Decision Making and Leadership Practices: A Study on IT company Leaders in Bangalore

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Abstract - **This paper seeks to explore the relationship between the decision-making and transformational leadership practices of information technology leaders in Bangalore. It aims to investigate whether differences exist in selected demographic variables (age, gender, experience, marital status, number of children, and educational qualification) of information technology leaders. Convenience samples of 172 information technology leaders in Bangalore were selected. Decision-Making questionnaire of Leon Mann and Leadership Practices Inventory of Kouzes and Posner selected to measure decision-making styles and leadership practices of information technology leaders in Bangalore. Results of the correlational analyses indicate that procrastination decisional style has significant negative relationship with the "modelling the way" and "enabling others to act" dimensions of leadership practices.**
Keywords: **Decision making, Leadership, Information Technology**

I. INTRODUCTION

An understanding of the decision making style is critical not only for the explanation of individual behaviour but also for the behaviour in the complex organizations. Decision making involves both cognitive and social process. The events that intervene between the identification of problem (or occasion for decision making) and a solution or decision are both interpersonal and intrapersonal. The interpersonal or social aspects of decision making are most direct relevance to processes of leadership. Leader is a person who should have the capability to influence others and the leadership is what leaders do to influence group to achieve some defined goals. The leader not only make decisions but also designs, regulates, and selects social systems to make decisions.

Decision-making is a ubiquitous part of daily life and people often making difficult choices between equally attractive alternatives. To successfully perform the activities, leaders have to make decisions at every point to achieve the expected results. The effective decision making is one of the attribute of an efficient leader (Tatum, Eberlin, & Kottraba, 2003). In this paper, we attempted to study the consequences for the leader adopting a particular behaviour or style, which helps the organization to understand how the leaders make decision in the organization.

A. Leadership

Transformational and transactional leadership are the most widely studied leadership styles in behavioural sciences. The evolution of transformational leadership can be traced from the developing theory of transformational leadership in 1978 and concept enriched with different aspect with the passage of time. Burn's theory of transformational leadership argued that transformational leader has high moral qualities and leader prefer group interest over his interest (Burns, 1978).

Tichy and Devanna (1986) determine the characteristics of transformational leadership which includes courage, values, openness, visionary and showing off learning behaviour on the part of transformational leaders. Transformational leaders appear to prefer a comprehensive style of decision making that uses many input sources and considers many optional pathways (Tatum. et.al, 2003).

B. Decision Making

Decision making styles are the learned, habitual response pattern exhibited by an individual when confronted with a decision situation (Scott & Bruce, 1995). Leadership decision making has been studied from multiple perspectives (Tatum. et.al, 2003), decision making by individuals within an organizational and social context has become an increasing complex part of leadership (McKenna, Richard, J. and Martin - Smith, Brett, 2005).

Over the years, there has been much debate on how to accurately describe decision making processes in general beyond an implicit agreement that decisions are made through some sort of chaotic processes (Fulop, Janos, David, Roth, Schweik and Charles, 2006).

II. HYPOTHESES

1. Age, educational qualification, number of children, and experience of the information technology leaders has a significant influence on their decision making and leadership practices.
2. Decision making styles (vigilance, hypervigilance, buck passing, procrastination, rationalization, and defensive avoidance) will positively relate to Leadership practices (modeling the way, enabling others to act, inspiring a shared vision, challenging the process, and encouraging the heart).

III.METHOD

A sample of 172 individuals who working full time and who resided in the Bangalore area completed self-report surveys containing items assessing the variables described below. The survey contains thirty one item of the Leon Mann, Radford, and Kalucy (1986) decision making styles inventory. The survey items designed to assess vigilance, hyper vigilance, defensive avoidance, procrastination, buck passing, and rationalization of their decisions. These items featured a three-point response format ranging from not true (one point) to true for me (three points). Leon Mann et al. (1986) reported a test-retest reliability, ranging from 0.47 to 0.74 for all the sub-scales. In India, Amalor (1992) found test-retest reliability as follows: Vigilance 0.79, hyper vigilance 0.47, defensive avoidance 0.58, procrastination 0.76, buck passing 0.46, and rationalization 0.59. This tool possesses both content and constructs validity. The factorial validity of the scale ranges from 0.55 to 0.82 for all the six dimensions.

The influence of leadership practices on organization performance was measured with leadership practices inventory developed by Kouzes and Posner (1997) in five dimensions viz., modeling the way, enabling others to act, inspiring a shared vision, challenging the process, and encouraging the heart. Each dimensions contained six items.

There are five response categories for each item ranging from rarely (one point) to frequently (five points). Kouzes and Posner (1997) established the Cronbach Alpha values for all the sub-scales which were range from 0.75 to 0.87. This tool possesses both content validity and face validity. Based on the specific measures, the criterion group validity was established as 0.68. The concurrent validity of the tool is 0.72.

IV.ANALYSIS AND DISCUSSION

From the Table 1, it is found that 'F' values are significant for the entire leadership practices dimensions viz. modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. And for the decision making styles, it is found that 'F' values are significant with vigilance, procrastination, buck passing, and hyper vigilance decisional styles. Hence the hypothesis is accepted for decision making and leadership practices. It is concluded that the information technology leaders differ significantly in their decision making styles and leadership practices based on their age. Age of information technology leaders has a significant influence on their decision making and leadership behaviour. Information technology leaders who are more than 40 years of age, were high in all the significant dimensions.

TABLE 1 LEADERSHIP PRACTICES AND DECISION-MAKING OF LEADERS WITH RESPECT TO THEIR AGE

Dimensions of Leadership Practices	Age of IT Leaders			F value	Scheffe Posthoc
	Less than 30 years	31 to 35 years	36 to 40 years	More than 40 years	
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Modeling the way	19.32 (2.88)	20.93 (2.54)	21.13 (2.43)	24.14 (1.39)	15.83[*]	4 Vs 3 Vs 2 Vs 1
Inspiring a shared vision	19.96 (2.81)	21.12 (2.76)	20.69 (2.31)	24.14 (2.06)	12.66[*]	4 Vs 2 Vs 3 Vs 1
Challenging the process	20.07 (3.04)	21.52 (2.36)	21.25 (3.13)	23.67 (1.91)	6.99[*]	4 Vs 2 Vs 3 Vs 1
Enabling others to act	20.00 (3.44)	21.45 (2.55)	21.45 (2.55)	23.29 (1.98)	6.13[*]	4 Vs 2, 3 Vs 1
Encouraging the heart	20.46 (2.62)	20.34 (2.35)	21.22 (2.38)	23.05 (1.96)	7.38[*]	4 Vs 3 Vs 1 Vs 2
Dimensions of Decision making styles					
Rationalization	11.86 (1.08)	11.21 (1.57)	11.54 (1.91)	12.19 (1.75)	2.10	4 Vs 1 Vs 3 Vs 2
Vigilance	10.61 (1.85)	12.88 (1.65)	13.13 (1.93)	12.29 (2.35)	12.71[*]	3 Vs 2 Vs 4 Vs 1
Defensive Avoidance	11.71 (1.05)	11.34 (1.44)	11.00 (1.42)	11.00 (1.70)	1.98	----
Procrastination	11.14 (1.48)	11.23 (1.45)	11.07 (1.41)	10.04 (1.75)	3.49[*]	2 Vs 1 Vs 3 Vs 4
Buck Passing	9.00 (1.47)	11.00 (1.60)	10.61 (1.72)	9.08 (1.86)	9.55[*]	2 Vs 3 Vs 4 Vs 1
Hypervigilance	11.25 (1.32)	10.63 (1.60)	11.12 (1.72)	8.48 (1.86)	15.35[*]	1 Vs 3 Vs 2 Vs 4

1. Less than 30 years – 28 persons   [*] Significant at 0.05% level
2. 31 to 35 years – 56 persons
3. 36 to 40 years – 67 persons   4.More than 40 years – 21 persons

High in "encouraging the heart," dimension of leadership practices may be due to the ability of the individual to focus on things which will work rather than what won't work. It is a good sign that the middle aged leaders prefer encouraging behaviours within the organization. The intention of the middle age leaders is to develop the team to establish and prove themselves in the organization which makes them to encourage people and be passionate them about their work.

High in "enabling others to act," may be due to the leaders' ability to make others to feel capable and powerful. The leader, who understand the strengths of their employees and their potential for more responsibility feel confident in enabling others to take control and initiative.

High in "challenging the process" was due to the knowledge gained by the individuals over a period of time. Makes comfortable with the system in the organization, which results in ability to adapt, change and grow by exploring opportunities available.

Information technology leaders who are more 40 years of age have higher score in "modeling the way." The growing age and ample experience of the leaders make them to exhibit their behaviour in the form of attitudes, perception towards quality of work life, and satisfaction about their work to be a model for others.

The table-1 shows that leaders more than 40 of age have higher Mean score in "inspiring a shared vision." The attribute of envisioning possibilities and enlisting others in a shared vision of the future in the team makes information technology leaders to inspire others.

From the above table it is found that leaders whose age is more than 40 years in the Information Technology sector were rationalizing their decisions. It may be due to the strong need of maintaining consistency in their decisions. The Information Technology leaders whose age falls in between the 36 to 40 years were vigilant in their decisions. It may be due to their age what they gained as experience in the organization and know how to choose the right one from the wide range of alternatives.

From the above table it is observed that the leaders whose age falls in between 31 to 35 were adopting procrastination and buck passing decisional style in the organization. It may be due to the content of information they receives & its time, which occurs results in procrastinating the decisions or passing it.

Less than 30 years of age Information Technology leaders were high in hyper-vigilance decisional style. It may be due to the risk involved in the decisions and pattern of communicating the issues raised through.

TABLE 2 LEADERSHIP PRACTICES AND DECISION-MAKING OF LEADERS WITH RESPECT TO EDUACTIONAL QUALIFICATION

Dimensions of Leadership Practices	Educational Qualification			F value	Scheffe Posthoc
	Degree	Master	Professional		
	Mean (SD)	Mean (SD)	Mean (SD)		
Modeling the way	20.21 (2.73)	21.09 (2.67)	21.45 (2.77)	1.92	----
Inspiring a shared vision	20.17 (2.46)	21.18 (2.66)	21.37 (2.90)	1.80	----
Challenging the process	21.79 (2.87)	21.29 (2.81)	21.46 (2.99)	0.26	----
Enabling others to act	21.00 (3.15)	21.51 (2.86)	21.51 (2.61)	0.34	----
Encouraging the heart	20.33 (2.74)	20.98 (2.23)	21.27 (2.59)	1.36	----
Dimensions of Decision making styles					
Rationalization	10.96 (1.43)	11.00 (1.77)	12.18 (1.47)	12.13[*]	3 Vs 2 Vs 1
Vigilance	11.50 (2.06)	13.00 (2.13)	12.47 (1.93)	4.88[*]	2 Vs 3 Vs 1
Defensive Avoidance	11.38 (1.40)	10.97 (1.48)	11.39 (1.38)	1.72	----
Procrastination	10.86 (1.48)	11.12 (1.44)	10.96 (1.58)	0.31	----
Buck Passing	10.58 (2.39)	10.14 (2.19)	10.33 (2.07)	0.39	----
Hypervigilance	11.25 (0.79)	10.77 (1.82)	10.40 (2.03)	2.23	----

1. Bachelor Degree – 24 persons   [*] Significant at 0.05% level
2. Master Degree – 65 persons   3. Professional Degree – 83 persons

They have to ensure that their decisions should solve the issues with successful effort. From the Table-1, it is concluded that the information technology leaders differ significantly in their decision making styles and leadership practices based on their age.

"Information technology leaders differ significantly in their decision making and leadership behaviour on the basis of their educational qualification."

From the Table 2, it is found that 'F' values are not significant for any of the leadership practices dimensions. And for the decision making styles, it is found that 'F' values are significant with rationalization and vigilance dimensions hence the hypothesis is rejected for both the variables. It is concluded that the information technology leaders differ significantly in their rationalization and vigilance dimensions of decision making styles based on their educational qualification.

Significant differences were found among the rationalization and vigilance decisional style. The professional degree holders were high in the rationalization

and master degree holders were high in vigilance. High in rationalization by the professional degree holders may due to the state of mind those leaders not ready to unexpected consequences for making such decisions. Moreover their inner drive to reduce 'cognitive dissonance', an aversive psychological state aroused when there is a discrepancy between actions and attitudes.

The informational technology leaders who possess master degree were high in vigilance dimension of decisional style than the other educational group. It may be due to their attitude change which associated to the difficult decisions that makes to think about the post-decisional attitude. It is concluded that the information technology leaders are not significantly differ in their decisional style and leadership practices based on their educational qualification.

"Experience of information technology has a significant influence on their decision making and leadership behaviour."

TABLE 3 LEADERSHIP PRACTICES AND DECISION-MAKING OF LEADERS WITH RESPECT TO THEIR EXPERIENCE

Dimensions of Leadership Practices	Length of service by the IT Leaders				F value	Scheffe Posthoc
	Less than 5 years	5 to 8 years	9 to 12 years	Above 12 years		
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)		
Modeling the way	19.74 (2.90)	20.70 (2.63)	21.25 (2.49)	23.07 (2.39)	8.41*	4 Vs 3 Vs 2 Vs 1
Inspiring a shared vision	19.89 (2.75)	21.09 (2.77)	20.95 (2.42)	22.82 (2.87)	5.83*	4 Vs 2 Vs 3 Vs 1
Challenging the process	20.74 (3.12)	21.25 (2.53)	21.44 (3.13)	22.50 (2.60)	1.88	----
Enabling others to act	20.48 (3.64)	21.67 (2.65)	21.58 (2.70)	22.54 (1.75)	2.84	----
Encouraging the heart	20.11 (2.76)	20.55 (2.12)	21.33 (2.44)	22.18 (2.55)	4.43*	4 Vs 3 Vs 2 Vs 1
Dimensions of Decision making styles						
Rationalization	11.89 (1.15)	11.23 (1.38)	11.72 (1.98)	11.57 (1.87)	1.30	----
Vigilance	10.70 (1.96)	12.72 (1.79)	12.98 (1.93)	12.93 (2.14)	9.81*	3 Vs 4 Vs 2 Vs 1
Defensive Avoidance	11.78 (1.01)	11.47 (1.41)	10.98 (1.45)	10.79 (1.54)	3.52*	1 Vs 2 Vs 3 Vs 4
Procrastination	11.04 (1.55)	11.42 (1.35)	10.92 (1.38)	10.43 (1.87)	2.80	----
Buck Passing	9.15 (1.56)	10.94 (1.52)	10.63 (2.31)	9.39 (2.63)	6.95*	2 Vs 3 Vs 4 Vs 1
Hypervigilance	11.30 (1.32)	10.85 (1.60)	10.75 (1.89)	9.46 (2.10)	5.71*	1 Vs 2 Vs 3 Vs 4

1. Less than 5 years - 27 persons   *Significant at 0.05% level
2. 5 to 8 years - 53 persons
3. 9 to 12 years - 64 persons
4. More than 12 years - 28 persons

From the Table 3, it is found that 'F' values are significant for the three leadership practices dimensions viz.

modeling the way, inspiring a shared vision and encouraging the heart. And for the decision making styles, it

is found that 'F' values are significant with vigilance, defensive avoidance, buck passing, and hyper vigilance. Hence the hypothesis is accepted for both the decision making styles and leadership practices. It is concluded that the information technology leaders differ significantly in their decision making styles and leadership practices based on their length of service.

The leaders who have more than 12 years of service in the information technology industry were high in all significant dimensions of leadership practices. The growing age and ample experience of the information technology leaders make them to exhibit their behaviour in the form of attitudes, perception towards quality of work life, and satisfaction about their work to be a model for others.

High in "inspiring a shared vision" dimension of leadership practices may be due to the ability of the leaders to communicate the vision of the organization in their team perspective about their goals and targets makes them to stand high in the "inspiring a shared vision" dimension.

Whereas high in "encouraging the heart" dimension may be due to the positive attitude of leaders by recognising the contributions of team members and timely rewarding it. The

leaders who have 9 to 12 years of service in the information technology sector were high in vigilance decisional style. It may be due to the years of experience and exposure towards handling the difficult situations makes them to believe themselves and meticulously planning by considering all the alternatives available in front of the leaders, makes them high in vigilance decisional style.

Leaders who have less than five years of service in the information technology sector are high in defensive avoidance and hyper-vigilance decisional style. It is quite natural that the awareness and exposures towards the decision making situations was comparatively less than the other experienced groups makes this group of people to be high in defensive avoidance and hyper-vigilance.

The 5 to 8 years of experienced leaders in the information technology sector were high in buck passing decisional style. The experience and exposure in handling different managerial issues arising on the day to day business plays a vital role in decision-making quality and speed.

TABLE 4 LEADERSHIP PRACTICES AND DECISION-MAKING OF LEADERS WITH RESPECT TO THEIR NUMBER OF CHILDERN

Dimensions of Leadership Practices	Number of children			F value	Scheffe Posthoc
	No child	One child	Two and more child		
	Mean (SD)	Mean (SD)	Mean (SD)		
Modeling the way	19.64 (2.68)	21.49 (2.64)	21.83 (2.53)	8.36[*]	3 Vs 2 Vs 1
Inspiring a shared vision	20.33 (2.82)	21.10 (2.64)	22.11 (2.85)	3.96[*]	3 Vs 2 Vs 1
Challenging the process	20.28 (2.85)	21.79 (2.80)	21.77 (2.96)	4.20[*]	2 Vs 3 Vs 1
Enabling others to act	20.36 (3.22)	21.59 (2.53)	22.20 (2.61)	4.61[*]	3 Vs 2 Vs 1
Encouraging the heart	20.44 (2.44)	21.11 (2.42)	21.49 (2.68)	1.76	----
Dimensions of Decision making styles					
Rationalization	11.59 (1.52)	11.57 (1.71)	11.53 (1.85)	0.02	----
Vigilance	11.41 (2.16)	13.02 (1.93)	12.42 (1.91)	9.30[*]	2 Vs 3 Vs 1
Defensive Avoidance	11.69 (1.20)	11.09 (1.39)	11.09 (1.67)	2.74	----
Procrastination	11.53 (1.48)	11.00 (1.46)	11.89 (1.73)	0.29	----
Buck Passing	9.56 (1.82)	11.17 (1.39)	8.63 (2.90)	27.28[*]	2 Vs 1 Vs 3
Hypervigilance	11.13 (1.54)	10.90 (1.77)	9.46 (1.85)	10.68[*]	1 Vs 2 Vs 3

1. No child - 39 persons   [*]Significant at 0.05 level
2. 1 to 2 children - 98 persons
3. More than 2 children - 35 persons

This makes the information technology leaders to be pessimistic in taking decisions by putting off the decisions or shifting responsibility to others. The nature of the role performed by leaders makes them avoid the true explanation of behaviour or feeling in question makes those to justify by logical reasoning for the decision arrived at more or less accidently, this may be reason to prefer buck passing decisional style. It is concluded that the information technology leaders differ significantly in their decision making styles and leadership practices based on their length of service.

"Information technology leaders differ significantly in their decision making and leadership practices on the basis of their number of children."

Sharing a vision is a central role of a leader; a vision gives people a bigger picture of what things can be like. It helps people raise their hopes and expectations; it inspires them. When people are inspired, they are more likely to work on something. High in "Inspiring a shared vision" may be due to the thought process, which gives them clarity about the work and shared the same with others. Moreover, these leaders have the ability to view the vision in their own way and communicate it to others.

High in "Enabling others to act" may be due to habit of the leaders to easily collaborate with family members and makes involves them in all family activities. This leads to adopt the same in the work place by fostering the relationships of the team members by coordinating their involvement in the team and involving others in the process, strengthening, and enabling others to achieve their best performance. Leaders understand that extraordinary performance can only be achieved in an atmosphere of trust and dignity.

Whereas the leaders who have one child are high in "Challenging the process" dimension of leadership practices. It may be due to the industrial revolution and the modern nuclear family – the family of husband and wife living apart from other relatives, the learning became a very different phenomenon. This always provides the opportunities to learn and improve the organization and embrace risk-taking and experimentation, as well as mistakes and failures, as learning opportunities and as inevitable steps in the promotion of change. It is concluded that the information technology leaders differ significantly in their decision making styles and leadership practices based on their number of children.

Decision making styles (vigilance, hypervigilance, buck passing, procrastination, rationalization, and defensive avoidance) will positively relate to Leadership practices (modeling the way, enabling others to act, inspiring a shared vision, challenging the process, and encouraging the heart).

From the Table 5, it is found that the correlation co-efficient are significant for very few of the dimensions. Hence, the hypothesis is rejected. It is concluded that the decision making styles of information technology leaders doesn't have correlation with their leadership practices.

The vigilance dimension of decision making styles has significant positive relationship with the "encouraging the heart" dimension of leadership practices. It may be due to the attitude of the leaders to recognize contributions of the individual to the team efforts and reward and celebrate extraordinary achievements. In-turn developed a pattern of decision making under the team efforts and reward and celebrate the extraordinary performance that allows for sound and rational decision making.

TABLE 5 LEADERSHIP PRACTICES VERSUS DECISION-MAKING: CO-RELATIONAL ANALYSIS

Leadership ╲ Decision making	Modeling the way	Inspiring a shared vision	Challenging the process	Enabling others to act	Encouraging the heart
Rationalization	0.004	-0.089	-0.035	-0.037	0.057
Vigilance	0.164*	0.094	0.005	0.060	0.056
Defensive Avoidance	-0.116	-0.054	-0.048	0.046	-0.050
Procastination	-0.173*	0.040	-0.047	-0.150*	0.039
Buck passing	-0.095	-0.070	0.048	-0.061	-0.081

*Significant at 0.05% level

The procrastination dimension of decision making style has significant negative relationship with the "modelling the way" and "enabling others to act" dimensions of leadership practices. Negative relationship may be due to the unwilling to accept the feedback or others lack in standards established by the leaders; it makes them to alter or change in their decisions. Whereas negative relationship between the "enabling others to act" may be due to clash in the empowerment process of enabling others to take responsibility of the project and to implement the required changes in the project. This is because leaders today seek quick-fix solutions to chronic problems, and they fail to see the long-term consequences of their short-ranged decisions. That might be the reason to negative relationship of procrastination with the enabling others to act.

V.CONCLUSION

The result of the hypothesis one showed that information technology leaders significantly differ in their leadership practices and decision-making styles based on their age. More than 40 years aged leaders were high in all the dimensions of leadership practices and rationalising their decisions. The leaders who fall in 31 to 35 years age group were preferring procrastination and buck passing decisional style.

The second finding of this study represents the significant relationship between leadership practices and decision-making style with their experience. More than 12 of experience in the information technology sector were high in modeling the way, inspiring a shared vision, and encouraging the heart dimensions of leadership. Whereas for the decision-making styles less than 3 of service as leaders were preferring "hyper vigilance" and "defensive avoidance" decisional style.

The third finding of this study represents the significant relationship between leadership practices and decision-making style with the number of children. The leaders who have 2 or More than 2 children were high in modeling the way, inspiring a shared vision, and enabling others to act dimensions of leadership practices. The leaders who have one child were preferring vigilance and "buck passing" decisional style.

The result of the second hypothesis states that there is no significant relationship between leadership practices and decision-making styles. It may be due to the criticality of decision-making among different management tasks, the leadership practice do not play significant relationship with their decision-making styles.

This research provides a number of contributions to the theoretical debate about leadership practices and decision-making styles, that is "Decision-making and Leadership practices: A study on IT company leaders in Bangalore." The first contribution is that this study explored the relationship between leaders' decision-making styles and their tendencies to different leadership practices. Moreover, we constructed our research work on the valid decision-making styles and leadership practices. The second contribution establishes that leadership do not have relationship with their decisional styles.

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