

Antecedents and Consequences of the Ethical Operation Model

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Abstract

The ethical operation model demonstrated four different types of the ethics by ethical leadership and catalytic mechanics. The objective of this paper was examined the different types ethical operation model but also further explore the model's antecedents and consequences. The research gap focused on the behavior side of the practices of the ethics was included in the consequences variables in the paper. We also move further to explore the antecedents of the ethical operation model. As to the research methods, in the first study, we adopted case method of carrying out in-depth case studies. To explore the theoretical relationship more deeply, this research was done by conducted survey in the second study. The author collected data from various sources, but not wanting to be limited by the data provided in case study, this paper also collected data via a survey. Efforts were made to collect the data from multiple sources to avoid the possibility of common method biases. The empirical results demonstrated that the organization characteristics and leader's characteristics influence the ethical leadership and catalytic mechanism further influence the adoptive of the different type of the ethical operation model. And conclude that different types of ethical operation affect the degree of school administrative ethics.

Keywords: Ethical operation model, School administrative ethics, Ethical leadership, Catalytic mechanics

1. Introduction

In contemporary societies, individuals and managers confront complex ethical concerns in their daily life (Kulshreshtha, 2007) and the codes of ethics and ethical issues are very important in today's world (Drucker, 1981; Fritzsche, 1997; Hitt, 1990; Sims, 1994). The recent wave of ethical disasters in business have led to a debate concerning the importance of ethics, and noticed that ethics is essential for success in business practice (Kulshreshtha, 2007). Further, the ethical management of business can increase firm values and firm performance (Guy, 1990; Vogel, 1991).

This paper attempt to go deep into the ethic issue by ethical operation model (Wu, 2004) with the two important constructs (i.e. ethical leadership and catalytic mechanics). Most of the relevant studies in this topic focus on the relationships between ethical operation models and firm performance (Wu, 2002, 2006) seldom on the behavior side (i.e. real practices) of ethical leadership. Furthermore, previous study call for the importance of the ethics, however, seldom researches actually focus on the behavior side of the ethic.

In practice, there are many factors influence the revolution of school administrative, the important issue in this is "the practices of the principal leadership". The success of the school reconstruction relies on not only the organizational structure change but the principal's behavior of ethical leadership (Avey, Palanski, and Walumbwa, 2011; Cunha, Guimaraes-Costa, Rego, Clegg, 2010; Davies and Ellison, 1997; Lee and Cheng, 2011). In this paper, we not only fill the gap of the behavior side of the practices of the ethics which is the consequences variables in the paper. We also move further to explore both the antecedents and consequences of the ethical operation model.

The ethical operation model is derived from the Wu's (2004) work which explored the relationship between the ethical operation model and firm performance; and found out that different types of the ethical operation model will possess different firm performance. There were two dimensions in this model: ethical leadership and catalytic mechanics. "ethical leadership" is defined as a leadership who include an individual's ethical

recognition of the leader and his/her managerial behavior while practicing it (Yukl, 1994). The “catalytic mechanics” of are defined as ‘an artifice (i.e. an ingenious contrivance) embodying business ethics (Wu, 2004). Those two dimensions constitute four different types of the ethical operation model (see figure 1). Wu’s (2004) findings reveal that ethical leadership and catalytic mechanism constitute four different types of ethical operations and leads to different performance. The purpose of this paper aims at understanding not only on the ethical operation model but also what are the antecedents and consequences.

(Insert Figure 1 about here)

The objectives of this research are: *First*, this research first unpacks two dimensions of the ethical operation model and clarifies those four types among it. *Second*, we also observed the antecedents and consequences of ethical operation model. To address this issue, we structure the first study as follows: after reviewed relevant literature above, the next section describes the research methodology, data, and case analyses method. The third section discusses the results and findings of case analyses. Then the second study emphasis on the survey methods, measurements, analysis methods and the empirical results. We conclude with concluding remarks and proposed future research directions.

2. In-depth case study

In the first study the authors try to deeply explore the antecedents and consequences of ethical operation model. Previous researchers start to call for pay more attention on the importance of qualitative study (Israr and Islam, 2006; Pettersen and Nyland, 2006; Witter and Adjei, 2007). As Shortell (1999) claimed: “we should draw attention to the growing role played by qualitative methods...with the developments in the social and policy sciences at large, reflecting the need for a more in-depth understanding of naturalistic settings, the importance of understanding context, and the complexity of implementing social change.” Also, the rapid pace of changes occurring makes it increasingly difficult to use existing data sets to address the issues at hand. Quantitative examination of these rapidly occurring changes offers a fruitful approach for shedding light on these emerging forces. By providing detailed explanations that survey methods miss, case studies offer the prospect of new insights into the connections among different constructs (Eisenhardt, 1989; Yin, 1984). To explore the theoretical relationship more deeply, this research conducted a case study to collect qualitative data to examine the research questions proposed via literature review.

2.1 Data collection

We employed multiple sources for data collection which include: in-depth interviews, observation, and company archives, with both qualitative and quantitative analysis (Eisenhardt, 1989). The main source was semi-structured individual interviews with individual respondents. In both cases, we asked respondents some open-ended questions that let them related their stories of how this networks works. We asked probing questions to establish details. The interview guide had follow sections: The first part of the interview includes backgrounds of the respondents and their schools. The second part of the interview focused on ethical operation models, and the third part concentrated on the antecedents and consequences of ethical operation models.

The unit of analyses in this research was the elementary schools. We interviewed with key representatives who determine school’s important strategies or practitioners. In both cases, we interviewed two respondents in this school which were principle and dean of the elementary school to avoid the confounding problems. The data of the catalytic mechanism were mainly from the principle; on the other hand, the data of the degree of principle’s ethical leadership were from the dean of the elementary school. We also making comparison between two interviews to make sure the accuracy of the information we got.

The interviews were conducted by following a pre-designed interview protocol. Each interview lasted an average of three hours and some informants were interviewed more than once. All of the interviews were tape-recorded and transcribed. To assure the accuracy of the interview data, we mailed the tape-recorded to all of the interviewees and asked them to conducted double checks.

2.2 Case analyses method

In the case selection, we followed the Yin’s replication logic which is essential to multiple case analyses (Yin, 1984). We also continued comparisons of data and theory, analysis beginning with data collection and emphasizes both the emergence of theoretical categories mainly from evidence and an incremental approach to case selection and data gathering (Glaser and Strauss, 1967). Instead of conducting propositions first, we started with formulating research problems and specified some potentially important variables from extant literature and case analysis (Eisenhardt, 1989). The qualitative design involves two in-depth case studies. After constructing the case histories, we conducted within-case analysis. After finding this unique pattern within this case, we push to generalize patterns across cases (Eisenhardt, 1989). Cross-case analysis produced our main results.

2.3 Case A

Case A is an elementary school founded in 1910 and has 45 employees more than 800 students. Case A located in the urban area of Taiwan and its average working experience of the administrative group in this school is less than three years. As to the leader’s characteristics, the principle is 48 years old and his working experience is 28

years and got the master degree of the education.

As to the ethical leadership, the dean of the case A said: “this school do not have a good communication channel and do not care about the affiliates...and we do not participate in the decision-making process the principles often making the decision himself...” Case A mainly used the centralization decision-making processes, lower degree of empowerment, do not take account of the education training, focus on the task-orientation and do not attentive to their affiliates, and do not encouraging participation. Thus, we found the degree of ethical leadership is relatively low.

On the country, case A possessed of fruitful catalytic mechanism. The principle said: “in this school, we have many innovative teaching activities...we look after the opinion of the parent of the students...we also conduct many meetings to communicate with teachers” Case A owned the innovative teaching activities; look after the opinion of the parent of the students; implement the performance system, communicate with the organization members. Because the relatively lower degree of the ethical leadership and fruitful catalytic mechanism we classified the case A as the *mechanics orientation* (Typology IV in figure 1).

As to the school administrative ethical issues, case A follow the legal purchase process, but the expenditure of the money they raised do not really clear, the public relationships highly rely on the personal relationships, and the volunteers do not have proper training. Thus, the degree of the school administrative ethical is relatively low in case A.

2.4 Case B

Case B is an elementary school founded in 1929 and has 70 employees more than 1100 students. Case B located in the downtown of Taiwan and its average working experience of the administrative group in this school is about ten years. As to the leader's characteristics, the principle is 55 years old and her working experience is 35 years and got the master degree in education.

In the ethical leadership, the dean of the case B said: “this school has a very well communication channel...we care about our co-workers and create shared vision...” Case A mainly used the decentralization decision-making processes, higher degree of empowerment, pay much attention to the education training, focus on the people-orientation and look after to their affiliates, stimulate the employee's potential, and encouraging employees participation. Thus, we found the degree of ethical leadership is relatively high.

Case B also had very fruitful catalytic mechanism. As to the principle said: “we stimulate the employee's potential and have many innovative teaching activities...we encourage the teachers participated in all kind of the competition ...of course we also respect the opinion of the parent of the students...” Besides the meeting with teachers, Case B also held the regular meeting with the parent of the students. They divided teachers by their research fields and conduct the teaching conferences. Case B had a regular standard for the teacher's reward system. In sum, because the relatively higher degree of the ethical leadership and fruitful catalytic mechanism we classified the case B as the *mechanics orientation* (Typology I in figure 1).

As to the school administrative ethical issues, case B not only follow the legal purchase process, but also very clear of the expenditure of the money they raised, effectively used the public media to promote the school, have proper training system to their volunteers. Thus, the degree of the school administrative ethical is relatively high in case B.

3. Results of case analyses

After analysis those cases, we found the *organization characteristics* will influence the ethical leadership and catalytic mechanism further influence the adoptive of the different type of the ethical operation model. The longer working experience of the administrative group, the larger size of the school, and the location of the school (locate in downtown) will possess more fruitful catalytic mechanism and also higher degree of ethical operations.

The *leadership's characteristics* will also have the effect on those constructs (Groner, 1996, Butcher, 1997, Gray 1996). Relative to the male leaders (case A), female leaders (case B) tent to built relationships with their affiliates and makes the affiliates feels more democracy and cognitive the higher degree of the ethical leadership.

Different types of ethical operation affect the degree of school administrative ethics. The creativity orientation possess higher degree of the school administrative ethical, on the other hand, the degree of the school administrative ethical is relatively low in mechanics orientation. In sum, we conclude with the research framework (see figure 2) and hypotheses as follows.

(Insert Figure 2 about here)

Hypothesis 1: Organizational characteristics affect the adoptive of different types of ethical operation.

Hypothesis 2: Leader's characteristics affect the adoptive of different types of ethical operation.

Hypothesis 3: Different types of ethical operation affect the degree of school administrative ethics.

4. Empirical study

To empirically examine the hypotheses above, this paper needed reliable data. The author collected data from various sources, but not wanting to be limited by the data provided in case study, this paper also collected data via a survey. Efforts were made to collect the data from multiple sources to avoid the possibility of common method biases. In the second study, this paper also conducted survey to confirm the preliminary results we found in in-depth case study and try to increase the robustness of our results. The questionnaire was pre-tested with 60 teachers from elementary school of which 32 teachers responded to confirm the reliability and validity of the items. Cronbach's alphas of the constructs were all above 0.8 and revealed high reliability (Nunnally, 1978). The construct validity also confirmed those measurements with the exploratory factor analysis by the eigenvalue, factor loading, and the cumulative explained variance.

Based on the preliminary results case study found out, the second study sampled from 670 elementary schools in Taiwan and replied samples were 227 which response rate was 34 %. After eliminate incomplete 12 samples, valid samples were 215 and the valid response rate was 32 %.

As to the measurement of the constructs, this paper followed previous study to design our survey. The antecedents of the ethical operation model, organizational characteristics included: (1) the size, (2) age, (3) location, and (4) the year of administrative employees of this school. Leader's characteristics should be the principle's characteristics in elementary school included: (1) principle's gender, (2) age, (3) year, and (4) education level.

Ethical leadership reference to Wu's work in 2002 which was including 15 items as follows: (1) create organizational vision, (2) inspire employees potential, (3) empowerment, (4) help employees to become good leaders, (5) increase employees value, (6) inspire employees growth and self-esteem, (7) high ethical level to influence others, (8) emphasis on education and training, (9) rule one's own behavior with high moral standard, (10) protecting consumer and increase teaching quality, (11) insistent the moral ideal, (12) respect human rights and dignity of employees, (13) take employees as a unity and work hard with them together, (14) express high moral attentive, and (15) believe the human nature is well and devote one's best to support other employees. Each item was anchored on a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5).

Catalytic Mechanism reference to Collins (1999) research and included following 10 items: (1) fruitful and creative methods on the administrative and teaching affairs, (2) flexible on non-routine affairs, (3) authority empowerment in every division, (4) bottom to up goal setting, (5) consider other's suggestion and seeking for the improvement, (6) creative way to deal with the non-routine affairs, (7) fairness, (8) build explicit standard to executive the performance evaluation, (9) emphasis on the long-term performance, (10) develop school-based management. Each item was anchored on a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5).

School administrative ethics reference to Bloomington (1996) and Barth's (1990) work, included five parts: (1) purchasing and bidding affairs, (2) fund-raising ethics, (3) school public relationship, (4) teachers training and cooperation, and (5) management of volunteer. Each item was also anchored on a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5).

The frequency statistic, principle component factor analysis, cluster analysis, discriminate analysis and analysis of variance aimed to analyze the sample distribution. The reliability and validity of the measurements please see table 1. If the Cronbach's α of the measurements are ranging from 0.7 through 0.9 reveals acceptable reliability of the measurements (Nunnally, 1978). The dimensions in this paper are all above 0.9, reveal a high reliability of our measurements. As to the construct validity, eigenvalue and cumulative explained variance all demonstrated the stability of the measurements.

(Insert Table 1 about here)

5. Results

After the principle analysis, correlation analysis, cluster analysis, discriminate analysis to defined the different groups and named. We also used ANOVA, t-test, MANOVA to examine the differences in school administrative issues. The principle component factor analysis got the factor score of the each construct and precedes the following analysis. The correlation analysis found out there is no serious multicollinearity among independent variables. After hierarchical cluster analysis, we divided our samples into four groups. The ethical leadership can divide into two groups: Practical (N=57; 26.511%) and Idealistic (N=158; 73.488%). The catalytic mechanism can also divide into two groups: Fertile (N=151; 70.232%) and General (N=64; 29.767%). We also used K-Means cluster analysis to confirm our groups were robust. The results of discriminate analysis also confirmed our groups and the rate of correct grouping were 95.34% and 93.95%. We then named the four groups according to the previous work (see figure 3).

(Insert Figure 3 about here)

We used one-way ANOVA to examine the four groups in different background variables (i.e. organizational characteristics and leader's characteristics) and then used the Scheffe method to do the post-hoc test. Results

found out that different organizational characteristics (the year of administrative employees of this school) have the affect on the adoptive of different types of ethical operation about catalytic mechanism ($F=2.972 \cdot P=.033$) then partially supported **Hypothesis 1**. However, the leader's characteristics did not significantly affect the adoptive of different types of ethical operation, and then **Hypothesis 2** is not supported. This maybe due to the leader of elementary is principle, and most of the elementary teachers will hesitate to evaluate the principle's ethical behavior and then induce the results of insignificant.

The t-test was to make sure the four groups are valid and will differently exhibit in the ethical leadership and catalytic mechanism. Results found out that principles adopted different level of ethical leadership will significantly affect the school administrative ethics. The group of practical ethical leadership will adopted more school administrative ethics than the group of idealistic ethical leadership. In addition, the different degree of catalytic mechanism in elementary school will significantly affect the school administrative ethics. The group of fertile catalytic mechanism will adopted more school administrative ethics than the group of general catalytic mechanism.

Finally, we used one-way MNOVA and used Wilk's Lambda to examine the effect of ethical operation model on school administrative ethics. Results found out that different ethical operation model will significantly effect on purchasing and bidding affairs, fund-raising ethics, school public relationship, teachers training and cooperation, and management of volunteer (see table 2). Then **Hypothesis 3** is supported.

(Insert Table 2 about here)

6. Discussions and directions for future research

The purpose of this paper is tried to examine the antecedents (i.e. organizational characteristics and leader's characteristics) and consequences (school administrative ethics) of the ethical operation model. After conducting in-depth case study to confirm research framework and proposed relative hypotheses, in addition, this paper also conduct quantitative study to empirically tested those hypotheses and make conclusion. Results found out that the ethical operation model can divided into four groups by ethical leadership and catalytic mechanism, the practical ethical leadership and fertile catalytic mechanism are typology I as group of creativity orientation. The practical ethical leadership and general catalytic mechanism are typology II as group of leadership orientation. The idealistic ethical leadership and general catalytic mechanism are typology III as group of idealism orientation. Finally, the idealistic ethical leadership and fertile catalytic mechanism are typology IV as group of mechanics orientation. Besides, organization characteristics and leader's characteristics influence the ethical leadership and catalytic mechanism further influence the adoptive of the different type of the ethical operation model. Different types of ethical operation affect the degree of school administrative ethics.

Different background variations, ethical leadership, catalytic mechanism and ethical operational model will differently to the school administration ethical issues. The empirical results demonstrate several findings: first, there is significant effect of the average working experience of school assessments staff to catalytic mechanism seating. Next, the degree of school administration ethical issues will differently with the using of different ethical leadership. Additionally, there is significant effect of the catalytic mechanism to school administration ethical issues. Finally, the ethical operational model can be divided into four categories: innovation& mechanism, trend of mechanism, trend of leadership and perfection. Also, it is significantly effect to the school administration ethical issues. Further, as to the plentiful of catalytic mechanism, the average working experience of school assessments staff fifteen years will significantly higher than five years. In the present of school administration ethical issues, practice ethical leadership will higher than perfection ethical leadership, also, plentiful catalytic mechanism will higher than general catalytic mechanism. Ranking of ethical degree in operation model is as follow: innovation & mechanism, trend of mechanism, trend of leadership and perfection.

For future research, the question remains, how do those constructs change and evolve over time? If we look at the evolution process of the ethical behavior, some may argue that in different stages, the ethical behavior maybe rare, as time goes by, the organization characteristics and leader's characteristics may not influence the ethical behavior, the ethical leadership and the catalytic mechanism may produce different effect on the school administrative ethics. The relationship among organization characteristics, leader's characteristics ethical leadership, catalytic mechanism, and school administrative ethics could be further examined by longitudinal design.

This paper reference to the Yin's replication logic (1984) focus on the theoretical replication and select different types of schools in ethical operation model. This research focuses on elementary school with in-depth interview and empirical research. Caution must be exercised in generalizing to other industries or market in other countries. Future direction could include more cases based on the literal replication and select same types of schools in ethical operation model to conduct a more comprehensive conclusion or examine this theory with other industry. On the other hand, the future research could also focus on other research methods (e.g. field study, experiments, focus group study...) based on the conclusions proposed by this research to increase the generalizability of our findings. This would contribute to administrative and management theories.

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Table 1. Reliability and validity

Constructs	Dimensions	Cronbach's α	Eigenvalue	Cumulative explained variance
Ethical operation model	Ethical leadership	.9703	10.65	71.026
	Catalytic mechanism	.9138	5.79	57.98
School administrative ethics	Purchasing and bidding affairs	.9316	4.49	74.93
	Fund-raising ethics	.9202	4.304	71.732
	School public relationship	.9108	6.640	47.429
	Teachers training and cooperation	.9350	7.099	59.159
	Management of volunteer	.9009	4.030	67.173

Table 2. Results of the ethical operation model on school administrative ethics

School administrative ethics	Ethical operation model	Samples	Means	S.D.	Rankings of the means	Sig.
Purchasing and bidding affairs	I. Creativity orientation	47	-.9221417	1.1326908	I>IV>II>III	P=.000 (1-4*)
	II. Leadership orientation	16	-.3325340	.9218425		P=.02 (2-4*)
	III. Idealism orientation	9	-.1631999	.7038820		P=.000 (4-1*)
	IV. Mechanics orientation	142	.3530282	.7418566		P=.028 (4-2*)
Fund-raising ethics	I. Creativity orientation	47	-.7345360	1.1487074	I>IV>II>III	P=.000 (1-4*)
	II. Leadership orientation	16	-.7103316	.8904700		P=.000 (2-4*)
	III. Idealism orientation	9	-.1490997	.5017778		P=.000 (4-1*)
	IV. Mechanics orientation	142	.3526943	.7530681		P=.000 (4-2*)
School public relationship	I. Creativity orientation	47	-1.1611578	.8954295	I>IV>II>III	P=.001 (1-2*)
	II. Leadership orientation	16	-.2724481	.9038351		P=.005 (1-3*)
	III. Idealism orientation	9	-.1643685	.3420103		P=.000 (1-4*)
	IV. Mechanics orientation	142	.4344104	.7081542		P=.001 (2-1*)
Teachers training and cooperation	I. Creativity orientation	47	-.9880112	.9591920	I>IV>II>III	P=.000 (1-4*)
	II. Leadership orientation	16	-.4713262	.9619931		P=.001 (2-4*)
	III. Idealism orientation	9	-.2300008	.3430672		P=.000 (4-1*)
	IV. Mechanics orientation	142	.4047794	.7608819		P=.001 (4-2*)
Management of volunteer	I. Creativity orientation	47	-.7689933	1.2002165	I>IV>II>III	P=.000 (1-4*)
	II. Leadership orientation	16	-.2570817	.7890030		P=.000 (4-1*)
	III. Idealism orientation	9	.0680214	.3690207		
	IV. Mechanics orientation	142	.2808154	.8301272		

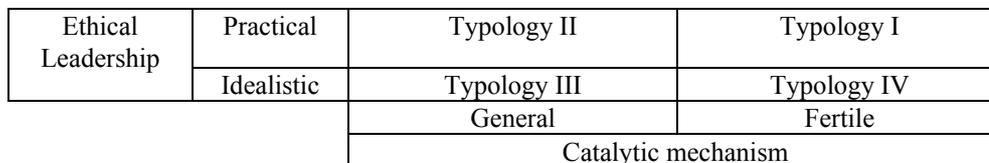


Figure 1. Ethical Operation Mode

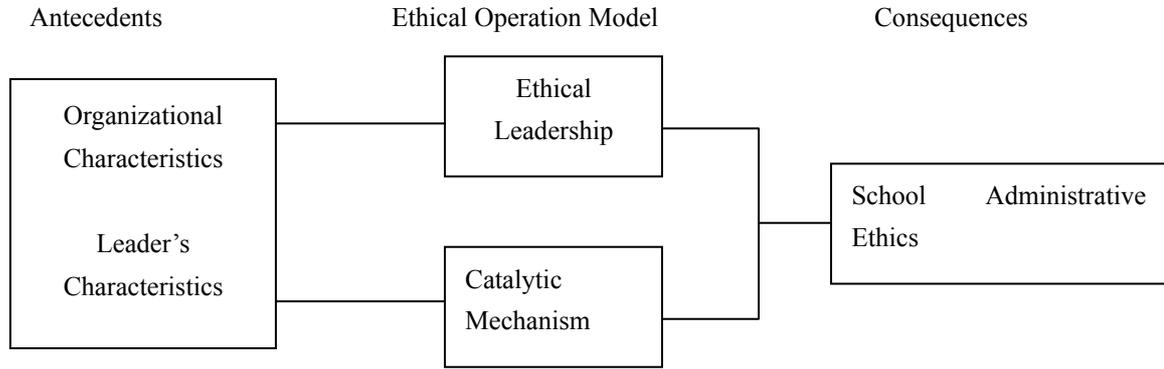


Figure 2. Research Framework

Ethical leadership	Practical (N=158)	Typology II Leadership orientation N=16; 7.4%	Typology I Creativity orientation N=142; 66.04%
	Idealistic (N=57)	Typology III Idealism orientation N=48; 21.86%	Typology IV Mechanics orientation N=9; 4.1%
		General (N=64)	Fertile (N=151)
Catalytic mechanism			

Figure 3. Results of the cluster analysis