the strategies.

Affectively committed staff might be developed when institutional atmospheres that intolerable to selfish behaviours were provided. The availability of institutional code of conducts regarding acceptable and unacceptable behaviours and the enforcement of the codes could be one of possible alternatives to create such atmospheres.

Providing climates that encourage caring behaviour within the institutions was likely to nourish not only the affective but also the continuance and normative commitment of staff although the potential of these climates for fostering staff’s continuance commitment needed to be tested further.

The patterns of relationships between principle-based climates, ethical ideology and staff’s commitment suggested the idealistic orientations of the staff would develop when they perceived adherence to any types of principles (including a code of ethics) were endorsed in the institutions. The endorsement would lead the staff to find that their orientations were congruent with those of the institutions, which in turn, foster their desires to stay.

Introducing codes of ethics to the institutions could be problematic given the divergent views of idealists and relativists on principles. Relativists are flexible people who are not fond of codes of ethics. It would be flawed however to dismiss the characters inherent in relativistic people since these are sometimes required for some organisational success. Balancing the codes of
ethics with the positive and negative outcomes of a particular institutional decision was perhaps one of possible alternatives to remedy the problem. To put this alternative precisely, exceptions to codes of ethics are permissible for pragmatic reasons however reliance to the codes is more desirable. Since this option requires the adherence to a code, high relativistic persons would find the codes restrict their flexibilities.

The central problem, then, lies in a question of whether introducing codes of ethics to the institutions would be indispensable. In response to this question, Chonko et al. (2003) argue that people everywhere virtually agree that there must be universal principles to be followed. Taking the evidence of the adverse impacts of unethical practice from business settings, these researchers wonder what the world will look like in the absence of absolute moral standards. Clearly, this inquiry is also relevant to the context of higher educational institutions anywhere in the world.
BIBLIOGRAPHY


APPENDICES
APPENDIX A-1
Return addressed envelope
KUESIONER PENELITIAN

PENGARUH FILOSOFI MORAL PRIBADI DAN NILAI-NILAI ETIKA DALAM ORGANISASI TERHADAP KOMITMEN ORGANISASIONAL

Peneliti:
Martinus Parnawa Putranta
The University of Notre Dame Australia

Pembimbing:
Associate Professor Brian Mooney, PhD
Anthony Imbrosclano, PhD
Yogyakarta, 1 Juli 2005

Bapak/ibu yang terhormat,

Saya, Martinus Parnawa Putranta, seorang tenaga pengajar pada Fakultas Ekonomi Universitas Atma Jaya Yogyakarta. Saat ini saya sedang melakukan penelitian untuk penyusunan disertasi doktoral saya di the University of Notre Dame Australia, dengan pembimbing Associate Professor Brian Mooney, PhD dan Anthony Imbrosciano, PhD. Secara umum, penelitian tersebut bertujuan untuk memahami pengaruh filosofi moral pribadi dan nilai-nilai etika dalam organisasi terhadap komitmen organisasional pada karyawan di beberapa perguruan tinggi Katolik di Indonesia.

Bapak/ibu dipilih sebagai calon responden karena penelitian ini sangat memerlukan informasi dari Bapak/ibu sebagai seorang karyawan atau karyawan suatu institusi pendidikan tinggi Katolik. Oleh karena itu, dengan ini saya mohon bantuan Bapak/ibu untuk meluangkan waktu bagi saya guna menjawab serangkaian pertanyaan yang terdapat di dalam kuesioner ini.

Sebuah blanko Kesediaan untuk Berpartisipasi dalam Penelitian disediakan pada lembar kedua dari kuesioner ini. Blanko tersebut menjelaskan bahwa partisipasi dalam penelitian ini adalah suka rela dan kerahasiaan identitas Bapak/ibu sangat dijaga.


Perlu diketahui, bahwa penelitian ini sudah mendapat ijin dari pimpinan institusi tempat Bapak/ibu bekerja. Disinggung itu, penelitian ini juga sudah mendapat persetujuan dari Komite Etika Penelitian, the University of Notre Dame Australia. Segala pertanyaan yang berkaitan dengan hal tersebut, dapat dialamatkan kepada : Professor Anthony Ryan, PhD, Research Ethics Committee, the University of Notre Dame Australia, PO Box 1225, Fremantle, Western Australia (Email : tryan@nd.edu.au; Phone : + 61 (8) 9433 0868; Fax : + 61 (8) 9433 0544).

Apabila Bapak/ibu tertarik untuk mengetahui ringkasan hasil akhir penelitian ini (dalam bentuk soft copy), silakan Bapak/ibu mengirimkan alamat E-mail ke alamat saya di bawah ini. Atau, Bapak/ibu dapat memasukkan kartu nama Bapak/ibu bersama-sama dengan kuesioner yang sudah terisi lengkap ke dalam amplop yang sudah disediakan.

Terima kasih atas perhatian Bapak/ibu.

Hormat saya,

Martinus Parnawa Putranta.
E-mail : pputranta@student.nd.edu.au atau parnawa@mail.uajy.ac.id
Phone : 0272 320 275. Mobile: 081 227 3140
KESEDIAAN UNTUK BERPARTISIPASI DALAM PENELITIAN
(Mohon diserahkan kembali kepada peneliti)

Penelitian ini membahas pengaruh filosofi moral pribadi dan nilai-nilai etika dalam organisasi - baik yang secara formal tertulis (kode etik organisasi) maupun yang didasarkan atas persepsi karyawan (iklim etika) – terhadap komitmen organisasional pada karyawan dari beberapa perguruan tinggi Katolik di Indonesia. Hasil penelitian ini diharapkan dapat membantu para pengelola institusi perguruan tinggi tersebut dalam menciptakan suatu kerangka yang berlandaskan etika untuk dijadikan pedoman dalam menumbuhkembangkan komitmen karyawan dari institusi yang mereka pimpin.

Apabila Bapak/Ibu berminat untuk berpartisipasi dalam penelitian ini, Bapak/Ibu akan diminta untuk mengisi kuesioner yang mencerminkan pendapat Bapak/Ibu tentang hal-hal yang berkaitan dengan etika dan komitmen organisasional. Waktu yang diperlukan untuk mengisi kuesioner tersebut kira-kira 30 menit.


Apabila Bapak/Ibu tertarik untuk berpartisipasi dalam penelitian ini, silakan Bapak/Ibu menandatangani pernyataan berikut:

Saya memahami semua hal yang tertulis dalam Lembar Kesediaan untuk Berpartisipasi dalam Penelitian ini dan saya setuju untuk berpartisipasi secara suka rela dalam penelitian yang dilakukan oleh Martinus Parnawa Putranta dari the University of Notre Dame Australia.

Tanggal
Nama dan tanda tangan

[Signature]

Apabila masih terdapat hal-hal lain yang ingin Bapak/Ibu ketahui tentang penelitian ini, Bapak/Ibu dapat menghubungi alamat-alamat berikut ini:

a. Martinus Parnawa Putranta (E-mail: pputranta@student.nd.edu.au ; parnawa@mai.uajy.ac.id).
b. Associate Professor Brian Mooney, PhD (E-mail : bmooney@nd.edu.au).
c. Anthony Imbrosciano, PhD (Email : aimbrosciano@nd.edu.au).
d. Professor Anthony Ryan, PhD (E-mail : tryan@nd.edu.au)
PETUNJUK:
Silakan Anda melengkapi identitas diri Anda dengan cara memberi tanda silang (X) pada salah satu angka yang terdapat di sebelah kiri dari beberapa pilihan jawaban yang tersedia. Apabila diperlukan, Anda dapat mengisi titik-titik yang terdapat pada beberapa pilihan jawaban tertentu. Informasi yang Anda berikan hanya akan digunakan untuk tujuan penelitian semata dan terjaga kerahasiaannya.

1. Apa jenis kelamin Anda?
   1. Laki-laki
   2. Perempuan
2. Apa agama Anda?
   1. Islam
   2. Katolik
   3. Kristen
   4. Hindu
   5. Budha
   6. Konghucu
   7. Lain-lain (sebutkan) ........................................
3. Apa status pemikahan Anda?
   1. Menikah
   2. Belum/tidak menikah (kemudian silakan langsung ke pertanyaan nomor 5).
4. Apabila Anda sudah menikah, apakah suami/isteri Anda juga bekerja?
   1. Ya
   2. Tidak
5. Berapa jumlah orang yang menjadi tanggungan Anda?
   (Yang dimaksud dengan tanggungan di sini adalah anak, suami/isteri, atau orang lain baik yang mempunyai hubungan kerabat dengan Anda maupun tidak)
   1. Tidak ada
   2. 1 – 3 orang
   3. Lebih dari 3 orang.
6. Berapa usia Anda pada hari ulang tahun Anda yang terakhir?
   1. Kurang dari 25 tahun
   2. 25 – 30 tahun
   3. 31 – 36 tahun
   4. 37 – 42 tahun
   5. 43 – 48 tahun
   6. 49 – 54 tahun
   7. 55 – 60 tahun
   8. 61 – 66 tahun
   9. 67 tahun atau lebih
7. Berapa tahun Anda sudah bekerja di organisasi ini?
   1. Kurang dari 5 tahun
   2. 5 s/d kurang dari 10 tahun
   3. 10 s/d kurang dari 15 tahun
   4. 15 s/d kurang dari 20 tahun
   5. 20 s/d kurang dari 25 tahun
   6. 25 s/d kurang dari 30 tahun
   7. 30 s/d kurang dari 35 tahun
   8. 35 s/d kurang dari 40 tahun
   9. 40 tahun atau lebih.
8. Apa pendidikan formal tertinggi yang sudah Anda selesaikan?
   1. SD
   2. SMP
   3. SMA
   4. Akademi/ Diploma/Sarjana Muda
   5. Strata 1
   6. Strata 2
   7. Strata 3

9. Apa status kepegawaian Anda di organisasi ini?
   1. Pegawai tetap
   2. Pegawai tidak tetap
   3. Lain-lain (sebutkan) ……………………

10. Apa jenis pekerjaan Anda?
    1. Tenaga pengajar
    2. Tenaga non - pengajar (kemudian silakan langsung ke pertanyaan nomor 15)

11. Apabila Anda seorang tenaga pengajar (dosen), apakah Anda juga memegang jabatan struktural di organisasi ini?
    1. Ya
    2. Tidak (kemudian silakan langsung ke pertanyaan nomor 14)

12. Apabila Anda menjawab “ya”, apa jabatan struktural yang Anda pegang tersebut?
    1. Rektor
    2. Pembantu Rektor
    3. Dekan
    4. Pembantu Dekan
    5. Ketua Program Studi
    6. Wakil Ketua Program Studi
    7. Pimpinan/Kepala Suatu Unit/Lembaga Tingkat Universitas
    8. Pimpinan/Kepala Suatu Unit/Lembaga Tingkat Fakultas
    9. Lain-lain (sebutkan) ……………………………

13. Sudah berapa lama Anda memegang jabatan tersebut?
    1. Kurang dari 1 tahun
    2. 1 – kurang dari 3 tahun
    3. 3 tahun atau lebih

14. Apa jabatan akademik Anda?
    1. Guru Besar
    2. Lektor Kepala
    3. Lektor
    4. Asisten Ahli
    5. Calon Tenaga Pengajar

15. Apabila Anda seorang tenaga non-pengajar, apa jenis pekerjaan Anda?
    1. Kepala/Pimpinan Suatu Unit/Lembaga Tingkat Universitas
    2. Kepala/Pimpinan Suatu Unit/Lembaga Tingkat Fakultas
    3. Tenaga Administratif
    4. Teknisi Laboratorium
    5. Teknisi Komputer
    6. Tenaga Perpustakaan
    7. Tenaga Peneliti
    8. Sekretaris
    9. Lain-lain (sebutkan) …………..

16. Apabila Anda seorang tenaga non-pengajar, apa golongan kepengkatan Anda?
    1. Golongan I
    2. Golongan II
    3. Golongan III
    4. Golongan IV
    5. Lain-lain (sebutkan) …………..
PETUNJUK

Pernyataan-pernyataan berikut berkaitan dengan organisasi Anda. Anda dimohon untuk mengungkapkan sejauh mana tingkat kesetujuan atau ketidaksetujuan Anda terhadap masing-masing pernyataan tersebut dengan cara memberi tanda silang (X) pada salah satu jawaban yang tersedia di sebelah kanan dengan setiap pernyataan, dengan ketentuan sebagai berikut:

1 = Sangat Tidak Setuju (STS)
2 = Tidak Setuju (TS)
3 = Kurang Setuju (KS)
4 = Ragu-ragu (R)
5 = Agak Setuju (AS)
6 = Setuju (S)
7 = Sangat Setuju (SS)

Semua jawaban Anda akan dijamin kerahasiaannya.

<table>
<thead>
<tr>
<th>No.</th>
<th>Pernyataan</th>
<th>STS</th>
<th>TS</th>
<th>KS</th>
<th>R</th>
<th>AS</th>
<th>S</th>
<th>SS</th>
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<tbody>
<tr>
<td>1</td>
<td>Saya merasa senang untuk menghabiskan sisa karier saya di organisasi ini.</td>
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<td>2</td>
<td>Saya mendapatkan suatu kepuasan ketika bercerita tentang organisasi saya kepada orang-orang lain di luar organisasi saya.</td>
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<tr>
<td>3</td>
<td>Permasalahan organisasi ini sungguh saya rasakan sebagai permasalahan saya sendiri.</td>
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<tr>
<td>4</td>
<td>Saya kira, saya dapat dengan mudah mengikatkan diri dengan organisasi lain semudah saya mengikatkan diri dengan organisasi ini.</td>
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<tr>
<td>5</td>
<td>Saya tidak merasa seperti “bagian dari keluarga” di dalam organisasi saya.</td>
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<tr>
<td>6</td>
<td>Saya tidak merasa terikat secara emosional dengan organisasi ini.</td>
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<tr>
<td>7</td>
<td>Organisasi ini mempunyai makna pribadi yang sangat mendalam bagi saya.</td>
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<tr>
<td>8</td>
<td>Saya tidak merasakan suatu rasa memiliki yang kuat terhadap organisasi saya.</td>
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<tr>
<td>9</td>
<td>Saya tidak merasa khawatir dengan apa yang mungkin terjadi, seandainya saya berhenti dari pekerjaan saya tanpa adanya pekerjaan lain yang mengganti.</td>
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<tr>
<td>10</td>
<td>Saat ini, sangat berat bagi saya untuk keluar dari organisasi saya, walau saya menginginkannya sekalipun.</td>
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<td>Nomor</td>
<td>Kalimat</td>
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<td>R</td>
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<td>11.</td>
<td>Kehidupan saya akan sangat terganggu seandainya sekarang saya memutuskan ingin keluar dari organisasi ini.</td>
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<tr>
<td>12.</td>
<td>Keluar dari organisasi ini bukan merupakan suatu kerugian yang besar bagi saya.</td>
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</tr>
<tr>
<td>13.</td>
<td>Saya tetap bekerja di organisasi saya karena saat ini saya sangat membutuhkan dan menginginkannya.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>14.</td>
<td>Saya merasa bahwa saya hanya mempunyai sedikit pilihan sehingga sulit bagi saya untuk mempertimbangkan keluar dari organisasi ini.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>15.</td>
<td>Salah satu akibat berat apabila saya keluar dari organisasi ini adalah pilihan pekerjaan lain yang tersedia di luar jarang untuk bisa didapatkan.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>16.</td>
<td>Salah satu alasan utama saya untuk tetap bekerja di sini adalah karena keluar dari organisasi menyebabkan pengorbanan pribadi yang sangat besar, organisasi lain mungkin tidak akan memberikan semua tunjangan seperti yang saya peroleh dari organisasi ini.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>17.</td>
<td>Menurut saya, dewasa ini orang terlalu sering berpindah dari satu organisasi ke organisasi lain.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>18.</td>
<td>Saya tidak percaya bahwa seseorang harus selalu setia pada organisasi tempat dia bekerja.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>19.</td>
<td>Menurut saya, berpindah dari satu organisasi ke organisasi lain sama sekali bukan merupakan sesuatu yang salah.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>20.</td>
<td>Salah satu alasan utama saya untuk terus bekerja di organisasi ini adalah karena saya percaya bahwa kesetiaan itu penting, sehingga saya merasa mempunyai kewajiban moral untuk tetap tinggal di organisasi ini.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>21.</td>
<td>Apabila saya mendapat tawaran pekerjaan yang lebih baik di tempat lain, saya tidak yakin bahwa keluar dari organisasi ini merupakan suatu pilihan yang tepat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>22.</td>
<td>Saya dididik untuk percaya akan arti penting kesetiaan terhadap satu organisasi.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>23.</td>
<td>Dahulu, segala sesuatu terasa lebih baik karena orang mau menghabiskan hampir seluruh kehidupan kariernya hanya pada satu organisasi.</td>
<td>1</td>
<td>2</td>
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<td>6</td>
<td>7</td>
</tr>
<tr>
<td>24.</td>
<td>Saya kira, keinginan untuk menjadi seorang yang mengabdi pada organisasi sudah bukan lagi merupakan pemikiran yang bijaksana.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
PETUNJUK


Silakan Anda ungkapkan tingkat kesetujuan atau ketidaksetujuan Anda terhadap setiap pernyataan dengan cara memberi tanda silang (X) pada salah satu alternatif jawaban yang Anda anggap paling tepat, yang terdapat di sebelah kanan masing-masing pernyataan, dengan ketentuan sebagai berikut:

- **0** = Salah Sama Sekali (SSS)
- **1** = Salah (S)
- **2** = Kurang Benar (KB)
- **3** = Agak Benar (AB)
- **4** = Benar (B)
- **5** = Sepenuhnya Benar (SB)

Sejauh mana tingkat kebenaran pernyataan-pernyataan tentang organisasi Anda berikut ini?

<table>
<thead>
<tr>
<th></th>
<th>SSS</th>
<th>S</th>
<th>KB</th>
<th>AB</th>
<th>B</th>
<th>SB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Segala upaya yang dilakukan oleh orang-orang di dalam organisasi ini umumnya ditujukan untuk kepentingan diri mereka sendiri</td>
<td>0</td>
<td>1</td>
<td>2</td>
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</tr>
<tr>
<td>2. Tanggung jawab utama orang yang bekerja di dalam organisasi ini adalah memikirkan efisiensi.</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<td>5</td>
</tr>
<tr>
<td>3. Di dalam organisasi ini, orang-orang diharapkan untuk berpedoman pada keyakinan mereka sendiri tentang apa yang benar untuk dilakukan.</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Orang-orang di dalam organisasi ini diharapkan untuk melakukan segala sesuatu demi terwujudnya keinginan organisasi.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Di dalam organisasi ini, orang-orang saling memperhatikan kesejahteraan mereka.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Nilai-nilai etika atau nilai-nilai moral pribadi seseorang tidak dipedulikan di dalam organisasi ini.</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Mematuhi aturan dan prosedur organisasi merupakan hal yang sangat penting di dalam organisasi ini.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Hasil suatu kerja di dalam organisasi ini akan dianggap kurang baik apabila hasil kerja tersebut dianggap mengganggu kepentingan organisasi.</td>
<td>0</td>
<td>1</td>
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<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>No.</td>
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<td>S</td>
<td>KB</td>
<td>AB</td>
<td>B</td>
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<tr>
<td>9.</td>
<td>Setiap orang di dalam organisasi ini memutuskan sendiri apa yang benar dan apa yang salah bagi dirinya.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>Di dalam organisasi ini, orang-orang menempatkan kepentingan pribadi mereka di atas pertimbangan-pertimbangan lainnya.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11.</td>
<td>Perhatian paling utama di dalam organisasi ini adalah apakah setiap orang sadar akan hal yang dianggap benar dan hal yang dianggap salah.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12.</td>
<td>Kesejahteraan seluruh orang di dalam organisasi menjadi kepedulian utama organisasi ini.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13.</td>
<td>Pertimbangan paling utama di dalam organisasi ini adalah apakah suatu keputusan bertentangan dengan nilai-nilai moral dalam agama</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14.</td>
<td>Orang-orang di dalam organisasi ini diharapkan untuk menempatkan kepatuhan pada nilai-nilai moral dalam agama atau standard profesi yang ada di atas pertimbangan-pertimbangan yang lain.</td>
<td>0</td>
<td>1</td>
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</tr>
<tr>
<td>15.</td>
<td>Semua orang di dalam organisasi ini diharapkan untuk mematuhi aturan dan prosedur organisasi.</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<td>4</td>
</tr>
<tr>
<td>16.</td>
<td>Apa yang terbaik bagi orang lain selalu menjadi perhatian utama organisasi ini.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>Di dalam organisasi ini, orang menempatkan kepentingan organisasi di atas segala-galanya.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>Orang-orang yang dianggap berhasil di dalam organisasi ini sangat patuh pada aturan organisasi</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19.</td>
<td>Cara yang paling efisien selalu dianggap sebagai cara yang benar di dalam organisasi ini.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20.</td>
<td>Di dalam organisasi ini, orang diharapkan untuk taat mengikuti pedoman yang sah menurut hukum atau pedoman yang ditentukan oleh profesi</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21.</td>
<td>Pertimbangan utama organisasi ini adalah apa yang terbaik bagi semua orang yang ada di dalam organisasi.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22.</td>
<td>Di dalam organisasi ini, orang berpedoman pada nilai-nilai moral pribadi mereka sendiri.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23.</td>
<td>Orang-orang yang dianggap berhasil di dalam organisasi ini sangat mematuhi ketetapan-ketetapan yang telah diputuskan oleh organisasi.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24.</td>
<td>Di dalam organisasi ini, hukum atau kode etik profesi menjadi perhatian yang paling utama.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>No.</td>
<td>Pernyataan</td>
<td>SSS</td>
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<td>KB</td>
<td>AB</td>
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</tr>
<tr>
<td>25.</td>
<td>Di dalam organisasi ini, setiap orang diharapkan untuk mengutamakan kerja efisien di atas segala-galanya.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26.</td>
<td>Di dalam organisasi ini, orang diharapkan untuk selalu melakukan apa yang tepat bagi mahasiswa dan masyarakat umum.</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<td>4</td>
</tr>
<tr>
<td>27.</td>
<td>Orang-orang di dalam organisasi ini memandang semangat kelompok sebagai suatu hal yang penting.</td>
<td>0</td>
<td>1</td>
<td>2</td>
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</tr>
<tr>
<td>28.</td>
<td>Orang-orang di dalam organisasi ini mempunyai rasa tanggung jawab yang besar terhadap masyarakat luar.</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<td>4</td>
</tr>
<tr>
<td>29.</td>
<td>Segala keputusan di dalam organisasi ini dinilai terutama berdasarkan atas sumber keputusan tersebut bagi kepentingan organisasi.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>30.</td>
<td>Orang-orang di dalam organisasi ini menunjukkan kepedulian mereka terhadap kepentingan mahasiswa dan masyarakat melalui tindakan-tindakan yang nyata.</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<td>4</td>
</tr>
<tr>
<td>31.</td>
<td>Orang-orang di dalam organisasi ini sangat peduli terhadap apa yang secara umum terbaik untuk karyawan</td>
<td>0</td>
<td>1</td>
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<td>3</td>
<td>4</td>
</tr>
<tr>
<td>32.</td>
<td>Apa yang terbaik bagi setiap orang sebagai pribadi menjadi perhatian utama organisasi ini</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>33.</td>
<td>Orang-orang di dalam organisasi ini sangat berkepentingan terhadap apa yang terbaik bagi diri mereka sendiri.</td>
<td>0</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>34.</td>
<td>Salah satu perhatian utama organisasi ini adalah dampak dari suatu keputusan terhadap mahasiswa dan masyarakat umum.</td>
<td>0</td>
<td>1</td>
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</tr>
<tr>
<td>35.</td>
<td>Ketika suatu keputusan akan dibuat, organisasi ini berharap agar keberadaan setiap orang jangan sampai terancam.</td>
<td>0</td>
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<td>4</td>
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<tr>
<td>36.</td>
<td>Pemecahan masalah secara efisien selalu diupayakan di sini.</td>
<td>0</td>
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<td>4</td>
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</tbody>
</table>
BAGIAN KEEMPAT

PETUNJUK

Berikut adalah serangkaian pernyataan yang masing-masing mencerminkan pendapat umum. Tidak ada jawaban yang benar maupun jawaban yang salah atas pendapat tersebut. Anda mungkin tidak setuju terhadap beberapa pernyataan namun setuju terhadap beberapa pernyataan yang lain. Kami hanya ingin mengetahui sejauh mana Anda tingkat kesetujuan atau ketidaksetujuan Anda terhadap masing-masing pendapat tersebut. Silakan Anda membaca secara seksama setiap pernyataan. Kemudian, Anda dimohon untuk mengungkapkan tingkat kesetujuan atau ketidaksetujuan Anda dengan cara memberi tanda silang (X) pada salah satu jawaban yang Anda anggap paling tepat, yang tersedia di sebelah kanan dari masing-masing pernyataan dengan ketentuan sebagai berikut:

1 = Sama Sekali Tidak Setuju (SSTS)    6 = Agak Setuju (AS)
2 = Sangat Tidak Setuju (STS)   7 = Setuju (S)
3 = Tidak Setuju (TS)   8 = Sangat Setuju (SS)
4 = Kurang Setuju (KS)  9 = Setuju Penuh (SP)
5 = Ragu-ragu (R)

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<table>
<thead>
<tr>
<th></th>
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<th>SSTS</th>
<th>STS</th>
<th>TS</th>
<th>KS</th>
<th>R</th>
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<td>8</td>
</tr>
</tbody>
</table>
```

1. Seseorang harus memastikan bahwa tindakannya tidak pernah dimaksudkan untuk merusak orang lain, sekecil apapun.
2. Risiko sekecil apapun yang akan ditanggung oleh pihak lain seharusnya tidak boleh dibiaran terjadi.
3. Kemungkinan timbulnya kerusakan pada pihak lain tetap merupakan hal yang tidak bisa dibenarkan, terlepas dari manfaat yang akan akan didapatkan.
4. Seseorang seharusnya jangan pernah menyakiti orang lain baik secara fisik maupun secara psikologis.
5. Seseorang tidak boleh melakukan tindakan yang bisa mengancam martabat dan kesejahteraan orang lain.
6. Jika suatu tindakan dapat membahayakan pihak yang tidak bersalah, seharusnya tindakan tersebut tidak boleh dilakukan.
7. Memutuskan suatu tindakan dengan cara memperbandingkan antara dampak positif dengan dampak negatif dari tindakan tersebut merupakan hal yang secara moral tidak bisa dibenarkan.
8. Di setiap masyarakat apapun, martabat dan kesejahteraan masing-masing anggotanya harus mendapat perhatian terpenting.
Terima kasih atas partisipasi Anda.
Mohon diperiksa sekali lagi.
Apakah masih ada nomor yang belum terisi lengkap?
# APPENDIX B-1
Organisational Commitment Questionnaire (original version)

| AC1  | 1   | I would be very happy to spend the rest of my career with this organization. |
| AC2  | 2   | I enjoy discussing my organization with people outside it. |
| AC3  | 3   | I really feel as if this organization’s problems are my own. |
| AC4  | 4   | I think that I could easily become as attached to another organization as I am to this one. ® |
| AC5  | 5   | I do not feel like “a part of the family” at my organization. ® |
| AC6  | 6   | I do not feel “emotionally attached” to this organization. ® |
| AC7  | 7   | This organization has a great deal of personal meaning for me. |
| AC8  | 8   | I do not feel a strong sense of belonging to my organization. ® |
| CC1  | 9   | I am not afraid of what might happen if I quit my job without having another one lined up. ® |
| CC2  | 10  | It would be very hard for me to leave my organization right now, even if I wanted to. |
| CC3  | 11  | Too much in my life would be disrupted if I decided I wanted to leave my organization now. |
| CC4  | 12  | It would not be too costly for me to leave my organization now. ® |
| CC5  | 13  | Right now, staying with my organization is a matter of necessity as much as desire. |
| CC6  | 14  | I feel that I have too few options to consider leaving this organization. |
| CC7  | 15  | One of the few serious consequences of leaving this organization would be the scarcity of available alternatives. |
| CC8  | 16  | One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice – another organization may not match the overall benefits I have here. |
| NC1  | 17  | I think that people these days move from organization to organization too often. |
| NC2  | 18  | I do not believe that a person must always be loyal to his or her organization. ® |
| NC3  | 19  | Jumping from organization to organization does not seem at all unethical to me. ® |
| NC4  | 20  | One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain. |
| NC5  | 21  | If I got another offer for a better job elsewhere I would not feel it was right to leave my organization. |
| NC6  | 22  | I was taught to believe in the value of remaining loyal to one organization. |
| NC7  | 23  | Things were better in the days when people stayed with one organization for most of their careers. |
| NC8  | 24  | I do not think that wanting to be a “company man” or a “company woman” is sensible anymore. ® |

Source: Allen and Meyer (1990, p.6-7).

Notes:
- ® = reverse keyed items.
- AC = affective commitment.
- CC = continuance commitment.
- NC = normative commitment.
### APPENDIX B-2

#### Ethical Climate Questionnaire (original version)

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI1</td>
<td>In this company, people are mostly out for themselves.</td>
</tr>
<tr>
<td>EC1</td>
<td>The major responsibility for people in this company is to consider efficiency first.</td>
</tr>
<tr>
<td>PI1</td>
<td>In this company, people are expected to follow their own personal and moral beliefs.</td>
</tr>
<tr>
<td>EL1</td>
<td>People are expected to do anything to further the company’s interests.</td>
</tr>
<tr>
<td>BI1</td>
<td>In this company, people look out for each other’s good.</td>
</tr>
<tr>
<td>EI2</td>
<td>There is no room for one’s own personal moral or ethics in this company.</td>
</tr>
<tr>
<td>PL1</td>
<td>It is very important to follow strictly the company’s rules and procedures here.</td>
</tr>
<tr>
<td>EL2</td>
<td>Work is considered sub-standard only when it hurts the company’s interests.</td>
</tr>
<tr>
<td>PI2</td>
<td>Each person in this company decides for himself what is right and wrong.</td>
</tr>
<tr>
<td>EI3</td>
<td>In this company, people protect their own interest above other considerations.</td>
</tr>
<tr>
<td>PI3</td>
<td>The most important consideration in this company is each person’s sense of right and wrong.</td>
</tr>
<tr>
<td>BL1</td>
<td>The most important concern is the good of all the people in the company.</td>
</tr>
<tr>
<td>PC1</td>
<td>The first consideration is whether a decision violates any law.</td>
</tr>
<tr>
<td>PC2</td>
<td>People are expected to comply with the law and professional standards over and above other considerations.</td>
</tr>
<tr>
<td>PL2</td>
<td>Everyone is expected to stick by company rules and procedures.</td>
</tr>
<tr>
<td>BI2</td>
<td>In this company, our major concern is always what is best for the other person.</td>
</tr>
<tr>
<td>EL3</td>
<td>People are concerned with the company’s interests to the exclusion of all else.</td>
</tr>
<tr>
<td>PL3</td>
<td>Successful people in this company go by the book.</td>
</tr>
<tr>
<td>EC2</td>
<td>The most efficient way is always the right way, in this company.</td>
</tr>
<tr>
<td>PC3</td>
<td>In this company, people are expected to strictly follow legal or professional standards.</td>
</tr>
<tr>
<td>BL2</td>
<td>Our major consideration is what is best for everyone in the company.</td>
</tr>
<tr>
<td>PI4</td>
<td>In this company, people are guided by their own personal ethics.</td>
</tr>
<tr>
<td>PL4</td>
<td>Successful people in this company strictly obey the company policies.</td>
</tr>
<tr>
<td>PC4</td>
<td>In this company, the law or ethical code of their profession is the major consideration.</td>
</tr>
<tr>
<td>EC3</td>
<td>In this company, each person is expected, above all, to work efficiently.</td>
</tr>
<tr>
<td>BC1</td>
<td>It is expected that you will always do what is right for the customer and public.</td>
</tr>
<tr>
<td>BL3</td>
<td>People in this company view team spirit as important.</td>
</tr>
<tr>
<td>BC2</td>
<td>People in this company have a strong sense of responsibility to the outside community.</td>
</tr>
<tr>
<td>EL4</td>
<td>Decisions here are primarily viewed in terms of contribution to profit.</td>
</tr>
<tr>
<td>BC3</td>
<td>People in this company are actively concerned about the customer’s, and the public’s interest.</td>
</tr>
<tr>
<td>BL4</td>
<td>People are very concerned about what is generally best for employees in the company.</td>
</tr>
<tr>
<td>BI3</td>
<td>What is best for each individual is a primary concern in this organization.</td>
</tr>
<tr>
<td>EI4</td>
<td>People in this company are very concerned about what is best for themselves.</td>
</tr>
<tr>
<td>BC4</td>
<td>The effect of decisions on the customer and the public are a primary concern in this company.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>BI4</td>
<td>35</td>
</tr>
<tr>
<td>EC4</td>
<td>36</td>
</tr>
</tbody>
</table>


Notes:

EI = Egoism – Individual
EL = Egoism – Local
EC = Egoism – Cosmopolitan
BI = Benevolence – Individual
BL = Benevolence – Local
BC = Benevolence – Cosmopolitan
PI = Principle – Individual
PL = Principle – Local
PC = Principle - Cosmopolitan
# APPENDIX B-3

Ethics Position Questionnaire (original version)

<table>
<thead>
<tr>
<th>IDE1</th>
<th>1. A person should make certain that their actions never intentionally harm another even to a small degree.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDE2</td>
<td>2. Risks to another should never be tolerated, irrespective of how small the risks might be.</td>
</tr>
<tr>
<td>IDE3</td>
<td>3. The existence of potential harm to others is always wrong, irrespective of benefits to be gained.</td>
</tr>
<tr>
<td>IDE4</td>
<td>4. One should never psychologically or physically harm another person.</td>
</tr>
<tr>
<td>IDE5</td>
<td>5. One should not perform an action which might in any way threaten the dignity and welfare of another individual.</td>
</tr>
<tr>
<td>IDE6</td>
<td>6. If an action could harm an innocent other, then it should not be done.</td>
</tr>
<tr>
<td>IDE7</td>
<td>7. Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.</td>
</tr>
<tr>
<td>IDE8</td>
<td>8. The dignity and welfare of people should be the most important concern in any society.</td>
</tr>
<tr>
<td>IDE9</td>
<td>9. It is never necessary to sacrifice the welfare of others.</td>
</tr>
<tr>
<td>IDE10</td>
<td>10. Moral actions are those which closely match ideals of the most “perfect” actions.</td>
</tr>
<tr>
<td>REL1</td>
<td>11. There are no ethical principles that are so important that they should be a part of any code of ethics.</td>
</tr>
<tr>
<td>REL2</td>
<td>12. What is ethical varies from one situation and society to another.</td>
</tr>
<tr>
<td>REL3</td>
<td>13. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.</td>
</tr>
<tr>
<td>REL4</td>
<td>14. Different types of moralities cannot be compared as to “rightness”.</td>
</tr>
<tr>
<td>REL5</td>
<td>15. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individuals.</td>
</tr>
<tr>
<td>REL6</td>
<td>16. Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others.</td>
</tr>
<tr>
<td>REL7</td>
<td>17. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.</td>
</tr>
<tr>
<td>REL8</td>
<td>18. Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.</td>
</tr>
<tr>
<td>REL9</td>
<td>19. No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends upon the situation.</td>
</tr>
<tr>
<td>REL10</td>
<td>20. Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.</td>
</tr>
</tbody>
</table>


Notes:
IDE = idealism;
REL = relativism.
### APPENDIX C-1
Organisational Commitment Questionnaire (back-translated version)

| AC1 | I am happy to spend the rest of my career in this organisation |
| AC2 | I feel delighted when talking about my organisation to people outside. |
| AC3 | I really feel that the problems of this organisation are also my own ones. |
| AC4 | I think that I can be easily attached to another organisation as easy as I am to this one. |
| AC5 | I do not feel like “a part of the family” at my organisation. |
| AC6 | I do not feel “emotionally attached” to this organisation. |
| AC7 | This organisation holds much personal meaning for me. |
| AC8 | I do not feel a strong sense of belonging to my organisation. |
| CC1 | I am not afraid of what might happen if I quit my job without having another job waiting for me. |
| CC2 | At this moment, it would be very hard for me to leave my organisation even if I wanted to. |
| CC3 | My life will be too disturbed if I decide to leave my organisation. |
| CC4 | Leaving this organisation would not be a big loss for me. |
| CC5 | I keep on working for this organisation because I need to and I want to. |
| CC6 | I feel that because I only have a few options it would be difficult for me to consider leaving this organisation. |
| CC7 | One of the severe effects of leaving this organisation would be the scarcity of available job alternatives outside. |
| CC8 | One of my reasons for continuing to work for this organisation is that leaving it would require a great deal of personal sacrifice – another organisation might not provide the overall benefits that I gain from this organisation. |
| NC1 | In my view, nowadays people move from one organisation to another too often. |
| NC2 | I do not believe that a person must always be loyal to the organisation he/she works for. |
| NC3 | In my view, moving from one organisation to another is not wrong at all. |
| NC4 | One of the main reasons I continue to work for this organisation is because I believe that loyalty is important so that I feel I have a moral obligation to stay in this organisation. |
| NC5 | If I got a better job offer in another place, I do not think that leaving this organisation is the right choice to make. |
| NC6 | I was taught to believe in the importance of loyalty to only one organisation. |
| NC7 | In the past, things were better as people were willing to spend the rest of their careers in one organisation. |
| NC8 | I do not think wanting to be a person who dedicates his/her life to an organisation is sensible anymore. |

**Notes:**
- AC = affective commitment;
- CC = continuance commitment;
- NC = normative commitment
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI1</td>
<td>People in this organisation put all their efforts into doing everything for themselves.</td>
</tr>
<tr>
<td>EC1</td>
<td>The primary responsibility of people in this organisation is thinking of efficiency first.</td>
</tr>
<tr>
<td>PI1</td>
<td>In this organisation, people are expected to follow their own personal beliefs of what they think is right to do.</td>
</tr>
<tr>
<td>EL1</td>
<td>In this organisation, people are expected to do anything to advance the organisation’s interests.</td>
</tr>
<tr>
<td>BI1</td>
<td>In this organisation, people pay attention to each other’s good.</td>
</tr>
<tr>
<td>EI2</td>
<td>One’s own personal moral or ethical values are not acknowledged in this organisation.</td>
</tr>
<tr>
<td>PL1</td>
<td>Following strictly the organisation’s rules and procedure is very important here.</td>
</tr>
<tr>
<td>EL2</td>
<td>Work is considered poor here if it hurts the organisation’s interests.</td>
</tr>
<tr>
<td>PI2</td>
<td>Each person in this organisation decides for him/herself what is right or wrong.</td>
</tr>
<tr>
<td>EI3</td>
<td>In this organisation, people put their own interests above other considerations.</td>
</tr>
<tr>
<td>PI3</td>
<td>The most important consideration in this organisation is whether each individual is aware of right and wrong.</td>
</tr>
<tr>
<td>BL1</td>
<td>The most important concern in this organisation is the good of all the people in the organisation.</td>
</tr>
<tr>
<td>PC1</td>
<td>The first consideration in this organisation is whether a decision is against the religious laws.</td>
</tr>
<tr>
<td>PC2</td>
<td>People in this organisation are expected to act in accordance with the religious laws or professional standards over other considerations.</td>
</tr>
<tr>
<td>PL2</td>
<td>Everyone in this organisation is expected to obey the organisation rules and procedures.</td>
</tr>
<tr>
<td>BI2</td>
<td>What is best for other people is always the main concern of this organisation.</td>
</tr>
<tr>
<td>EL3</td>
<td>In this organisation, people put the organisation’s interests above anything else.</td>
</tr>
<tr>
<td>PL3</td>
<td>Successful people in this organisation strictly follow the rules.</td>
</tr>
<tr>
<td>EC2</td>
<td>The most efficient way is always the right way in this organisation.</td>
</tr>
<tr>
<td>PC3</td>
<td>In this organisation, people are expected to strictly follow legal or professional standards.</td>
</tr>
<tr>
<td>BL2</td>
<td>The main consideration of this organisation is what is best for everyone in the organisation.</td>
</tr>
<tr>
<td>PI4</td>
<td>In this organisation, people are guided by their own personal moral values.</td>
</tr>
<tr>
<td>PL4</td>
<td>Successful people in this organisation strictly obey the organisational policies.</td>
</tr>
<tr>
<td>PC4</td>
<td>In this organisation, the law or the codes of ethics of professions is the major consideration.</td>
</tr>
<tr>
<td>EC3</td>
<td>In this organisation, people are expected to put efficient work above anything else.</td>
</tr>
<tr>
<td>BC1</td>
<td>In this organisation, people are always expected to do what is right for students and public.</td>
</tr>
<tr>
<td>BL3</td>
<td>People in this organisation view team spirit as important.</td>
</tr>
<tr>
<td>BC2</td>
<td>People in this organisation have a strong sense of responsibility to the outside community.</td>
</tr>
<tr>
<td>EL4</td>
<td>Decisions here are primarily considered in terms of their contribution to the organisation’s benefits.</td>
</tr>
<tr>
<td>BC3</td>
<td>People in this organisation show their concern about the students’ and the public’s interests through real actions.</td>
</tr>
<tr>
<td>Code</td>
<td>No.</td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>BL4</td>
<td>31</td>
</tr>
<tr>
<td>BI3</td>
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</tr>
<tr>
<td>EI4</td>
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<tr>
<td>BC4</td>
<td>34</td>
</tr>
<tr>
<td>BI4</td>
<td>35</td>
</tr>
<tr>
<td>EC4</td>
<td>36</td>
</tr>
</tbody>
</table>

Notes:
- **EI** = Egoism – Individual
- **EL** = Egoism – Local
- **EC** = Egoism – Cosmopolitan
- **BI** = Benevolence – Individual
- **BL** = Benevolence – Local
- **BC** = Benevolence- Cosmopolitan
- **PI** = Principle – Individual
- **PL** = Principle – Local
- **PC** = Principle – Cosmopolitan
APPENDIX C-3
Ethics Position Questionnaire (back-translated version)

| IDE1 | 1. A person should make sure that his/her action never harms other people on purpose, even to a small degree. |
| IDE2 | 2. Risks to other people, even to a small degree, should not be accepted. |
| IDE3 | 3. The possibility of causing harm to other people is unacceptable, regardless of the benefits to be gained. |
| IDE4 | 4. A person should never physically and psychologically hurt other people. |
| IDE5 | 5. A person should not do an action which can threaten other people’s dignity and welfare. |
| IDE6 | 6. If an action could harm an innocent individual, it should not be done. |
| IDE7 | 7. Deciding whether to perform an action by weighing the positive and the negative impacts of the action is wrong. |
| IDE8 | 8. In any society, the dignity and welfare of its members should be the most important concern. |
| IDE9 | 9. Sacrificing other people’s welfare is unnecessary at any time. |
| IDE10 | 10. Moral actions are the ones that are closely in line with the principles of the most perfect actions. |
| REL1 | 11. There are no ethical principles of such great importance that they should be included as part of any code of ethics. |
| REL2 | 12. What is considered right can be different from one situation and society to another. |
| REL3 | 13. Judgment pertaining to right or wrong actions should be seen as interpreted individually because what is considered right by one person may be understood as wrong by another. |
| REL4 | 14. Different standards of right or wrong of an action cannot be compared to determine which one is more correct. |
| REL5 | 15. Questions of what is right for everyone can never be answered since what is considered to be right or wrong is up to each individual. |
| REL6 | 16. Judgments pertaining to right or wrong of an action only serves as personal guide for individuals’ conducts and are not to be used for judging others. |
| REL7 | 17. Ethical considerations in interpersonal relations are so complex that a person should be allowed to formulate a norm for his/her own behavior. |
| REL8 | 18. Clearly and rigidly formulating a view of certain actions that are allowed and not allowed to do can prevent people from enjoying better interaction and adjustment. |
| REL9 | 19. No rule of lying can be clearly formulated, whether a person is allowed to lie or not is dependent upon the situation. |
| REL10 | 20. To consider whether lying is a right or wrong action is dependent upon the situation surrounding the action. |

Notes:
IDE = idealism;
REL = relativism
To Whom It May Concern:

I write to formally introduce to you a Doctoral candidate at the University of Notre Dame, Australia – Mr. Martinus Parnawa Putranta. Parnawa has recently successfully defended his research proposal to external examiners and has been given Ethics Committee approval to begin the next part of his field research. His PhD thesis is entitled “An Examination of the Relationship Between Ethical Climate and Organisational Commitment.” Parnawa’s thesis will involve a self-administered questionnaire to be sent to participants – academic and administrative staff – at a number of Catholic and Christian educational institutions in Indonesia.

I would be most grateful if you could extend your support to Parnawa by allowing him access to your institution. A questionnaire will be sent to staff members at your institution. There will be no requirement for anyone to complete this – it will be entirely voluntary. However, I believe that Parnawa’s project is an important one and it could play an important practical role in Indonesian education. Once again, I urge you to support this project.

If you have any questions I would be most happy to answer them. Please feel free to contact me at: bmooney@nd.edu.au

Yours Sincerely,

T. Brian Mooney

02/07/2004

Associate Professor T. Brian Mooney
APPENDIX E
A sample of official letters from the Rector of Atma Jaya Yogyakarta University to the Rector of the host institution to request permission for data collection

UNIVERSITAS ATMA JAYA YOGYAKARTA
Rektor

Yogyakarta, 14 Juni 2005

Hal : permohonan ijin penelitian

Kepada
Yth. Ibu Bernadetta N. Seldadji, Ph.D
Universitas Katolik Atma Jaya
Jl. Jenderal Sudirman 51
Jakarta

Dengan hormat,

Salah seorang staf kami, Dr. Martinus Pamawati Putranto, MBA, saat ini sedang melakukan penelitian untuk penulisan disertasi doktor di the University of Notre Dame, Fremantle, Western Australia. Untuk itu, Sdr. Pamawati memerlukan bantuan partisipasi karyawan akademis dan non-akademis dari institusi yang Bapak/ibu pimpin untuk mengisi kuesioner yang sudah dirancang.

Secara umum, penelitian yang dilakukan oleh Sdr. Pamawati bertujuan untuk mengkaji hubungan antara filsafat moral individu, ilmu etika organisasi serta kode etik organisasi dengan komitmen organisasional pada karyawan dari perguruan tinggi-kurun parsektn yang menurutnya tidak terlalu baik. Hal ini sejalan dengan kebutuhan untuk mendorong peningkatan etika dan komitmen karyawan dalam memenuhi kemampuan karyawan dalam institusi yang mereka pimpin.

Usulan penelitian, rancangan kuesioner, beserta surat pengantar dari Professor Anthony Ryan, PhD - the Dean of Research and Quality Management the University of Notre Dame Australia, terlampir dalam surat ini.

Seperti yang telah disampaikan oleh Professor Anthony Ryan, PhD, penelitian ini sudah mendapatkan persetujuan dari Research Ethics Committee, the University of Notre Dame Australia. Untuk itu, kami mohon Bapak/ibu berkonsultasi dengan posisi ini kepada staf kami tersebut untuk melakukan penelitian di institusi yang Bapak/ibu pimpin. Sehingga, penelitian ini selesai, ringkasan hasilnya dapat diinformasikan ke pada Bapak/ibu jika menghendakinya.

Demikian permohonan kami. Atas diijinkannya permohonan tersebut, sebelum dan sesudahnya kami ucapkan terima kasih.

Hormat kami,

[Signature]

[Name: Rektor]

Universitas Atma Jaya Yogyakarta

Jl. Bataisari No. 44 Yogyakarta 55291 Indonesia Kotak Pos 1066
Tel. +62-274-877711 Fax +62-274-857746
Website : //www.ua.y.ac.id E-mail : rektorat@mail.ua.y.ac.id

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APPENDIX F
A sample of official letters from the Dean of Research and Quality Management of the University of Notre Dame Australia to the Rector of the host institution to request permission for data collection

15 December 2004
Dr. Slamet Santoso Sarwono, MBA
Universitas Atma Jaya Yogyakarta
Jl. Babarsari 44
Yogyakarta
INDONESIA, 55281

Dear Dr Sarwono,

I write to introduce Mr. Martinus Parnawa Putranta to you. Mr. Putranta has recently successfully presented his research proposal to independent examiners and the University’s Research Thesis Committee has formally confirmed his candidature for the degree of Doctor of Philosophy at the University of Notre Dame Australia.

Mr Putranta’s PhD thesis is entitled ‘An Examination of the Relationship between Personal Moral Philosophy, Ethical Climate, Code of Ethics and Organisational Commitment’. Professor Brian Mooney, the Head of School of Philosophy and Ethics, is supervising his doctoral research.

The University of Notre Dame Australia is required to meet the most stringent ethical standards specified by the Australian Government’s National Health and Medical Research Council in respect of all research on human subjects that is being done by the University’s staff or postgraduate students. The University has duly scrutinised all aspects of the design and administration of the questionnaire surveys that Mr Putranta will be using in his research and has satisfied itself that they meet all of the required ethical protections. The University has accordingly authorised Mr Putranta to approach the universities he wishes to include in his sample and to request their participation.

Mr Putranta will be returning to Indonesia to conduct his research between January and October 2005. His principal data collection will involve the use of a well-researched and validated questionnaire that he hopes will be completed voluntarily by a sample of staff at your institution and a number of other Catholic higher educational institutions in Indonesia.

The University of Notre Dame Australia would be most grateful if you could extend your support to Mr Putranta by allowing him access to your institution for identification of his sample and distribution of the questionnaire. The University of Notre Dame Australia is confident that the findings likely to emerge from his research could play an important role in the further enhancement of Catholic higher education, both in Indonesia and elsewhere.

Should you have any questions about any aspect of Mr Putranta’s study, please feel free to contact me at tryan@nd.edu.au.

Mr Putranta and I look forward to your response to this request.

Yours sincerely,

[Signature]

Professor Anthony Ryan, PhD
Dean of Research and Quality Management
## APPENDIX G

### Missing data for constructs

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Missing Data (Amount)</th>
<th>Missing Data (%)</th>
<th>Case Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affective commitment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>1</td>
<td>0.2</td>
<td>6</td>
</tr>
<tr>
<td>2.3</td>
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