

# Does Decision Making Styles Differ by Leadership Hierarchical Level, Knowledge and Demographic Profile in Higher Education Institutions?

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## ABSTRACT

*This paper discussed the leadership styles of leaders in different hierarchy in higher education Institutions (HEIs). About 239 managers of different ranks involved in the survey. The results reveal that gender shows no significant difference to their decision style but age and level of education shows a significant difference especially for hierarchic decision style. Lower managers are more open and interactive in their decision styles and even more analytic in their thinking styles. Top management on the other hand, is moving towards hierarchic and flexible decision style. It implies that the decision styles of young leaders are more towards openness, diversity of opinion, and participative as they go up to a higher rank, however, older leaders are more directive, command-oriented styles.*

## Keywords

*Decision making, thinking style, decision style, and leadership style.*

## 1.0 INTRODUCTION

Effective decision-making is an integral part of a manager's job. It has become increasingly important and difficult due to technological advances, domestic and global competition, and the increasing complexity of the issues that managers face. As managers approach the decision making process differently, it is essential to understand what variables might contribute to these differences. One area that can provide insights as to how managers approach, perceive, and process the information associated with decision making, is that of "decision style," which is "the way one visualizes and thinks about situations . . ." (Rowe and Mason, 1987). Study on decision-making style in isolation, however is insufficient to decision literature as

decision styles differs by the individuals, hierarchical level and the decision itself. Thus this study intends to examine the decision style at different hierarchical level of the leaders in Higher Education Institutions (HEIs). The relationship between managerial decision style and decision process at different level is one that could provide unique insights into the area of decision making, yet it is an area that has remained relatively unexplored.

Previous study has found that decision style of the managers differs by their level of hierarchy (e.g. Brauseau, et al., 2006) due to the decision situation or characteristics (complexity, ambiguity, riskiness, etc) they are responsible at. However, little is known about the decision style of different level of leader's in different hierarchy in higher education Institutions (HEIs). Do higher-level leaders at HEIs use decision styles that are associated with more complex decision-making processes and vice versa to lower level leaders? Brauseau et al. (2006) argued, "higher levels managers require an unconventional approach to decision conflicts and, therefore, they require intuitive mode for the perception of knowledge surrounding the conflict".

## 2.0 DECISION THEORY

The decision making process is an important aspect of the managerial function that is becoming increasingly complex due to technological and global impacts. The process of decision-making involves identifying and choosing alternatives based on the values and preferences of a decision maker (Hussain, 2006). It is essential, therefore, to understand why various managers approach the decision making process differently. One area is related to how managers think, perceive and process the information associated with decision-making. That is thinking style that leads to decision style.

## 2.1 Thinking Style

Thinking style has been defined as one's preferred manner of using mental abilities to govern daily activities, including understanding and solving problems and challenges. Thinking styles may vary depending on the conditions and demands of a given situation (Sternberg, 1997, 1994, 1988). Thinking style can be linear or nonlinear (Vance et. al, 2007). Linear thinking was based on rules, rationality, analysis, logic, reason, and cause-effect predictability (Siggelkow and Rivkin, 2005). On the other hand, non-linear thinking emphasizes on the intuition and gut feelings. It also focuses on creativity, flexibility, holistic insight, and emotion.

Where the decision is complex and need to be done under a tight deadline or in the midst of an over whelming mass of information, successful managers often rely on intuitive judgment and based on their experience to make a decision (Dane & Pratt, 2007; Miller & Ireland, 2005; Sadler-Smith & Shefy, 2004). However as being argued by Vance et.al, (2007), effective decision making in a highly complex and turbulent business environment requires both linear thinking ( reliance on formal data sources) as well as intuition and other forms of nonlinear thinking. Thus studies has confirm that thinking style either linear, non-linear of the combination of the decision makers determine their decision style.

## 2.2 Decision Style

Historically, decision style has been referred to alternately as "cognitive style," "psychological type" or "problem solving style." All of these concepts deal with the way individuals process and evaluate information related to decision making, and provide the framework that is necessary for understanding the concept of decision style. In fact, researchers have used these terms interchangeably. The essential difference between the concepts, however, is that cognitive style and psychological type have been defined as a characteristic of an individual's personality, where an individual's behavior when making decisions is relatively the same across various situations. With decision style, however, an individual's behavior will vary according to the situation at hand, with individuals having a repertoire of decision styles.

### 2.2.1 Jung's Theory

Decision style theory has its roots in Carl Jung's, Psychological Types theory. Jung (1921) described the differences between four functions of the psyche, which are categorized as sensing, intuiting, thinking and feeling. Individuals can take in (perceive) information through either a sensing mode, where reliance is placed on sense organs; or through an intuiting mode, where reliance is placed on

unconscious processes. Information can be judged by thinking, which focuses on rational analysis and conclusions; or by feeling, where the focus is on subjective valuations. According to Jung, individuals will be inclined toward sensing or intuition on the perceptive scale; and either thinking or feeling on the processing scale.

### 2.2.2 Decision Style Inventory (DSI)

Using Alan Rowe's Decision Style Inventory (DSI) (Rowe and Mason, 1987), in conjunction with James Rest's Defaming Issues Test (DIT) (Rest, 1979), the primary purpose of this study was to describe and ascertain the decision style of the HEIs leaders at different hierarchical level. Using the two dimensions of information use and focus, four styles of decision making were identifies: (1) *decisive* (little information, one course of action, and tend to value action, speed, efficiency, and consistency); (2) *flexible* (little information, many options, and focuses on speed but emphasize on adaptability); (3) *hierarchical* (lots of data, one course of action, and will readily challenge others' views, analyses, or decisions before making a judgment); and (4) *integrative* (lots of data, many options, and treat decision making as a process that may have multiple courses of action, but not as an event).

## 3.0 RESEARCH METHODOLOGY AND FINDINGS

Our expectation towards the findings of this research was that managers' predominant decision-making styles would change as they progressed through their careers. Either, they are male or female, young or old, no significant difference should occur. However, the patterns that we found out of the data were even more sharply defined than we could have imagined. We found that decision-making profiles do a complete flip over the course of a career: That is, the decision style of a top management (i.e. VC, DVC) is the opposite of a lower management. In the decision mode, we found leaders of HEIs in Malaysia possess only three mode of decision style statistically measured by exploratory factor analysis. They are hierarchical, flexible and integrative decision style. Decisive decision style hence, was not loaded in any component of the factor analysis. This indicates that HEIs leaders of low or top management never made decision strictly based on their intuition and gut feelings or without enough information. This result was based on the responded survey of 239. Using cross-sectional data, factor analysis and descriptive analysis, our findings were as below:

The majority of our respondent are middle management (40 percent); 25 percent of senior managers, 19 percent lower managers and only 15 percent top management. Male are 64 percent and female consist of 36 percent where most of them are

holding doctorate degree (38.5 percent) followed by masters degree (33.9 percent) and in the average age of 40 to 56 years old. Most of the decision made was related to academic affairs (22.2 percent).

Table 1: Demographic profile

|  | Freq       | 100%         |
|--|------------|--------------|
| Gender:  |            |              |
| Male   | 154        | 64.4         |
| Female   | 85         | 35.6         |
| <b>Total</b>   | <b>239</b> | <b>100.0</b> |
| Age:   |            |              |
| Less than 30   | 33         | 13.8         |
| 30 – 39  | 52         | 21.8         |
| 40 – 49  | 79         | 33.1         |
| 50 – 58  | 64         | 26.8         |
| More than 58   | 11         | 4.6          |
| <b>Total</b>   | <b>239</b> | <b>100.0</b> |
| Level of Education:                                      |            |              |
| Professional   | 24         | 10.0         |
| Doctorate  | 92         | 38.5         |
| Masters  | 81         | 33.9         |
| Bachelor   | 39         | 16.3         |
| Diploma  | 3          | 1.3          |
| <b>Total</b>   | <b>239</b> | <b>100.0</b> |
| Types of Decision made:                                  |            |              |
| Funding  | 14         | 5.9          |
| Academic affairs   | 53         | 22.2         |
| Student affairs  | 38         | 15.9         |
| Administration/human resource                            | 37         | 15.5         |
| Program Development                                      | 17         | 7.1          |
| Research/Innovation/internationalization                 | 25         | 10.5         |
| Multiple decision  | 40         | 16.7         |
| Missing  | 15         | 6.3          |
| <b>Total</b>   | <b>224</b> | <b>100.0</b> |
| Level of Management                                      |            |              |
| Top Mgt (President,VC,DVC,Registrar)                     | 37         | 15.5         |
| Senior Mgt (Dean, Director)                              | 60         | 25.1         |
| Mid Mgt(Dep. Dean, Head of program, Head of Dept)        | 95         | 39.7         |
| Lower Mgt (research leader, project leader, supervisors) | 47         | 19.7         |
| <b>Total</b>   | <b>239</b> | <b>100.0</b> |

### 3.1 Descriptive analysis

We found that as managers move up in the ranks, their decision style move towards flexible and hierarchic decision style. It was found in our analysis that, most leaders in HEIs possess more hierarchic decision style (mean of 4.15), followed by flexible decision style (mean of 4.09) and low integrative decision style (mean of 3.30). Hierarchic decision style was found higher among senior managers (mean=4.45) followed by top management (mean=4.28). The lower rank managers mostly possesses integrative decision style (mean= 3.37). Please refer to Table 2.

### 3.2 Test of Differences

ANOVA results in Table 3 shows that there are differences in decision style of the leaders at different rank especially on the hierarchic and flexible decision style. Post Hoc result confirmed that the difference occurred between lower management and top management in hierarchic

decision style. For flexible decision style the difference was found exist between senior managers and middle managers. No difference was found for integrative decision style. However, we realized that, young and old top executives behave differently in their thinking styles and leadership style, which determine their decision style.

Table 2: Descriptive Analysis of the Decision Style

| Decision N=239     |      |                |
|--------------------|------|----------------|
| Variables          | Mean | Std. Deviation |
| <i>HIERARCHIC</i>  | 4.15 | .631           |
| <i>FLEXIBLE</i>    | 4.09 | .691           |
| <i>INTEGRATIVE</i> | 3.30 | .682           |

| Decision N=239     |      |                |
|--------------------|------|----------------|
| Variables          | Mean | Std. Deviation |
| <i>HIERARCHIC</i>  |      |                |
| Top Management     | 4.28 | .534           |
| Senior Management  | 4.45 | .592           |
| Mid Management     | 4.06 | .613           |
| Lower Management   | 3.82 | .599           |
| <i>FLEXIBLE</i>    |      |                |
| Top management     | 4.20 | .547           |
| Senior Management  | 4.30 | .680           |
| Mid Management     | 3.95 | .761           |
| Lower Management   | 4.01 | .588           |
| <i>INTEGRATIVE</i> |      |                |
| Top Management     | 3.26 | .681           |
| Senior Management  | 3.23 | .827           |
| Mid Management     | 3.32 | .627           |
| Lower Management   | 3.37 | .591           |

In the leadership mode (one option vs. many option), older and highly educated executives were in favor of maximize information, hence they are more analytical in their decision making. Thus, they used that information and think things through. However, they favor one course of action- where they make decision based on their intellectual discourse. On the other hand, for the younger executives, and lower level education executives, they favor multiple options where they work in the flexibility to choose a line of attack- and quickly change course if needed. These types of leaders are more non-linear thinkers who rely more on their heuristics and gut-feelings.

Our expectations on the difference among gender, age and education level to decision style was partially correct as we found that gender shows no significant difference to their decision style but age and level of education shows a significant difference especially for Hierarchic decision style. Older age were found to possess high hierarchic decision style as compared to the young ones where they are more towards flexible and integrative. Those who possesses higher degree also shows having higher hierarchic decision style.

Table 3: ANOVA Result – Test of Difference

|                    | DECISION STYLE |         |          |         |             |         |
|--------------------|----------------|---------|----------|---------|-------------|---------|
|                    | Hierarchic     |         | Flexible |         | Integrative |         |
|                    | F value        | P value | F value  | P value | F value     | P value |
| Level of Managers  | 11.206***      | .000    | 3.788**  | .011    | 0.434       | 0.729   |
| Types of Decision  | 1.044          | .397    | 1.075    | .379    | 1.296       | .260    |
| Gender             | .089           | .766    | 2.181    | .141    | .471        | .493    |
| Age                | 5.361***       | .000    | .851     | .494    | 1.424       | .227    |
| Level of education | 5.276***       | .000    | 1.222    | .302    | .800        | .526    |

#### 4.0 DISCUSSIONS

The patterns of decision styles in the present study show that the lower managers are more open and interactive in their decision styles and even more analytic in their thinking styles. Top management on the other hand, was moving towards hierarchic and flexible decision style. We observed that, top managers who are more prone to the hierarchic mode are those who are above 58 years old and holding professionals and doctorate degree regardless of the decision they've made. They are very analytical but expect their decisions, once taken, to be final as the decision were made based on single option. The present study on the other hand found that top young leaders are more dominant towards non-linear thinking style but apparently more open in their decision making and relying on multiple options. Thus they are in the flexible mode. This findings indicate that young leader who goes up to higher ranking in their career, their decision style are more towards openness, diversity of opinion, and participative decision-making, however, older leaders are more directive, command-oriented styles.

Our data shows that in both the thinking and the leadership modes, decision styles tend to cluster to the top right and down left in the management hierarchy. Somewhere between the middle manager and director levels, the cluster was in the hierarchic and flexible mode. All level managers less possessed integrative mode. It is assumed that executives find that approaches (integrative decision style) work are no longer so effective. At this point, we see managers' styles falling into a "convergence zone," where no one style stands out as being used more or less than the others. Our research reveals that as they progress in their careers, they tend to adjust their styles and as they move older and become more experience, they become more analytical and autocratic. The young with lower education seem to stagnate once they hit the convergence zone; their styles remain clustered rather than evolving in new directions. It appears that leaders in HEIs were not having similar styles in their decision-making. They can't figure out what they should do differently. So they try a little of

everything: Their styles are directive yet participative, action focused yet open to alternatives. The bottom 47% of managers gets stuck in this "uncertainty zone," where they often remain for the rest of their careers. The second level of management is a key transition point in an up-and-coming executive's career. At lower levels, the priority is to keep everyone focused on immediate tasks and getting the work done. At higher levels, that doesn't work anymore. Decision styles become more about listening than telling, more about understanding than directing. Managers must drop the attachment to the hard-edged decisive and hierarchic modes of leadership in favor of the more inclusive flexible and integrative styles. This is a perilous time, a point where many otherwise talented managers crash and burn, because it's natural to keep doing things the way that worked well in the past.

#### 5.0 CONCLUSION

Traditional views of leadership have fallen out of favor in all kinds of organizations, including institutions of higher education. It is becoming clear to leaders in higher education that hierarchical and authoritative leadership is ineffective for meeting the challenges their institutions face. Challenges such as cost containment, accountability to the public, globalization, integrating technology, and measuring of student outcomes require more participatory forms of leadership than in the past. Being successful means including the expertise of individuals throughout the organization. As a result, the landscape of higher education has changed considerably in the last decade, bringing in more voices to decision making and planning. The major challenge in making these participatory models work is finding ways to help staff feel truly engaged in the leadership process and in facilitating communication among diverse individuals. This is easier said than done. Our study found that HEIs leaders in Malaysia are prone towards autocratic and hierarchical. How this should be changed? How can we actively engage diverse individuals in the leadership process? What can we do to ensure that all voices are heard and considered? Future research should addresses these questions by presenting the results of a study that helped to generate a new leadership framework.

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