

Determinant Factors of Decision Making Process in Higher Education Institution

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Abstract

What factors influence decision-making process in higher education institution? This paper presents the results of a case study of State University of Gorontalo, Indonesia that addressing to the question. The aims of this study were to identify and to analyse factors that influence decision-making process at the State University of Gorontalo. The study used descriptive quantitative method and data was collected using survey method. Sample of the study were 174 participants; consist of 129 lecturers and 45 administration staffs (n = 520). The quota of the sample was 25

Index terms— Influence factors, decision-making, process, organisation, State University of Gorontalo.

1 Introduction

Decision-making is a routine management activity happens at all levels in an organisation. A decision should be made in order to execute activities and to achieve goals. Inability to make a quality decision may affects every aspect of the organization (Nik Muhammad et al 2009; Al Medlej 1997). However in the decision making process there are several factors that could influence the decision. Individual and organisational are the two "nature" factors influencing the decision making process. Blackmore and Berardi (2006) argue that there are at least seven factors, which can influence decision. They are decision makers (Individual or personal), decision situation (environment or condition), thinking in terms of a problem or an opportunity, decision criteria (single or multi-criteria), time and people affected by the decision as well as decision support theories, models, tools, strategy and techniques.

Author : Faculty of Education, State University of Gorontalo, Indonesia. E-mail : ifanharis@ung.ac.id ??mosudirjo (1982) described two important factors that influence the process of decision-making: nature of organization and personal capabilities of decision-maker. Decision maker, which covered their personality characteristic and individual differences, such as gender and age differences, past experience, cognitive biases and belief in personal relevance, could also be an influencing factor for decision-making ?? The Individual or personal factor is considered as the most difficult to control or to predict in the decision-making process, because there are many variables might involved this factor. Arroba (1998) mentioned five factors affecting the decision making process, which related to the decision-maker (person), namely: (1) Information that was known concerning to the concrete problem, which need to be solved, (2), the level of education, (3) personality, (4) coping, in this context can be experience related to the problem (the adaptation), and (5) culture.

Factor of individual or personal mostly corresponds to psychological aspect of decision-maker, whereas organisational factor deals more with environment or condition in the organisation. Furthermore, organisation behaviour and dynamics are multi-determined and relatively complex. Thus, it needs ways of examining and understanding the situation in organization (Cremona 2012). Syamsi (2000) identified four factors that influenced the process of decision-making. These factors are (1) state of organization, (2) availability of information, (3) external condition/ environment, and (4) personality and skill of decision maker. The first three factors are included by organisational factor, which influencing the decision making process.

44 The dynamic of organisation is also considered as one important factor, which can influence decisionmaking
45 process. Siagian (1987) explained the dynamics in the organization in three categories: (1) the dynamics of
46 individuals within the organization, (2) group II.

47 2 Decision Making in Higher Education Institution

48 In the context of Higher Education Institution (HEIs), like in any other organization, the execution of decision
49 is normally done by the top management level of HEIs. Therefore, the management must have skill in term
50 of making and taking the decisions. They have to understand "the core of decision question". This question
51 is formulating in 4W (what, who, why and when) -1H (how). WHAT must to do? This refers to definition of
52 the decision to be made or what is the issue, problem, or choice, and finally assess the impact of the decision
53 on organisation and on people, WHO will implement the decision (the person, who will responsible to make
54 decision). WHY it must be carried out, or why a decision is necessary (this question deals with the reason of a
55 decision to be made -the answer to this question can be found through define, identify and classify of the problem
56 with more quantifiable reason).

57 The question, WHEN does the decision need to be made has to do with timing (Bovay 2002) and HOW will
58 lead to the strategy taken in making decision (Which strategy will be use?).

59 Apart from the skills of decision maker, the fundamental aspect of an already taken decision is the
60 implementation of the decision itself. In the organisational theory, the hierarchy of decision's responsibility
61 lays on the decision maker, usually in topmanagement-levels while for the implementation of the decision is on
62 the staff or decision takers or people who have to execute the decisions. For this reason, management needs
63 specific skill and approach. The management is expected to use participatory approach and should not be done
64 using force or violence (both physical and non-physical) in a decision making process.

65 The approach and step in the implementation of the decision should be materialized through good leadership
66 from management. Through right approach, the people, who have to implement the decision or who will be
67 affected, could carry out the decision that was given to them well and happily, without force and pressure.
68 According to statement of Copeland (1998, cited by Syamsi, 2000) "for each decision action must be taken and
69 the primary responsibility for making sure that action is taken rest on however makes the decision. Action is
70 inducted however, not by the exercise of physical force, not by the threat of corporal punishment, not even by a
71 threat of any kind except under extreme circumstances. Action is inducted rather by leadership.

72 The essence of the statement is that the implementation of a decision emphasizes the personality character of
73 the people who make decisions (decision maker).

74 The topic of agility, accuracy, and effectiveness of decision making sometimes grow to be a dilemma. This
75 is partly due to the management gap between the abilities and skills of decision-makers with perception of the
76 decision taker or staff. Consequently, frictions or conflict, due to difference in accepting and interpreting a
77 decision, will follow this situation sometime.

78 In order to make a quick, accurate and effective decision, it needs to be supported by data and information.
79 Therefore, availability of information plays important role in decision making process. It assumes that only with
80 adequate information a decision can be taken accurately. Brinckloe (1977 cited by Salusu, 2000; ??5) argued that
81 facts and information can guide the decision maker to make an accurate and effective decision. ??rummond (1993:
82 129) noted that one of the biggest problems faced by decision makers is how to obtain information, which will use
83 to support their decision. This information covers at least three criteria, i.e. reliable, relevant, and up to date.
84 Srinivas (2011) also agreed with Drummond statement about the criteria of information in a decision-making
85 process. Srinivas put some question regarding to information in decisionmaking. These questions are: from
86 where information needed for decision-making can be obtained, what information needs to be taken?, who has
87 that information?, why is that information being collected by the source?, which component of the information
88 will help to make a decision, and which source can provide the best information, as well as which information is
89 available and presented?

90 Due to important function of information in decision-making, it is not surprising that in organizational theory,
91 there are specific topics, which focused on information and decision making, such as Management Information
92 System (MIS) and more specific is Decision Support System (DCS). DCS itself nowadays is considered as the next
93 evolutionary step after MIS in the development of management theory. Both, MIS and DCS provide information
94 for the managerial activities in an organization. These allow the manager to make available accurate and timely
95 information necessary to facilitate decision-making process and enable the organization's planning, control, and
96 operational functions to be carried out effectively ??Reddy et.al 2011).

97 In terms of quality and implementation of decision, it could also be influenced by four factors, which mentioned
98 above by Syamsi (2000). It assumes, a good or sound decision has positive impact on the implementation. A
99 quality decision has more possibilities to accept and to implement by the decision taker. On the other hand,
100 a bad or wrong decision tends to have lower acceptance and has low impact in the implementation. Figure1 :
101 Factor influence decision-making process.

102 **3 III.**

103 **4 Decision Making Process**

104 Decision-making begins with presence of problems or issues that must be solved in order to achieve the goals
105 of organization. Identification and understanding of a problem considered as the basis for determining the next
106 steps to be taken in decision making process.

107 The theory of decision-making process in the literature is mostly base on a "traditional" model from Mintzberg.
108 Mintzberg et al (1976) defined a decision making process as the set of actions beginning with the identification
109 of a stimulus for action and ending with the specific commitment to action. As Mintzenberg elaborated, there
110 are three important steps of the decision making process formulated: the problem identification, development of
111 alternative solution, and selection of the best alternative. Baker et al. (??001) divided a general/formal decision-
112 making process into an eight series of steps. The first step is defining the problem, the second, determining the
113 requirements that the solution to the problem must meet. Followed by establishing goals that solving the problem
114 should accomplish, then identifying alternatives that will solve the problem, develop valuation criteria based on
115 the goals, select decision-making tools, apply the tool to select a preferred alternative and check the answer to
116 make sure it solves the problem. However the core of "natural" process of decision-making (Masch 2004) can
117 be specified in four steps: problem identification/recognition, searching and gathering of information, selection
118 and evaluation of alternatives, execute/implement the decision and evaluate the result. During the process of
119 decision-making, starting from identification of the problem to a decision taking, there are many factors that
120 could influence a decision. They could be the personality of decision maker, the state of organisation, internal
121 and external situation in organization as well as availability of information. These entire factors can be classifying
122 as individual and organisational factor and as controllable and uncontrollable conditions (Ozer 2005).

123 Understanding how important these factors which influence decision making process can be the best "strategy"
124 to improve timely, reliable, accuracy, effectively and accountability of the decisions, which will be made.

125 **5 IV.**

126 **6 Methodology**

127 The paper identifies factors influences decisionmaking process. Research was designed using survey method
128 and data was collected through distributing questionnaire. The questionnaire designed to use the four factors
129 mentioned by Syamsi (2000) as the variable for this study plus a "Diverse" factor. These four variables are state
130 of the organisation, availability of information, external condition, and personality and skill of decision maker.
131 The reason to use these four factors as research variable was because these factors are common influencing factors
132 in decision-making process within organisation. Other factors such as, type of problem that the organization
133 deals with; the goal of decision-making, and type of decision to make are classified under "Diverse" factors.

134 The questionnaire was developed base on the research variables. The total item of questionnaire was

135 **7 Decisionmaking**

136 **8 Low**

137 **9 Quality of the decision**

138 Execution/implementation of the decision organization (10 items); availability of information (9 items); external
139 factor (9 items) and skill and capability of decision maker (11 items) as well as "Diverse" factor, covered the type
140 of problem within organization; the goal of decision-making, and type of decision, etc (9 items). A total number of
141 174 samples consisting of 129 lecturers and 45 administrative staffs were selected randomly by using proportional
142 random sampling from the population for study. The quota of the sample was 25% from the population (Table
143 1). The data was analysed in to two stages using:

144 1. Simple mean percentage:

145 **10 $P = f n \times 100\%$**

146 Where: P = Percentage F = Frequency N = number of sample (Sudjana, 1996; ??5) 2. Descriptive percentage.
147 To describe the score from each variable into the form of descriptive percentage was employed following formula:

148 **11 $P = Sr ? Smin R \times 100\%$**

149 Where: P = Percentage Sr = Score of indicator/respondent score Smin = Minimal score R = Difference between
150 maximal score and minimal score (Sugiyono, 2002) The total of scores obtained for each indicator shows the
151 degree of influence of each factor in the decision making process at the State University of Gorontalo. The degree
152 of influence classified as follows: 81% -100% = high influence 61% -80% = moderately high influence 41% -60%
153 = relatively low influence 21% -40% = very little influence 0% -20%
154 = not influence Arikunto (2000;57)

155 V.

156 12 Result and Discussion

157 This study provides important information regarding the factors influencing the decision making process in Higher
158 Education Indonesia; in this context is the State University of Gorontalo. The result of data analysis helps to
159 provide a "small" picture of the various facts, information, and justification in process of decision-making in an
160 organization.

161 There are five factors, which can be settled in decision-making process at the State University of Gorontalo,
162 namely state of organization, skill and personality of decision maker, availability of information, external condition
163 of the organization as well as the miscellaneous factor. These five factors have significance influencing roles in
164 process of making a decision. The cumulative average percentage of these five factors is 68.20% (see Table
165 2 Research finding shows that state of the organizational in this context is internal condition in organization
166 dominantly influences factor in the decision-making process at the State University of Gorontalo (75.78%).
167 Personality and skill of decision maker considered as the second most influenced factor and has given contribution
168 of 73.67%, followed by availability of information with percentage of contribution of 73.30%. The external
169 condition of the organization also gives significant contribution to decision-making process with the mean
170 percentage of 63.98% and while the rest 54.29% is the result of "diverse" factors.

171 The state of the organization is the dominant factor, it gives information that internal condition in organization
172 plays important role in the process of decision-making. Internal conditions are physical and intangible factors
173 inside of the organization that influence the decision-making behaviour of individuals in the organization (Duncan,
174 1972; ??indsay & Lue, 1980).

175 It is important to note, that in internal condition of organization there are many "inter-related" element, which
176 support the existence of organization. Each element could contribute in decision-making process, such as budget,
177 personnel and physical infrastructure as well as organizational structure, size, instrument and bodies.

178 Theoretically, it is sometimes not easy to deal with internal condition in a decision making process because
179 internal conditions are not amenable to change (Benveniste 1974), even though this factor generally controllable.
180 The challenge to develop a solid internal condition in organization considered as a strategy in order to produce
181 a quality decision, which is the use of all potential in internal condition to support decision maker in decision
182 making process.

183 Identifying, assessing, and managing factor which influence decision-making process are important for decision
184 maker in order to produce a quality decision. Furthermore, critical point to minimize a wrong or not sound
185 decision due to the important of quality of decision making, which could improve organizational performance.

186 Regarding variable of the availability of information, the result showed that this factor also has significant
187 contribution in the decision-making process. Base on the data analysis, it found that there were many decisions
188 in State University of Gorontalo, used and supported by data and information. On the other hand, there are
189 number of decisions that always considering input and suggestions from the staffs.

190 Furthermore, it can be concluded that data and information in decision-making process in any organisation
191 were taken into account to be an important factor. Data and information can be obtained through the facts and
192 experience possessed by the organization in solving organizational problems or issues. Due to lack of information
193 and poor data supporting system, many were often failing to produce a quality decision. This case also indicated
194 as one of the result of this study.

195 However, the availability of data and information is not a guarantee to produce a quality decision. Even when
196 decision makers have sufficient information, which could be used as a basis to make a decision, still this is not
197 a warranty to make an effective decision. This is due to the fact that data and information, which in-putted or
198 supplied by staffs sometimes not relevant with what the decision makers need. The problem for this case is that
199 the required information often so abundant and complex.

200 Furthermore, decision makers (manager, executive, or directors) sometimes do not explain, what kind of data
201 or information that they need. As consequent, even there are available data and information for decision maker,
202 still they cannot use that and the data also are not able to assist them. The result is they would not be able
203 to grasp all of the information because the provided information is inappropriate in order to produce a quality
204 decision. Such a common situation is well known as "garbage in, garbage out" and to be considered as one of
205 failures in human decisionmaking due to faulty, incomplete, or inaccurate of the data ??Brooks et.al. 1981).

206 In the practice of organisational activities, it is the demands of data and information that always been a part
207 of the decision making process. Therefore, several decisions often must be delayed due to lack of the complete
208 data or because only inadequate information that is available.

209 The third variable in this study is external condition of the organisation. This variable or factor also has
210 significant contribution in influencing the decisionmaking process. However when compared with another variables
211 (state of organisation availability of information and skill and personality of decision maker), external condition
212 of the organisation has the smallest percentage of contribution with 63.98%, whereas the variable of state of
213 organisation (75.78%), availability of information (73.30%) and the skills and personality of the decision maker
214 (73.67%).

215 Although the percentage of contribution of external conditions is not as high as another variable, this factor
216 remains important aspect in decision-making process and considered as influencing factor in particular for the
217 strategic decision-making.

218 In addition, some important decisions related to the stakeholders were informed to public and some
219 circumstances that occurred outside of the organisation were also taken into account.

220 Related to the external condition, it is important to note, that this may cover local, regional, national and
221 international levels. Because the impact of a decision or policy is sometimes not only experienced by the
222 organization itself, but is also exposure to those in outside of the organization.

223 Factor of personality and skill of decision maker, which covered their ability and capability, is more complex
224 because it is directly related to the person who will take or make a decision. This factor plays important role in
225 determining whether a decision maker will produce a quality or a bad or a wrong decision. Moreover, this also
226 closely related to subjective factors of decision maker. Personality and skill of decision maker is one fundamental
227 factor in decision-making process. The skill is necessary to ensure that the locus of knowledge and the locus of
228 decision-making authority are matching in order to produce a sound decision (Jensen 1995).

229 It is also important to note that one goal of decision making is to ensure the performance of activities in
230 organisation running properly. Decisionmaking can serve as a "bridge", which has function to connect between the
231 maintenance of performance activities and the achievement of the goal of organisation. This relates to (Richard
232 et.al 2007) statement that organizations could only function efficiently when those who have the knowledge
233 necessary for decisions also have the authority to make those decisions.

234 In relation to the indicator of personality and skill of decision-maker, the result of study shows that there is
235 a significant contribution of this variable. As a human factor in decision-making process, it is not a surprise,
236 that this variable has the mean of 73.67%, because the people who make decisions (decision makers) can never
237 be separated from their personality and skill attribute. These attributes covers experience, personal qualities,
238 position, and authority in organisation, level of intelligence, accountability, empowerment, or authority to delegate
239 a decision, decision style, as well as knowing and understanding of the vision and mission of the organization /
240 institution.

241 Type of decision also provides significant contribution in influencing the decision-making process. The research
242 result shows that most of decisions at the State University of Gorontalo are programmed decision. Programmed
243 decision means a decision that usually use to deal or to solve routine and repetitive problems within organisation.
244 Because the decision in the State University of Gorontalo are dominantly programmed decision, it can be
245 concluded that the decision-making process has its established policies, rules and procedures and stem from
246 prior experience or technical knowledge about what works or does not work in a given situation. In addition, this
247 decision making process could be based on organisational habit in the State University of Gorontalo. Interestingly,
248 the research findings also indicates that most of problem in the State University of Gorontalo, which need decision
249 in order to solve it, can be categorized as structured problems or well-structured problems. The characters of
250 this problem are logical, well known and easily to identify. These findings give important information that there
251 are significantly relation between the type of decision and the type of problem in organisation.

252 Since programmed decision is rated as dominant type of decision in State University of Gorontalo and it is
253 faced routinely in everyday organisation activities, it affects the decision-making process. The decision makers
254 are not being put in a special context whilst the problem descriptions are clear and the information needed to
255 solve them is well provided in the problem statement (Chi & Glaser, 1985). Thus, the context and situation of
256 programmed decision is relevant to the setting of structured problems.

257 However, research has shown that the goal of decision affects the process of decision-making. Furthermore,
258 research findings in this area indicate that there are two type of decision goal in the State University of Gorontalo.
259 First is decision, which has main purpose to achieve of the goal in term of problem solving. The second type is
260 decision that has to make as respond to the pressure from the environment. It could be an internal or external
261 pressure in the organisation.

262 As the research finding, the three factors namely type of problem; the goal of decision-making and type of
263 decision have given significant contribution in decision-making process at the State University of Gorontalo with
264 the percentage value of 54.29%.

265 13 VI.

266 14 Conclusion

267 By considering the findings of this study, it is informed that the five variables have significantly contribution
268 in decision-making process at the State University of Gorontalo. In general, information that can be obtained
269 from the research results is that there is no significant different across variable which affected the decision-making
270 process. The state of organization (75.78%) is dominantly factor that affected decisionmaking process at the State
271 University of Gorontalo, followed by personality and skill of decision maker, which contributes up to 73.67%.
272 Availability of Information has a contribution of 73.30% and external condition contributes to 63.98%. Other
273 factors such as, type of problem within organization; the goal of decision-making, and type of decision, etc. brings
274 a total contribution of 54.29%.

275 The findings require further research to be done in the area of decision-making process, especially the



Figure 1:

1

Nr	Faculty	Number of population	Sample
1	Faculty of Education	80	20
2	Faculty of Letter	71	18
3	Faculty of Science and Mathematics	106	27
4	Faculty of Social Science	104	25
5	Faculty of technology	90	23
6	Faculty of Agricultural	69	17
7	Administrative Staff	180	45
	Total	520	174

Figure 2: Table 1 :

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Global Journal of Management	Nr. Variable	Internal condition of the organization	Mean of respondent's scores	Percentage of influence)	Category	(level of influence)
	1	Availability of information	280	75.78	influence)	moderately
	2	External condition	275	73.30	high	influence
	3	of the organization	249	63.98	moderately	high influence
	4	Personality and skill of decision maker	276	73.67	moderately	high influence
	5	Diverse" factors (type of problem, goal of decision and type of decision)	158	54.29	relatively low	influence
		Total	247	68.20	moderately	high influence

Figure 3: Table 2 :

14 CONCLUSION

276 determinant factors of multiple viewpoints or variables using other type of research approach such as qualitative
277 research.^{1 2}

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²Determinant Factors of Decision Making Process in Higher Education Institution (A Case of State University of Gorontalo, Indonesia)

278 [Beberapa Pandangan Umum Tentang Pengambilan Keputusan. Jakarta. Ghalia Indonesia] , *Beberapa Pandangan Umum Tentang Pengambilan Keputusan. Jakarta. Ghalia Indonesia*

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