

Measuring effectiveness of integrity management:

A Study comparing the effectiveness of value based and compliance based approaches of integrity in Dutch public sector organizations by measuring employee perceptions.

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This paper is the result of a co-operation between two types of practitioners. One is “InternetSpiegel”, a survey-provider that develops and conducts standardized instruments for measurement of effectiveness of the HRM policy of public sector organizations. The other is the supreme audit institution in The Netherlands, the Netherlands Court of Audit (NCA). The NCA requires that all central government organizations have an adequate Integrity Care System, consisting of ‘hard’ and ‘soft’ controls. To audit not only the compliance, but also the effectiveness of the Integrity Care systems that were in place, the NCA looked for a validated instrument to measure and compare the performance of instruments for integrity management of central government organizations.

In this paper we present a method for measuring and comparing the effectiveness of integrity management of organizations as developed by InternetSpiegel and the results of a survey with this instrument by the NCA. Based on the analysis of these survey data we developed a validated explanatory and predictive model that enables us to compare the effectiveness of two types of management strategies: compliance based and value based.

1 Introduction

In the past two decades there has been a lot of discussion both in academia and amongst practitioners, on ethics in the public sector. The quick successions of societal, political and economic changes has put a challenge on the public sector to transform towards a more open and modern organization of public administrations that can cope with change. This resulted in a fundamental rethinking of the role and functioning of bureaucracy (Pevkur, 2006).

All western countries have in some extent adopted principles and methods of New Public Management (NPM) in order to cope with a rapidly changing world. “New public management refers to a cluster of ideas and practices... that seek, in their core, to use private sector and business approaches in the public sector” (Denhardt, 2000 as cited in Pevkur, 2006). Countries may differ in the challenges they face, in the starting point for their change and in issues that are to be addressed. However, a common challenge is how to define public service ethics and how to safeguard the ethical integrity of the public sector in this rapidly changing environment.

It can be argued that the NPM approach, with its preference for market principles and for short term results, in itself introduced a great deal of ethical problems within the public sector (Frederickson, 2005 in Pevkur, 2006). The uneasy cohabitation of market and public sector undeniably creates opportunities to siphon off public money in private purses or to misuse public power for private gain. This causes ethical dilemmas for governance and management that require addressing.

But it can also be argued that the NPM approach, with its emphasis on performance and good management of public organizations, carries the promise of a way to confront and overcome these ethical challenges. With its emphasis on such values as transparency, accountability and integrity etc., the ‘Good Governance’ movement, can be seen as a bough on the stem of NPM. Also, NPM ideas stimulated the introduction of performance management and management

controls in public sector organizations. Applied to the field of ethics in the public sector this enables us to think of integrity not only as a personal trait or virtue, but also as something that can be managed, and indeed as the responsibility of managers in public sector organizations. The HRM perspective enables us to consider, theorize about, practice and assess 'integrity management', just like any other type of HRM management. In this study we therefore focus on effectiveness of integrity and try to give HRM an instrument.

During the past 15 years the Dutch government, coordinated by the Dutch Ministry of Interior and Kingdom Relations, has been working on a coherent body of policy and legislation to introduce integrity management in the public sector. This culminated into changing the law on public servants in 2005¹. The new legislation made it compulsory for all public organizations to implement integrity management, aimed to promote integrity, good employer ship and enable employees to act as good civil servants.

The NCA has been monitoring the progress of the implementation and the quality of integrity management in ministries in its audits (Algemene Rekenkamer 2005, 2010).

In general the national policy, organizational management policies concerning ethics and integrity in The Netherlands, and the NCA audits, have been focused on rules and procedures. There have been efforts to come to a more balanced approach and also to include measures that would fit a more value based strategy (Karssing & Hoekstra, 2004), but these measures are more difficult to implement and their impact and added value are less obvious.

To improve the effectiveness of integrity management, from a practitioners point of view, it would be relevant to know which of these two strategies, or what mix of strategies, would be the most effective. Therefore the NCA included the 'soft controls' in its 2009 audit. This not only to monitor to what extent these instruments were implemented, but also to be able to compare the relative effectiveness of both management strategies. To this end the NCA commissioned the *InternetSpiegel* program for use of their validated on-line survey instrument to measure the performance of integrity management through employee perception.

In the following paragraphs of this paper we sequentially will describe: the theoretical framework that guided our research, research methods, findings and we will end with a discussion on what we think is the theoretical and practical relevance of our research.

¹ Staatsblad 2005, nr 695

2 Theoretical framework: Integrity management

Ethics and Integrity management

The people who work in an organization significantly determine the ethics of an organization. In their conceptualization of ethical culture Treviño and Weaver (2003: 231-236) define it as: "... representing a multidimensional interplay among various 'formal' and 'informal' systems of behavioral control that are capable of promoting either ethical or unethical behavior.... *Informal cultural systems* include such factors as peer behavior and ethical norms." (2003: 234).

Hummels & Karssing (in: Jeurissen, 2000: 196-197) define organizational (or institutional) ethics as: the ethical policy of an organization, ethical thinking and ethical behavior of board, management and employees. This means, organizational ethics have to be organized (ibid.). A configuration of generic values and norms in order to manage and uphold institutional integrity is a necessary condition for upholding organizational ethics. According to Selznick it is one of the most important tasks of 'responsible leadership' to preserve and maintain institutional integrity (in Boin, 1996: 144-145).

In this study we use the word 'integrity management' for the planning, implementation and co-ordination of activities of an organization in achievement of integrity of that organization. It is an integral part of operational management of an organization and a responsibility of the organization's leadership. Management literature on operational management usually speaks of 'management control' as a means to plan, steer and evaluate the organization's strategies. According to Maciariello et al. (1994), management control is concerned with coordination, resource allocation, motivation, and performance measurement. Management controls are elements of a management control system that enables an organization to attain its goals. In the case of integrity management we can distinguish several specific controls. These are either 'hard controls', such as rules, regulations and measures concerning detection and sanctioning of integrity incidents. Or they can be 'soft controls', such as moral competence building, ethical leadership, values and norms.

Literature on integrity management usually distinguishes two types of management strategies: compliance based or rule driven versus value based or principle driven (Paine: 1994). In this the problem for operational management is how to find a good balance between compliance of rules on the one hand and to stimulate moral competences and a culture of responsibility at the other side (Karsing & Hoekstra, 2004: 186-187; Hogendoorn, 2005: 14-18). In the literature on ethics and integrity management both strategies have been broadly discussed (e.g. Treviño & Weaver, 2003; Maesschalk, 2004; Michaelson, 2006; Weibel, 2007). In her publication Paine (1994) suggest that both strategies have different results. From a management point of view, it would be relevant to have an instrument that measures the effectiveness of the integrity management and also to know which strategy, or what mix of strategies, will lead to what (intermediary) effects and know what strategy is the most effective. We could hardly find empirical research to prove

this generally accepted conclusion and tried to develop an instrument for measurement of the effectiveness of both strategies.

Hard controls and following rules

A *compliance strategy* is directed to acquaintance and achievement of rules of conduct and regulations. Following rules and regulations must prevent employees and organization from acting on which they can be held responsible. This strategy is based on a 'narrow' definition of integrity (Karssing & Hoekstra, 2004: 174-175) because it is mainly directed to misuse of powers, fraud and corruption. Such a strategy of 'hard controls' first of all invites employees to ask themselves: how can I prevent to contravene rules (ibid.). Until 2004 the predominating policy of the Dutch government focused on 'hard' regulations. Even now there is a strong emphasis on policy instruments like codes, procedures for reporting unethical behavior, codes of conduct and registrations. A crucial question is how successful and effective this approach is. This leads to the first hypothesis of our research.

H1: Control of integrity by a strategy focused on compliance of rules and procedures (hard controls) has a positive effect on compliance of those rules by employees.

Soft controls and moral conscious behavior

The main focus of a *value-based strategy* is on influencing behavior towards more carefully balancing on moral questions (Karssing & Hummels in: Jeurissen, 2000: 198-199). According to Paine (1994) the core of this strategy lies in advancing of integrity on base of a configuration of self-chosen values. These values give the organization a reference point to direct acting of board, managers and employees. It is not necessarily so that, on the instrumental level, there is difference with organizations that follow a compliance strategy. The difference is in the underlying intentions and motivations and therefore essential 'soft controls'. Paine (1994: 111) is very clear at this point: "An integrity strategy is broader, deeper, and more demanding than a legal compliance initiative. Broader in that it seeks to enable responsible conduct. Deeper in that it cuts to the ethos and operating systems of the organization and its members, their guiding values and patterns of thought and action [...] Above all, organizational ethics is seen as the work of management [...] managers at all levels and across all functions are involved in the process".

A lot of popular management literature and results of empirical research (Treviño & Weaver, 2003: 118) suggest that organizational management plays an important role. The *Tone at the top* has important consequences for ethics governance in organizations and *morally conscious behavior* of employees. In their empirical work (2003: 267 -292) they proved a: " [...] strong relationship between perceived general fair treatment and ethics-related outcomes." (2003: 282).

The aim of a value-based strategy is to empower managers and employees to develop their own moral competences. As seen this strategy has to be integral part of the total HR-strategy of an organization and also has to fit in the organizational culture. Karssing & Hoekstra (2004) designate HR-outcomes, such as employee satisfaction, motivation, professional pride and job satisfaction, as important

factors for stimulating moral competences. The reasoning above leads to the second hypothesis of our research.

H2: Control of integrity by a strategy focused on stimulating a culture of responsibility and accountability (soft controls) has a positive effect on the level of moral conscious behavior of employees.

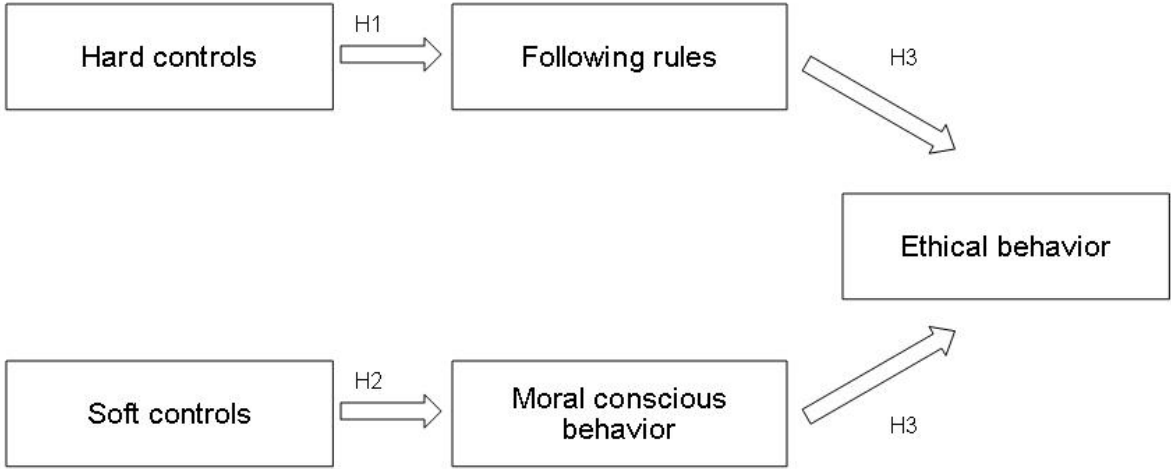
Ethical behavior

As stated before in this paper integrity instruments are not necessarily a unique part of a compliance or value-based strategy on integrity. Six, van Tankeren and Huberts (2008) formulate: “The way an instrument is used and communicated determines whether it should be seen as a ‘rule following’ or an ‘incentive-giving’ tool”. This is also the case in order to demonstrate clearly the effectiveness of single instruments. “Effectiveness of separate instruments are at root dependent of compatibility of goal, content, target group, implementation method etc. in combination with sources the program and the management pass to the employees to bring about changes themselves. For it is the interpretation of the employees that makes an instrument work. In this respect the underlying reasons the management has to apply the instrument is important while it impacts employee’s interpretation (Dunn, 2008; Pawson, 2002)” (ibid: 3). For ethical behavior of employees not only the observance of rules is of importance. Equally important is the level of moral consciousness among directors, managers and employees. From this point of view, the intended effects of the two management strategies discussed are to be regarded as intermediate effects on the ultimate desired result of integrity policy, namely: ethical behavior. This leads to the third and last hypothesis of our research.

H3: Compliance of rules and moral consciousness (seen as intermediate effects) has a positive impact on ethical behavior of employees.

These three hypotheses result into the conceptual model of figure 1.

Figure 1: Conceptual model



3 Research methods

3.1 Data and sample

InternetSpiegel has carried out the research for the NCA. *InternetSpiegel* is a program commissioned by the Dutch ministry of the Interior and Kingdom Relations. The program develops standardized research instruments for public organizations to measure the effectiveness on HRM outcomes, such as employee satisfaction, terms of employment, working circumstances, professional pride etc. For data collection, reporting and benchmarking the users of *InternetSpiegel* utilize the web based research platform of *InternetSpiegel*.

In 2008 a quantitative internet survey was carried out for the NCA by *InternetSpiegel* among a random sample of 17,000 civil servants from 19 organizations of central government: all of the ministries (13) and 6 central agencies. Work e-mail addresses were used to send respondents a unique link to the questionnaire. The data collection took place in a period of three weeks. The response rate of 38% gave us data on 6,579 respondents within these organizations.

The data of the survey were used in three different ways:

1. to produce an SPSS-data file for analysis and reporting by the NCA (Algemene Rekenkamer, 2010);
2. to make benchmark reports for the participating organizations by aggregating the data on organizational levels to give them feedback and insight into their ethical performance;
3. and to test the adjusted questionnaire and a new validated explanatory model for use in the existing tool for integrity research in *InternetSpiegel*.

This paper reports the results of the third analysis: The testing of the questionnaire and development of a validated explanatory model.

3.2 Analysis

The first step was an exploratory factor analysis in SPSS (Principal Component Analysis and Varimax Rotation with Kaiser Normalisation). After elimination of several items because of their factor scores ($< .4$) or ambiguity, the reliability of the constructs was tested in the second step. The factor analysis resulted in 10 unique factors. All of the 10 constructs had a Cronbach's alpha $> .7$. In SPSS the constructs were prepared for causal analysis. All cases with missing values on the analyzed variables were removed from the data set. In the last step a structural equation model (SEM) positing causal relations between the constructs was tested on a data set with $N = 3601$. All the estimates were produced using AMOS version 16.

3.3 Measures

Since 2007 *InternetSpiegel* measures employee perceptions of integrity with a validated and standardized questionnaire (Hogendoorn, 2005 and 2007). This questionnaire, based on the work of Treviño and Weaver (2003), needed to be extended with new constructs in order to be able to relate the perception of

integrity with (the perception of) both hard and soft controls. Starting point for this extension was the theoretical framework described in the previous chapter. Questions were added concerning four topics: ‘rules of conduct’, ‘procedures’, ‘policy on integrity’ and ‘values and norms’. For these questions we used the questions from ‘I-inzicht’. This is a on-line questionnaire that was developed by BIOS, the Dutch National Office for Promoting Ethics and Integrity in the Public Sector, in collaboration with Neyenrode Business University (Jeukens et al., 2009). In this paragraph the measurement of the main variables will be explained.

3.3.1 Hard controls and following rules

To measure hard controls we formulated questions about the acquaintance of respondents with the existing regulations and of procedures on reporting and handling of incidents in their organization. Only generally used integrity regulations and procedures that are compulsory according to central government policy, were included. These regulations and procedures have been implemented by almost all of the participating organizations (Algemene Rekenkamer, 2010; 35), but they can only work if employees know about them.

The answers to questions concerning the acquaintance of regulations² were coded as 0 (unacquainted with this regulation) and 1 (knowing this regulation exists). The construct *acquaintance of rules* incorporates 8 items. Cronbach’s alpha for this measure is .84.

The answers to questions concerning the acquaintance of procedures³ were coded as 0 (unacquainted with this procedure) and 1 (knowing this procedure exists). The construct concerning the *acquaintance of procedures on incidents in the organization* incorporates 5 items. Cronbach’s alpha for this measure is .91.

In order to measure the observance level we asked how often employees had come across different kinds of irresponsible or transgressions of the rules such as: ‘unfair use of organizational facilities’, ‘not working according working hours’, ‘entangling of organization’s interests and those of family, friends and ex-colleagues’, ‘accepting gifts, offers and occasionally compensation in violation of the rules of the organization’, etc. We asked for *observed* behavior to reduce the possibility of social desirability bias, which would likely be more problematic if we asked respondents to report on *their own conduct* in following rules and regulations. The answers were coded on a five-point Likert scale, ranging from ‘very often’ (1) to ‘never’ (5). The construct *following rules* incorporates 6 items. Cronbach’s alpha for this measure is .80.

3.3.2 Organizational policy on integrity

To measure the perception of the organizational policy on integrity we used positively formulated statements. The statements covered policy aspects ranging from: vision on implementation of integrity policy, informing employees about all aspects of integrity policy and measures, active implementation of policy and

² Such as regulations on: additional income/financial interests, accepting third party gifts/invitations, ‘revolving door’ politics.

³ Such as procedures for: reporting suspected violation of integrity, communicating about violations, registration of (suspected) violation of integrity.

measures by supervisors, organizational support for employees in difficult situation and dilemma's to paying enough attention to integrity during periodical appraisals. The answers were coded on a five-point Likert scale, ranging from 'completely disagree' (1) to 'completely agree' (5). The construct *organizational policy on integrity* incorporates 10 items. Cronbach's alpha for this measure is .91.

3.3.3 Soft controls and moral conscious behavior

The former instrument of *InternetSpiegel* for measurement of employee perceptions of integrity already had four validated constructs which also could be used for measurement of soft controls in this study: "*Fairness of treatment*", "*Tone at the top*", "*Relationships amongst colleagues*" and "*Morally conscious behavior*". As expected the four constructs all came out as strong factors. New questions were formulated to measure clarity, familiarity and use of the *values and norms* by colleagues. For measurement positively formulated statements were used. The answers on the items of these scales were coded on a five-point Likert scale, ranging from 'completely disagree' (1) to 'completely agree' (5).

In their empirical work Treviño and Weaver (2003: 267 -292) proved a: "... strong relationship between perceived general fair treatment and ethics-related outcomes." (2003: 282). Following their work *fairness of treatment* in our study implies honest, equal, and respectful treatment of employees but also the perceived fairness (objectivity) of rewarding and promotion, and serious follow-through on reporting of misconduct. The construct *fairness of treatment* incorporates 6 items; Cronbach's alpha is .84.

Tone at the top we define in our study as the behavior and attitude of managers (as perceived by employees) on: high ethical standards, strictly upholding of sanctions on indecent behavior, punishment of immoral behavior, appreciation of ethical behavior, upholding ethical standards in decision-making and adequate reacting to (possible) violation of integrity in the organization. The construct *tone at the top* incorporates 6 items; Cronbach's alpha is .89.

Treviño and Weaver (2003: 234) see peer behavior as an important part of the informal cultural system. Following their way of conceptualizing we argue that *values and norms* of the organization have to be clear, understood and relevant to indicate direction for employees. To measure this aspect of soft controls in the organization we formulated straightforward statements on these aspects. The construct *values and norms* incorporates 4 items, Cronbach's alpha is .89.

The construct *relationships amongst colleagues* can be seen as the core concept of peer behavior (ibid.). The statements we used for measurement concern the perception of the relationship with colleagues on aspects as: personal interest, cooperation, helpfulness, personal feedback, quality of their job and feeling at home. This construct incorporates 6 items; Cronbach's alpha is .83.

In the measurement of the broad concept of morally conscious behavior (Treviño and Weaver, 2003: 202) we focus on the aspect of moral responsibility because of its importance in nowadays-public organizations. Treviño and Weaver do not go deep into the aspect of responsibility. The statements we use for measurement are derived from an article of Wirtz (in Jeurissen, 2000: 25) and concern the

perception of behavior of colleagues. We asked for example: “ My colleagues are perfectly aware of the consequences of their actions”, “I can uphold the same moral convictions at my work as I do in my private live” and “ The moment my colleagues are faced with a moral question they look to others within the organization for advice”.

The construct *relationships amongst colleagues* incorporate 5 items; Cronbach’s alpha is .80.

3.3.4 Ethical behavior

A great deal of integrity research focuses on unethical behavior. “Generally, studies of ethical conduct have treated it as extra-role behavior.” (Treviño and Weaver 2003: 300-301). From the viewpoint of a value based strategy it clearly is in-role responsibility and a normal part of work to: take responsibility for the results of work, be honest about results, not to do a half-hearted job. We followed the latter conceptualization and formulated statements to measure employee’s attitude to work. We asked for *observed behavior of colleagues* to reduce the possibility of social desirability bias.

These statements were formulated in a negative way. We asked for example: “My colleagues are not honest about the results of their work”, “My colleagues try to cover up mistakes they make”, “my colleagues often call in sick when they are actually not” etc. The answers on the items of these scales were coded on a five-point Likert scale, ranging from ‘completely agree’ (1) to ‘completely disagree’ (5).

The construct *ethical behavior* incorporate 8 items, Cronbach’s alpha is .90.

3.3.5 Control variables

Three control variables were used: ‘sexe’, ‘age’ and ‘educational level’. We coded gender as 0 (male) and 1 (female). Age was subdivided in 10 classes (1=15-19 years; 2=20-24; and so on until: 10=60 years and up). Educational level was subdivided into 6 classes (1=primary school; 2=vocational education, preparatory secondary vocational education; 3=junior general secondary education, advanced elementary education; 4=senior general secondary education, senior secondary vocational education; 5=Bachelors degree; 6=Masters degree

4 Findings

4.1 Correlation Analysis

Figure 2 reports means, standard deviations and correlations for control variables and the constructs that resulted from factor analysis. In SPSS the constructs were prepared for causal analysis.

Figure 2: Descriptive statistics and correlation matrix

Descriptive Statistics and Correlations															
Variable	Mean	SD	a	b	c	1	2	3	4	5	6	7	8	9	10
a Sexe (1 = female)	0,42	0,49	1,000												
b Age category	6,42	1,99	-,268**	1,000											
c Educational level	5,24	0,98	-,087**	-,176**	1,000										
1 Organizational policy on integrity	3,37	0,63	-,039*	,095**	-,079**	1,000									
2 Acquaintance of regulations of conduct	6,53	1,55	-,093**	,118**	-,084**	,330**	1,000								
3 Acquaintance of procedures	2,28	1,98	-,095**	,154**	-,048**	,382**	,434**	1,000							
4 Values and norms	3,57	0,68	-,055**	,114**	-,058**	,666**	,254**	,285**	1,000						
5 Tone at the top	3,33	0,65	-,056**	,087**	-,037**	,688**	,217**	,290**	,594**	1,000					
6 Fairness of treatment	3,68	0,63	-,100**	,054**	,038*	,524**	,153**	,177**	,472**	,590**	1,000				
7 Relationships among colleagues	4,03	0,51	-,020	,001	,027	,356**	,090**	,105**	,370**	,366**	,570**	1,000			
8 Following rules	4,70	0,42	-,014	-,064**	,011	,249**	,005	-,030	,228**	,269**	,286**	,200**	1,000		
9 Moral conscious behavior	3,81	0,50	-,046**	,029	,122**	,472**	,140**	,137**	,488**	,499**	,502**	,502**	,285**	1,000	
10 Ethical behavior	3,85	0,60	-,071**	,063**	,155**	,362**	,078**	,079**	,361**	,386**	,463**	,504**	,373**	,554**	1,000

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

N = 3601

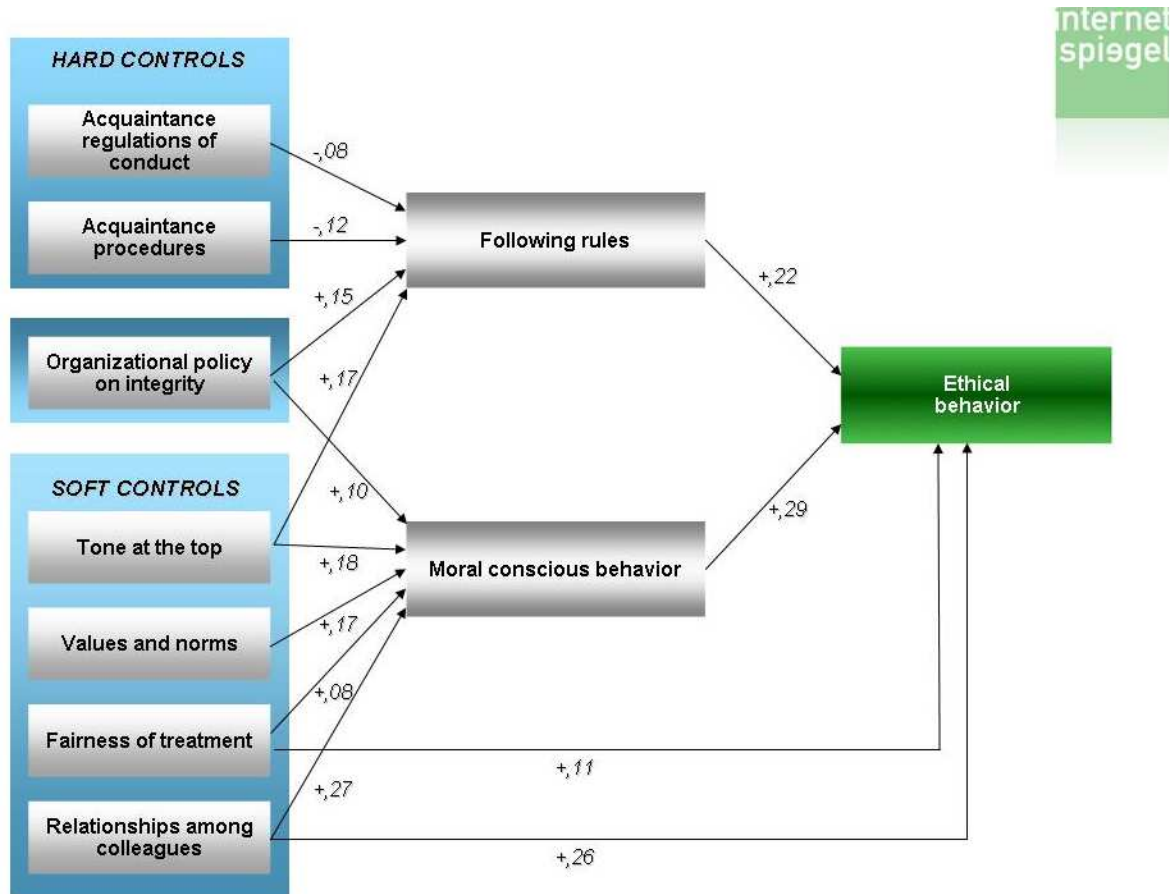
In general, the findings concerning the hard controls indicate that employees are familiar with the eight rules we questioned them about (mean: 6.53) but not so well with the five procedures (mean: 2.28). In addition, the findings on all the other constructs show relatively high means on the five-point Likert scales we used, with an exceptional high mean for the construct *following rules*. There also is a clear ranking in the means of the soft control-constructs on the five-point Likert scales: “*relationship among colleagues*” is the highest (4.03), followed by “*fairness of treatment*” (3.68), “*values and norms*” (3.57) and finally “*tone at the top*” (3.33).

4.2 Structural Equation Modeling

To test the proposed relations between the variables, a causal structure is posited among the concepts. For clarity of the model we left out the standardized regression coefficients of the control variables and give them separately. Significant influences of the control variables on the theoretical model are the relations between: ‘age’ on ‘following rules’ (-.07); ‘educational level’ on ‘moral conscious behavior’ (.14); ‘educational level’ on ‘ethical behavior’ (.13); and ‘age’

on 'ethical behavior' (.09). We did not find significant relations for the control variable 'sexe'. The structural equation model in figure 3 is the result of our analysis and shows all the other relations.

Figure 3: Result of Structural Equation Modeling



After several intermediate model modifications the model in figure 3 is regarded as the best fitting model. The overall model fit was tested using several fit indices, which indicated a good fit. In general, the chi-squared test is used to assess sample data in proportion to implied population data. However, there are concerns about using the chi-squared test because its sensitiveness to sample size (Byrne, 2001). In larger samples (as in this research), the chi-squared test almost always leads to rejection of the model because the difference between sample covariance's and implied population covariance's will lead to a higher chi-squared value if sample size increases⁴. As a consequence, a number of alternative fit measures have been developed (Hu & Bentler, 1999). The Goodness-of-Fit Index (GFI), the Adjusted Goodness-of-Fit Index (AGFI), the Normed Fit Index (NFI) and the Comparative Fit Index values were: .993 (GFI), .968 (AGFI), .955 (NFI), and .960 (CFI). Whereas the popular cutoff level in social sciences is .900, this implies that the model was a

⁴ Chi-squared value = $N \times \text{difference}$

good fit. Also, the Root Mean Square Error of Approximation (RMSEA), with a value of .042 and a Pclose of .965, indicated that the model is a good fit. Figure 3 shows only the statistically significant relations. The numerical scores on all lines indicate standardized regression coefficients (beta).

According to our first hypothesis, we expected that the more employees are acquainted with rules and procedures (hard controls) the more the rules of the organization are followed. Instead of finding these positive relations the results show negative effects, and our first hypothesis clearly has to be rejected. Instead of the assumed effects however, we find two different and relatively strong relationships, namely significant direct effects of “organizational policy on integrity” (.15) and “tone at the top” (.17) on “following rules”.

Regarding our second hypothesis was the expectation that the *soft controls* would have a positive effect on “moral conscious behavior” as intermediate variable. The results show significant and direct effects of the four constructs on this intermediate variable: “tone at the top” (.18), “values and norms” (.17), “fairness of treatment” (.08) and “relationships among colleagues” (.27). Based on these results, our second hypothesis is confirmed.

We find also a number of different significant and positive effects, namely: “organizational policy on integrity” on the intermediate variable “moral conscious behavior” (.10) and, “fairness of treatment” (.11) and “relationships among colleagues” (.26) on the dependent variable “ethical behavior”.

Our third hypothesis presumed positive effects of both “following rules” (.22) and “moral conscious behavior” (.29) as intermediate variables, on “ethical behavior”, the dependent variable. Based on our findings, also our third hypothesis is confirmed.

In the final paragraph we will discuss the theoretical and practical implications of these results.

5 Conclusions and discussion

5.1 Conclusions

Our research indicates that the effectivity of integrity management is predominantly determined by the soft controls that go with a value based management strategy. We found that well functioning soft controls have a positive impact on both following rules as well as on moral conscious behavior of employees. Of those soft controls fairness of treatment and relationships among colleagues also contribute directly to ethical behavior, our independent variable. These findings support the importance of a value based strategy, as suggested by Paine (1994) and Karssing & Hoekstra (2004) that we discussed in paragraph 2.

The influence of the hard controls that go with the rule based strategy is at best ambiguous and maybe even counterproductive. This finding is not new. Anechario and Jacobs already showed that too much emphasis on rules and regulations does not contribute to combating fraud and corruption (Anechario & Jacobs, 1996).

The negative correlation between hard controls and normative conduct that is shown in our research may be explained by what Huberts and Nelen call 'the integrity paradox' (Huberts & Nelen, 2005). This refers to the phenomenon that if an organization puts more effort into its integrity policy, the number of detected incidents rises and the (public) perception of the integrity of the organization deteriorates. In the case of hard controls we can suppose that better knowledge of what is required increases employees awareness of the organization's standards. This increased sensibility may in its turn lead to a more critical attitude towards the behavior of colleagues and to more reported incidents within the organization. This in turn may have a negative influence on the perception of the integrity of the organization.

This is by no means a mechanism that may be ignored. Research in social psychology (Focus theory of normative conduct, Cialdini e.a., 1991) and criminology (Broken Window theory, Kelling & Coles, 1996) shows that what people perceive as accepted behavior in a certain situation influences their actual behavior more than what they know to be the norm or rule. If so many people do it, it seems to be acceptable, or at least condoned, behavior: nothing to worry about. In this way a negative change in perception of normative conduct may undermine the validity of the norm and lead to the slippery slope of actual increase in transgressions.

The model shows that this effect may be counteracted by a good organizational integrity policy and especially "*tone at the top*". Therefore we can conclude that a rule based strategy always needs to be complemented by at least these elements of a value based strategy. Recently the importance of leadership has been researched extensively by Lasthuizen (Lasthuizen, 2008). From her research it appears that both an integrity focused leadership style and especially role modeling leadership directly influence incidence of integrity violations. Especially here we find there is room for improvement. As shown in paragraph 4.1. the perception of "*tone at the top*" in our sample appears at the bottom of a ranking of the soft controls that we measured (mean 3.3 on a five point Likert scale): Less than 50% of the respondents give a positive appraisal of attitude and behavior of managers. Depending on the question between 38% and 52% is undecided. In other words: the example of their management seems mostly invisible to employees.

Generally we can conclude that both the instrument and the model seem to be statistically robust. But more work is needed to establish external validation and provide practitioners and managers with proven methods to shape role modeling leadership.

5.2 Discussion

Our research has yielded a validated instrument to measure the performance of integrity management. Also it resulted in a model that explains and predicts the effectiveness of management strategies. This research is based on employee perception, not on data on actual behavior or integrity incidents. Although perception measurement is widely used in research into ethical culture of organisations, it cannot be entirely put on a par with actual behavior and has consequences for the scope of our conclusions:

1. Our measurement of “*ethical behavior*”, “*following rules*” and “*moral conscious behavior*” is based on what people say about their colleagues. Ofcourse they cannot see everything their colleagues do, so they give their impression. Also not everybody feels comfortable giving an opinion on the behavior of colleagues. We received feedback on this issue from a number of respondents, saying they refused to answer these items on the questionnaire. This may cause bias that may need correction.
2. Our work only takes into account perception of internal factors, called management controls, that shape or indicate the integrity of organizations. In this view the integrity of an organization is mainly determined by the ethical behavior of the individuals working in or on behalf of the organization. External factors that may be of influence on the effectiveness of integrity management strategies remain invisible. To obtain a more complete understanding of what works under what circumstances, these external factors need to be brought into the picture.

The model is psychological, based on responses from individuals. Our data came from a very specific population: Civil servants from the Dutch central government. Our respondents are typical of this sector: relatively high age group and high education. Results may vary with population: as we have seen, the control variable 'level of education' correlates with perception of ethical behavior of colleagues. Although the model appeals to our intuition and the results are in line with results from other research, it is thinkable that the results from other types of organizations, contexts or cultures may differ and cannot be easily compared. How can we use this for benchmarking puposes? This calls for a repetition of this research in other types of organizations, or other countries.

We translated “*ethical behavior*” as perception of responsible work attitudes of colleagues. This diverges from usual measurements in integrity studies, which usually focus on perceived transgressions. The latter is included in our model, but as an intermediate variable, not as an outcome. In this way “*ethical behavior*” can be interpreted as a quality indicator. This not only gives our model a wider scope than what is usually studied, but may also provide the opportunity to connect this work in the field of integrity management with further work in the field of HR management or quality management. This is important, because our model shows the predominance of soft controls on the effectivity of integrity management. These are typically cultural aspects that are within the HRM domain and show the importance of HRM in integrity management. In many organizations integrity management is the domain of the security, audit or compliance department. Our work offers the opportunity to tie approaches from different fields of knowledge together.

Our research gives some promising leads to further comparative research into the question: what works in what circumstances? What internal and external factors are relevant for the choice of the most effective strategy for a specific organization? Does for instance a high risk organization like the police force require an different strategy than a low risk organization like a policy department? Does an organisation in the public sector require a different strategy than a private sector

organisation? What is the relationship with the cultural environment or different institutional contexts, e.g. civil law or common law systems.

Our work can serve as a start for this and our instrument could be further validated, both internally and externally, for use in different ethical and operational contexts. For instance we operationalized our independent variable “Ethical behavior” as 'perception of responsible work attitude in colleagues'. This gives us a good indicator on the day to day ethical performance of the employees within the cultural framework of the organization or its peer group, but is it also a good indicator if we want to compare the performance of the organization with an external norm or organizations outside its peer group or culture?

For that we need to work towards standardization of measurements. With standardized e-instruments that practitioners can and will use, empirical data on effectiveness of policies can be gathered on a larger scale than has been possible until now. If both the scientific community and practitioners can join forces it will be possible to build a database that will make evidence based policymaking on integrity not just a good NPM idea, but a reality.

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