

Cognitive Flexibility, Leadership style on Decision Making among Self Employed and Employed

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ABSTRACT

Cognitive flexibility is the ability to adapt one's behavior to a changing environment. Cognitive flexibility allows a person to work efficiently and decouple from previous tasks, reconstruct a new response set, and implement that new response set into the task at hand. Leadership Styles are the behavioural patterns that a leader adopts to influence the behaviour of his followers, i.e., the manner in which he delivers directives to his subordinates and inspires them to achieve the set goals. Decision making is defined as the cognitive process of choosing between two or more alternatives, ranging from the relatively clear cut (e.g., ordering a meal at a restaurant) to the complex (e.g., selecting a mate). Psychologists have adopted two converging strategies to understand decision making: (a) statistical analysis of multiple decisions involving complex tasks and (b) experimental manipulation of simple decisions, looking at the elements that recur within these decisions. The aim of the study is to identify relationship between cognitive flexibility, leadership styles and decision making and also to compare the degrees it between Self Employed and Employed population. Convenience sampling technique was used. Cognitive Flexibility questionnaire, Multifactorial leadership style and General decision-making style questionnaire was completed by 121 participants between age group of 21yrs to 60yrs. The results suggested that there is low positive relationship between Cognitive Flexibility and Decision Making. There is high correlation between cognitive flexibility and decision making on employed then Self-employed.

Keywords: *Cognitive Flexibility, Leadership styles, Decision Making*

Cognitive flexibility

According to American Psychological Association (APA) Cognitive Flexibility is described as having the ability to evaluate something objectively and take appropriate action. Additionally, cognitive flexibility suggests adaptability and fairness.

The capacity to modify behavior in response to a changing environment is known as cognitive flexibility. A person with cognitive flexibility is better able to detach from previous activities, build a fresh set of responses, and apply those fresh responses to the task at hand. More cognitive flexibility is linked to better results throughout life, including:

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enhancing reading abilities in young children, enhancing adult resistance to adversity and stress, enhancing adult creativity, and enhancing quality of life in elderly persons. Although intact cognitive flexibility has long-lasting consequences from childhood to adulthood, thorough investigations of this structure have proven difficult to come by. (Dajani et al 2015)

Cognitive flexibility and work environment (employed and self-employed)

The capacity to look for novel answers to issues and adjust to various contexts, according to her, is the heart of cognitive flexibility. Cognitively flexible people must also be aware of the choices and options available to them and consent to such adjustments in a range of circumstances. A cognitively flexible individual must also have confidence in their capacity to adapt to any circumstance. Flexible personnel are like crystals within an organization, allowing and diffusing light for the benefit of the whole thing. The inventive concepts and proactive skills of our staff are referred to as "light." Employee interest in their work schedules increases with flexibility, which also reduces turnover and leave attempts. It demonstrated that those with greater cognitive flexibility are more awake, perceptive, and open to social contact. Employees with greater cognitive flexibility should therefore be more open to accepting career changes that include a risk of failure. (Das, P et al 2017)

Cognitive flexibility and Decision making

The idea of cognitive flexibility in decision-making people refers to the procedures and traits that enable them to compile new knowledge, adjust their viewpoints, and reflect it. (Furr, Cavaretta & Garg 2012).

Laureiro-Martinez & Brusoni, (2018) have shown that strategic decision making is very important in order to adapt changing environmental situation especially in work place settings or in employment environment. Cognitive Flexibility and decision making both are the executive functioning of the brain areas focused on pre frontal cortex. These factors have major influences on individual functioning.

The ability of strategic decision-makers to update their mental representations in response to changes in the external environment is thus an important capability.

Leadership styles are the behavioral patterns a leader employs to affect the conduct of his followers, i.e., the way he gives orders to his subordinates and motivates them to accomplish the objectives. Leadership styles explain how leaders plan their interactions with their followers. As a result, understanding the leadership style is critical for garnering the loyalty of followers and boosting the leader's effectiveness.

Leadership style and decision making

Although leadership appears to be difficult to define, it has been said that when it does exist, morale soars, people work together towards shared objectives, spirits soar, and order is maintained—not as a means of maintaining itself, but as a means of moving forward together. As a result, having the ability to lead effectively is a necessary quality for leaders and organizations alike.

Every decision is the outcome of a powerful process that is affected by enormous forces. It can be seen as a sequential process with a number of steps that enables executives and decision-makers to carefully consider each component in a typical progression that results in

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a choice. Prior to identifying the issue, the executive or decision-maker first creates clear goals and objectives and measures results. (Uzonwanne, F. ET .al 2014)

Russ et al. (1996) made the assumption that rational decision-making produces decisions of a higher caliber than intuitive and spontaneous decision-making, that dependent decision-making, which involves participation, produces better decisions while avoidant decision-making is bad for performance. They discovered that avoidant style has a detrimental influence on performance whereas intuitive, reliant, and spontaneous DMS have no effect.

They also found that high performing managers have more transactional and transformational leadership, whereas low performers are more avoidant and less rational in their decision-making processes.

According to Doctor and Hamilton (1973), Decision Making style is a component of a person's cognitive style and refers to the distinctive, self-consistent manner of working that a person demonstrates throughout perceptual and intellectual activities. "The learned habitual response resulting in a habit-based propensity to react in a certain way in a specific decision context" is symbolized by Decision Making style.

The aim of the study is to identify relationship between cognitive flexibility, leadership styles and decision making and also to compare the degrees it between Self Employed and Employed population.

Objectives of the Study

- To understand how cognitive flexibility is effecting decision making
- To understand how leadership style is effected by decision making
- To understand how cognitive flexibility and leadership style is effected by decision making among employed and self-employed individual.
- To compare the Cognitive Flexibility among self-employed and employed
- To compare Leadership style among self-employed and employed
- To compare Decision Making among self-employed and employed

Hypothesis of the Study

H0₁- There is no significant relationship between cognitive flexibly and decision making.

H0₂There is no significant relationship between leadership style and decision making.

H0₃ There is no significant difference of cognitive flexibility among self-employed and employed.

H0₄ There is no significant difference of leadership style among self-employed and employed.

H0₅ There is no significant difference of decision making among self-employed and employed.

METHODOLOGY

Sample

A total of 121 respondents- 62 were males and 59 females belonging to the age category from 21-60 and job type self-employed (60), employed (61) participated in this study. The data was collected from Mumbai and Bangalore.

Procedure

Convenience sampling technique was used in this study, to get Responses using google forms and three questionnaires were asked to fill – Cognitive Flexibility inventory, Multifactor Leadership questionnaire and General Decision Making Style Questionnaire.

Tools used

The Cognitive Flexibility Inventory (CFI) developed by Dennis & Vander Wal in 2010 is a 20-item self-report measure to monitor how often individuals engaged in cognitive behavioral thought challenging interventions. CFI showed high test-retest reliability for the full score ($r = .81$), Alternatives subscale ($r = .75$), and Control subscale ($r = .77$; Dennis & Vander Wal, 2010).

The most well-known and effective tool for Transformational Leadership measurement is the Multifactor Leadership Questionnaire, known as the MLQ. Bass and Avolio's (1992) MLQ was an integral part of our methodology.

General decision-making style. To measure decision-making styles, we used Scott and Bruce (1995) General Decision Making Style (GDMS) scale that assesses five different decision-making styles: rational, intuitive, avoidant, spontaneous and dependent. Each of the styles is assessed by five self-report items and the task of participants was to indicate their level of agreement with each of the statements on a five-point scale (1 = completely disagree, 5 = completely agree). The total score was calculated by 12 averaging responses on items for each of the five styles so that theoretical range is one to five.

RESULTS AND DISCUSSION

Table 1 shows the Pearson correlation relation between cognitive flexibility and decision making.

Variable	n	r	p
C.F*	121	0.245**	0.007

* *Cognitive Flexibility*

Table shows the relationship between Cognitive Flexibility and Decision Making.

Correlation Coefficient and the corresponding p value of decision making with respect to cognitive flexibility is given. Analysis of the table show, Cognitive flexibility, correlation coefficient ($r=0.245^{**}$) and the corresponding p value (<0.05) with decision making which was significant at 0.007 level. Hence there is a positive correlation. Thus, it shows that cognitive flexibility has low positive correlation with decision making.

There is statically significant relationship between the two variables, hence there was significant relationship between cognitive flexibility and decision making among self-employed and employed.

Thus, we reject the null hypothesis “There is no significant relationship between cognitive flexibly and decision making.”

One of the study conducted on the Cognitive Flexibility and decision making predicts expertise in the MOBA Export, leagues of legend the objective of this study was to determine if there is an association between cognitive ability and MOBA's League of Legends game scores in tests. Behavioral tests of fluid intelligence, attentional control inhibition, working memory, cognitive flexibility, and decision making have been performed

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on a group of 36 pure LOLgenre players. The findings demonstrated a positive relationship between cognitive flexibility and the "rank percentile" ($p = .001$; $R = .442$; 95% CI [2.97, 74.76]). Additionally, a correlation between decision-making and the performance metric "minions per minute" in the game was discovered ($p = .009$; $R = .236$; 95% CI [8.46, 5.26]). These results suggest that neuropsychological testing can be used to predict success on certain factors in esports with strong cognitive impact. (Valla ET al.2022).

Another study in the field of management was on Controllers and strategic decision-making: The role of cognitive flexibility in controller-manager collaboration. The finding suggested that cognitive flexibility are important mechanisms by which controller roles might affect strategic decision-making. In particular, the study discover that cognitive processes mediate the favorable (negative) relationship between the business partner (scorekeeper) function and the caliber of strategic decisions. (Fourne, S.P et. al 2023).

Table 2 shows the relationship between leadership style and decision making

Variable	n	r	p
L.S	121	0.131	0.151

**Leadership style*

Correlation Coefficient and the corresponding p value of decision making with respect to cognitive flexibility is given. Analysis of the table show, leadership style, correlation coefficient ($r=0.131$) and the corresponding p value (<0.05) with decision making which is significant at 0.151 level. Hence there is a no correlation. Thus, it shows that there is no correlation between the Leadership style and decision making.

Thus, we accept the null hypothesis "There is no significant relationship between leadership style and decision making."

Table 3 shows the differences of cognitive flexibility among self-employed and employed

Variable	Category	M	SD	t	p
Cognitive Flexibility	Self employed	86.05	9.7	2.058	0.042
	Employed	90.03	11.4		

P<0.05level (2 tailed)

In the table 5, shows the differences of cognitive flexibility among self-employed and employed. The mean value of cognitive flexibility for self-employed was 86.05 and for employed was 90.03, with corresponding standard deviation for self-employed 9.7 and employed 11.4. To determine whether observed difference in mean is statistically significant for a population, t -test was conducted. The calculated t value for cognitive flexibility was 2.058 with the corresponding 'p' value of 0.0042. Since, this value is statistically significant at 0.05 level, we reject the null hypothesis, and "there is no significant difference in cognitive flexibility among self-employed and employed.

Thus, there is the difference between the cognitive flexibility among self-employed and employed. Hence according to above data, employed individual have higher cognitive flexibility than then self-employed individuals.

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One of the study conducted on linking cognitive flexibility to entrepreneurial alertness and entrepreneurial intention among medical students with the moderating role of entrepreneurial self-efficacy: A second-order moderated mediation model. The results differ from the above study. The findings showed that entrepreneurial alertness and goals are positively correlated with cognitive flexibility. Results also indicated that there was a substantial indirect association between entrepreneurial awareness and entrepreneurial self-efficacy via cognitive flexibility. Thus the results of this study differs from the finding of the above mentioned study stating that cognitive flexibility is more in Employed population than self-employed. (Jiatong W et al 2021)

Another study on Employee Engagement and Cognitive flexibility, also state the findings that differs from the above study. The results states that showed while personnel in the public sector had high levels of pay satisfaction and affective commitment, those in the private sector had higher levels of cognitive flexibility and turnover intention. (Das, P et al 2016).

Table 4 shows differences in leadership styles among self-employed and employed

Variable	Category	M	SD	t	p
Leadership style	Self employed	58.41	8.35	1.19	0.23
	Employed	55.95	13.64		

Table 6 shows differences in leadership styles among self-employed and employed. The mean value of leadership style for self-employed was 58.41 and for employed was 55.95, with corresponding standard deviation for self-employed 8.35 and employed 13.64. To determine whether observed difference in mean is statistically significant for a population, t -test was conducted. The calculated t value for leadership style was 1.19 with the corresponding 'p' value of 0.23. Since, this value is statistically not significant at 0.05 level, we accept the null hypothesis, and "there is no significant difference in cognitive flexibility among self-employed and employed.

Table 5 shows differences in decision making among self-employed and employed

Variable	Category	M	SD	t	p
Decision Making	Self employed	81.06	8.32	2.27	0.024
	Employed	85.47	12.50		

Table 7 shows difference in decision making among self-employed and employed the mean value of decision making for self-employed was 81.06 and for employed was 85.47, with corresponding standard deviation for self-employed 8.32 and employed 12.50. To determine whether observed difference in mean is statistically significant for a population, t -test was conducted. The calculated t value for leadership style is 2.27 with the corresponding 'p' value of 0.024. Since, this value is statistically significant at 0.05 level, we reject the null hypothesis, and "there is no significant difference in leadership style among self-employed and employed.

Thus, there is the difference between the decision making among self-employed and employed. Hence according to above data, employed individual have better decision making than then self-employed individuals.

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One of the study conducted on Risk Tolerance, Time Preference and Financial Decision-Making: Differences between Self-Employed People and Employees by Zeev Shtudiner in 2018. The results suggested that in comparison to employees, self-employed people are less risk-averse, have better risk tolerance, and a weaker preference for the present over the future. They also favor higher-risk investment avenues. According to the findings, self-employed individuals had poorer present preferences than workers.

Thus, the aim of the study 'Cognitive flexibility, Leadership styles on Decision Making among Self Employed and Employed states the finding that there is positive relationship between Cognitive flexibility and decision making and Cognitive flexibility and Decision making is more in Employed individual then the self-employed. We only accept the null hypothesis based on Leadership style both on decision making and self-employed and employed individual.

CONCLUSION

Study is conducted to find out relationship between Cognitive Flexibility, Leadership Styles on decision making using Pearson Correlation. Results suggest that there is low positive significant Correlations with Cognitive Flexibility and decision making among employed than self-employed.

Implications

The main implication of the study impact of cognitive Flexibility in terms of organizational perception for both Self-employed and employed Population. Understanding the differences in Cognitive Flexibility, Leadership Style and Decision Making on Self Employed and employed. Since the research is ongoing process, different variables including demographic factors can be added in further studies.

Limitation

There are few limitations to this study. The limited sample size and geographical areas that was selected were limited.

Suggestion for further studies

The present study is conducted on small population of 121 participant, for more reliable data the study can be conducted on the larger population. This study doesn't include particular style of leadership and decision making, this can be further evaluated in future studies.

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Conflict of Interest

The author(s) declared no conflict of interest.

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