



Negative effects of framing and adverse selection on the commitment escalation in investment decision making

Dina Puspita Sari¹, Annisaa Rahman²

^{1,2} Faculty of Economics, Andalas University, Indonesia

ARTICLE INFO

Article history:

Received Oct 19, 2022

Revised Nov 10, 2022

Accepted Nov 24, 2022

Keywords:

Negative Framing

Adserve Selection

Commitment Escalation

Investation

ABSTRACT

Commitment escalation is a decision making to increase or expand commitments in a particular project or investment even if the project or investment indicates failure. This research aims to obtain empirical evidence from the influences of adverse selection and negative framing on the tendency to escalate commitments. This study used a 2x2 factorial experimental design with a case instrument. Participants in this study were S2 students in the Master of Management and Master of Accounting programs as proxy managers selected with purposive sampling techniques. This study has taken 72 Financial Management and Management Accounting courses. The analytical technique used ANOVA two ways. The results indicate that adverse selection affects the tendency of commitment escalation. In addition, this study also proves the tendency for escalation of commitments influenced by negative framing.

This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.



Corresponding Author:

Dina Puspita Sari,

Faculty of Economics,

Andalas University, Indonesia

Limau Manis, Kec. Pauh, Kota Padang, Sumatera Barat 25175, Indonesia,

E-mail: dinapuspita878@gmail.com

INTRODUCTION

Decision making is one of the important aspects in the leadership function of management. The manager is expected to make strategic decisions that are used as determining factors for the success of the organization in the future so it can produce optimal decisions. Rationality, reality, logic, and pragmatism are the important things that must be considered in a decision-making (Yani, F, Rodiah, S, & Azmi, Z, 2019). In decision-making actions, the manager often involves a strong sense of emotional attachment and responsibility with the initial decisions that already made.

One's tendency in doing escalate commitment is presented in *Agency Theory*. This theory explains that agency relationships appear when one or more people hire another person (agent) to provide a service and then delegate decision-making authority to that agent. Based on this theory, escalation is an action that is based on the purpose to maximize the utility of decision - making in impression management. Agency theory predicts that the availability of information and incentives will influence managers' decisions. When managers have personal information and the opportunity to neglect their main duties, then it will appear the problem of adverse selection. The managers (agent) will act in their personal interests at the expense of the owner interests. When there are conditions of *adverse selection*, the agent will look behavior that seems irrational in the owner's

perspective, such as passing on an unprofitable investment project as rational behavior (Nasution, H, Zakiyah, S, & Suryawati, 2019).

Another consideration of a manager in making the decision to continue financing a project is the framing of information. Framing is related to how individuals perceive or structure a decision. Fehrenbacher et al (2018) mentioned that framing is closely related to the reference point which is a point that is used as a benchmark in comparison. In framing, this reference point becomes one's frame in considering the possibilities. The possibilities that have been framed are then evaluated by the decision maker.

In the context of decisions on projects that indicate failure, sunk costs act as a reference point for managers in making decisions. The fact that the project starts to show a negative prospects leads to several possibilities, the possibility of losses/profits that certainly occur and the possibility of losses/profits in the future that are not necessarily. When these odds are positively framed, so the profit information is highlighted. When the odds are negatively framed, the information about the losses will be highlighted more.

Investment decisions are generally based on rational considerations. However, in decision-making procedures, the managers often have a strong sense of emotional attachment to decisions made earlier. So, they have difficulty separating decisions taken earlier with decisions related to the future (Yani, F, Rodiah, S, Azmi, Z, 2019). Then, the manager tends to increase his commitment when he gets negative information (loss) about the investment project handled. The phenomenon of managers increasing commitment can be said as a phenomenon of commitment escalation.

One of the phenomena of commitment escalation that occurs in Indonesia is the implementation of a mega project named Development of National Sports Achievements in Hambalang which has spent state money. The P3SON project (Construction of the National Training Education Center and Sports School) or known as the Hambalang project which received a state budget allocation of Rp1,2 trillion. However, the Audit Board of the Republic of Indonesia (BPK) found irregularities and abuse of authority that caused losses to the Indonesian state of Rp 706 billion (Edfa, R. A dan Dwita, 2019)

In 2011, its project experienced a landslide that hit some buildings in the Hambalang project. This is due to soil conditions that are fragile and unfit for development (Edfa, R. A dan Dwita, 2019). The decision-makers of the Hambalang project faced an unpleasant situation because the Ministry of Youth and Sports was faced with conflicting expectations in a difficult situation. On the other hand, they want to continue the project considering the expenditure that has been incurred and a number of existing buildings in Hambalang are unlikely to be written off since they have become state assets. Otherwise, the decision-makers of the Hambalang project also considered a number of negative feedbacks from the project, one of which was the problem of soil structure in Hambalang which caused the project to be unfeasible to proceed.

Ministry of Youth and Sports chose to continue the Hambalang project until the project collapsed in 2012. Hambalang project is likely to be continued by increasing investment, but the development will not be in accordance with the initial utilization plan (Edfa, R. A dan Dwita, 2019). The Hambalang problem is a commitment escalation situation in which previously invested resources, such as money, time, or effort did not give positive results. There is uncertainty as to whether additional investments will result in success.

Previous research include Narsa, I. M dan Narsa, N. P (2021) found that adverse selection conditions are not significantly indicating their influence on project evaluation decisions by managers. Similar results were also found in studies conducted by (Helmayunita, 2015) which concluded that adverse selection conditions have no influence on the tendency to continue investing in projects that tend to lose money. However, this study contradicts the research conducted by Sari dan Wirakusuma (2017) which conduct research where adverse selection conditions affect the tendency of escalation of commitment.

Rita, M.R, dan Sari (2012) found that negative framing has no effect on the tendency of escalation of commitment. Nevertheless, Yusra dan Atika (2017) showed different results that there is an influence between negative framing and adverse selection on the tendency of escalation of commitment. Then the research conducted by (Prihatini, 2021) shows that negative framing has a significant influence on the escalation of commitments. This happens because negative framing is able to influence decision makers (managers) to escalate their commitments which in this case is measured by consideration to continue the project that indicates failure

The effect of frames or framing is a phenomenon that suggests if the decision makers are the same if the problem is presented in different formats (Kuhberger, 1998; Sari dan Wirakusuma, 2017). According to Kahneman, dan Tversky (2017) prospect theory describes individuals who exhibit risk-averse behavior when decisions are framed positively, and risk-taker behavior when decisions are framed negatively. When the project results become a definite loss (negative framing), the manager has a risk-taker tendency that is to stay on the project. The perspective related to the escalation of commitment in prospect theory is supported by research results of Irfan dan Dessykafebria (2015) which states that managers who get negative framing treatment are more likely to commit escalation actions by continuing unprofitable investment projects than managers who get treatment without negative framing.

In line with research conducted by Nasution, H. Zakiyah, S. Suryawati (2019) on the effect of Adverse Selection and Negative Framing on the escalation of commitment in investment decision making, it provides evidence that adverse selection variables affect the escalation of commitment in investment decision making. In addition, negative framing variables also affect the trend of escalation of commitment.

In addition, research conducted by Prihatini (2021) regarding the influence of Adverse Selection, Negative Framing, and Leadership Style on the Escalation of Commitment where the research results provide evidence that the adverse selection variable has no effect on the escalation of commitment, while the negative framing variable has a significant effect on the escalation of commitment, and leadership style variable has no effect on the escalation of commitment.

RESEARCH METHOD

This research is an experimental research, which was carried out in the Master Program in Management and Accounting Faculty of Economics, Andalas University. This study is a type of experimental research using two ways Anova analysis method. The method of participant withdrawal in this study used random assignment in the formation of experimental participants groups. The instrument in this study employed a modification of the Narsa, N.P.D.R.H., & Narsa, I.M (2018) instrument with a Likert scale of 1-10. This study was participated by students as respondents, which students were conditioned as managers. Participants were master of Management and Accounting students who have taken financial management courses as a form of manipulation of selected investment managers with random assignment techniques as many as 72 participants. Data were processed using SPSS 25.0 for Windows.

RESULTS AND DISCUSSIONS

This research was conducted at the Faculty of Economics, Andalas University. Participants in this research were the students of Master of Management Study Program totaling 66 participants and Master of Accounting totaling 26 participants. The total participants were 92 participants, they were provided 4 different treatments randomly. Participants in Group 1 received treatment 1, there was no adverse selection and no negative framing, participants in this treatment were 23 participants. Participants in Group 2 received treatment 2, there was an adverse selecton and without negative

framing, participants in this treatment as many as 23 participants. Participants in Group 3 received treatment 3, without adverse selection and no negative framing, participants in this treatment as many as 23 participants. Participants in Group 4 received 4 treatments, namely without adverse selection and without negative framing, participants in this treatment were 23 participants. But, after completing manipulation check, so it is known that the failed participants were 20 participants, so that the escaped participants were 72 participants. The 72 participants include 18 participants in Group 1, 19 participants in Group 2, 20 participants in Group 3, and 21 participants in Group 4 which are described in detail in the following table:

Table 1. Demographics of participants

Remarks	Criteria	Frequency	Percentage (%)
Gender	Female	42	58,3
	Male	39	41,7
	Total	72	100
Age	21-25 years old	51	68,1
	26-30 years old	91	27,8
	31-35 years old	44	2,8
	36-40 years old	12	1,4
	Total	72	100
Study Program	Master of Accounting	14	19,4
	Master of Management	58	80,6
	Total	72	100
Work Experience	No	21	29,2
	Yes	61	70,8
	Total	72	100

It can be seen through Table 1 above, it can be explained that the majority of participants were female, as many as 42 people or 58,3%, and more aged 26-30 years, as many as 91 people or 27,8%. In addition, it can be seen that most of the respondents in a master of management program as many as 58 people or 80.6%. Regarding work experience, it can be seen that most participants' work experience, namely there are or have work experience, amounted to 61 people or 70,8%.

Randomization tests are used to check the significant differences in the demographic characteristics of respondents. Randomization test results are presented in Table 2 as follows :

Table 2. Randomization test results

Characteristics of Respondents	Sum of Squares	df	F	Sig.
Gender	62,073	70	0,211	0,648
Age	57,084	70	0,004	0,947
Study Program	65,823	70	1,023	0,315
Work Experience	61,458	70	0,374	0,543

Source: Processed Data, 2022

The randomization test results presented in Table 2 show the demographic gender that has an F value of 0,211 and a probability value (p) of 0,648 which is greater than the significance value of 0,05. The demographic age has an F value of 0,004 and a probability value (p) of 0,947 which is greater than the significance value of 0,05. The Study Program has an F value of 1,023 and a probability value (p) of 0,315 which is greater than the significance value of 0,05. Then, work experience has a value F of 0,374 and a probability value (p) of 0,543 which is greater than the significance value of 0,05. The results showed no differences in the demographic characteristics of respondents and can be controlled appropriately.

The following are the results of the normality test of the research data that have been obtained from each research variable in Table 3

Table 3. Normality test results
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		72
Normal Parameters ^{a, b}	Mean	.0000000
	Std. Deviation	1.48581332
Most Extreme Differences	Absolute	.101
	Positive	.056
	Negative	-.101
Test Statistic		.101
Asymp. Sig. (2-tailed)		.066 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significant Correction.

Source: Processed Data, 2022

It is obtained that for the normality test in the table of Unstandardized Residual has a probability value (Sig.) of 0.066 is greater than 0,05. Refers to the provision, if the probability or significance value is greater than 0,05, the data is normally distributed. Based on the results of data analysis, it can be concluded that the data influence the Negative Framing, and Adverse Selection to the escalation of commitment at the level of Normal distribution. Thus, one of the requirements of statistical testing has been fulfilled.

The following is a summary of the homogeneity test processing results which are processed using Lavene test (lavene statistics).

Table 4. Homogeneity test results

Test of Homogeneity of Variances				
	Levene Statistics	df1	df2	Sig.
Results Based on Mean	1.040	2	213	.355
Based on Median	.526	2	213	.592
The Median and with adjusted df	.526	2	141.990	.592
Based on trimmed mean	1.040	2	213	.355

Source: Processed Data, 2022

In Table 4 above, the test results are based on averages. Homogeneity tests were conducted between Negative Framing, and Adverse Selection escalation of commitment. Based on the average value obtained that the value of significance of 0,355, to conduct testing of its output result, there are some provisions that become a benchmark. Based on Table 4, significance values obtained in the data influence of Negative Framing, and Adverse Selection to the escalation of commitment that is 0,355 is greater than 0,05. It can be concluded that each group of subjects has met the same variant so the Anova assumption (Hair et al, 2014)was fulfilled.

Hypothesis testing used two-way Anava test (Two Way Anova). is used to know the truth of the hypothesis proposed.

Table 5. Mean (standard deviation) and participants of each treatment

Negative Framing	Adverse Selection	Adverse Selection		Total Negative Framing
		Yes	Without	
Negative Framing	Yes	0,60 (0,50)	0,61 (0,50)	0,61 (0,49)

	20	18	38
	0,69	0,39	0,53
Without	(0,48)	(0,50)	(0,51)
	16	18	34
	0,64	0,50	0,57
Total Adverse Selection	(0,49)	(0,51)	(0,50)
	36	36	72

Source: Processed Data, 2022

Table 6. Test results of *two way anova*

Tests of Between-Subjects Effects					
Dependent Variable: Escalation of Commitment					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.860 ^a	3	.287	1.160	.331
Intercept	23.401	1	23.401	94.756	.000
X1	.081	1	.081	94.756	.026
X2	.370	1	.370	4.213	.000
X1 * X2	.429	1	.429	67.900	.000
Error	16.793	68	.247		
Total	41.000	72			
Corrected Total	17.653	71			

a. R Squared = .049 (Adjusted R Squared = .007)

Source: Processed Data, 2022

From Table, 5 it can be seen that the escalation of commitment is higher when there is negative framing than without negative framing. This can be seen by the mean value of no negative framing which is greater than without negative framing ($0,61 > 0,53$). From the output of the hypothesis test with two-way Anova in Table 6, it can be seen that Tests of Between-subjects Effects indicates the value of significance of Negative Framing (X_1) is 0,026. Then, $0,026 < 0,05$, H_0 rejected and value $F_{count} = 94,756 \geq F_{table} = 3,13$ then H_0 rejected. So it can be concluded that there is influence Negative Framing to the escalation of commitment in investment decision making.

The results of this study support the prospect theory that Negative Framing was proxied by presenting information about a definite loss. The influence of sunk cost has a big role in the decision-making process to continue an investment that is considered less profitable. Sunk costs are the costs that have occurred in the past and will not arise anymore from a new project or investment. The results of this study in accordance with research conducted by Prihatini (2021), Fehrenbacher, D., Roetzel, P. G., Pedell, B (2018), Anggraeni, D., & Rukmana, R (2020) which proves that the information presented in negative framing is able to influence decision makers (managers) to escalate their commitments which in this case is measured by consideration to continue the project that indicates failure.

The results are also consistent with the research by Salter, S.B., Sharp, D. J (2004; Sari dan Wirakusuma, 2017), where conducted experiments using managers in the US and Canada and found the result that negative framing increases the likelihood of escalation of commitment. These results could be able to prove that when the manager receives negatively framed information in the form of a choice between certain losses that have occurred with uncertain future losses from the investment project he is handling, the manager tends to further increase his commitment by making a decision to continue the investment project that is not profitable (escalation of commitment).

In addition, from Table 5 it can be seen that the escalation of commitment will be higher when there is an adverse selection than without an adverse selection. This is evidenced by the mean value that there is a greater adverse selection than without negative framing ($0,64 > 0,50$). It can be seen in Table 4.6 the significance value of Adverse Selection (X_2) is 0,000, then $0,000 < 0,05$, H_0

deductible and value $F_{\text{count}} = 4,213 \geq F_{\text{table}} = 3,13$ then H_0 rejected. So, it is concluded that there is influence of Adverse Selection to the escalation of commitment in investment decision making. Table 6 shows that the difference is significant ($F = 4,213$; $\text{Sig.} = 0,026$). The results of this study support the findings stating that adverse selection affects the tendency of escalation of commitment (Yani, F. Rodiah, S. Azmi, 2019), (Nasution, H. Zakiyah, S. Suryawati, 2019), (Yusra, M dan Atika, S., 2017).

It can be concluded that when managers are dealing with adverse selection conditions, the desire of decision-makers to escalate commitments tends to increase. Arimawan, M. S dan Sukirno (2014) describes the agency theory that deals with the problem of escalation of commitment to the choice of a failed action. If the manager has private information, the owner of the company cannot supervise the manager as a whole. In this condition, the manager who has the incentive to shirk tends to continue the unprofitable project or indicate failure. The condition when the manager has private information that is not owned by others in the company and there is an opportunity to shirk duties for the manager can be stated to be an Adverse Selection condition. In this case, when a manager gets an Adverse Selection, then the decision that will be made by that manager will tend to continue the unprofitable investment project.

CONCLUSION

Negative framing affects the escalation of commitment in investment decision making. The test results support H1 that when information is presented in negative framing, decision makers tend to continue projects that indicate failure. Adverse selection affects the escalation of commitment. The test results support H2 that managers who receive adverse selection treatment will be more likely to continue investment projects that indicate failure (high escalation of commitment) than managers who do not receive adverse selection treatment.

References

- Anggraeni, D., & Rukmana, R. (2020). PENGUJIAN NEGATIVE FRAMING DAN ADVERSE SELECTION SEBAGAI DETERMINAN ESKALASI KOMITMEN DALAM KEPUTUSAN INVESTASI. *Journal of Accounting and Financial Reporting*, 4(2).
- Arimawan, M. S., S. (2014). Pengaruh Negative Framing Dan Adverse Selection Terhadap Eskalasi Komitmen. *Nominal, Barometer Riset Akuntansi Dan Manajemen*, 3(1). <https://doi.org/10.21831/nominal.v3i1.2150>
- Dwita, S. (2007). Influence of Adverse Selection and Negative Framing on Escalation Commitment In Project Evaluation Decisions. *SNA X, Makassar*.
- Edfa, R. A dan Dwita, S. (2019). Pengaruh Informasi Investasi Dan Overconfidence Terhadap Eskalasi Komitmen. *Jurnal Eksplorasi Akuntansi*, 1(4), 1916–1932. <https://doi.org/10.24036/jea.v1i4.186>
- Fehrenbacher, D., Roetzel, P. G., Pedell, B. (2018). The influence of culture and framing on investment decision-making: The case of Vietnam and Germany. *Cross Cultural and Strategic Management*. <https://doi.org/10.1108/CCSM-10-2017-0139>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis* (7th ed). New Jersey: Pearson Education.
- Helmayunita, N. (2015). Pengaruh Adverse Selection , Kontrol Monitoring , dan Penalaran Moral Individu Terhadap Perilaku Eskalasi Komitmen. *Wahana Riset Akuntansi*, 3(1), 513–528.
- Irfan dan Dessykafebria. (2015). Experimental Study : Negative Framing, Rigid Thingking and The Escalation of Commitment on Decision Making. *Journal of Business Administration and Management Sciences Research*, 4(2), 042–048.
- Kahneman, D., & Tversky, A. (2017). *Choises, Values, and Frames*. Cambridge University Press.
- Narsa, I. M dan Narsa, N. P. (2021). The Effect of Adverse Selection and Psychological Capital on Decision Making Involving Escalation Situations: An Experimental Study. *Jurnal Ilmiah Akuntansi*, 6(1), 01. <https://doi.org/10.23887/jia.v6i1.30239>
- Narsa, N. P. D. R. H., & Narsa, I. M. (2018). The relationship between psychological capital and the escalation of commitment in capital project continuation decisions: Empirical evidence from Indonesia. *International Journal of Economics and Management*, 12(Special Issue 1), 91–104.
- Nasution, H. Zakiyah, S. Suryawati, F. R. (2019). Pengaruh Adverse Selection Dan Negative Framing Terhadap

- Eskalasi Komitmen Dalam Pengambilan Keputusan Investasi. *Jurnal Manajemen Dan Organisasi*, 10(3), 197–206. <https://doi.org/10.29244/jmo.v10i3.30153>
- Prihatini, D. (2021). Pengaruh Adverse Selection, Negative Framing dan Gaya Kepemimpinan Terhadap Eskalasi Komitmen (Studi Kasus pada Mahasiswa Prodi Akuntansi Fakultas Ekonomi dan Bisnis Universitas Tanjungpura Pontianak). *JAAKFE UNTAN (Jurnal Audit Dan Akuntansi Fakultas Ekonomi Universitas Tanjungpura)*, 10(1), 19. <https://doi.org/10.26418/jaakfe.v10i1.46713>
- Rita, M.R., dan Sari, M. P. (2012). Pengaruh Adverse Selection Dan Negative Framing Terhadap Eskalasi Komitmen. *Fakultas Ekonomika Dan Bisnis Universitas Kristen SatyaWacana*, 1(1), 215–223.
- Salter, S.B., Sharp, D. J. (2004). *The Determinants of Escalation of Commitment: National Culture and Experiences Effects*.
- Sari, N. dan Wirakusuma, M. (2017). Pengaruh Adverse Selection dan Negative Framing pada Kecenderungan Eskalasi Komitmen. *Jurnal Ilmiah Akuntansi Dan Bisnis*, 3, 1. <https://doi.org/10.24843/jiab.2017.v12.i01.p01>
- Yani, F. Rodiah, S. Azmi, Z. (2019). PENGARUH ADVERSE SELECTION DAN LOCUS OF CONTROL TERHADAP KECENDERUNGAN ESKALASI KOMITMEN DALAM PENGAMBILAN KEPUTUSAN INVESTASI. *Jurnal Akuntansi & Ekonomika*, 9(2).
- Yusra, M dan Atika, S. (2017). PENGARUH NEGATIVE FRAMING DAN ADVERSE SELECTION TERHADAP PENGAMBILAN KEPUTUSAN ESKALASI KOMITMEN: (Studi Empiris pada Mahasiswa Akuntansi Universitas Malikussaleh). *Jurnal Akuntansi Dan Keuangan*, 5(2), 91–98. <https://doi.org/10.29103/jak.v5i2.1816>