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### The Role of Ethical Environment in Reducing Escalation of Commitment Bias

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**Abstract:** Several empirical studies have shown that decision makers tend to experience an escalation of commitment bias, namely a tendency to continue investment projects that are less profitable, even though there is information of the less profitable project performance and that other available alternative investment opportunities are more profitable in the future. This study aims to improve the manager's decision making behavior model by considering the ethical environment as one of the factors that influence investment project evaluation decisions. More specifically, this study empirically examines the ethical environment as a strategy to reduce the tendency for escalation of commitment behavior. This study uses a laboratory experimental method with a 2 x 2 factorial experimental design between subject with adverse selection (present/absent) and ethical environment (strong/weak). The research sample consisted of 246 undergraduate and postgraduate students in Accounting and Management who acted as investment project managers. Based on ANOVA analysis results, it shows that managers who experience adverse selection conditions tend to continue unfavorable projects (conduct escalation of commitment). In addition, the results of this study also show that the tendency of managers to end investment projects that are not profitable for managers who are in a condition of a strong ethical environment will be greater when they experience adverse selection conditions compared to when they do not experience it.

**Keywords:** Ethical Environment; Escalation of Commitment; Bias; Commitment Behavior

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### Introduction

Most companies are involved in investment projects to pursue long-term growth and competitive advantage (Huang & Chang, 2010). Every type of investment has risk. Several previous empirical studies have shown that decision-makers tend to continue on less profitable investment project even though there is information that the project's

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performance is less profitable and there are other more profitable alternative investment opportunities in the future (Dewi & Supriyadi, 2012; Cheng, Schulz, Lockett, & Booth, 2003; Harrell & Harrison, 1994; Harrison & Harrell, 1993; Rutledge & Karim, 1999). This bias in making decision in evaluating investment projects is known as the escalation of commitment bias phenomenon.

Most studies explain the escalation of commitment phenomenon using agency theory framework (Huang & Chang, 2010; Booth & Schulz, 2004; Harrell & Harrison, 1994; Harrison & Harrell, 1993). Based on the agency theory point of view, the main reason for the escalation of commitment is that managers are motivated by self-interest (Harrell & Harrison, 1994; Harrison & Harrell, 1993). However, Rutledge & Karim (1999) stated that agency theory alone is not enough to explain the escalation of commitment phenomenon because agency theory ignores the influence of managers' ethical considerations in making economic decisions. Noreen (1988) stated that when making economic decisions, managers are not only influenced by self-interest but can also be influenced by ethical considerations.

This study attempts to comprehensively examine the study conducted by Noreen (1988), which stated that decision making is not only motivated by self-interest but can also be influenced by ethical sensitivity. This study will look at the ethical sensitivity of individuals in the phenomenon of bias in decision making escalation of commitment. Ethical sensitivity will be viewed from external factors, namely the organizational environment in which the individual is located. The ethical environment that exists within an organization can influence the manager's business decision-making process. Booth & Schulz (2004) stated that a strong ethical environment is capable of causing a general tendency for managers to act in line with the interests of their organizations and, more specifically, will reduce the tendency of managers to act opportunistically or selfishly when they are in agency problems.

This study aims to improve the manager's decision-making behaviour model by considering the ethical environment as an external factor influencing the manager's investment project evaluation decisions. This study aims to strengthen the external validity of the research results of Booth & Schulz (2004). This study will test the ethical environment empirically as an external factor of individual ethical sensitivity in reducing the behavioural tendency of escalation of commitment in organizations.

## **Literature Review**

### *Ethical Environment*

Arnold et al. (1999) developed a framework showing that an organization can foster or develop an ethical environment so that in the end, it can produce more ethical behaviour. According to Booth & Schulz (2004), several factors are related to the ethical environment of the organization, namely: (a) mission and values; (b) leadership and management influence; (c) peer group influence; (d) procedures, rules and codes of ethics; (e) ethics training; and (f) rewards and sanctions. The first three factors (mission and values, leadership and management influence, and peer group influence) reflect the importance of social norms' role in the work environment. Organizations that have a well-defined mission and values can influence and guide ethical decision making (Kitson and Campbell, 1996 as cited by Dalton & Radtke, 2013; Ford & Richardson, 1994).

Two further factors of an organization's ethical environment (procedures, rules and codes of ethics; and ethics training) reflect the role of an organization's social practice. Organizational practices such as codes of ethics and ethics training can reinforce the ethical norms of a work environment and encourage ethical decision making. The last organizational ethical environmental factors (rewards and sanctions) reflect the importance of reward structures in supporting ethical behaviour (Dalton & Radtke, 2013).

### *Escalation of Commitment*

Bazerman (1994) as cited by Dewi & Supriyadi (2012) defined non-rational escalation as an increase in individual commitment to decisions taken previously based on considerations outside the rational decision-making model. The phenomenon of escalation of commitment bias can be explained in the agency theory framework. The principal-agent model explains that when managers act in their own interests by sacrificing the company's interests (incentive to shirk) and they have relevant information that is not owned by senior managers or other parties (privately-held information), this will encourage the emergence of adverse selection problems (Eisenhardt, 1989; Harrell & Harrison, 1994; Harrison & Harrell, 1993).

### *Hypothesis Development*

Agency theory predicts that managers' decisions can be influenced by the presence of adverse selection conditions, namely the presence of incentive to shirk and privately-held information (Eisenhardt, 1989). (Dewi & Supriyadi, 2012) stated that in conditions of adverse selection, agents would perceive behaviour that seems irrational in principle view (such as continuing non-profitable investment project) as rational behaviour. The research results (Booth & Schulz, 2004; Dewi & Supriyadi, 2012; Harrell & Harrison, 1994; Harrison & Harrell, 1993; Rutledge & Karim, 1999) show that when managers are in adverse selection conditions (have incentive to shirk and privately-held information), they tend to do escalation of commitment by continuing investment projects that are less profitable. Therefore, the first hypothesis in this study can be formulated as follows:

H<sub>1</sub> : project managers who experience adverse selection conditions tend to continue projects that are not profitable compared to project managers who do not experience adverse selection conditions.

Arnold et al. (1999) stated that organizations could provide an environment that encourages ethical decision making by members of the organization. Mission and values, leadership and management influence, peer group influence, procedures, rules and codes of conduct, ethics training, also organizational rewards and sanctions are many things that can support ethical decision-making, all these things reinforce each other to create a strong ethical environment that will encourage the ethical decision making of all managers to a greater extent (Booth & Schulz, 2004; Ford & Richardson, 1994). When individuals are in an organization that has a strong ethical environment, the decisions that individuals will make should be in line with the interests of the organization and not in conflict with ethical values that exist in the organization.

A strong ethical environment will create a general tendency for managers to more strongly align their behaviour with organizational norms so that the level of ethical decision making by all managers in the organization will be greater (Booth & Schulz, 2004). The results of Booth & Schulz's (2004) research show that a strong ethical environment is proven to significantly reduce the tendency of managers to make escalation of commitment by continuing non-profitable projects. In the conditions of a strong ethical environment, project managers' evaluation decisions are likely to be in line with company interests, so they are less likely to pursue non-profitable projects. Likewise, when there are conditions of adverse selection, a strong ethical environment is expected to reduce the self-interest behaviour of managers when evaluating non-profitable projects. Therefore, the second and third hypothesis in this study can be formulated as follows:

- H<sub>2</sub> : project managers who are exposed to a strong ethical environment tend to end non-profitable projects compared with the project managers who are exposed to a weak ethical environment.
- H<sub>3</sub> : the tendency of project managers to end non-profitable projects to project managers who are exposed to a strong ethical environment will be greater when they experience the adverse selection conditions compared to when they do not experience it.

## **Methods**

### ***Research Design***

This study uses an experimental laboratory method. The factorial design of this research experiment is 2 x 2 between subject with adverse selection (present/absent) and ethical environment (strong/weak). The research subject will be randomly assigned to one of the four cells. Each subject will do an experimental task in a class.

### ***Research Subject***

The subjects of this study were students from Master of Management, undergraduate and postgraduate students from Master of Science majoring in Accounting and Management. The requirement for this research subject is that students who have passed management accounting and/or financial management courses. Students who have passed these courses are appropriate and suitable proxy managers for this research so that they are expected to be able to evaluate the performance of an investment project and make decisions related to the project (Dewi & Supriyadi, 2012).

### ***Experimental Procedure***

This study adopts and combines the escalation of commitment research instruments used by Dewi & Supriyadi (2012) and Rutledge & Karim (1999), as well as the ethical environment by Booth & Schulz (2004). All subjects in the experimental task were asked to play the role of investment managers who had to make investment decisions in the form of "continuing" or "not continuing" the investment project. Each subject was randomly assigned to complete one of the four cases. The first version of the case contains basic project information, no adverse selection conditions: private information and incentive to shirk, and a weak ethical environment condition. The second version of the case contains

basic project information, no adverse selection conditions: private information and incentive to shirk, and a strong ethical environment condition. The third version of the case contains basic project information, conditions of adverse selection exist: private information and incentive to shirk, and a weak ethical environment condition. The fourth version of the case contains basic project information, conditions of adverse selection exist: private information and incentive to shirk, and a strong ethical environment condition.

After the subject evaluates and makes a decision, the subject is asked to answer the manipulation check questionnaire and demographic questions. Manipulation checks in this study were conducted to determine whether the participants understood well the situations and conditions they faced when making decisions about the projects they were working on (Dewi & Supriyadi, 2012). The manipulation check instrument in this study was adopted from Dewi & Supriyadi (2012) and Booth & Schulz (2004). Two manipulation checks consist of two questions in relation to adverse selection conditions and the ethical environment experienced by the subject. After all the subjects completed all experimental assignments, they were then debriefed.

### ***Research Variable***

#### **Dependent Variable**

The dependent variable in this study is the tendency of the subject to make escalation of commitment which is proxied by the preference of the subject's decision to continue or discontinue the non-profitable project. Subjects assessed the decision to continue or discontinue the non-profitable project using a 10-point Likert scale (1 = definitely continue to 10 = definitely discontinue). The midpoint of this scale is between 5 and 6, and options 1-5 indicate the decision to continue the non-profitable project and options 6-10 indicate a decision to discontinue non-profitable project (Booth & Schulz, 2004; Huang & Chang, 2010).

#### **Independent Variable**

##### **Adverse Selection**

Adverse selection in this study is in the form of treatment, where there is an adverse selection condition and no adverse selection condition. There is an adverse selection condition meaning that the subject experiences two conditions related to adverse selection: private information and incentive to shirk. There is no adverse selection condition, meaning that the subject does not experience two conditions related to the adverse selection. Private information relating to information about the success or failure of this project is not available to others in the company or industry. The incentive to shirk is associated with the termination of this project will cause others in the company and industry to believe that the project is failing so that it will damage their reputation as highly talented managers and will likely cause a competing company to withdraw more important position offers by a higher salary.

##### **Ethical Environment**

The ethical environment in this study is in the form of treatment, namely a strong ethical environment and a weak ethical environment. In the conditions of a weak ethical environment, subjects were told that there was no explicit information about the ethical environment in the company. In the conditions of a strong ethical environment, subjects

are informed about the conditions that exist in the company and industry which are aligned with the factors that affect the ethical environment of the organization.

## Findings

### *Research Data Overview*

The number of students participating in this research experiment was 313 students consisting of 241 undergraduate students, 51 master of science students, and 21 master of management students. Participants who were sampled in this study were participants who completed all procedures in the experimental task and passed the manipulation check. The number of participants who did not complete all experimental procedures in this study was 4 people or 1.28%. The number of participants who did not pass the manipulation check was 63 people or 20.13%. The final number of samples to be analyzed in this study were 246 participants or 78.59% consisting of 193 or 61.66% undergraduate students, 37 or 11.82% master of science students, and 16 or 5.11% master of management students. Most of the sample in this study were women as many as 169 participants or 68.70% and the age of 17-20 years as many as 148 participants or 60.16%, the age of 21-25 years as many as 77 participants or 31.30%.

### *Hypothesis Testing*

Table 1 shows the descriptive statistics of the four treatments in this study, which are adverse selection (present or absent) and the ethical environment (strong or weak). The number of research subjects who are not in conditions of adverse selection and a weak ethical environment is 74 samples. The number of research subjects who are in conditions of adverse selection and a weak ethical environment is 50 samples. The number of research subjects who are not in conditions of adverse selection and a strong ethical environment is 64 samples. The number of research subjects who are in conditions of adverse selection and a strong ethical environment is 58 samples. Thus, the number of research subjects who are not in adverse selection conditions is 138 samples, while the number of research subjects who are in adverse selection conditions was 108 samples. The number of research subjects who are in a weak ethical environment is 124 samples, while the research subjects who are in a strong ethical environment are 122 samples.

Based on Table 1, it can be seen that research subjects who are in adverse selection conditions have a mean value (3,76) that is smaller than the mean value of research subjects who are not in adverse selection conditions (5,72). This shows that project managers who are in adverse selection conditions tend to continue projects that are not profitable compared to project managers who are not experiencing adverse selection conditions. Table 1 also shows that research subjects who are in conditions of a weak ethical environment have a mean value (5,15) that is higher than the mean value of research subjects who are in a condition of a strong ethical environment (4,56). This indicates that project managers who are in conditions of a weak ethical environment tend to discontinue non-profitable projects compared to project managers who are in conditions of a strong ethical environment.

Table 1. **Descriptive Statistics**

Adverse Selection	Ethical Environment		Total
	Weak	Strong	
<b>Absent</b>	<i>Cell 1</i>	<i>Cell 3</i>	
	Mean = 6,27	Mean = 5,08	Mean = 5,72
	Std. deviation = 2,68 n = 74	Std. deviation = 2,76 n = 64	Std. deviation = 2,77 n = 138
<b>Present</b>	<i>Cell 2</i>	<i>Cell 4</i>	
	Mean = 3,50	Mean = 3,98	Mean = 3,76
	Std. deviation = 2,34 n = 50	Std. deviation = 2,36 n = 58	Std. deviation = 2,35 n = 108
<b>Total</b>	Mean = 5,15 Std. deviation = 2,88 n = 124	Mean = 4,56 Std. deviation = 2,62 n = 122	Mean = 4,86 Std. deviation = 2,77 n = 246

Dependent variable: Escalation of Commitment

Note: lower scores (5 or less) indicate a decision to continue the project, while higher scores (6 or more) indicate a decision not to continue the project.

The hypothesis testing results of this study using ANOVA are shown in Table 2. The first hypothesis of this study states that project managers who experience adverse selection conditions tend to continue projects that are not profitable compared to project managers who do not experience adverse selection conditions. Table 2 shows the significance value of the adverse selection main effect, namely  $F_{1,242} = 34,248$ , significance value = 0,000. Based on Table 1, the average value of project managers in conditions of adverse selection is lower than the average value of project managers in conditions without adverse selection, namely  $3,76 < 5,72$ . These results indicate that the first hypothesis of this study is supported, meaning that project managers experiencing adverse selection conditions tend to continue projects that are not profitable or make an escalation of commitment. The results of this study are consistent with the results of research (Booth & Schulz, 2004; Dewi & Supriyadi, 2012; Harrell & Harrison, 1994; Harrison & Harrell, 1993; Rutledge & Karim, 1999).

Table 2. **Analysis of Variance**

Source	Sum Squares	of df	Mean-square	F	Sig.
Adverse Selection	225,116	1	225,116	34,248	0,000
Adverse Selection Ethical Environment*Ethical Environment	7,581	1	7,581	1,153	0,284
	42,261	1	42,261	6,429	0,012

Error	1590,687	242	6,573
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Dependent variable: Escalation of Commitment

The second hypothesis of this study states that project managers who are exposed to a strong ethical environment tend to end non-profitable projects compared to project managers who are exposed to a weak ethical environment. Table 1 shows that the average score of project managers who are in a weak ethical environment is higher than the average score for project managers who are in a strong ethical environment, namely  $5,15 > 4,56$ . Table 2 shows that the ethical environment main effect is not significant, namely  $F_{1,242} = 1,153$ , the significance value = 0,284. These results indicate that the second hypothesis of this study is not supported. The results of this study are inconsistent with the results of the study (Booth & Schulz, 2004).

The third hypothesis of this study states that the tendency of project managers to end projects that are not profitable for project managers who are exposed to a strong ethical environment will be greater when they experience conditions of adverse selection compared to when they do not. The interaction effect between the adverse selection and ethical environment in Table 2 shows a value of  $F_{1,242}$  by 6,429 and a significance value of 0,012. These results indicate that the difference in the tendency to end a non-profitable project between a weak ethical environment and a strong ethical environment is significantly different between managers who experience adverse selection conditions and managers who do not experience adverse selection conditions. This means that the third hypothesis of this study is supported. The results of this study are inconsistent with the results of the study (Booth & Schulz, 2004).

**Conclusion**

This study aims to improve managers' decision-making behaviour model by considering the ethical environment as an external factor influencing the manager's investment project evaluation decisions. Based on the results of statistical tests using two ways ANOVA, the first and third hypotheses of this study are supported, while the second hypothesis of this study is not supported. The results of this study indicate that project managers who are in adverse selection conditions tend to make escalation of commitment by continuing non-profitable projects compared to project managers who are not experiencing adverse selection conditions. This study fails to show that project managers who are in a strong ethical environment tend to terminate projects that are not profitable. However, this study is successful in showing that the tendency of managers to end investment projects that are not profitable for managers who are in a strong ethical environment is greater when they experience conditions of adverse selection compared to when they do not experience it.

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