# THE EFFECT OF NEGATIVE FRAMING AND RISK PREFERENCE IN THE ADVERSE SELECTION CONDITION TOWARD ESCALATION OF COMMITMENT

# PENGARUH NEGATIVE FRAMING DAN RISK PREFERENCE DALAM KONDISI ADVERSE SELECTION TERHADAP ESKALASI KOMITMEN

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Abstract : The Effect of Negative Framing and Risk Preference in the Adverse Selection Condition Toward Escalation of Commitment. This study is intended to examine the influence of negative framing, risk preference and adverse selection toward finance manager's decision for continuing a failing project (escalation of commitment). This experiment using factorial design 2x2 and 1x2 between subject with instrument like cases given for 91 respondents. Hypothesis in this study were analyzed by using two ways ANOVA. The results show that negative framing has significance influence toward finance manager's decision for continuing a failing project. On the other hand, interactive effect between negative framing and adverse selection has no significance influence toward finance between risk preference to finance manager's decision for continuing a failing project. Also with interactive effect between risk preference and adverse selection has no significance toward finance manager's decision for continuing a failing project. Also with interactive effect between risk preference and adverse selection has no significance toward finance manager's decision for continuing a failing project. Also with interactive effect between risk preference and adverse selection has no significance toward finance manager's decision for continuing a failing project.

Keywords: Negative framing, risk preference, adverse selection, escalation of commitment

Abstrak : Pengaruh Negative Framing dan Risk Preference dalam Kondisi Adverse Selection terhadap Eskalasi Komitmen. Tujuan penelitian ini untuk menguji pengaruh negative framing, risk preference, dan adverse selection terhadap pengambilan keputusan manajer keuangan untuk melanjutkan proyek yang mengindikasikan kegagalan (eskalasi komitmen). Penelitian eksperimen ini menggunakan desain factorial 2 x 2 dan 1x2 between-subject dengan instrumen berupa kasus yang diberikan kepada 91 responden. Hipotesis dalam penelitian ini dianalisis dengan two ways ANOVA. Hasil penelitian ini menunjukkan bahwa negative framing berpengaruh signifikan pada keputusan manajer untuk melanjutkan proyek yang mengindikasikan kegagalan. Sementara itu pengaruh interaksi antara negative framing dan adverse selection menunjukkan pengaruh yang tidak signifikan pada keputusan manajer untuk melanjutkan proyek yang mengindikasikan kegagalan. Penelitian ini juga menunjukkan pengaruh yang tidak signifikan antara risk preference terhadap keputusan manajer untuk melanjutkan proyek yang mengindikasikan kegagalan. Begitu juga dengan interaksi antara risk preference dan adverse selection menunjukkan pengaruh yang tidak signifikan pada keputusan manajer untuk melanjutkan proyek yang mengindikasikan kegagalan. Begitu juga dengan interaksi antara risk preference dan adverse selection menunjukkan pengaruh yang tidak signifikan pada keputusan manajer untuk melanjutkan proyek yang mengindikasikan kegagalan.

Kata kunci: Framing negatif, preferensi risiko, kondisi adverse selection, eskalasi komitmen

#### **INTRODUCTION**

Any manager of the company will surely experience a situation where the manager must take the decisions (decision making). The entire function of management consists of planning, organizing, actuating and controlling, will require the decision-making stage of a manager. A manager should be careful in taking decisions because any decision will be very influential to the future of the company. The decisions taken can have an impact in the short term or the long term.

Decision-making becomes an integral part of the success or failure of a manager (Buhler in Dewanti, 2010). The decisions taken will be effective depends on skills of managers decide the decisions appropriately and accurately. While decision making that is inappropriate and inaccurate will be fatal for the company and will have an impact on the company's bankruptcy (Nurhayati, 2014).

Decision-making means that someone should do an assessment and set options based on alternatives presented (Dewanti, 2010). Therefore, decision making over the same issue by individuals with one another could be different depending on the point of view of each.

Company's manager usually decided the investment for his benefit. The project became the responsibility of the managers did not always achieve success, but instead, the projects sometimes fail. As someone responsible, the manager often has an emotional attachment to the project. Some empirical studies explained that experienced managers and experts in the evaluation of the project, tend to continue the project when the handled project face failures (Chang & Ho, 2004). Meanwhile, Staw (1976) shows that the manager who started a project and then the project became unprofitable, he likely will continue the project rather than a manager who didn't start the project.

Escalation of commitment is when the decision makers decided to increase the allocation of resources to a project that led to the failure (Ruchala, 1999). Sari (2017: 49) states that there are many reasons why person behaves escalation of a commitment. First, because of a biased perception of the individual. Individuals affected by biased perceptions tend to look for justification of actions taken. Second, the biased consideration of the individual owned because already had the information earlier. Bias considerations then could be explained in the prospect theory found by Kahneman and Tversky (1979) through the framing effect. Where individuals get negative information, it will be likely to dare take the risk. On the other hand, when individual's information is positive, it will tend to avoid the risk.

Grasiaswaty in Dewanti (2010) mentioned that a reference point that made a benchmark in comparison very closely related to the framing. In context of the decision to project indicating the failure, cost of which has been issued as an initial investment acts as a reference point for managers. The fact that the project started showing negative prospects, there is a possibility of loss/gain for sure, and also the possibility of not sure loss/gain in the future. When the possibilities in framing negatively, then information losses will be more prominent. When the possibilities in framing positively, then information gains will be more prominent.

Third reason why individual doing the escalation of commitment is the existence of impression management, namely a desire to focus on the results. Fourth reason due to the competition from two parties is not commonly referred to as irrationality of competitive.

Various research has been conducted to explain the behaviour of the escalation of commitment. Brockner (1992) suggested that three theories can escalation that is selfexplain the justification theory, prospect theory, and dilemmas. decision Self-justification theory, prospect theory, and the theory of decision dilemmas intimately connected with psychological and social factors that shows on ego and desire to maintain a reputation for themselves that make someone reluctant to admit mistakes and failures. All theory based on the psychological side of the individual. In the meantime, there is a theory based on rationality behaviour of managers and owners of the company is the agency theory (Kanodia, 1989).

Escalation of commitment behavior in this study is described using three approaches theory, namely the agency theory, a theory of self -justification, and prospects theory. Agency theory by Jensen and Meckling (1976) explained that the agency relationship is a contract whereby one or more principals govern others as agents to do the work on behalf of the principal and authorized to the agent to make decisions that are best for the principal. Agency theory can explain the escalation of commitment through the availability of information that is owned by the manager can influence a decision that decided. The underlying assumption of the agency theory mentions that the interests of managers (agents) and the owner of the company (the principal) is sometimes different, then there are a possibility the managers will maximise his interests than corporate interests (Kanodia, 1989). Agency theory usually occurs when there is an asymmetric information owned by managers with the owner of the company. An imbalance of information can occur because managers (agents) are more exposed to the project in the company rather than the owner of the company (the principal). Therefore, information agents will be more than the information be possessed by the principal.

Some earlier researchers had already attempted to uncover the influence

of negative framing and adverse selection toward escalation of commitment. Dwita (2007) and Dewanti (2010) states that negative framing and adverse selection does not effect in a significant way toward the tendency of escalation of commitment. Some research using student as subject instead of actual managers. These results supported by Sharp and Salter (1997) which found that negative framing and adverse selection did not affect a tendency of escalation of commitment. Meanwhile, different results are obtained in a previous study conducted by Salter et al. (2004) that showed different results that there is influence between framing with adverse selection toward the tendency of escalation of commitment. Similar results were also found in the Arimawan (2014) that gets results that adverse selection effect may trend towards the escalation of commitment. The research of using students as a substitute for the real manager.

This imbalance information led to a problem called the principal-agent problem, where the agent will benefit himself and ignore the company (Gudono and Hartadi, 1998). By having this imbalance information, managers have the opportunity to add his benefit associated with investments that taken toward the project which indicates the failure. The existence of asymmetric information may establish adverse selection conditions. So it can be concluded that the condition of adverse selection can occur when the agent has information more than principal.

In contrast to the agency theory, self-justification theory and prospects from theory more emphasis the psychological side of the individual. Escalation of commitment explained by the presence of framing information to a problem that is acceptable to a manager, and framing the information influence on decisions taken. Framing is a presentation of information that can be presented as a profit or loss to know a reaction in addressing such information. As according to Yusnaini (2005) which mentioned that alternative decision information presented negatively, would tend to affect the behaviour of risk-seeking or finding risk by decision makers. Meanwhile, when an alternative decision information presented positively, it will affect the behaviour of risk averse or risk aversion by decision makers.

Based on the description above, there are differences over the tendency of escalation of commitment on previous research results. So the researchers wanted to re-test variable negative framing and adverse selection against a tendency of escalation of commitment. Because of the adverse selection can occur when the agent has information more than company's principal.

This research also researches on modification by adding a variable, namely risk-preference. With the aim to find out how the influence of risk preference of individuals when faced with adverse selection conditions toward decisionmaking escalation of commitment. Risk preference is an attitude taken by someone when faced with a decision that must be taken. There are three types of individual's risk preference according to Debertin (1986), namely risk preferer/risk loving, risk neutral and risk averse.

Research conducted by Tanaka and Sawada (2015) has the result that the type of risk averse manager would prefer private investment than borrow in the bank or informal sources other than managers who are tolerant of risk. However, the company led by a manager who is tolerant of risk will always grow faster than firms led by managers of risk averse. Research conducted by Andhini (2018) has the result that individuals with categories risk seeker tend to do the escalation of commitment rather than an individual in a group risk averse. Meanwhile, the research done by Haryono (2019) has the result that the risk preference does not correlate investment decision-making. This fenomena makes the researchers sought to re-examine with same variables namely risk preference decision making associated with the escalation of commitment will result in the same or different results.

# **RESEARCH METHODS**

#### **Type of Research**

This research is research a experiment. Furthermore, this research uses the quasi-experiment type (quasiexperiment). The design of this study is factorial experimental design. This experiment uses between-subjects design with factorial 2 x 2 and 1 x 2 to find out the different responses in this case the commitment escalation decision for each individual by giving different treatments.

#### Time and Place of Research

This research was conducted at the Faculty of Economics, Yogyakarta State University at March-April 2019.

# Target/Subject of Research

The population of this study is the 2016 Accounting Study Program students of the Faculty of Economics, Yogyakarta State University, amounting to 81 students and 2017 Accounting Study Program students, amounting to 53 students. Measurement of samples in this study using the Gay method. Based on the gay method in Gendro Wiyono (2011: 86), the sample used in the experimental research was a minimum of 15 respondents per group. This study uses 6 (six) combinations of cases so that the minimum number of samples is  $15 \times 6 = 90$  students.

#### Procedure

Experiments are designed to be done by participants. There are 4 stages as follows:

a) Phase of Participant Data Filling

At this stage, participants fill in their personal data in the form of name, gender, class, GPA, and courses that have been taken.

#### b) Treatment Phase

At this stage, participants were given a case with four different types, namely cases with negative framing, without negative framing, there was adverse selection and without adverse selection. The case manipulated participants as financial managers of a company at The AFROZ Shop. Participants as financial managers make decisions to invest or not on projects that indicate failure. At this stage also, participants were given a questionnaire to measure Risk Preference for each participant based on the Ten Paired Lottery instrument using 10 question items. This stage determines the level of participant's Risk Preference so that participants get the risk taker, risk neutral, and risk averse types.

#### c) Decision Making Phase

At this stage, the researcher asks participants to choose between two options to increase investment or not to add investment to projects that indicate failure. Participants were also asked to determine the level of confidence in the options they chose. This confidence level is written by giving signs on 1-6 arbitrary scales of choice very unsure and very confident.

#### d) Manipulation Check Stage

Manipulation check consists of two questions. Participants are asked to answer true or false statements given in these questions. The question of manipulation check is a control of the answers given by participants which shows how far the level of understanding of the case or treatment is given.

Table 1. Factorial Experiment Design 2x2 (Negative Framing x Adverse Selection)

Treatment	Adverse Selection		
Treatment	With	Without	
Negative	Treatment	Treatment	
Framing	А	В	
Non Negative	Treatment	Treatment	
Framing	С	D	

Treatment	Adverse Selection		
Treatment	With	Without	
Risk	Treatment	Treatment	
Preference	Е	F	

#### Table 2. Factorial Experiment Design 1x2 (Risk Preference x Adverse Selection)

# Data, Instrument, and Data Collection Technic

#### **Data Instrument**

The data in this study are primary data obtained through experimental research. The research instrument adopted and modified the instrument used by Ratih Dewanti (2010).The study used instruments from Rutledge (1995). The researcher used a reference instrument from Ratih Dewanti to build the design of Negative Framing and Adverse Selection instruments. This study adopted and modified the instrument used by Ida Ayu Purnama (2015).The study uses instruments from Alisa Brink and Frederick (2013) who are adopters of the instrument Holt and Laury (2002) to develop the design of a risk preference instrument. In this variable, the instrument is a Ten Paired Lottery Choice, where respondents are asked to choose option A and option B.

#### **Analysis Data Technic**

The data analysis technique used to test the research hypotheses is Two Ways Univariate Analysis of Variance (ANOVA).

# RESULT RESEARCH AND DISCUSSION

In this study the hypotheses were tested using Two Ways Univariate ANOVA. The test results can be found through the tables below.

## Table 3. Two Way ANOVA Test Results

Dependent variable: Escalation of Commitment					
Variable	F	Signifi	Information		
Testing		cant			
Negative	4,262	0,042	H1		
Framing	4,202		Accepted		
Negative			H2		
Framing*Adv	0,245	0,622			
erse Selection			Rejected		
Risk	0.016	0,806	H3		
Preference	0,216		Rejected		
Risk					
Preference*Ad	1,500	0,229	H4		
verse			Rejected		
Selection					

Hypothesis 1 (H1) proposed in this study is that individuals faced with negative framing will tend to continue the project, which indicates failure compared to individuals who are not faced with negative framing. Based on the results of the test, the value of significance for Hypothesis 1 is 0,042. The value of the significance of H1 for H1 is less than 0,05, meaning that both groups have significant differences in continuing the project, which indicates failure. The next information, obtained F count 4,262 > Ftable 3,95 (obtained in the F distribution table for 5% significance, df denominator = 1 and df numerator = 89). So H1, which states that individuals faced with negative framing will tend to continue the project, which indicates failure compared to individuals who are not faced with negative framing, is **accepted**.

The results of this study support the research conducted by Dewanti (2010), which states that negative framing has a significant effect on the tendency of escalation of commitment. Thus, the results of this study do not support the research conducted by Sany Dwita (2007), which states that negative framing does not significantly influence the tendency of escalation of commitment. The results of this study also support the prospect theory developed by Kahneman and Tversky (1981) that frames adopted by someone can influence their decisions. The result of this study also the selfsupports justification theory that was first introduced by Staw (1976) that a manager who is faced with a project setback will try to increase his commitment to the project in the hope that he will get a better outcome and the manager's credibility does not decrease.

The hypothesis (H2) proposed in this study is that individuals are faced with

negative framing and adverse selection conditions will tend to continue the project which indicates failure compared to individuals faced with negative framing without adverse selection conditions. Based on the results of the test, the value of significance for Hypothesis 2 is 0,622. The value of significance for H2 is more than 0,05, meaning that the two groups do not have a significant difference in continuing the project, which indicates failure. The next information, obtained F value of 0.295 < F table 3.95 (obtained in the F distribution table for significance of 5%, df denominator = 1 and df numerator = 89). Then H2, which states that individuals are faced with negative framing and adverse selection conditions will tend to continue the project which indicates failure compared to individuals who are faced with negative framing without adverse selection conditions. is rejected.

The results of this study support the research conducted by Dwita (2007) and Dewanti (2010) which stated that there is no interaction between negative framing and adverse selection on the tendency escalation of commitment. Dewanti (2010) stated that there is a possibility that managers have a cooperative attitude towards the company. Because of this cooperative attitude, managers will expect to get greater utility.

The results of this study fail to show that agency theory explained through the ownership of private information selection) when (adverse there is asymmetry information with the principal will influence the manager's decision. This result of study states that managers do not escalate commitments because there is a possibility that managers have a cooperative attitude towards the company. Therefore, when the manager is faced with an adverse selection condition, he will not escalate the commitment. Managers are more compliant with company's regulation rather than making decisions that could endanger the company without the knowledge of the principal.

Hypothesis 3 (H3) proposed in this study is that individual risk preference influences the decision making to continue the project, which indicates failure. Based on the test results, the value of significance for Hypothesis 3 is 0,806. The value of significance for H3 is more than 0,05, meaning that the group does not have a significant difference in continuing the project, which indicates failure. The next information, obtained F count value 0,216 < F table 3,10 (obtained in the F distribution table for significance 5%, df denominator = 2 and df numerator = 88). Then H3, which states that the individual's risk preference influences the decision

making to continue the project, which indicates failure, is **rejected.** 

The results of this study support the research conducted by Vina Larasati (2019), which states that the risk preference does not correlate with investment decision making. The results of this study explain that individual commitment escalation decisions are not affected by personal risk preferences. This was also explained by Thaler and Johnson in Wen (2014), who stated that the reference point for profit or loss affected the risk preference. So, the individual's risk preference does not have the power to influence the escalation of commitment if the individual already has a separate reference point beforehand.

The results of this study state that risk preference does not affect decision making on escalation of commitment. According to prospect theory, risk averse will avoid risk. But, in fact the reality is not appropriate. The results of this study supported the economic theory of rationality proposed by Becker (1930). According to the economic theory of individuals will rationality, have preferences among several alternative choices that allow the person to declare the choice he Therefore, risk wants. preferences that have been measured before decision making will not affect decisions made by someone. Individuals in

decision making will have their own economic preferences and considerations. So, the risk preference in this study does not affect the decision making escalation of commitment.

The hypothesis 4 (H4) proposed in this study is that individual risk preference in adverse selection conditions influences the decision making to continue the project which indicates failure compared to the individual risk preference without adverse selection conditions. Based on the results of the test, the value of significance for Hypothesis 4 is 0,229. The value of significance for H4 is more than 0,05, meaning that the group does not have a significant difference in continuing the project, which indicates failure. The next information, obtained F value of 1,500 < Ftable 3,10 (obtained in the F distribution for significance of 5%. table df denominator = 2 and df numerator = 88). Then H4, which states that an individual's risk preference in the condition of adverse selection affects the decision making to continue the project which indicates failure compared individual's to the risk preference without adverse selection conditions, is rejected.

Risk preference, according to Hsee and Weber (1998) is a person's tendency to choose risky options or safe options with the same or lower than the expected value. Because of the theory, it can be concluded that individual risk preferences depend on the tendency of the individual to look at circumstances or options. People's preferences are subjective and depend on the situation when choosing. The subject situation influences the choice because it is possible to have different tendencies towards the same object.

So, the desire or preference of the subject for the risky options presented has no influence on decision making in escalating commitments. Even though the subject loves risk, the subject does not make investment decisions. Likewise, when the subject avoids risk, the subject will make an investment decision.

# Conclusion and Suggestion Conclusion

Negative framing effect toward decision-making escalation of commitment. This indicates that company information that is framed negatively will be able to influence the behavior of escalate commitments. managers to Negative framing and adverse selection together has no effect toward decisionmaking escalation of commitment. This indicates that when there is information presented negatively, together with when the manager has more information, it will not affect the commitment escalation decision making. This happens because managers always have a cooperative

nature of the company and try well for the company. Risk preference has no effect toward the escalation of commitment decision making. This indicates that the categorization of a person into a risk taker or risk averse group does not affect the commitment escalation decision making. It is because when individual making decision, then individual will having rationality toward their decisions. Risk preference and adverse selection together has no effect toward decision-making escalation of commitment. This indicates that the grouping of individuals depends on their risk preferences when together with the possession of manager's private information, it does not affect the commitment escalation decision making.

## Suggestion

a) For Company

1) Partner's managers can reduce the occurrence of framing traps in presenting information to managers by presenting information in a visual form rather than numbers. Because visual presentation can providing information that is transparent, fast, and easy to remember. An example of a visual presentation is presentation using graphs, tables, or diagrams.

2) Managers and related parties can enhance their cooperation by providing the same vision and mission to all parties. Managers and related parties can conduct meetings for daily task coordination, task briefings, and evaluation of work results.

3) Managers can measure their risk preferences, but must remain objective in making decisions, in order to avoid the escalation of commitment behavior.

b) For further research

1) Further research is suggested to take sample of respondents who have had experience in the evaluation of projects in the field (Finance Manager).

2) Researcher should try to create conducive conditions by initiating the of research delivery topics in straightforward and simple language. The researcher must convey information about the treatment calmly and re-explain the information if there are respondents who do not understand. The stages of treatment should be explained in sequence so that the results were not biased.

# REFERENCES

Andhini, Mega Murthi. (2018). Pengaruh Tanggung Jawab Pribadi dan Preferensi Risiko Terhadap Eskalasi Komitmen Pada Pembiayaan Proyek. *Thesis tidak dipublikasikan*. Universitas Gadjah Mada.

- Arimawan, Muhammad Sandi. (2014). Pengaruh Negative Framing dan Selection Adverse Terhadap Eskalasi Komitmen Dalam Keputusan Pengambilan Penganggaran Modal Untuk Investasi dengan Locus of Control Variabel Pemoderasi. Sebagai Skripsi. Universitas Negeri Yogyakarta.
- Becker, Gary S (1976). The Economic Approach to Human Behaviour. Chicago and London: The University Chicago Press.
- Brockner, Joel. (1992). The Escalation of Commitment to a Failing Course of Action: Toward Theoretical Progress. *The Academy of Management Review.* 17 (1): 39-61
- Chang, C.J and J.L.Y. Ho. (2004). Judgment and decision making in project continuation: a study of students as surrogates for experienced managers. *Abacus*. 40 (1): 94-116.
- Debertin D.L. (1986). Agricultural Production Economics. Macmillan Publishing Company. New York.
- Dewanti, Ratih. (2010). Pengaruh Negative Framing dan Job Rotation pada Kondisi Adverse Selection terhadap Pengambilan Keputusan Eskalasi Komitmen. *Skripsi*. Universitas Diponegoro.
- Dwita, Sany. (2007). Influence of Adverse Selection and Negative Framing on Escalation of Commitment In Project Evaluation Decisions. *Simposium Nasional Akuntansi X.* Makassar.
- Gudono and Bambang Hartadi. Apakah Teori Prospek Tepat untuk

Indonesia? Sebuah Replikasi Penelitian Tversky dan Kahneman. Jurnal Riset Akuntansi Indonesia. 1 (1): 29-42

- Haryono, Vina Larasati (2019). The Correlation Of Framing, Risk Preference, And Return On Investment Toward Investment Decision Making On Accounting Students Of Universitas Negeri Yogyakarta. *Skripsi*. Universitas Negeri Yogyakarta
- Hsee, C., and E.U Weber. (1998). Cross-Cultural Difference in Risk Perception, but Cross-Cultural Similarities in Attitudes Towards Perceived Risk. *Management Science*, 44(9): 1205-1217.
- Jensen, M., and Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency costs, and ownership structure. *Journal of Financial Economics*, 3: 305-360.
- Kahneman, D. & A. Tversky. (1979). Prospect theory: An Analysis of Decision Under Risk. *Econometrica*, 47, 263-291.
- Kanodia, Chandra, et. al. (1989). Escalation Errors and the Sunk Cost Effect: An Explanation Based on Reputation and Information Asymmetries. Journal of Accounting Research. 27 (1): 59-77
- Nurhayati, Fitri (2014). Pengaruh Adverse Selection dan Kompensasi Terhadap Eskalasi Komitmen dengan Moral Reasoning Sebagai Variabel Moderating. *Skripsi*. Universitas Negeri Yogyakarta.
- Ruchala, L.V and E.G Mauldin. (1999). Towards a Meta-Theory of Accounting Information Systems.

Accounting Organizations and Society 24 (1999) 317-318

- Sari, Ratna C. (2017). Akuntansi Keperilakuan: Teori dan Bukti Empiris. Yogyakarta: UNY Press.
- Sharp, D.J and Stephen B. Salter. (1997).
  Project Escalation and Sunk Costs: A test of the International Generalizability of Agency and Prospect Theories. Journal of International Business Studies. 28 (1): 101-121
- Staw, Barry M. (1976). Knee-deep in the big muddy: a study of escalating commitment to a chosen course of action. Organizational Behaviour and Human Performance, 16: 27-44.
- Tanaka, M and Y.Sawada. (2015). Risk Preference of Managers and Firm Investments in Lao PDR. *ERIA*, 34: 265-283.
- Wiyono, Gendro. (2011). Merancang Penelitian Bisnis Dengan Alat Analisis SPSS dan Smart PLS. Yogyakarta: UPP STIM Yogyakarta.
- Yusnaini. (2005). Analisis Framing dan Causal Cognitive Mapping Dalam Pengambilan Keputusan Strategik : Suatu Studi Eksperimental. Simposium Nasional Akuntansi VIII, Solo.