

Situational Factors and Intuitive Decision Style among Academicians

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Abstract

Decision making is the process of deciding something which is important by a group of people or an organization. An empirical study was carried out to analyze intuitive decision making style among academicians at five different faculties in a Malaysian public university. Its objectives are: to identify intuitive decision making style among academicians; to identify differences in intuitive decision making style based on age, gender, race, working experiences, professional level and field of expert; and lastly, to examine relationship between intuitive decision making style and situational factors. There were 94 academicians of five different faculties were involved in this study. Survey data were collected using questionnaire and SPSS was used for data analysis. The findings show that out of four situational factors, two of them, i.e. information and risk factors were found to have significant positive relationship with intuitive decision making style. Recommendations of the study are highlighted and further research discussions are also suggested.

Keywords: Intuition decision making, situational factor, academician, public university

1. Introduction

People at professional or non-professional level are often involved in daily decision making, whether for simple or complicated problems. More and more people realized that intuition is essential to making good and right decisions, particularly for those managers at all levels in an organization who sometimes are under the conditions of high uncertainty or little precedent (Agor, 1984; David, 2009). The factors of intuitive decision making style consist of experience, knowledge and others (Harteis, Koch & Morgenthaler, 2008). It is learnt that not only managers and owners of businesses profess to possess competencies for using intuitive alone in decision making, but actually academicians (tutors, lecturers and professors) also inject their intuitive and judgment into their decision making process. Generally, academicians are required to have a high educational level and wide experiences in their areas of expertise. Their natures of jobs indeed play an important role in research activities and also journals contribution. As yet, there is no specific study that pertaining to academicians with intuitive decision making style and furthermore the previous researchers prefer to revolve around managers in intuitive decision making (Agor, 1984).

Moreover, different result findings from educators prompt for the purpose of this study. According to Adams and Adams (2006), current education system focuses only on analytical skills. On top of that, Klein (2006) supported that educational staff prefer to use systematic methods in problem solving regardless of a complex or simple problem whereas intuitive decision is more difficult to use in complex situations. Davis and Davis (2003) also argued that school principals tend to decide intuitively. Apart from that, individual academician has unique characteristics such as field of expert, working experience, age and others. Thus, it is necessary to look at how different personal factors relate with intuitive decision making style of academicians. Sinclair and Ashkanasy (2002) believed that time pressure is also another factor that influence intuitive decision-making style. In addition, Martin, Bandali, and Lamoureux (2005) found that decision maker would use heuristics decision-making style in high time pressure than intuitive decision-making style. The research finding is aligned with the study of Judge and Robbins (2006); they argued that decision makers use intuitive decision making style when time is restricted and pressurized.

Many kinds of variables can be defined in different research findings such as information, uncertainty and risk factors; likewise the determination of relationship between intuitive decision making styles and these three factors. Hence, it is urged for this paper to explore the relationship between intuitive decision-making style and situation factors (information, time, risk and uncertainty).

2. Conceptual background

Nowadays, intuitive is often integrated in decision making as human nature is becoming hardly to measure. In fact, intuitive decision making has little deviation from human performance. Seeing that human life becomes more complex and less structured, intuitive recognition is rather useful and effective to make decision. Andersen (2000) discovered that intuition decision is an effective approach than other decision making functions like sensing, feeling and thinking. This is mainly due to his result indicated that majority of the managers believed that intuition decision is effective. In general, people apply intuition in numerous areas such as medical and nursing, education, business, management, research and development, personal selection, marketing and others. Normally, most of the people use intuition for making decisions in situations of great uncertainty or lack of information (Judge & Robbins, 2006; David, 2009). Sinclair and Ashkanasy (2005) found that intuitive decision is very useful in ambiguous situations, particularly for those decision makers in business world who have restricted information and they must decide for which alternative strategies will benefit the companies most. Intuition is considered as a part and parcel of decision making process. Therefore, information is very crucial to academicians because they have to be knowledgeable in their lectures and research.

In addition, intuitive decision makers are likely to be more risk seeking, impulsive and belief in luck (Martin et al., 2005). People rely heavily on intuition to make decision because they are not completely sure of the alternative (Certo & Certo, 2005). When people need to make decision in a short time frame, they would use intuition and they are willing to take risk in deciding alternative, no matter whether the alternative is correct or wrong. Sinclair and Ashkanasy (2002) also stated that risk tolerance is a factor that influences intuitive decision making. According to Patton (2003), organizations always have to make quick and accurate decisions on timely basis. It is believed that intuition is most often used when time is limited at all levels of decision making (Oblak & Lipuscek, 2003). In the end of the study, this study posits that there is a significant relationship between situational factors (information, uncertainty, risk and time) and intuitive decision making among academicians. Based on this discussion, this study is aimed to test the following four hypotheses.

H1: There is a significant relationship between information and intuitive decision making style

H2: There is a significant relationship between uncertainty and intuitive decision making style

H3: There is a significant relationship between risk and intuitive decision making style

H4: There is a significant relationship between time and intuitive decision making style

3. Literature review

‘Decision making is the process of choosing the best alternative for reaching an objective’ (Certo & Certo, 2005). According to Judge and Robbins (2006), ‘decisions are the choices that made from two or more alternatives’. A good alternative can make a good decision. Thus, decision making occurs from two reactions – a problem or an opportunity and it depends on decision makers to consider alternative courses of action; Individuals are required to interpret and evaluate the information before making any decision.

3.1 Type of decision making

Klein (1998) developed the Recognition Primed Decision (RPD) model. The model describes two traditional theories in decision making, including analytical and intuitive decision making. Analytical approach is based on some criteria and needs to compare among the criteria in order to choose the optimal and best solutions. The intuitive approach is relied on decision makers’ experience and expertise to recognize problems. Scott and Bruce (1995) developed five styles of decision making. The decision making styles encompass rational, intuitive, spontaneous, dependent and avoidant. The rational style is assessing the long-term effects of decisions and strong fact-based orientation of deliberate, analytical, and logical. The intuitive style is feeling-oriented, internal ordering of information and fact decision. The spontaneous style is an immediacy of strong sense through the decision making process as quickly as possible. The dependent style is characterized by the use of support from others to make decision and the avoidant style is characterized by delay and denial.

Tavcar (1995) cited in Oblak and Lipuscek (2003) stated that managerial decision making can be separated into routine, analytic and intuitive decision making. Routine decision making is performed normatively and with certain rules. Analytic decision making takes place on the grounds and is based on knowledge to study the matter in complex circumstances.

Intuitive decision making is used directly or when all other possibilities of decision making have failed. From the aspect of managerial level, a high share of intuitive decision making comes from higher management that is personnel selection such as capable and talented managers. At the implemental level, the share of intuitive decision making is smaller and it involves the use of routine decision making to carry out controlled activities.

3.2 Intuition decision making style

Intuitive decision making is ‘a subconscious process created out of a person’s experiences’ (Judge & Robbins, 2006). Intuitive decision maker can make quick decision even though there is limited information. Encarta (1999) defined that intuition is known as something instinctively without having to discover or perceive it. Intuition is seen as an innate capacity not directly accessible by considering the process which gives rise to a judgment or action involving it. Patton (2003) stated that intuitive can be innate, general experience or focused learning efforts to develop habits and achieve intuitive reactions to certain situations. The conceptual framework for the term of intuition can be included experience, judgment, insight and gut feelings (Fields, 2001). There are several approaches in measuring intuition such as Keegan’s Type Indicator (KTI), Nygren’s Decision Making Inventory (DMI), Rational-Experiential Inventory (REI) and others. KTI developed by Keegan (1982) which contains 44 items in the questionnaire. A total of 16 statements are used to measure the sensing and intuition and whereby 16 statements are used to measure thinking and feeling. The questions use bipolar statements and rank scale from 1 to 4. The remaining 12 questions focus on attitudes and bipolar statements.

Nygren and White (2001) developed DMI which is a 45 items self-report that measures analytical, intuitive or regret-based decision maker. The questions use Likert scale from 1 (strongly disagree) to 6 (strongly agree). There are 15 items on each of the 3 scales, consisting of analytical, intuitive and regret-based emotional decision making style. The third approach, REI-questionnaire was developed by Pacini and Epstein (1999). REI questionnaire contains 40 items where 20 items focus on Cognition scale and another 20 items focus on faith in intuition scale. There are two subscales, including the engagement and ability. Rational ability refers to the confidence with logical thinking task whereas experiential ability refers to confidence with which someone relies on their intuition. Rational engagement refers to the enjoyment of logical reasoning whereas experiential engagement refers to enjoyment of using intuition. These items use five-point rating scale that range from ‘definitely not true of myself’ to ‘definitely true of myself.’

3.3 Intuitive synthesis

According to Oxford dictionary (2005), synthesis refers to the combination of parts, elements, and substances into a system which results from this process. Khatri and Ng (2000) stated that intuitive synthesis has three operational indicators - reliance on judgment, reliance on past experience and use of gut-feeling. David (2007) urged that the three operational indicators are essential in business strategy.

3.4 Previous studies

Khatri and Ng (2000) examined the importance role of intuition in strategic decision making. The study focused on senior managers of companies representing computer, banking, and utility industries in the US. The study found that intuitive processes are often used in organizational decision making. The use of intuitive synthesis was found to be positively related to organizational performance in an unstable environment, but negatively related in a stable environment. Research by Klein (2006) examined the comparison of educational decisions between intuitive and computerized decision support system. Respondents were divided into two groups and they were asked to resolve an educational problem. The holistic procedure and DSS program were used accordingly. Individual group was provided with an identical dilemma but at different levels of complexity. One group had been offered a limited number of alternatives to solve limited number of criteria in order to compare the effectiveness of the various alternatives. The other group was presented with a larger number of alternatives to solve larger number of criteria.

The findings showed that respondents gained the similar result when they solved simple question when they used intuitive or computerized decision support system. However, when respondents solved the complex questions, the two approaches achieved the different results. Hayes, Allinson, and Armstrong (2004) measured the gender perspectives of managers and non-managers or whether women are more intuitive than men in general. This research examined the gender differences by using Cognitive Style Index to measure the intuition of managers and non-managers from United Kingdom. They found that there is no difference between female and male managers in term of using intuition. But, excitingly, the researchers found that female non-managers are more analytical than male non-managers and female managers. Pretz (2008) examined the effects of intuitive and analytical strategy and the level of experience on problem solving.

Undergraduates were requested to provide response in the research in order to test their problem solving in college life. Research results showed that chosen appropriateness of strategy depends on the problem solver's level of experience. The finding found that more experienced respondents would prefer intuitive perspective than analytical. Sinclair and Ashkanasy (2002) discussed the latest finding of intuitive decision making style among CEOs and senior managers. They found that CEOs and senior managers used analytical decision making style but sometimes they also used intuitive in decision making. Sinclair and Ashkanasy (2002) had discussed four categories of factors which influenced decision making style including problem, decision, context or person. Robson and Miller (2006) examined the relationship of the use of intuition in decision making and judgments by senior leaders in major Australian organizations. They conducted semi-structured interviews with 10 senior leaders and found that senior leaders used intuition when environment is complex or involved people. Van Riel, Ouwersloot and Lemmink (2006) investigated the relationship between characteristics of decision task, decision style and decision making effectiveness. Cognitive styles describe that under various task conditions, intuition and analysis will be identified and evaluated for their relative effectiveness. Propositions are developed with respect to the relationships between decision task characteristics and the likelihood of using two cognitive systems, and with respect to potential moderators of decision making effectiveness. Research also provided implications and some suggestions for managerial practices.

4. Research methodology

4.1 Sample

The population of this study was all 855 academicians from 5 different faculties in one of the Malaysian public university. The expert fields of selected staff including education, science, computer, engineering, and building. A total of 265 academicians were selected randomly as sample of this study. Based on Krejcie and Morgan (1970) sampling table, this 265 sample of academicians were considered sufficient for this study. Out of 265 questionnaires distributed, only 94 sets were collected for data analysis. The respond rate is moderate, which is only 35.5%.

4.2 Measurement scale

The instrument to measure intuitive decision making style was adopted from previous researchers. Respondents were requested to choose their intuitive decision making style based on five- point Likert scale (1 = "Strongly Agree", 2 = "Agree", 3 = "Neutral", 4 = "Disagree" and 5 = "Strongly Disagree"). Table 1 is the reliability analysis for the four independent variables and a dependent variable in this study. The range of reliability score was from 0.700 to 0.902. The highest reliability score was the factor of uncertainty (0.902) followed by factor of risk and time (0.896 respectively), information factor (0.891) and intuitive decision-making style (0.700). This means scales in this reliability analysis were well-established and the results were acceptable.

5. Results

The result of the correlation between independent and dependent variable is depicted in Table 2. Correlation coefficient (r) represents the linear relation between two metric variables. The finding showed intuitive decision making style had a weak relationship with information (0.405, $\rho < 0.01$), uncertainty (0.363, $\rho < 0.01$), risk (0.411, $\rho < 0.01$) and time (0.325, $\rho < 0.01$). As $\rho < 0.01$, it could be concluded that intuitive decision making style had a significance relationship with information, uncertainty, risk and time factors.

Next, multiple regression analysis was used to assess the relationship between the four independent variables and intuitive decision-making style. The four independent variables are information, uncertainty, risk and time factors. Table 3 shows the summary of multiple regression analysis of the study. It showed that the final model accounted only for 25.7% of the variance ($R^2 = 0.257$). It means that there was a significant relationship between information, risk factor and intuitive decision-making style. On the other hand, no significant relationship was found between uncertainty, time and intuitive decision-making style. As a result, out of the 4 hypotheses of this study, only 2 hypotheses (H1, and H3) were supported.

6. Discussion and implications

The study reveals that majority of the respondents (academicians) used intuition in their decision makings. They made decision with the gut-feel when they assumed it is a right decision; they trusted their feeling and believed that their instincts are always correct. It implies that academicians preferred trusting their own feeling rather than on other people. In addition, it is explained that academicians relied on situation when there is a need to use intuition in decision making. According to Judge and Robbins (2006), individuals use intuition to make decision when situation is under high level of uncertainty, facts is limited and time is pressurized. It is noted that factor of information was mostly used by respondents, followed by the factor of uncertainty situation in their intuitive decision making.

In contrast, minority of respondents took into consideration of risk factor in intuitive decision making style. In relation to information factor, the result shows that there was a significant relationship between information and intuitive decision making style. Academicians had higher level of expertise, knowledge and decision-making skill. They believed in their judgment and relied on their working experiences and intuition to make decision. Sometimes, respondents would face situations of limited information; they had never encountered similar cases from the past and would deal with the complicated information. The result is consistent with Klein (2006), Robson and Miller (2006) and Mara (2003), who stated that intuition decisions are useful when there is a lack of information. Similarly, risk factor had a significant effect on intuitive decision-making style. The result of this study is consistent with the study of Harteis and Gruber (2008); they stated that individuals with risk-taking readiness would tend to use intuition to make decision. Finally, the findings show that there was no significant relationship between uncertainty and time with intuitive decision-making style of academicians. The two factors were not significantly affecting intuition decision making, therefore it is urged to gather more and adequate data to support these two factors.

7. Limitations and suggestions for future research

This study was confined to the intuition decision-making style, therefore it is suggested that future studies to include other decision making styles such as analytical decision-making style or they can compare intuitive and analytical decision-making style with information, time, uncertainty and risk factors and locate their relationship among respondents. In addition, this study had only focused on four situational factors (information, time, uncertainty and risk), thus it is proposed that other factors like creativity, innovation, implicit learning performance and stable environment to be added in future studies in order to examine the impact of these variables on intuitive decision-making style. In terms of research instruments, future research is advised to use both qualitative and quantitative methods. This should be done by putting some open-ended questions or interviews for open discussion on the topics. The limited sample size of this study may not be able to generalize the entire university, because out of 265 questionnaires distributed, only 94 sets (35.5%) were collected for data analysis. Future studies are advised to expand the sample size by including more faculties or other universities and colleges in Malaysia. By doing this, future study should be able to generate some exciting and valuable results as the academicians would have diverse background and knowledge.

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Table 1. Reliability analysis

Variables	Cronbach's alpha	Number of items
Information	0.891	3
Uncertainty	0.902	3
Risk	0.896	3
Time	0.896	3
Intuitive decision making style	0.700	5

Table 2. Pearson correlation

Variables	Mean	SD	1	2	3	4	5
1.Information	3.5638	0.79428		0.741**	0.329**	0.515**	0.405**
2.Uncertainty	3.2837	0.84943	0.741**		0.523**	0.589**	0.363**
3.Risk	2.9149	0.98609	0.329**	0.523**		0.396**	0.411**
4.Time	3.5426	0.90924	0.515**	0.589**	0.396**		0.325**
5.Intuitive decision making style	3.3447	0.58835	0.405**	0.363**	0.411**	0.325**	

Note: Note: Significant at **p<0.01 (2-tailed)

Table 3. Multiple regression model

Situational factors	Overall intuitive decision making style Beta (β)
Information	0.243**
Uncertainty	-0.068
Risk	0.191**
Time	0.057
Adjusted R Square	0.223
R Square	0.257
F	7.683

Note: Significant at **p<0.0101 (2-tailed)