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Measurement and structural properties of organizational codes of ethics in private and public Sweden

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Abstract

Purpose – The purpose of this paper is to test the measurement and structural properties in a model of organizational codes of ethics (OCE) in Sweden.

Design/methodology/approach – The measurement and structural properties of four OCE constructs (i.e. surveillance/training, internal communication, external communication, and guidance) were described and tested in a dual sample based upon private and public sectors of Sweden.

Findings – Results show that the measurement and structural models of OCE in part have a satisfactory fit, validity, and reliability.

Research limitations/implications – The paper makes a contribution to theory as it outlines a set of OCE constructs and it presents an empirical test of an OCE model in respect to measurement and structural properties. A number of research limitations are provided.

Practical implications – It provides a model to be considered in the implementation and monitoring of OCE. The present research provides opportunities for further research in refining, extending, and testing the proposed OCE model in other cultural and organizational settings.

Originality/value – The OCE model extends previous studies that have been predominately descriptive, by using confirmatory factor analysis and structural equation modeling.

Article Type:

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Keyword(s):

Ethics; Business ethics; Organizations; Public sector organizations; Private sector organizations; Sweden.
Introduction

In a model that goes beyond philosophically based ethics, Stajkovic and Luthans (1997) use social-cognitive theory as a means to identify factors that influence business ethics standards and conduct. They propose that a person’s perception of ethical standards and subsequent conduct is influenced by institutional factors (e.g. ethics legislation), personal factors (e.g. moral development), and organizational factors (e.g. code of ethics). Even from a cross-cultural perspective, these key antecedents influence the ethical standards of people and organizations (Stajkovic and Luthans, 1997). An “organizational code of ethics” (OCE) is an important organizational factor and as such is the focus of the research that is reported in this study. Ethics research undertaken within the public sector, whilst growing, has not been consistent nor systematic in its focus (Lawton, 2009). Much of this research has focused on culture (Pratchett and Wingfield, 1996; Hebson et al., 2003), motivation and behavior (Perry, 1997; Smith, 2003), or perceptions (Vigoda-Gadot, 2006). Fundamental research into the antecedents of these consequences, i.e. the existence and structural properties of OCE, will provide a sound base for further, more systematic, research in this area.

Berenbeim (2000) cites three trends as evidence of the growing importance of OCE. First because of the globalization of markets there is the need for core principles that are universally applicable. Second, there is a growing acceptance of ethics codes as part of corporate governance as illustrated by increased participation of boards in the development of these codes. While some have suggested that globalization has led to increased competition, which in turn may have led to unethical organizational conduct, and others have suggested an increase in unethical behaviour, in and of itself has resulted in more OCEs, the position of this paper is that globalization has directly facilitated the proliferation of organizational ethics programs via the inherent policies, procedures, and culture possessed by international and multinational corporations, originally from countries where OCEs are mandated. This paper does not seek to establish the success or failure of OCEs on a worldwide scale, but is seeking to explain their existence and purpose. Hence, an OCE is viewed as an important instrument in developing ethical standards in organizations in areas such as surveillance and training, internal and external communications, and guidance (e.g. Svensson et al., 2009). These areas are described further in the theoretical framework presented in this paper. This framework is, in part, based upon Wood's (2002) partnership model of corporate ethics and is uniquely different from Singhapakdi and Vitell (2007) who focused on the “institutionalization of ethics” and its consequences. Their definition of institutionalization is limited to the degree to which an organization explicitly and implicitly incorporates ethics into its decision-making processes. This study examines the measurement and structural properties between other constructs, such as surveillance/training, internal communication, external communication, and guidance in large organizations.

The research objective is to test the measurement and structural properties of a proposed OCE model. We examine the inherent measurement and structural properties of the OCE put in place by the largest organizations in private and public Sweden.

Measurement and structural models

This section details the measurement and structural models of the present study based upon previous studies and theory to test the OCE model. It is divided into three areas:

1. surveillance/training;
2. internal/external communication; and
3. guidance.

These areas, each consisting of a series of indicators (manifest variables), form the basis of the latent constructs to be tested in the measurement and structural models of OCE.

**Surveillance/training of OCE**

Surveillance and training are crucial elements in establishing, maintaining, and enhancing an OCE and as such they may be considered components of a primary latent construct. A construct of surveillance/training of OCE may consist of a number of aspects suitable for use as indicators and measurement of the construct.

Two aspects of interest within a construct of surveillance/training of OCE are the establishment of an ethics training committee and employee training in ethics. These two areas in ethics are linked from a theoretical perspective because one cannot just expect individuals to be ethical to the level of organizations' expectations without having some training (Wood *et al.*, 2004). Numerous authors have advocated the use of training programs as a means of institutionalizing ethics within the organization (Axline, 1990; Dean, 1992; Harrington, 1991; Lacznia and Murphy, 1991; Maclagan, 1992; McDonald and Zepp, 1990; Rampersad, 2003; Schwartz, 2002; Sims, 1992; Trevino and Brown, 2004; Wood, 2002). The intention of an ethics training committee would be to provide the focus and initiative to expose employees to ethical dilemmas in business situations that they might face while employed by a certain organization. In application, training is similar to the surveillance function. Without training and education, one may argue that the desire to incorporate an ethical perspective into the business practices of employees will only be a hope that cannot be translated into reality.

Furthermore, if OCE is important to the organization, then an ethics committee may have been contemplated within that organization in order to take appropriate action to insure ethical behavior (Center for Business Ethics, 1986; McDonald and Zepp, 1989; Rampersad, 2003; Weber, 1981). Similarly, organizations may need individuals who are designated to be in charge of their OCE – such as an ethics ombudsman – so that individuals within the organization who have genuine concerns about ethics can feel free to voice these concerns to an independent arbiter (Anand *et al.*, 2005; Wood *et al.*, 2004). According to the Ethics and Compliance Officer Association (ECOA), which was founded in 1992 by a dozen ethics officers, the organization now has over 1,000 members representing nearly every industry. These organizations conduct business in over 160 countries and the member organizations include more than half of the *Fortune* 1000 (ECOA, 2007). If an organization has a person designated as a confidante to whom employees can go to with their ethical concerns, then hopefully employees will be encouraged to volunteer information about unethical practices that they perceive are detrimental to the organization. It would seem that having such a position in place within the organization can only but enhance the ethical health of that organization; thus, further supporting surveillance/training as a crucial construct of OCE.

The construct of surveillance/training in the context of OCE is defined as consisting of four elements derived from previous studies and theory, namely:

1. ethics training committee;
2. employee training in ethics;
3. ethics committee; and
4. ethics ombudsman.

We posit that the construct of surveillance/training is closely related to other potential latent constructs derived from previous studies and theory in the field, such as the internal and external communication of OCE. We also posit that surveillance/training is related to a construct of guidance of OCE. The additional key constructs to OCE are discussed as follows.

**Internal and external communications of OCE**

Internal and external communications are crucial elements communicating an OCE within and outside the organization, and as such they may be considered components of two primary latent constructs. The constructs of internal and external communications of OCE may consist of a number of separate elements suitable for use as indicators and measurement of the constructs.

**Internal communication**

The use of internal communications are stressed in Wood's (2002) partnership model of OCE and are also considered important aspects of a framework developed by Svensson et al. (2004) to explore the ethos of OCE in large organizations from the perspective of how it is communicated. In addition, Singh et al. (2005) examine OCE in Australia, Canada, and Sweden and it is apparent that these codes may be used to communicate the ethos to employees of an organization. Finally, Stevens (1999), in a study of employees at two American hotels, identified training programs, coaching employees, reading manuals, and ethics codes as the top four sources from which employees learned about ethics. All of these items are key ways to communicate OCE to employees.

Similarly, new employees also need special orientation and communication concerning OCE. In support, Stevens (1999) found that employees learned about ethics codes from new employee orientation programs and reading employee handbooks.

A number of authors (Fraedrich, 1992; Schwartz, 2002; Sims, 1991; Stoner, 1989; Trevino and Brown, 2004) suggest that within an OCE one should outline and communicate enforcement provisions for those individuals who may not uphold the code, referred to as consequences of violation. By having procedures to address and communicate a breach of the code, an organization signals to its employees the necessity to abide by the code for the sake of both themselves and the organization.

Furthermore, there are important factors in successfully exposing unethical practices. First, employees need to know with whom they can honestly communicate about ethical issues. Second, protecting the integrity of the person against whom the complaint is made is important. Finally, the person making the complaint should usually be guaranteed that there will be no repercussion from the complaint (Gellerman, 1989; Labich, 1992; Stoner, 1989; Wood and Callaghan, 2003). By its very nature, whistle blowing is a dangerous path to take for any employee. Even though organizations may have procedures in place to protect the whistle blower, the act of whistle blowing, the act of communicating wrongdoings, has historically been fraught with personal danger and the ever-present threat of recrimination (Keenan, 1995; Keenan and Krueger, 1992; McLain and Keenan, 1999; Miceli and Near,
1984; Miceli et al., 1991). The organization must communicate via formal guidelines how it will support whistle blowers in order to set standards to ensure that either ethical violations or breaches will be reported, reviewed, and corrected.

Therefore, based on the literature the construct of internal communication in the context of OCE consists of four aspects:

1. communication to existing employees;
2. communication with new employees;
3. communication about the consequences for violation; and
4. communication about the support to whistle blowers.

It is predicted that the construct of internal communication is closely related to the constructs of surveillance/training because of the need for harmony and balance between what is established, maintained, and enhanced internally/externally through surveillance/training. Consequently, the primary purpose of our defined construct of internal communication is to inform and communicate with employees. In sum, internal communication is considered to be an important construct in the field of OCE to inform and communicate within the organization.

External communication

A number of writers (Benson, 1989; Fraedrich, 1992; Murphy, 1988; Stead et al., 1990; Townley, 1992; Wood, 2002) have suggested that codes should be public documents that have an external as well as an internal focus and that organizations should be cognizant of the relationship of the organization with all stakeholders. Therefore, OCE should be displayed for other stakeholders in addition to their own employees. It may be done via web sites or other accessible displays linked to the organization. An organization's customers and suppliers should be informed of the existence of the organization's code. Wood and Callaghan (2003) concluded that OCEs are communicated to customers and suppliers either formally or informally or in some cases both.

Based on previous research, the construct of external communication in the context of OCE consists of three communication aspects:

1. inform suppliers;
2. inform customers; and
3. display the OCE for all stakeholders to view.

The construct of external communication is also closely related to the constructs of internal communication and surveillance/training as there is the similar need for harmony and balance between what is, established, maintained, and enhanced internally/externally through surveillance/training. Consequently, the primary purpose of external communication is to inform and communicate with suppliers, customers, and other stakeholders in the marketplace/society. In other words, external communication is an important construct in the context of OCE to inform and communicate outside of the organization.

Finally, it is predicted that the constructs of internal/external communications are related to the construct of surveillance/training, which is an endogenous latent construct to guidance described and defined in the next paragraph.
**Guidance function of OCE**

Guidance is a crucial element in the monitoring and the follow-up of an OCE and as such it may be considered one of the primary latent constructs in conjunction with the others derived from previous studies and theory (i.e. surveillance/training, internal communication, and external communication). It may consist of a number of aspects suitable for use as indicators and measurement of the construct.

An OCE may provide guidance to resolve ethical dilemmas that arise in the marketplace and society. Wood *et al.* (2004) found that approximately half of the organizations surveyed in their study claimed to use their code to guide the resolution of ethical problems in the marketplace. If codes are not used to resolve ethical problems in the marketplace, then one must wonder how the codes are used for in organizations. Some suggest that codes of ethics are simply regulatory documents (e.g. Mathews, 1987; Lefebvre and Singh, 1992; Wood, 2000). Yet others suggest that ethics codes can be used more effectively than just as a regulatory requirement. For example, Wood *et al.* (2004) examined how organizations used their OCE to assist them in the marketplace via several areas of daily business practices. The most common areas in which these organizations had utilized the code in the marketplace were in respect to customers, suppliers, and the environment. They also found that a large proportion of the organizations indicated that they were convinced that their OCE had a positive impact on the bottom line.

A crucial indicator in the intent to monitor and support an OCE is as a guide to strategic planning. Robin and Reidenbach (1987) suggested a method for closing the gap that they perceived existed between concept and practice in the area of ethics and organizational planning. They advocated that an organization that is committed to ethics should inculcate those espoused organization values into the strategic planning process. The focus of their attention was upon strategic marketing planning, but the principles that they proposed can be adapted to all forms of strategic planning in organizations. If organizations accept that it is good organizational practice to align their codes with their strategic planning processes, then they should not only use the ethos of the code as a guide in their strategic planning process but they must make that final comparison of the strategic plan against the code. What if the final plans and the codes are incompatible? How then does one guard against this situation and ensure that the plan not matching the espoused ethical stance of the organization does not occur? Surely as a part of good governance, all organizations should make an obligatory check to be sure of consistency in these areas. Congruence between the strategic plan, which drives the organization's actions, and the espoused ethical views of the organization should also make it easier for employees to act in the marketplace. The organization's ethical views should not clash with the strategic view of the organization (Wood and Callaghan, 2003).

Another aspect of the construct of guidance of OCE is ethical performance appraisal. The view that organizations should formalize the criterion for employee appraisal is supported by Fraedrich (1992), Harrington (1991), Laczniaik and Murphy (1991) and Trevino and Brown (2004). Harrington (1991), in common with Fraedrich's (1992) idea, suggests that ethical decision making should become a part of the performance appraisal of individuals. This idea is a commendable one in that it integrates ethics into one's perceived organizational performance; it is another way of rewarding ethical behavior and discouraging unethical behavior. The concern is the way in which this process would be implemented and its probable vagaries and abuses. Like all performance appraisals that are not necessarily based upon quantifiable data, the subjective opinion of the manager could be imposed upon the
individual subordinate. Consequently, the organization places a lot of trust and faith in line supervisors. Therefore, this process would need to be scrutinized in great detail before its introduction and would need to be monitored once it has been introduced. However, the general principle is that the ethical performance appraisal of employees should be considered as an indicator of a construct of guidance in OCE.

Based on previous studies, the construct of guidance in the context of OCE consists of four aspects:

1. guidance with ethical dilemmas in the marketplace;
2. guidance with the bottom line;
3. guidance to strategic planning; and
4. guidance on ethical performance as a criterion for employee appraisal.

It is predicted that the surveillance/training function of OCE is related positively to the guidance of OCE. The construct of guidance may be seen as an outcome of the construct of surveillance/training of OCE, and the construct of surveillance/training may be seen as having a strong relationship with the constructs of internal communication and external communication. In sum, the construct of guidance is defined as an endogenous construct in OCE, while the others described previously are exogenous.

**Measurement and structural models summary**

As a result of the above measurement and structural properties of the OCE model, the constructs surveillance/training, internal communication, external communication, and guidance are positioned as essential elements in conjunction to OCE. The previous studies and theory addressed above disclosed the distinction and definitions of our four constructs of OCE:

1. Surveillance/training refers to the artifacts in place (such as standing ethics committee, ethics training committee, staff training, and ethics ombudsman) that may contribute to the establishment, maintenance, and enhancement of a OCE within the organisation (Anand et al., 2005; Axline, 1990; Crotts et al., 2005; Dean, 1992; Harrington, 1991; Laczniak and Murphy, 1991; Maclagan, 1992; McDonald and Zepp, 1990; Rampersad, 2003; Weber, 1981; Wood et al., 2004).
2. Internal communication refers to the policies and procedures in place (such as information and communication to staff, consequences of violation of the code, and support to whistleblowers within the organization) to support and regulate the OCE within the organization (McLain and Keenan, 1999; Miceli et al., 1991; Labich, 1992; Singh et al., 2005; Stevens, 1999; Schwartz, 2002; Sims, 1991; Stoner, 1989).
3. External communication refers to the artifacts in place (such as information and communication to suppliers, customers, and other stakeholder outside of the organization) to spread the message of the OCE outside the organization (Benson, 1989; Fraedrich, 1992; Gellerman, 1989; Murphy, 1988; Stead et al., 1990; Townley, 1992).
4. Guidance of refers to the artifacts in place (e.g. effectiveness of the code, resolving ethical dilemmas, guide in strategic planning employee appraisal) to monitor and follow-up the OCE of the organization (Laczniak and Murphy, 1991; Lefebvre and Singh, 1992; Robin and Reidenbach, 1987; Trevino and Brown, 2004; Wood, 2000; Wood et al., 2004).
Subsequently, this study tests the measurement properties of the constructs of surveillance/training, internal communication, external communication, and guidance in the OCE model. The structural properties are also tested whereby the construct of surveillance/training of OCE is hypothesized to be positively related to the construct of guidance of OCE.

**Methodology**

The methodology of this research is based upon two sectors, namely the private and public sectors of Sweden – that is, a dual sample. The need for some methodological adaptations of the survey were required, all of which are described in this section.

The human resource managers were selected based on previous work by Wood (2000) who sent a similar study to public relations managers in Australia. Wood (2000) had noticed that previous studies of codes of ethics around the world had been sent to Chief Executive Officers, with in many cases response rates of much lower than 50 per cent. In 2000, Wood received a response rate of 68 per cent to his survey. He had chosen public relations managers as in his opinion they were more likely to respond to this issue than CEOs, who would just push the inquiry down to other parts of the organization. Furthermore, HRMs are more likely to be aware of OCEs and more informed about them. OCEs are likely to be more valuable to them in achieving their (more specific) goals (than CEO’s). In the public sector in Sweden, public relations managers are not as abundant and the ethics function, if there is one, tends to rest with the human resource managers, hence, it was decided to survey human resource managers.

The survey document in the private sector was sent to the human resource managers of the top 500 organizations (based on revenue) operating in the private sector (SCB, 2005): firms that, for several reasons such as size of turnover, employee numbers, and business profile, are more probable to have developed a formal code of ethics (Brytting, 1997). Organizations were asked to answer the same questions and to supply a copy of their code of ethics. The sample was corrected to 443 organizations due to multiple addressees in the procured organization list (SCB, 2005). The response rate was 42 per cent after this correction with 185 organizations returning the completed questionnaire and 113 organizations acknowledging that they had a code of ethics.

The public sector is divided into three categories of public sector organizations:

1. entities of government;
2. county councils; and
3. municipalities.

First, a questionnaire was sent to the largest 40 entities of government out of 277, the largest 40 municipalities out of 289, and 20 county councils out of 20. Consequently, the sample consists of the 100 largest public sector organizations across the mentioned categories. The selection of these organizations was based upon their size in terms of revenue in the public sector (SCB, 2005). The package sent to each of the public sector organizations also contained a covering letter and a questionnaire. This was done in the hope that these professionals are focused on staff concerns and that they may have been more knowledgeable and committed to the task at hand than other organizational functionaries. Each respondent
was also assured of complete anonymity as the results were to be aggregated. The response rate achieved would seem to vindicate this choice.

Each respondent at each public sector organization was initially contacted by phone in order to confirm their appropriateness to respond to the questionnaire, and at the same time to promote the importance of the survey. Each respondent was also briefly introduced to the research project to stimulate his or her interest and willingness to participate in the survey. Those human resource managers who initially did not answer the questionnaire were contacted again by telephone in order to stimulate their interest to fill in the required answers. The close attention to this part of the research led to the achievement of a high response rate. The response rate was 96 per cent with 96 out of 100 public sector organizations returning the completed questionnaire. This research is limited to those 27 public sector organizations that had a code of ethics.

Measures

Subjects responded to seven-point Likert-type scales for all variables. The items measured were adopted from Svensson et al. (2009) and the scale used to measure various aspects of OCE. These measures were anchored at (7) very strongly agree and (1) very strongly disagree (see displayed items and the instruction to the respondent at the top in Table I). The term “company” has been used in the questionnaire of the private sector and the term “organization” has been used in the public sector. Similarly, the word “profit” was used in item (a) of guidance for companies, while “goal” was used in the same circumstances for the public sector respondents.

Analysis and results

Goodness of fit measures – measurement and structural models

To measure and test for correlations and hypothesized relationships among the constructs of the OCE model, structural equation modelling was used (Jöreskog and Sörbom, 1976). Confirmatory factor analysis (CFA) was run with a four construct measurement model (15 indicator variables shown in Table I) using the SPSS/AMOS 16.0 software. When the initial measurement model was tested the goodness-of-fit measures did not meet recommended guidelines (Hair et al., 2006, pp. 745-9). However, an examination of the model diagnostics resulted in that six indicator variables was removed (surveillance/training – c; internal communication – c and d; external communication – c; guidance – b and d) and the final four construct model was represented by nine indicator variables (Figure 1).

The measurement model of OCE $\chi^2$ was 21.647 with 21 degrees of freedom and was not statistically significant ($p=0.420$). Given that this may have be due to the sample size ($n=140$), other fit statistics were examined. The normed $\chi^2$ ($\chi^2$/df) was 1.031, while the NFI was 0.954, the IFI was 0.999, the CFI was 0.998, and RMSEA was 0.015, all of which are well within recommended guidelines and support the significance of the model (Hair et al., 2006, pp. 745-9). Based upon the satisfactory findings in testing the measurement model, the structural model of OCE was tested as shown in Figure 2.

The structural model of OCE $\chi^2$ was 46.187 with 23 degrees of freedom proved to be statistically significant ($p=0.003$). As is common practice, the other fit statistics were re-examined to confirm the significance of the structural model. The normed $\chi^2$ ($\chi^2$/df) was
2.008, while the NFI was 0.902, the IFI was 0.948, the CFI was 0.946, and RMSEA was 0.086, all of which are still mostly well within recommended guidelines (Hair et al., 2006, pp. 745-9). The regression weight (0.685) for the hypothesized relationship between the constructs of surveillance/training and guidance was significant ($p=0.000$).

The conclusion is that the structural model of OCE appears to be in part accurate, where the surveillance/training had a significant impact on the guidance of OCE and the other predicted relationships between surveillance/training, internal communication, and external communication were also significant.

Assessment of construct validity and reliability

Several measures were used to assess the validity and reliability of the structural model's constructs (Table II). Convergent validity is the extent to which the individual items in a construct share variance between them (Hair et al., 2006) and is measured based on the variance extracted from each construct. The variance extracted for all constructs exceeds the recommended 50 per cent except for the construct of “guidance” that achieved 40 per cent. Reliability was also considered when evaluating the constructs. All constructs exhibited composite trait reliability levels that exceeded 0.70 except for the construct of “guidance” that achieved 0.65 (Hair et al., 2006, p. 777).

Discriminant validity examines whether the constructs are measuring different concepts (Hair et al., 2006) and is assessed by comparing the variance extracted to the squared interconstruct correlations. The variance extracted should be larger than the corresponding squared interconstruct correlations and this condition was met in all cases but one (Table II). Consequently, the model exhibits fairly well discriminant validity. Nomological validity which refers to the direction of the relationships between the constructs is consistent with theory. The significant construct correlations are all consistent with theory, thus confirming nomological validity. The recommended guidelines for convergent, discriminant and nomological validity, as well as construct reliability, were in part met. Therefore, the measurement and structural aspects of the OCE model indicate in part satisfactory validity and reliability. The theoretical as well as the managerial implications of the current study and its empirical findings are discussed in the next section.

Theoretical and managerial implications

The analysis and results presented in the previous section reveal implications for both practice and theory. An important implication is that the tested measurement and structural models provide an initial understanding of an OCE framework. The framework may also be a basis for further exploration and development of the subject in focus. Additional items may potentially be derived from theory, as well as some of the non-useable ones in the current study that may have to be omitted, repositioned, or rephrased. More importantly, additional constructs may be considered and incorporated in complementary testing of the OCE model. Furthermore, the framework outlines and proposes that the construct of surveillance/training, internal and external communications is mutually intertwined while surveillance/training also has an influence on the construct of guidance as shown in Figure 2.

Subsequently, this study presents a framework of constructs in the field of OCE. It offers an indication of how these constructs may relate to each other, which has not been established so far in literature. On the one side, the OCE model stresses the important relationship that
surveillance/training affects guidance. On the other side, internal and external communications are intertwined with surveillance/training. Though the number of constructs is limited and the items few, the complexity of the OCE model should not be underestimated and therefore further research and studies are not only desired, but necessary to verify the reliability and validity of the empirical findings of the current study.

The empirical findings indicate that the construct of surveillance/training is a valuable aspect in establishing, maintaining, and enhancing the impact of OCE and as such it may be seen as a suitable construct in a framework of OCE. Theory indicated that it may consist of four dimensions (Anand et al., 2005; Axline, 1990; Crotts et al., 2005; Dean, 1992; Harrington, 1991; Laczniak and Murphy, 1991; Maclagan, 1992; McDonald and Zepp, 1990; Rampersad, 2003; Weber, 1981; Wood et al., 2004), of which three have been confirmed in the tested measurement and structural models. Accordingly, a construct of surveillance/training of OCE is proposed to consist of dimensions such as:

1. the organization should have a standing ethics committee;
2. the organization should have an ethics training committee; and
3. the organization should have ethics training for all staff.

As indicated previously, the fourth dimension that the organization should have an ethics ombudsman has not been supported in this study and thus requires further examination of the underlying reasons to this outcome.

The empirical findings also indicate that the construct of internal communication is relevant in informing us about the OCE within the organization. Subsequently, it may be considered another construct in a framework of OCE. Four dimensions were derived from theory (McLain and Keenan, 1999; Miceli et al., 1991; Labich, 1992; Singh et al., 2005; Stevens, 1999; Schwartz, 2002; Sims, 1991; Stoner, 1989), of which only two have been confirmed in the tested measurement and structural models. A construct of internal communication of OCE consists at this stage of dimensions of:

1. the code should be communicated to all employees; and
2. should inform new employees about the code.

The third and fourth dimensions that there should be consequences for a violation of the code and that there should be support to whistleblowers have not been supported in this study and require further examination. In fact, this finding may indicate that an additional construct needs to be derived from and examined theoretically.

Furthermore, the findings indicate that the construct of external communication is appropriate in communicating the OCE outside the organization, and as such it may be considered a third construct in a framework of OCE. Theory indicated three potential dimensions of the construct (Benson, 1989; Fraedrich, 1992; Gellerman, 1989; Murphy, 1988; Stead et al., 1990; Townley, 1992), all of which two have been confirmed in the current study. Presumably, a construct of external communication of OCE may therefore consist of dimensions such as:

1. all suppliers should be informed about the code; and
2. all customers should be informed about the code.
As indicated previously, the third dimension that the code should be displayed for all to view has not been supported and has to be taken into consideration in further studies of the structural relationships between the tested OCE constructs.

Finally, the findings indicate that the construct of guidance is essential in the implementation and application of OCE, and as such it may be considered a fourth construct of the OCE framework. Four possible dimensions of the construct were identified in theory (Laczniak and Murphy, 1991; Lefebvre and Singh, 1992; Robin and Reidenbach, 1987; Trevino and Brown, 2004; Wood, 2000; Wood et al., 2004), of which only two have been confirmed in the tested measurement and structural models. In consequence, it is suggested that a construct of guidance of OCE may so far consist of dimensions such as:

1. the code should assist the bottom line; and
2. the code should guide strategic planning.

The third and fourth dimensions that the code should assist with ethical dilemmas and that employees' ethical performance should be a criterion for appraisal have not been supported and require further examination and testing. This finding may indicate that another construct needs to be considered if found non-valid in further studies.

Subsequently, further theoretical development is needed in the introduced OCE in order to verify the validity and reliability of the current findings that in part have not been empirically supported as outlined in the theoretical underpinnings. Nevertheless, we believe that the empirical findings provide valuable insights and a useable framework to managerial practice in efforts to establish, maintain, and enhance OCE. The framework stresses the importance in managerial implementation and application that OCE requires a significant amount of surveillance and training of employees as well as guidance. In addition, the importance of communicating the code to internal and external stakeholders should not be neglected. In sum, though this study contributes to some extent to the understanding and framing of OCE, limitations need to and will be acknowledged in the next section.

**Conclusions and Limitations**

Based on the present research in private and public sectors of Sweden this study tested the measurement and structural properties of the OCE model that indicated in part a satisfactory fit, validity, and reliability. As indicated previously, the OCE model makes an initial contribution to both theory and practice. The introduced framework makes an incremental contribution to the predominate approach in previous research based upon primarily descriptive studies by employing confirmatory factor analysis and structural equation modeling. It also makes a contribution to theory as it outlines a set of OCE constructs and it presents an empirical testing of the OCE model in respect to measurement and structural properties. It is also of managerial interest as it provides a model to be considered in the implementation and monitoring of OCE. The current OCE model should be interpreted as a seed for further research in order to be refined and extended.

While the outcome of the CFA and structural equation modeling indicated mostly a satisfactory fit, validity, and reliability, there are some research limitations that should be acknowledged. First, it should be stressed that the OCE model has been tested on dual sample consisting of large organizations in private and public sectors of Sweden, which may indicate less applicability to smaller and medium-sized organizations. Second, another limitation may
be the fit, validity, and reliability across other samples. Third, the dual sample contains a mix of organizations, but they do not cover all of the major areas of organizations, and organizations are not equally represented across the dual sample. Fourth, a potential limitation is that the private sector sample does not only consist of organizations having their headquarters in Sweden. Arnold et al. (2007, p. 335) conclude that differences of ethical perceptions may rather be associated with the country to a much greater degree than with the organization. Fifth, several indicator variables were removed leaving only two in some of the OCE constructs. Finally, the OCE model is based upon a limited number of constructs.

Nevertheless, these limitations provide opportunities for further research in testing the OCE model and its constructs in other cultural and organizational settings. One proposal for further research is to test the OCE model in other countries or cultures that differ from and/or are similar to the Swedish organizations surveyed in this study. Hofstede's (1983a, b) dimensions of national cultures may be useful in targeting different or similar national organizational samples. It would be valuable to examine if there are similarities amongst other cultures of similar characteristics and/or if there were similarities or dissimilarities across other countries that are decidedly different from the organizations in focus. Like all survey research on a selected sample, the OCE model is in part accurate for the dual sample examined, but additional studies in other samples, cultures and countries are required in order to generalize the findings. As some indicator variables were removed this provides further opportunity to test additional indicator variables. Furthermore, additional constructs may be introduced into the OCE model, which provide an opportunity for amendments to complement and enhance it. Consequently, there are a series of both tentatively fruitful and challenging research opportunities that may make an appealing contribution to both theory and practice.
Figure 1 Four construct measurement model of OCE
Figure 2: Four construct structural model of OCE
Table I: Questionnaire items

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<tr>
<td>1. Internal communication</td>
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<td>2. Surveillance/training</td>
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<tr>
<td>3. External communication</td>
<td>0.14</td>
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<tr>
<td>4. Guidance</td>
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Table II: Squared inter-construct correlations and summary statistics

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<th>Squared inter-construct correlations and summary statistics</th>
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<td>Variance extracted (%)</td>
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<tr>
<td>2. Surveillance/training</td>
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<td>69</td>
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<td>4. Guidance</td>
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References


**Further Reading**


**Corresponding author**

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