Self Control, Illusion of Control and Information Technology Support Towards Rational Decision Making and Their Effects on Performance

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Abstract

Decision Making can be defined as a conscious effort to determine the alternatives of various alternatives to solve the problem. Several previous studies mentioned that leader's decision making influenced by the nature of the leader's personality. This study aims to determine the personality factors such as self control and Illusion of control that influence the decision making of leaders and their impact on leader's performance with the support of information technology as a moderating variable. This study is an explanatory research which collected data from 105 respondents whom are organization leaders in 4 universities in Dili- East Timor. The data was analyzed using software program Smart PLS 2.0. The results of this study show that Self Control influence on the leaders decision making while Illusion of Control does not have an influence on the leaders decision making. Further, the research also find that decision making influence on individual performance. Finally, information technology support weakens the relationships between self-control and leaders decision making, while Information technology support strengthen the relationships between illusion of control and leaders decision making.

Keywords : *Decision Making, Self Control, Illusion of Control, information technology support, Performance*

Introduction

Decision making is a step that must be taken by leaders in an organization. Decision making in an organization is expected to provide rational and effective results. Leaders are considered rational if the decision is developed by identifying and using relevant information so as to make optimal and effective decisions (Grou & Tabak, 2008).

In decision making sometimes the leaders can not be separated from the self subjectivity that is often not well controlled, they tend to believe themselves or can be referred to as the illusion of control. Illusion of control is the attitude of excessive individual believes that someone can predict his or her luck, and therefore can change his or her own destiny (Enzle, et.al, 2009). Illusion of control can be resulted in a decision that is not appropriately taken, because the perception of individual's ability to predict greater outcome than the ability to control the outcome (Presson & Benassi, 1996; Hobbs, et al, 2010).

Leaders are often trapped in the illusion of control in which the leaders tend to believe themselves that they can control or at least can predict the outcome to be achieved. As noted by Kyle & Wang (1997), the predictive aspect of the Illusion of control is easily

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extended to more general and overconfidence ideas. Such attitude is not to be blamed, but if it's not controlled, the leader could be trapped in an ineffective decision.

Instead, self-control in making rational decisions, as proposed by Chaplin (2002) is the ability to guide self behavior in relation to one's ability to suppress impulsive behavior (Delisi & Berg, 2006). Self-control illustrates the ability of individuals to actively control their response to external stimuli, thoughts, feelings, and behaviors of others according to the objective (Baumeister, 2002). Thus, self-control can be interpreted as a behavior control activity.

Self-control and illusion of control in the absence of adequate information technology support are not enough to produce effective decisions in order to achieve a good individual performance. Information technology can be defined as a combination of the computer and telecommunications technology availability with other technologies such as hardware, software, databases, network technology, and other telecommunications equipment. Furthermore, information technology is used in organizational information systems to provide information for the users in the decision making process (Oswari, Susy & Ati, 2008). A rational decision can not be developed when a leader does not know the foundation to take the decision. Availability of information serves as the foundation of rational decision making.

Application of self-control or illusion of control in making rational decisions with adequate information technology support, make a leader can take decisions in order to solve a problem within the organization he leads. Fashami & Moghadam (2013) asserted that there was a significant and positive correlation between the leader's rational decision-making in promoting employees' and organizational performance. Han Loo & See Beh (2013) in his research revealed that the decision making in programmed planning had an impact on individual performance.

The previous studies of self-control (Haning, 2012), and illusion of control (Joseph, 2011), more focused on discussing decision making in financial management. In this study, the focus of attention is the decision making as part of organizational behavior, by adding information technology support variable as a moderating variable. In addition, this study also looked at the impact of the decision making on individual performance.

Based on the description and considerations presented above, the following research issues can be described:

1. Does self-control have an impact towards rational decision making?
2. Does illusion of control have an impact towards rational decision?
3. Does information technology support have a role as a moderating variable in the correlation between self-control and illusion of control on rational decision making?
4. Does rational decision making have an impact on individual performance?

Theoretical Review and Hypotheses Development

The Impact of Self-control towards Rational Decision Making

Facione & Facione (2007) suggested that in organization context, rational decision making could be considered as a result of cognitive and rationality processes which included the steps of problem identification, problem solving alternatives searching, evaluation of existing alternatives, and selection of the best decision alternative. Rational decision making by the leaders tends to be objective, in contrast intutitive decision making by the leaders tends to be subjective (Terry & Hasan, 2002; Penolazzi et al, 2013; Aloka & Bojuwoye, 2013).

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Self control is related to the actions of a person to automatically control or inhibit the habits, impulse, emotion, or desire for the purpose of directing behavior (Baumeister, 2002; Delisi & Berg, 2006). Self-control in making rational decisions, as proposed by Chaplin (2002) is the ability to guide self behavior in relation to one's ability to suppress impulsive behavior.

From the researches that have been previously conducted, it was found that people with high self-control were able to make better and more precise decisions, because they were more conscientious and careful (Romal & Kaplan, 1995). Penolazzi, Leone & Russo (2013) in their research found that impulsive individuals tent to make harmful decisions, while sensitive and rational individuals tent to make profitable decisions.

Based on the description above, the hypothesis can be formulated as follows:

H1: Self-control has positive impact towards rational decision making

The impact of illusion of control towards rational decision making

Illusion of control is the intuitive perception of someone which is impressed abstract to an event or problem (Murray, 1990). Taylor & Brow (1998) in the journal written by Grou and Tabak (2008) revealed that the illusion of control is a real perception of a scene. Therefore, Illusion of control generally occurs in people who are able to control the outcome of decisions taken and do not take into account the risks to be faced.

Someone who has illusion of control will assume that everything can be perfectly done by reducing or even eliminating the possibility of emerging risks of what he or she is doing (Dittrich, Guth & Maciejovsky, 2001). Illusion of control can be associated with one's optimistic attitude and excessive confidence levels (overconfidence) (Michael & Wohl, 2009).

According to Nofsinger (2005) illusion of control was the belief in which a person could have an influence on the results so that person could overestimate their control of the results to be obtained. When a person is experiencing illusion of control, he or she tends to feel able to make choices and often ignores the help of others in making choices.

Previous research (Joseph, 2011) on the illusion of control in financial decision, found that the illusion of control was excessive confident attitude that resulted in incorrect calculations in financial decision making. Based on the description above, a hypothesis can be formulated as follows:

H2: Illusion of control had negative impact towards rational decision making

The impact of rational decision making on individual performance

Performance is related to what is produced by an individual through behavior on the job. Wood et al., (2001) stated that performance was an achievement in quantity and quality, by individuals, groups and organizations. In other words, performance is a concept of a number of actions and behavior of individuals who contribute to the organization's goals. Performance can be measured by looking at the work quality, timeliness, effectiveness, satisfaction, peace in work, career rise

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and work quantity of the individuals as a part of an organization (Simanjuntak, 2005).

Some studies found that the role of individual personality was related in decision making that may ultimately had an impact on performance. Han-Loo & See-Beh (2013) in a study in Malaysia revealed that good decision making had impacts on the performance of the organization. Fashami & Moghadam (2013) asserted that there was a significant and positive corelation between decision-making of the leader in promoting the employees' performance and organizational performance. Furthermore, according to Kena (1995), the success of the organization or organizational performance also reflected the leader's performance. These studies affirmed that the decision making of a leader will determine whether or not an organization can move forward, and also reflects the leader's performance.

Based on the description above, a hypothesis can be formulated as follows:

H3: Rational decision making had a positive effect on individual's performance

The role of information technology support as moderator in the correlation of self-control, illusion of control and rational decision making

Information technology can be defined as a combination of computer and telecommunications technology availability with other technologies such as hardware, software, databases, network technology, and other telecommunications equipment in a work place. Furthermore, information technology is used in organizational information systems to provide information for the users in the decision making process (Oswari, Susy & Ati 2008). Computer-based information technology can meet the information needs of the organization very quickly, timely, relevant and accurate (Nasution, Natigor & Fahmi, 2004).

Utilization or implementation of information technology in the organization operationals will provide a significant impact not only on work efficiency but also on rational decision taken by the leaders. With a good knowledge and mastery of information technology, a leader will have a variety of alternative solutions that can support rational decision-making process (Orbit, 2012).

Self-control illustrates the ability of individuals to actively control their response to external stimuli, thoughts, feelings, and behaviors of others according to the objective (Baumeister, 2002). With sophisticated and uncontrollable information technology, it is necessary to have self-control in order to select a variety of existing information technology in decision-making so that the leaders can choose appropriate and rational alternatives to the progress of an organization. Thus the leaders will not be too hasty in making decisions and will rely more on rational decision making.

In contrast, some researchers explained illusion of control as someone's optimistic attitude and excessive confidence level or overconfidence. Someone who has excessive confidence and self-confidence will tend to judge everything is easy to do. Illusion of control attitude often makes people careless in taking decisions ((Michael & Wohl, 2009). However, information technology is a reliable tool that can assist individuals in making decisions that could be efficient decisions in the context of the organization.

Based on the description above, a hypothesis can be formulated as follows:

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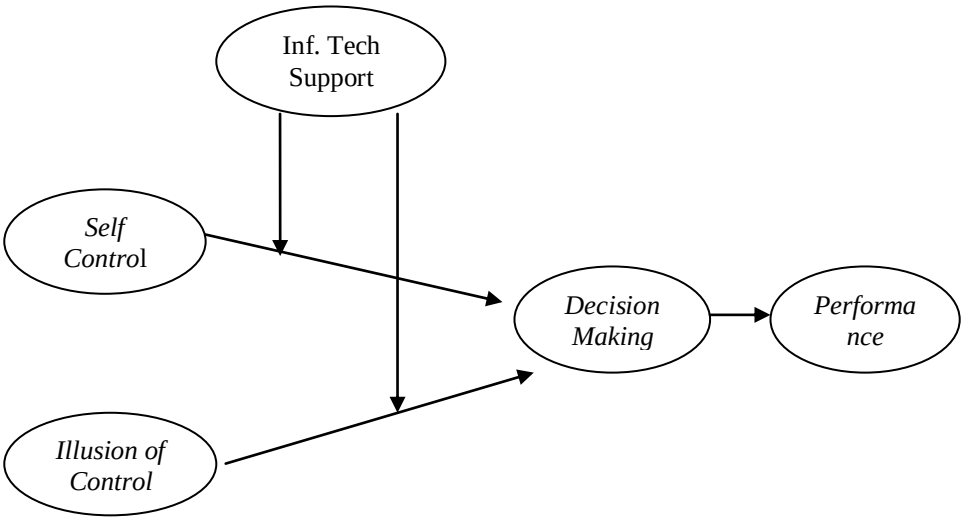
H4.1: Information technology support acts as a moderator in the impact of self-control towards rational decision making

H4.2: Information technology support acts as a moderator in the impact of illusion of control towards rational decision making

Based on the definitions and theoretical explanation above, we can develop a research model as follows:

2.1. Research Model



Research Methods

The population in this study was the leaders that include university, faculty and unit leaders, from 4 private university in the Dili, Timor Leste. University leaders among universities in Dili, Timor Leste are interesting to be observed because of the decision-making phenomenon that seem to more rely on illusion of control. (TimorNews.com, 2013).

The samples in this study were taken by using judgmental sampling technique. Data collection technique was performed by survey method by distributing questionnaires to the rectors and managers at each university with the total respondents were 120 people. The research data were collected through questionnaires distributed directly to the respondents. Data collection was conducted from February to March 2014. The number of questionnaires distributed was 120 questionnaires, but the questionnaires were returned only 105 pieces and this could meet the requirements for further processing.

Characteristics of the respondents indicated that the number of male respondents were more than female, as many as 73 people (69.53%), the majority of respondents had second strata education as many as 76 respondents (70.48%), the majority of respondents, 54 people (51.43%) had working period of more than five years.

In this study, the measurement of self-control concept refered to Hirschi & Gottfredson (1993) and Michael et al. (2007) scale which consisted of 5 indicators such

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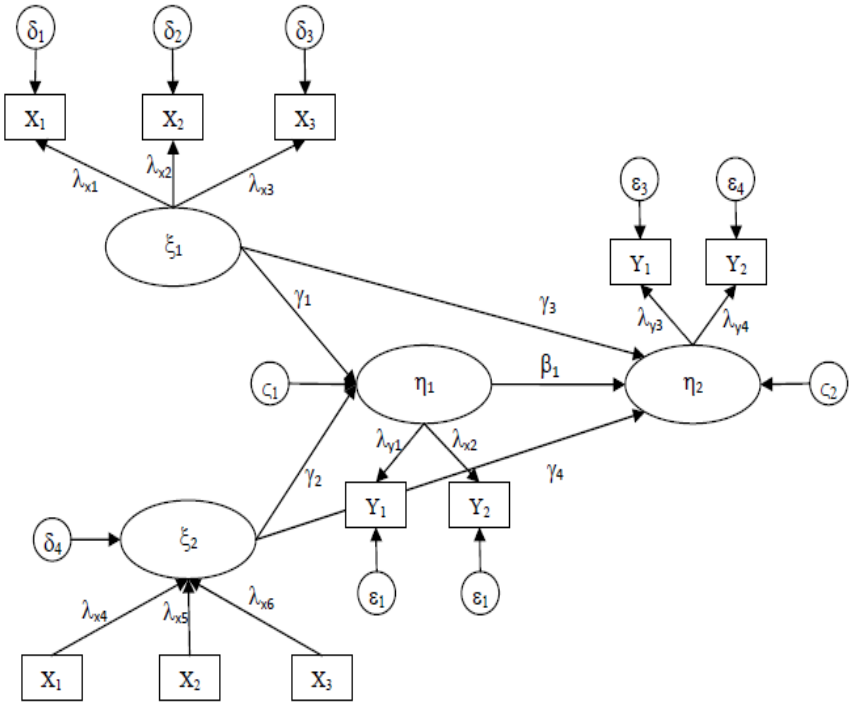
as: the willingness to delay satisfaction, willingness to perform activities although not immediately produce satisfaction, willingness to be careful, and courage to face the risks and look at the positive side of failures. The illusion of control concept was measured by using Nofsinger scale (2005), which included 5 items: excessive confidence, ability to make choices, eliminating the possibility of risk, optimistic, assume everything is easy to do. Individual performance concept was measured by the 7 indicators include: work quality, timeliness, effectiveness, satisfaction, peace of work, career rise and work quantity (Simanjuntak, 2005). Information Technology support was measured by using six question items of Oswari (2008).

Concept measurement of the statements in this study used the Likert scale, by giving a score of 1-5 to the alternative answers to questions, with a score of 1 (strongly disagree) to a score of 5 (strongly agree). Data were analyzed by using Partial Least Square (PLS). PLS Test used SmartPLS software. To test the PLS based structural model we should note 2 main measurement models namely inner model and outer model. When the results of hypotheses test on the outter model is significant, it indicates that the indicator can be used as a measuring instrument for latent variables. Whereas when the result of the test on the inner models is significant, it means that there is a significant impact of latent variables to other latent variables.

The model developed in this study can be seen in figure 3.1 below:

Figure 3.1 PLS Model



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Analysis and Discussion

Outer Model Test (Measurement Model)

In this study, the construct variable was formed by using reflective indicators. Criteria for evaluating the outer models according to Ghozali (2006) are as follows:

1. Skor loading (*cross loading*) > 0,5
2. Skor AVE > 0,5
3. Skor *Communality*> 0,5
4. *Redundancy* more or less 1
5. *Cronbach's alpha*> 0,6
6. *Composite reliability*> 0,7

Outer model tests the convergent validity of the question items in the research questions. Convergent validity is measured by using the cross loading value (loading scores) that if the value is > 0.5 then the indicator is considered as significant. The outer model test results showed that the value of AVE and communality of two variables, namely DM and IC* DTI was still below 0.5. Consequently there were 5 indicators that were eliminated from the model.

Furthermore, the redundancy value of both endogenous variables also showed that the two variables couldn be used in further analysis. The discriminant validity value was evaluated by comparing the AVE score and AVE root. If AVE root value > AVE value, it can be concluded that the variable is valid. The test results showed that all variables were valid.

Reliability test results showed that all tested variables were reliable (Cronbach's alpha values > 0.6), as could be seen in Table 4.1 below:

Table 4.1. Reliability Test Results

Variabel	Cronbach's Alpha
Decision Making (dm)	0,789658
Dukungan teknologi informasi (dti)	0,914931
Illusion of control (ic)	0,792971
Ic*dti	0,953345
Performance Individu (pi)	0,908121
Self control (sc)	0,879025
Sc*dti	0,986075

Finally, after the elimination of invalid indicators, we obtained the test results towards research model as follows:

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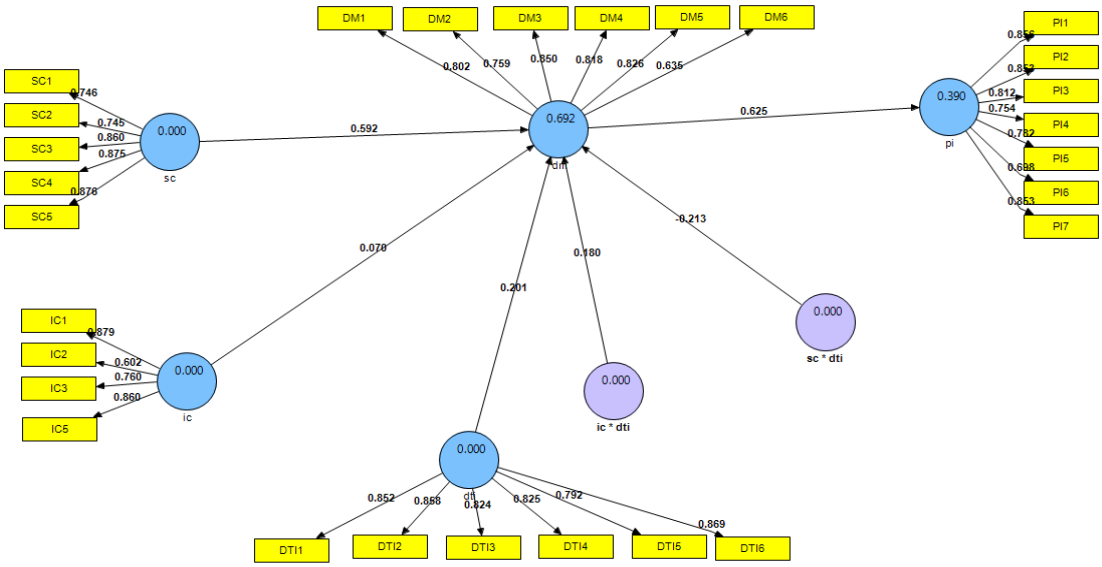
Figure 4.1
PLS Test results (Measurement Model)



Inner Model Test (Structural Model)

The evaluation of the structural models was performed by looking at R square value for the dependent construt and t-count value of the path coefficient. The statistic test results showed that the R-square of DM (Decision making) variable was equal to 0692428. It indicated that the total contribution of the impact of the variables that made up DM was equal to 69.24%. Meanwhile, the impact contribution of DM on PI was equal to 39.02%.

Path-coefficient indicated the relationship nature (positive or negative). Table 4.13 showed that constructed hypothesis test results were entirely significant. Unsiginificance was occured only in the impact between IC and DM variables. Correlation between all variables were generally positive, except the correlation between SC * DTI and DM that was negative. More notes about the t test results can be seen in Table 4.2 below.

Table 4.2. Hypothesis Test Results

Hypothesis	Path	Path Coefficient	T-Statistic	Result
There was an impact of SC towards DM	Sc-→ DM	0,592	7,780350	Significant
There was an impact of IC	Ic -→	0,07	1,463036	Unsignificant

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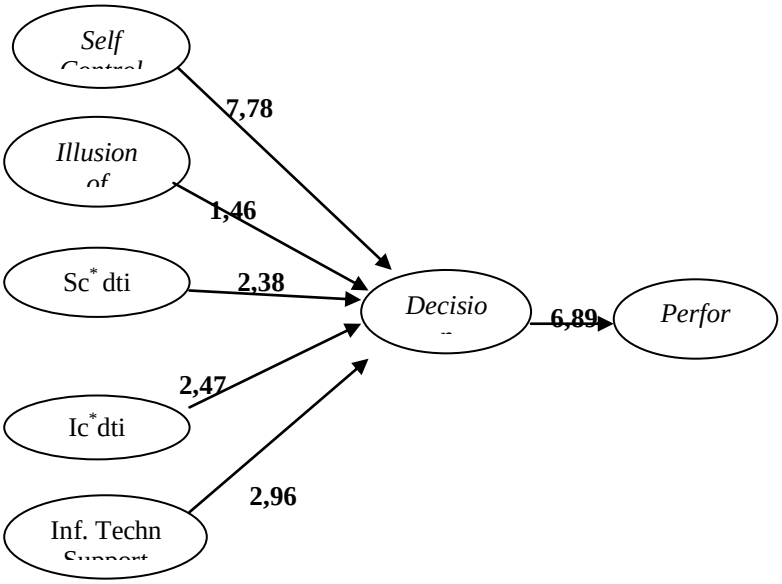
towards DM	DM			
There was an impact of DM towards PI	DM → PI	0,625	6,894025	Significant
There was an impact of sc*dti towards DM	SC*DTI → DM	-0,213	2,388186	Significant
There was an impact of ic*dti towards DM	IC*DTI→ DM	0,18	2,478882	Significant
There was an impact of dti towards DM	DTI → DM	0,201	2,965217	Significant

From the hypothesis test results can be found structural model of this study, as follows:

Figure 4.2. Research Structural Model



The hypothesis test results found that the first hypothesis (H1) which stated that self control has significant positive impact towards rational decision making, could be accepted by the beta coefficient value of 0.59 and a t-statistic of 7.78. The second hypothesis (H2) which stated that the illusion of control has negative impact towards rational decision making was not supported in this study, with a beta coefficient of 0.07 and a t-statistic of 1.46.

Furthermore, the hypothesis test results showed that the third hypothesis (H3) which stated that the decision making had positive and significant impact on the individuals performance was also accepted, with a beta coefficient of 0.625 and t-statistic of 6.89. Two other hypothesis that were the fourth hypothesis (H4) and fifth hypothesis (H5) were also accepted in this study. H4 which stated that information technology support significantly weaken self-control in relation to decision making was evidenced by the beta coefficient value of -0.21 and t-count equal to 2.38. The fifth hypothesis (H5), which examined the impact of information technology support role which will strengthen the illusion of control in relation to decision making, was also significantly proved with a beta coefficient of 0.18 and t value of 2.47. Based on the hypotheses findings that have been built, the final model of this study is as follows: Figure 4.3 Final Research Model

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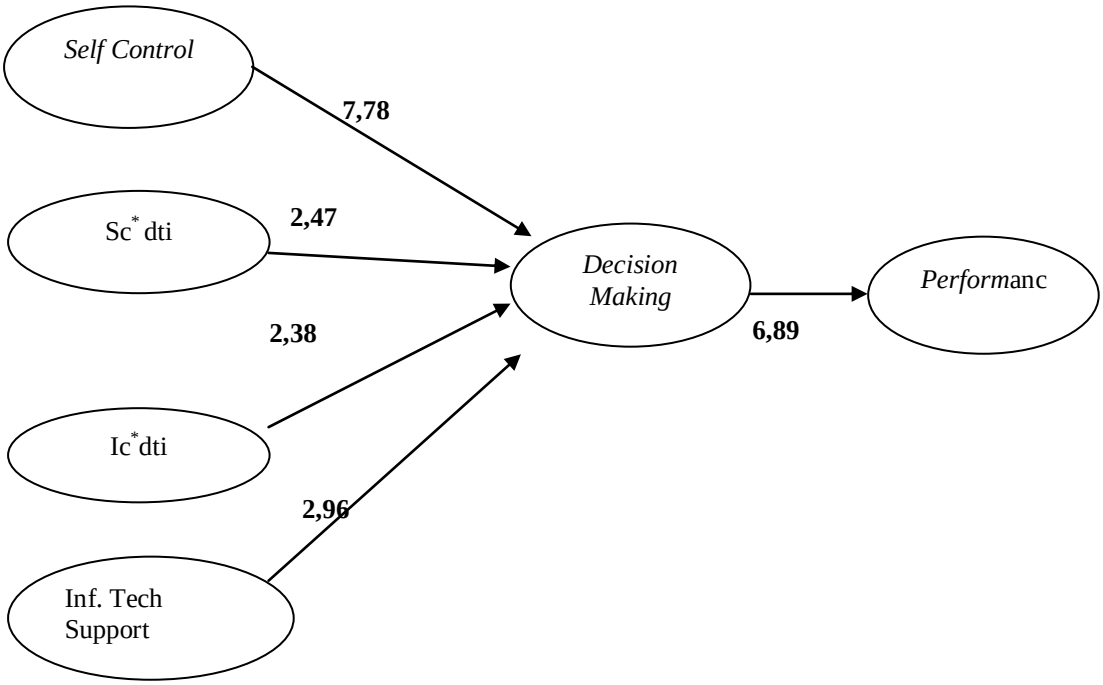

Discussion

The study results proved that self-control had an impact towards rational decision making in accordance with the hypothesis formulated. This study supports the statement of Chaplin (2002) that self-control is the ability to guide self behavior, suppress and inhibit impulses or impulsive behavior in decision making. In addition, the results of this study also support the results of the research conducted by Roman and Kaplan (1995), which suggested that self-control was positively correlated with prudence in decision-making, so it tent to produce a rational decision.

In contrast to self-control, the second hypothesis (H2) which stated that the illusion of control had a negative impact towards decision making was not supported in this study. This study contradicts the opinion of Taylor & Brow (1998) in Grou and Tabak (2008) and Nofsinger (2005) which revealed that the illusion of control generally occured in people who were able to control the outcome of decisions taken thus they tent to make irrational decisions.

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This study received a third hypothesis that showed no impact of rational decision making on individual performance. The results are consistent with the research conducted by Fashami & Moghadam (2013) and Han-Loo & See Beh (2013), which asserted that clear and rational decision making might boost employees' performance.

The study results supported the fourth and fifth hypothesis that information technology support can strengthen the impact of self-control in making a rational decision making, and information technology support can weaken the impact of illusion of control in rational decision making. The results are consistent with the opinion that information technology used in an organization has a major role to the leader's attitude in decision making, since with the good knowledge and mastery of information technology, a leader would be rational to have a variety of alternative choices before arriving at a final decision in solving a problem (Orbit, 2012).

Self-control and the illusion of control in the absence of adequate information technology support are not enough to produce effective decisions for the good performance achievement of individuals (Oswari, 2008).

Some researchers describe a person who tends to have high control of illusion may has the confidence and excessive self-confidence, and tends to make rash decisions (intuity). However, the presence of information technology as a tool can assist individuals in making a decision that could ultimately result in efficient decisions in the organization context. Nofsinger (2005) said that one thing that could develop the illusion of control was information.

This study also found new discovery outside the specified hypothesis developed by the researchers, that there was direct influence of information technology support to rational decision making without through self-control and illusion of control. Information had significant positive influence on decision making. The existence of technology can help a person in determining the choices while facing a problem regardless of any personality or character of the person.

Closing

Conclusion

Based on the results obtained, we can conclude the following:

1. Self-control had a positive and significant impact towards rational decision making of the university leaders in Dili, Timor Leste
2. The illusion of control had no imapact towards rational decision making of the university leaders in Dili, Timor Leste
3. Rational decision making had a positive and significant impact on the performance of individuals.
4. There was an impact of information technology support in weakening self-control in relation to rational decision making. Instead there was an impact of information technology support to strengthen the illusion of control in relation to rational decision making.
5. This study also found a significant and positive impact of information technology support towards rational decision making.

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Applied Implications

Based on the study results, we can be put forward a number of suggestions as follows:

1. The importance of information technology support in making rational decisions indicates that the organization should give attention to the availability of better technology in organizations that can assist management in a more rational decision making. However, it should also be noted that the use of technology should not nullify the human role in decision making.
2. In the context of Timor-Leste, it is a new state with the main target in the development of information technology, so that the organization needs to pay attention to portion of technology users in making strategic decisions for the development of the organization.
3. The decision-makers in East Timor are expected to strike a balance between self-control and illusion of control attitude in decision making. The existance of information technology support would be a means that is able to assist leaders in making rational decisions and be accountable for the development of the organization led.

Future Research Agenda

This study was only conducted to the leaders at four universities spread across the city of Dili, Timor Leste. Possible outcomes and findings would be different if the study was conducted in other sectors of the working area. Therefore, the results of this study have limitations in generalizing and need to be interpreted in the context of this study.

Related to the above study limitations, there were some developments that can be conducted in future studies. Future research agenda among others can conduct the same research model on different type of organizations and countries. In addition, our model can be extended by adding other variables that have not been observed in this research, such as the impact of rational decision making on employees' behavior.

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