A Study On The Relationship Between Group Cohesion And Cognitive Flexibility In IT Employees

Dissertation submitted in partial fulfilment of the requirements for the award of

Bachelor of Science in Psychology

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Nationally Re-accredited at 'A++' level (4th cycle)

Affiliated to: Mahatma Gandhi University

MARCH 2023

CERTIFICATE

This is to certify that the dissertation entitled, "A study on the relationship

between Group Cohesion and Cognitive Flexibility in IT Employees", is a bonafide

record submitted by, Juliana Johnson (SB20PSY035), Faith Rachel Eapen

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under the supervision and guidance of Ms. Ann Joseph and that it has not been submitted

to any other university or institution for the award of any degree or diploma, fellowship,

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DECLARATION

We, Juliana Johnson, Faith Rachel Eapen and Aleena Shiby, do hereby declare that the

work represented in the dissertation embodies the results of the original research work done

by us in St. Teresa's College, Ernakulam under the supervision and guidance of Ms. Ann

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it has not been submitted by us to any other university or institution for the award of any

degree, diploma, fellowship, title or recognition before.

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Place: Ernakulam

Date: 15-03-23

ACKNOWLEDGEMENT

It is not possible to prepare a project report without the assistance and encouragement of other people. This one is certainly no exception. We would like to express our deep heartfelt gratitude to the Department of Psychology, St. Teresa's College, Ernakulam for providing us with the opportunity to undertake the research.

We acknowledge our indebtedness and deep sense of gratitude to our research guide, Ms. Ann Joseph, Assistant Professor, Psychology, for encouraging and guiding us throughout all the phases of our research.

We extend our sincere thanks to our parents, teachers, and our friends who all have supported us throughout the time. We are grateful to each and everyone who has given us guidance, encouragement, suggestions, and constructive criticisms which has contributed immensely for this project.

Above all, we thank God Almighty for blessing us in all the stages of the project and for helping us complete the project successfully.

Thanking you

Juliana Johnson, Faith Rachel Eapen and Aleena Shiby.

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Abstract

It is essential to carry out research on how IT employees' Cognitive Flexibility and Group Cohesion relate because the results may gain insight on how to make IT teams more efficient. High levels of Group Cohesion promote a feeling of a shared goal, mutual trust, and connection among team members, all of which are necessary for productive teamwork. The ability to adapt and change one's thinking in response to environmental circumstances is known as cognitive flexibility, and it is essential in dynamic and quick-paced IT settings. Organizations can encourage Group Cohesion, Cognitive Flexibility, and the efficacy of IT teams by better understanding the connection between these two factors. In this study, IT employees aged 25 to 40 with at least six months of experience are evaluated to assess the relationship between Group Cohesion and Cognitive Flexibility. The study aims to find out whether greater employee Cognitive Flexibility is related to better degrees of group cohesion in IT employees. The type of sampling used was convenience sampling because participants were selected based on their availability and willingness to participate. The correlational research design was used to meet the objectives of the study. The study's conclusions may have implications for IT managers hoping to create teams with greater Cohesion and encourage employees' Cognitive Flexibility.

Keywords: Group Cohesion, Cognitive Flexibility, IT Employees.

Chapter I

Introduction

Employees in the IT sector are expected to manage challenging, high-stress activities as well as adapt and modify their thinking in light of new information or altering conditions. This sector is known for its fast-paced, dynamic settings. Understanding how social cohesion and Cognitive Flexibility interact in this situation is critical. The degree of closeness and sense of community among group members is referred to as Group Cohesion. The ability to alter one's thinking in response to new knowledge or changing circumstances is known as cognitive flexibility.

In organizational psychology, the term "Group Cohesion" refers to the bonds that connect and the sense of oneness that exists among group members. Interpersonal attraction, group pride, and commitment to the group's work are the three main factors that contribute to group cohesiveness (Paulus & Dzindolet, 2011).

The need or desire for group members to interact with one another is known as an interpersonal attraction. Members of the group actively seek and enjoy this interaction. A member of a group's sense of pride in belonging to that group is referred to as having group pride. They take satisfaction in being a part of the group and see the advantages of doing so in the future. The group members who are dedicated to their work respect its results and support its goals. Despite obstacles, they are ready to work together to complete activities that support these group goals.

A broad range of factors, including social attraction, motivation, communication, and cooperation amongst group members, are included in the concept of Group Cohesiveness.

High levels of Group Cohesiveness are linked to a shared feeling of purpose, trust, and support between group members, which can boost engagement, output, and satisfaction. Low levels of Group Cohesiveness, on the other hand, are linked to a lack of engagement, trust, and cooperation amongst group members, which can result in lowered motivation, productivity, and satisfaction.

The performance and efficiency of a group may be adversely affected by Group Cohesiveness, which is an important factor in group dynamics. According to studies, cohesive groups tend to be more successful at reaching their objectives, have greater levels of work satisfaction, and are more resilient to stress. In addition to encouraging creativity and innovation, group cohesiveness also makes it easier for people to express their different viewpoints and thoughts. Additionally, research shows that group cohesion encourages the adoption of group norms (Goodman, Ravlin, & Schminke, 1987).

Cohesion constitutes those forces that cause members to remain within a group and/or to resist centrifugal force (Fine, G. A., & Holyfield, L.,1996). Group cohesion is important in the context of the workplace, as it can impact employee performance and productivity. Employees can work effectively together and feel like they contribute to the group's success when there is a group environment at work. Employees that operate in a cohesive atmosphere put more emphasis on team goals than individual achievement and are inspired by the team's efforts.

When Group Cohesiveness takes place in an informal environment, employees can communicate and connect in ways that are different from the normal interactions they have at work through group dynamics. Employees may get the opportunity to interact with colleagues in a way that differs from their workstation during team building events, showing other sides of their personality that might not be apparent in everyday job interactions. Getting to know one

another better and participating in team-building activities also have the general advantages of enhancing employee engagement, fostering communication, reducing conflict, and enhancing Community (Scudamore, 2016).

Group Cohesiveness may be described as the degree of commitment that members have to the group and its goals. Most studies of this phenomenon focus on how it affects group and organizational performance, either positively or negatively. Some researchers believe that strong Group Cohesiveness improves performance through improved communication, less conflict, increased empathy, and increased organizational citizenship. On the other hand, Group Cohesiveness has occasionally been linked to poor performance because, in particular situations, a tight-knit group may reject outsiders and novel ideas or even engage in groupthink. (Kaymak & Turhan, 2011).

Cognitive flexibility refers to a person's (a) awareness that in any given situation there are options and alternatives available, (b) willingness to be flexible and adapt to the situation, and, (c) self-efficacy in being flexible. Cognitively flexible people can determine ways to adapt to given situations through the process of social cognition. In general, people who can find alternative ways to be flexible in any given situation are more Cognitively Flexible than those who know only one way to be flexible in the situation (Roloff & Berger, 1982).

Internal state awareness is linked to a person's capacity for adaptability and flexibility (Fenigstein, Scheier, & Buss, 1975; Richmond & McCroskey, 1989). Internal state awareness was referred to as insight by Martin and Rubin (1995), who defined it as the capacity to comprehend one's thoughts, feelings, and behaviors with clarity. The capacity to recognize and communicate one's sentiments is linked to internal state awareness and insight (Grant et al., 2002). To put it another way, those with greater insight are better equipped to come up with

creative solutions to problems.

Research has linked a variety of personal behaviors to Cognitive Flexibility. According to research, people with high cognitive flexibility use more attachment techniques in their interactions, both inside and outside of work settings. They can also seek out, listen to, and adjust to various viewpoints, which furthers the positive outcomes of group-related work (Martin, Anderson, & Thweatt, 1998; Madlock et al., 2007).

There is a strong reason why Cognitive Flexibility is valued as a quality in the workplace. The employees who perform well on it are the most prepared to handle the uncertainties and interruptions caused by the shifting nature of modern employment. They are more skilled at solving issues, can withstand adversity better, benefit more from their errors and unfavorable criticism, and may respond to failures in a balanced way (Bonior, 2021).

Employees with strong Cognitive Flexibility are less inclined to keep things the same and are better able to detect when it is no longer reliable. By gaining knowledge about themselves and their preferred modes of operation, people may more easily adjust to various working environments. They are also much better at adjusting to new demands.

Cognitive flexibility is a key concept in psychology that refers to the ability to adapt and adjust thinking in response to new information or changing circumstances. It is the mental ability to switch between different concepts, perspectives, and tasks, and it is considered a critical aspect of cognitive functioning. People with high cognitive flexibility can think abstractly, consider multiple perspectives, and are more open to new ideas and change.

Research has shown that Cognitive Flexibility is positively associated with many aspects of well-being, such as high levels of job satisfaction, low levels of stress, and better overall mental health. Additionally, cognitive flexibility is also positively associated with creativity,

problem-solving abilities, and decision-making, which are all important for success in the modern business environment.

However, Cognitive Flexibility is not a fixed trait and can be improved through different techniques such as mindfulness, meditation, and cognitive-behavioral therapy (Moore & Malinowski, 2009). It is also important to note that cognitive flexibility may vary depending on the task, the context, and the individual's abilities. Therefore, understanding the concept of cognitive flexibility and its impact on an individual's performance is crucial for organizations. By fostering cognitive flexibility in employees, organizations can improve employees' performance, creativity, and problem-solving abilities, ultimately resulting in improved organizational performance (Shukla & Health, 2021).

The purpose of the current study is to examine the connection between Cognitive Flexibility and Group Cohesiveness in IT employees. Self-report questionnaires will be used in the study to evaluate the research problems. We will learn more about the connection between group cohesiveness and cognitive flexibility in IT employees and how it impacts their performance, once the study is completed. By encouraging a cohesive and flexible work environment, the findings of this study might support organizations in improving the performance, creativity, and problem-solving skills of their employees.

Cognitive Flexibility and Group Cohesiveness are connected because they both improve the efficiency and productivity of IT employees. Team members that are more cohesive as a group are more committed to one another, and those who are more cognitively flexible may change how they think in response to new knowledge or altering situations. Together, they provide a cooperative and flexible work environment that enhances the efficiency and productivity of IT teams.

Rationale of Study

The particular features of the IT industry are the driving force for the study of the connection between Group Cohesiveness and Cognitive Flexibility in IT employees. The information technology (IT) industry is characterized by fast-paced, dynamic work environments where employees must manage demanding, high-stress tasks as well as adapt and adjust their methods of thinking in response to new knowledge or changing circumstances. Therefore, organizations should be aware of the connection between Cognitive Flexibility and Group Cohesiveness.

Firstly, IT employees' performance and productivity depend greatly on Group Cohesiveness and Cognitive Flexibility. Second, by understanding the link between Group Cohesiveness and Cognitive Flexibility in IT employees, firms may enhance the productivity, creativity, and problem-solving skills of their employees. Organizations may enhance employee productivity, creativity, and problem-solving skills while also establishing a supportive and adaptable work environment, all of which will ultimately lead to better organizational performance.

Thirdly, because the IT field is a continually changing profession, organizations must be ready to adjust quickly to new situations. Therefore, for organizations to remain competitive in this market, it is essential to understand how Group Cohesiveness and Cognitive Flexibility may be enhanced to raise the performance of IT professionals.

To understand the distinctive nature of the IT industry and to assist organizations in improving the efficiency and productivity of their IT employees, a study of the relationship between Group Cohesiveness and cognitive flexibility in IT employees is thus required.

Chapter II

Review of Literature

Cognitive flexibility refers to a person's (a) awareness that in any given situation there are options and alternatives available, (b) willingness to be flexible and adapt to the situation, and (c) self-efficacy in being flexible Study done by Chung, S. H., Su, Y. F., & Su, S. W (2012); it was found that there is a negative correlation between cognitive flexibility and resistance to change. The study pointed out that cognitive flexibility acts as a barrier to prevent negative emotions, thoughts, or perceptions about changes occurring in an organization. Grant S. Shields, Brian C. Trainor, Jovian C. W. Lam & Andrew P. Yonelinas (2016) conducted a study that found that stressful situations impaired cognitive flexibility abilities in males and not in females. Further, this study shows that women are more suitable for using cognitive flexibility while working in highly stressful conditions than males. Another study done by Perpiñá, C., Segura, M., & Sánchez-Reales, S. (2016) pointed out that those suffering from eating disorders and obese patients aren't able to make proper decisions due to impaired cognitive flexibility. Gabrys, R. L., Tabri, N., Anisman, H., & Matheson, K. (2018) revealed that low cognitive control and flexibility towards a stressful situation led to the elevation of depressive symptoms. A study done by Vrinda Kalia, Melissa Fuesting & Morgan Cody (2019) revealed that Grit-Perseverance indirectly predicted increased effort while performing sudoku through decreased cognitive flexibility. Overall, the results demonstrated that Grit-Perseverance, if not Consistent, impacts problem-solving and highly gritty individuals may be most successful in solving challenging problems that are moderately constrained. Siamak Khodarahimi, Ezatolah Ghadampour, Leila Heidaryani, Amir Karami (2020) have conducted studies showing that cognitive flexibility and family cohesion have been found to be negatively impacted in individuals with opioid use

disorder and that Quality of Life Therapy (QLT) can be an effective way to improve these areas. Another study conducted by Emamverdi P. & Taher M. (2020) revealed that there is a negative relationship between procrastination and cognitive flexibility in students; which in turn meant that cognitive flexibility and mindfulness reduce a student's tendency to procrastinate. A study done by Kalia, V., Knauft, K., & Hayatbini, N. (2020) found that exposure to maltreatment decreased the individual's ability to flexibly overcome obstacles; also, maltreatment and anxiety were fully meditated by cognitive flexibility which meant that early maltreatment could lead to decrease in cognitive flexibility and affect the person's state of anxiety. A study conducted by Meltem Akın Kösterelioğlu (2021) found that through training and activities, can raise one's emotional intelligence levels and promote self-leadership awareness which will indirectly help individuals build cognitive flexibility skills. A further study conducted by Shahram Mohammadkhani, Armita Foroutan, Mehdi Akbari, Maede Shahbahrami (2022) found results that suggest that resilience partially mediates the relationship between emotional schemas and psychological distress. At the same time, cognitive flexibility mediates the above-mentioned relationship.

Social cohesion, commonly referred to as group cohesiveness, is the degree of unanimity within any group. The degree to which group members are drawn to or inspired by one another is known as team cohesion. In essence, group cohesion refers to the level of intimacy among group members. The study was conducted by Amanda Moore &Ketevan Mamiseishvili (2012) have conducted studies showing that there was a significant positive correlation between overall emotional intelligence and total group cohesiveness. Of the quadrants of emotional intelligence, awareness of one's own emotions, and management of others' emotions showed the strongest positive correlation with group cohesion. Baek-Kyoo (Brian) Joo, Ji Hoon Song, Doo

Hun Lim, and Seung Won Yoon (2012) conducted studies showing that the higher amount of developmental feedback, team cohesion, and learning culture were all positively connected with team innovation. Two interaction effects (developmental feedback and team cohesion; learning culture and team cohesion) were significant in addition to the main effects. In light of these findings, businesses looking to boost team creativity require a comprehensive approach that includes aspects of culture management, efficient coaching, and team development. Another study conducted by Charles R. Evans and Kenneth L. Dion (2012) pointed out that group cohesion and performance are positively correlated; the study was done on a mixture of the sports team, and experimental groups military units. The study conducted by AngelaLi, Sean F.Early, Nicole E.Mahre, and Jessica L.Klaristenfeld (2014) have conducted studies showing that group cohesion was effective in moderating the negative effects of current stress exposure and post-traumatic stress symptoms on negative nurse outcomes, specifically on increased compassion fatigue and burnout, and reduced compassion satisfaction. In the same year, a study done by Carmen Picazo, Nuria Gamero, Ana Zornoza1 and Jose M. Peiró1 (2015) on the relationship between group cohesion and satisfaction in project teams; the study supported both variables. In addition, an organizational commitment was determined to promote positive nurse outcomes such as job satisfaction and compassion. Ravi Paul, John R. Drake, and Huigang Liang (2016) had done a study to find whether global virtual teams affect the trust, team cohesion, and coordination of the group; it was found that there is a reciprocal relationship between trust and team cohesion which in turn affects the group's performance. However, it was observed that in global software teams, the trust level was low at the beginning of the project, but the study demonstrates that early trust can lead to later trust which in turn increases cohesion. According to a study done by Begoa Urien, Amparo Osca, and Lourdes Garcia-Salmonec (2017) high levels of

role ambiguity are linked to low job satisfaction, whereas positive high levels of group cohesion are linked to high job satisfaction. Additionally, it is suggested that group cohesion may operate as a moderator in the relationship between job satisfaction and position ambiguity. satisfaction. Lastly, a study done by Freire, G. L. M., Fiorese, L., Moraes, J. F. V. N. D., Codonhato, R., Oliveira, D. V. D., & Nascimento Junior, J. R. D. a. D. (2022) among athletes revealed that they strive to be perfect increases the groups' cohesiveness, at the same time there was a positive correlation in perfectionism and group conflict.

Research Gap

The relationship between Cognitive Flexibility and Group Cohesion among IT employees is presently not sufficiently studied. While some studies have looked at how these variables can impact group performance, they have not examined how they can impact the performance and job satisfaction of IT employees.

There are many different types of studies on the interest of Group Cohesion and Cognitive Flexibility in multiple settings, including sports, organizations, and therapy groups, but very little research has been done to find out the relationship between group cohesion and cognitive flexibility in IT employees.

Chapter III

Methodology

Aim

To assess the relationship between Group Cohesion and Cognitive Flexibility among IT employees.

Statement problem

Whether there is significant relationship between Group Cohesion and Cognitive Flexibility among IT Employees?

Objectives

- To investigate the relationship between Group Cohesion and Cognitive Flexibility among
 IT employees.
- To study the difference in Group Cohesion among male and female IT employees.
- To study the difference in Cognitive Flexibility among male and female IT employees.

Hypotheses

- H1 There is a positive relationship between Group Cohesion and Cognitive Flexibility among IT employees.
- H2 There is a significant difference in Group Cohesion among male and female IT Employees.
- H3 There is a significant difference in Cognitive Flexibility among male and female IT Employees.

Operational Definition

The following are the operational definitions of the variables used in the study:

1. Cognitive Flexibility

Cognitive Flexibility is operationally defined as the sum total of scores assessed in the Cognitive Flexibility Inventory. The Cognitive Flexibility Inventory (CFI) is a 20-item self-report measure to monitor how often individuals engaged in cognitive behavioral thought-challenging interventions (Dennis & Vander Wal, 2010).

2. Group Cohesion

Group Cohesion is operationally defined as the sum total of scores obtained in the group climatic questionnaire. The Group Climate Questionnaire-Short Form (GCQ), consists of 12 items and three subscales: Engagement, Avoidance, and Conflict (MacKenzie, 1983).

Sample

The sample used in this study are IT Employees from organizations within India. Data will be collected from a sample of 119 male and 121 female IT Employees aged 25-40 years.

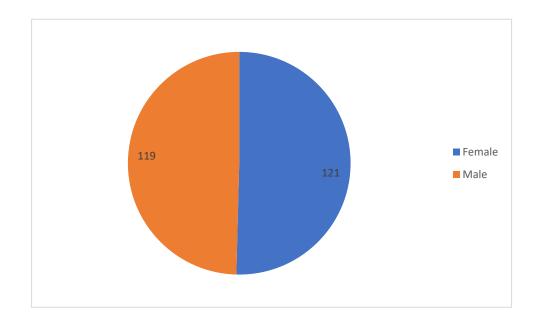
Table 1

The distribution of participants based on their age

Group	N	Age Range	Frequency
IT Employees	240	25-29	144
		30-34	49
		35-39	32
		40-44	15

Figure 1

The distribution of participants based on age.



Sampling design

The type of sampling used was convenience sampling because participants were selected based on their availability and willingness to participate.

• Inclusion Criteria

- 1. Current IT employees of organizations in India.
- 2. Age between 25 to 40 years old.
- 3. Willing to participate in the study and sign an informed consent.

• Exclusion Criteria

- 1. IT employees who have a history of not participating in team activities.
- 2. IT employees that work part-time or have a different job in the company.
- 3. Employees who have less than 6 months of work experience.

Tools used for data collection

1. Socio-demographic data sheet:

An individual's social and demographic statistics, such as age, gender, education level, employment, and other demographic traits, were gathered using a sociodemographic data sheet. Socio-demographic data sheet was developed by the researchers.

2. The Cognitive Flexibility Inventory (CFI):

The Cognitive Flexibility Inventory (CFI) was a tool for assessing cognitive flexibility, or the capacity to change one's perspective in response to new information (Dennis & Vander Wal, 2010). The scale, developed by Dennis & Vander Wal (2010), was meant to test a person's cognitive flexibility and to identify any possible cognitive inflexibility. Each of the 20 items on the CFI is graded on a 5-point Likert scale. A total score between 20 and 100 is possible; higher values denote greater cognitive flexibility. It has been found that the CFI has excellent validity and reliability. With coefficients ranging from.73 to.86, the test-retest reliability of the CFI has been shown to be relatively high. A good level of internal consistency and test-retest reliability have been found for the scale after it was verified using several different samples.

3. The Group Cohesion Scale (GCS)

The Group Cohesion Scale (GCS) was a scale created to assess how attracted or connected group members feel to one another and how much they identify with the group. (1983, MacKenzie). The scale was developed by MacKenzie (1983), and its purposes are to analyze group cohesiveness and identify any possible problems. Three subscales under this one is called Engaged, Conflict, and Avoiding. The Engaged subscale assesses how actively people are engaged in addressing and settling the problem at hand, the Conflict subscale assesses how actively people argue or directly dispute with one another, and the Avoiding subscale assesses how actively people try to prevent conflict entirely. Each of the 10 items in the GCS is graded on a 7-point Likert scale. Higher scores indicate more group cohesiveness. The overall score can vary from 10 to

70. It has been found that the GCS has excellent validity and reliability. With several different samples, the scale has been verified, and it was discovered to have very high levels of internal consistency and test-retest reliability.

Reliability Analysis

Table 2

Reliability of instruments obtained on the sample

Sl. No.	Instruments	N	Cronbach's α	
1	Course Climate Occutions in	240	750	
1.	Group Climate Questionnaire	240	.750	
2.	Engaged	240	.531	
3.	Conflict	240	.835	
4.	Avoiding	240	.467	
5.	Cognitive Flexibility Inventory (CFI)	240	.794	
6.	Alternatives	240	.873	
7.	Control	240	.698	

The scale Group Climate Questionnaire and Cognitive Flexibility Scale are moderately reliable as Cronbach's α is .750 and .794 respectively.

Procedure

Through a range of sources, including emails, social media, and the distribution of consent forms and links to the surveys, IT employees were recruited for the research.

Participants were chosen after considering the inclusion and exclusion criteria, a signed informed consent form was presented to participants after they received comprehensive study information.

This form contained details on the research's objectives, how data would be collected, potential risks and benefits, and the participant's right to withdraw from the study at any time.

Participants completed the Group Cohesiveness Scale and the Cognitive Flexibility.

Inventory to measure group cohesion and cognitive flexibility. The relationship between group cohesiveness and cognitive flexibility among IT employees was examined using statistical techniques, such as correlation analysis, to assess the data that had been collected.

The outcomes were examined and assessed in view of the study's objectives and hypotheses. The main findings and their implications were emphasized, and the researchers provided a precise and concise explanation of the findings. An overview of the findings, recommendations for further research, and ideas for how organizations might use the data are all included in the conclusion. Additionally, the researchers offered suggestions for enhancing cognitive flexibility and group cohesion at work and discussed how organizations might benefit from these changes.

Ethical Consideration

- Informed consent will be obtained from participants before conducting the study.
- Participants' information will be confidential.
- Personal information or data collected will be used only for the purpose of the study and not shared with third parties without the participant's consent.
- Participants will not be coerced or pressured into participating in the study.
- The results will be reported accurately and without bias.

Data analysis

SPSS or Statistical Package for the Social Sciences was used for the research's data analysis. Descriptive statistics, reliability analysis (Cronbach's alpha), normality test (Shapiro-Wilk) student t-test, and correlation are the techniques that are measured by SPSS.

Table 3

Result of Shapiro-Wilk test of normality of Group Cohesion and Cognitive Flexibility.

SI.	Variable	K	Df	Sig.	
No.					
1.	Group Cohesion	.980	240	.002	
2.	Cognitive Flexibility	.987	240	.024	

The Shapiro-Wilk test of normality of Group Cohesion and Cognitive Flexibility shows that data does not follow a normal distribution (p=.002 & .024, p>.05). This can be due to reasons like skewed distribution or having a smaller sample size.

Chapter IV

Result and Discussion

The study was conducted among 240 male and female IT Employees. The purpose of this research was to study the relationship between Cognitive Flexibility and Group Cohesion. Participants were selected using convenience sampling to participate in the study. The participants filled out measures of Cognitive Flexibility and Group Cohesion. The results showed that there was no significant relationship between cognitive flexibility and group cohesion (r = .05, p > .05).

Table 4

Mean and standard deviation of Group Cohesion and Cognitive Flexibility among IT

Employees (N=240)

Variable	M	SD	
Group Cohesion	36.55	10.624	
Cognitive Flexibility	95.68	16.896	

The table shows the mean and standard deviation for Group Cohesion and Cognitive Flexibility. The maximum score and minimum score for Group Cohesion is 72 and 0 respectively and the mean score for the same is 36.55. Scoring high in this questionnaire indicates high group cohesiveness.

The maximum score and minimum score for Cognitive Flexibility is 140 and 53 respectively and the mean score for the same is 95.68. Scoring high in this questionnaire indicates high Cognitive Flexibility which means that the individual is able to selectively change

response according to environmental stimuli.

Results of hypothesis testing are given below:

Hypothesis 1: There is negative correlation between Group Cohesion and Cognitive Flexibility among IT Employees.

Table 5

Summary of Spearman's Rank correlation between Group Cohesion and Cognitive flexibility

Variable	Cognitive Flexibility
Group Cohesion	111

The correlation coefficients between Group Cohesion and Cognitive Flexibility are non-significant, showing that these two factors do not significantly correlate with one another. A weak, negative correlation between Group Cohesion and Cognitive Flexibility is suggested by Spearman's rho correlation coefficient a number of -.111. The connection is not sufficiently powerful to be regarded as a reliable correlation, as shown by the correlation coefficient value, which is not statistically significant at the .05 level (p=.086).

The result is support by a previous study stating that Group Cohesiveness might be negatively related to Cognitive Flexibility by DeChurch, Mesmer-Magnus & Doty. According to the study, people who demonstrated high levels of cognitive flexibility were less likely to adhere to group norms and high levels of group cohesion were linked to less cognitive flexibility.

The lack of a correlation could be due to the fact that among IT workers, Group Cohesion and Cognitive Flexibility are simply independent. It's likely that other factors, like psychological traits or workplace dynamics, might have a larger impact on this population's Cognitive Flexibility or Group Cohesion. A significant relationship between these factors might not have been found using the 240-participant sample size. Significantly, these results indicate that Group Cohesion and Cognitive Flexibility among IT employees are not significantly correlated.

Hypothesis 2: There is no significant difference in Group Cohesion among male and female IT Employees.

Table 6

t Test comparing Group Cohesion among Male and Female IT Employees

SI. No.	Group	Mean	t	Df	Sig.
1.	Male	37.45	1.303	238	.337
2.	Female	35.67			

The above table shows the results of the independent samples t-test conducted to examine the difference in Group Cohesion scores between male and female IT employees. It can be observed that there is no significant variance in Group cohesion in males and females (p= 0.337)

According to the study conducted by Davis et.al. (2012), it was pointed out that gender stereotypes do not have an effect on the formation of Group Cohesion among males and females. The increase of mixed gender teams has reduced the hinderance for the formation of group cohesion.

Successful companies frequently have better workplace group cohesion. While finishing team projects and advancing organizational objectives, cooperative employees can frequently increase their company's productivity. Employee morale, efficiency, and collaboration can all be

favorably impacted by a feeling of group cohesion.

Hypothesis 3: There is no significant difference in Cognitive Flexibility among male and female IT Employees.

Table 7

t Test comparing Cognitive Flexibility among Male and Female IT Employees

SI. No.	Group	Mean	t	Df	Sig.
1.	Male	95.78	.089	238	.501
2.	Female	95.59			

The above table shows the results of the independent samples t-test conducted to examine the difference in Cognitive Flexibility scores between male and female IT employees. It can be observed that there is no significant variance in Cognitive Flexibility in males and females (p= 0.501).

A person with cognitive flexibility can work effectively to disconnect from a previous task, change a new response set, and apply this new response set to the task at hand. Study conducted by Kim et.al. (2018) pointed out that there was no significant gender difference in Cognitive Flexibility when both task performance was measured through EEG. They stated that gender doesn't have a role in effecting Cognitive Flexibility.

Chapter V

Conclusion

Findings

The aim of this research is to investigate the relationship between Group Cohesion and Cognitive Flexibility among employees and to assess if Group Cohesion can predict Cognitive Flexibility.

The findings of the study are given below:

- There is no significant relationship between Group Cohesion and Cognitive Flexibility among IT employees.
- There is no significant difference in Group Cohesion among male and female IT Employees.
- There is no significant difference in Cognitive Flexibility among male and female IT Employees.

Limitations

- Sample size: Due to the study's potentially small sample size, it may not have been
 possible to statistically identify any significant relationship between the variables. To find
 minor yet significant differences, a larger sample size might be needed.
- Sampling bias: The study used a convenience sampling technique that might not
 accurately represent all of India's IT employees. As a consequence, the findings might not
 apply to the total population.
- Limited age range: The research only included IT employees between the ages of 25 and 40, which may not be representative of all IT workers in India across all ages. The

- findings and generalizability of the study could be impacted by the narrow age range.
- External influences: It is possible that the study missed environmental factors that might have an impact on the relationship between cognitive flexibility and group cohesion. For instance, factors like employee workloads, workplace stress, or personal conditions may have an influence on how these variables relate to one another.

Suggestions for further research

The relationship between group cohesion and cognitive flexibility may be influenced by various moderating factors, such as personality traits, job satisfaction, and work engagement.

Studying the effects of various strategies or training courses intended to improve group cohesion and cognitive flexibility among IT staff members may also be helpful.

Furthermore, since the current study was restricted to IT employees in India, future research could replicate it with a larger sample size and a wider geographic scope to improve the generalizability of the results. Group cohesion and cognitive flexibility may be significantly correlated, and this correlation may be strongly influenced by cultural variables. Future studies could look at the sociocultural context of other countries to see if the findings vary. In order to determine whether the findings apply only to IT employees or if they can be extended to other occupational groups or industries, another area of future research might be to look into the connection between group cohesion and cognitive flexibility in other occupational groups or industries.

REFERENCES

- Chung, S. H., Su, Y. F., & Su, S. W. (2012). The Impact of Cognitive Flexibility on Resistance to Organizational Change. *Social Behavior and Personality: An International Journal*, 40(5), 735–745.

 https://doi.org/10.2224/sbp.2012.40.5.73
- Birt, J. (2023, February 28). What Is Group Cohesiveness? Benefits and Building

 Tips. Indeed Career Guide. https://www.indeed.com/career-advice/career-development/groupcohesiveness#:~:text=Group%20cohesiveness%20in%20a%20workplace,or%20a%20sense%20of%20belonging.
- Dajani, D. R., & Uddin, L. Q. (2015, September 1). Demystifying cognitive flexibility: Implications for clinical and developmental neuroscience. Trends in Neurosciences; Elsevier BV. https://doi.org/10.1016/j.tins.2015.07.003
- DeChurch, L. A., Mesmer-Magnus, J. R., & Doty, D. (2013). The Relationship Between Cognitive Flexibility and Cohesion in Teams. *Small Group Research*, 26–28. https://doi.org/10.1177/104649641502273

- Emamverdi, P. (2020, September 22). *The role of cognitive flexibility and mindfulness in predicting student procrastination*. https://jsp.uma.ac.ir/article_1062.html?lang=en Evans, C. R., & Dion, K. L. (2012). Group Cohesion and Performance. *Small Group Research*, *43*(6), 690–701. https://doi.org/10.1177/1046496412468074
- Evans, C. R., & Dion, K. L. (2012). Group Cohesion and Performance. *Small Group Research*, *43*(6), 690–701. https://doi.org/10.1177/1046496412468074
- Fine, G. A., & Holyfield, L. (1996). Secrecy, Trust, and Dangerous Leisure: Generating Group Cohesion in Voluntary Organizations. Social Psychology Quarterly, 59(1), 22-38. https://doi.org/10.2307/2787117
- Gabrys, R. L., Tabri, N., Anisman, H., & Matheson, K. (2018). Cognitive Control and Flexibility in the Context of Stress and Depressive Symptoms: The Cognitive Control and Flexibility Questionnaire. *Frontiers in Psychology*, 9. https://doi.org/10.3389/fpsyg.2018.0221
- Hegarty, D. (2023, March 1). *Cognitive Flexibility Inventory (CFI)*. NovoPsych.

 https://novopsych.com.au/assessments/formulation/cognitive-flexibility-inventory-cfi/#:~:text=The%20Cognitive%20Flexibility%20Inventory%20(CFI,%26%20Vander%20Wal%2C%202010).

- Joo, B. K. B., Song, J. H., Lim, D. H., & Yoon, S. W. (2012). Team creativity: the effects of a perceived learning culture, developmental feedback, and teamcohesion. *International Journal of Training and Development*, *16*(2), 77–91. https://doi.org/10.1111/j.1468-2419.2011.00395.x
- Kalia, V. (2020, December 11). Cognitive flexibility and perceived threat from COVID-19 mediate the relationship between childhood maltreatment and state anxiety. PLOS

 ONE.https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0243881
- Kalia, V., Fuesting, M., & Cody, M. (2019). Perseverance in solving Sudoku: role of grit and cognitive flexibility in problem-solving. *Journal of Cognitive Psychology*, *31*(3), 370–378.https://doi.org/10.1080/20445911.2019.1604527
- KHODARAHIMI, S., GHADAMPOUR, E., HEIDARYANI, L., & KARAMI, A. (2020). The Efficacy of Quality of Life-Therapy on Cognitive Flexibility and Family Cohesiveness in Outpatients with Opioid Use Disorder. *Journal of Evidence-BasedPsychotherapies*, 20(2), 129–141. https://doi.org/10.24193/jebp.2020.2.16
- Li, A., Early, S. F., Mahrer, N. E., Klaristenfeld, J. L., & Gold, J. I. (2014). Group

 Cohesion and Organizational Commitment: Protective Factors for Nurse

 Residents' Job Satisfaction, Compassion Fatigue, Compassion Satisfaction, and

 Burnout. *Journal ofProfessional Nursing*, 30(1), 89–99.

 https://doi.org/10.1016/j.profnurs.2013.04.004

- Mohammadkhani, S., Foroutan, A., Akbari, M., & Shahbahrami, M. (2022). Emotional Schemas and Psychological Distress: Mediating Role of Resilience and Cognitive Flexibility. *Iranian Journal of Psychiatry*. https://doi.org/10.18502/ijps.v17i3.9728
- Moore, A., & Mamiseishvili, K. (2012). Examining the Relationship Between Emotional Intelligence and Group Cohesion. *Journal of Education for Business*, 87(5), 296–302.https://doi.org/10.1080/08832323.2011.623197
- Moore, A., & Malinowski, P. (2009). Meditation, mindfulness, and cognitive flexibility. *Consciousness and Cognition*, 18(1), 176

 186. https://doi.org/10.1016/j.concog.2008.12.008
- Perpiñá, C., Segura, M., & Sánchez-Reales, S. (2016). Cognitive flexibility and decision-makingin eating disorders and obesity. *Eating and Weight Disorders Studies on Anorexia, Bulimia, and Obesity*, 22(3), 435–444. https://doi.org/10.1007/s40519-016-0331-3
- Rani, M., Singh, U., Agrawal, G. G., Natu, S. M., Kala, S., Ghildiyal, A., & Srivastava, N. (2013). Impact of Yoga *Nidra* on Menstrual Abnormalities in Females of Reproductive Age. *The Journal of Alternative and ComplementaryMedicine*, *19*(12), 925–929. https://doi.org/10.1089/acm.2010.0676

Study.com | Take Online Courses. Earn College Credit. *Research Schools, Degrees & Careers*.

(n.d.). https://study.com/academy/lesson/group-cohesiveness-definitionfactors-importance-consequences.html

Shields, G. S., Trainor, B. C., Lam, J. C. W., & Yonelinas, A. P. (2016). Acute stress impairs cognitive flexibility in men, not women. *Stress*, *19*(5), 542–546. https://doi.org/10.1080/10253890.2016.1192603

Urien, B., Osca, A., & García-Salmones, L. (2017). Role ambiguity, group cohesion and job satisfaction: A Demands-Resources Model (JD-R) Study from Mexico and Spain.
Revista Latinoamericana De Psicología, 49(2), 137–145.
https://doi.org/10.1016/j.rlp.2015.09.014

William, K. (2022, September 23). What is SPSS? Definition, Features, Types, and UseCases. SurveySparrow. https://surveysparrow.com/blog/what-is-spss/

Appendix A

Informed Consent Form

This study is being conducted by Juliana Johnson, Faith Rachel, and Aleena Shiby currently pursuing BSc Psychology at St. Teresa's College, Ernakulam. As part of our Undergraduate Curriculum, we are conducting a study on Cognitive Flexibility and Group Cohesion in IT (Information Technology) Employees.

If you need any clarification or queries, you may contact us at –

By clicking "I Agree" below,

- 1. You have read the above description of the study.
- 2. You attest that you are within the age group 25-40.
- 3. You have freely consented to participate in this research study.
- 4. You have understood that you have the right to withdraw at any time during the study.
- 5. You are a full-time employee of your organization.
- 6. You have participated in group activities within your organization to work together to achieve common goals.
 - 7. You have a work experience of at least 6 months.
 - o I agree
 - I do not agree

Appendix B

Socio Demographic Sheet

Name (Init	ials):
Age:	
Gender:	
0	Female
0	Male
0	Prefer not to say
Work Expe	erience:
Nature of g	group activities done by you:
0	IT strategy and planning (Developing and implementing strategies for an
organi	zation's use of technology)
0	Software development (Working together on coding, testing, and debugging a
softwa	re application.)
0	Cybersecurity (Working together to protect an organization's computer systems
and da	ta from cyber threats.)
0	Technical support (Providing assistance to users who have technical problems
with h	ardware or software.)
0	Execution of projects (Planning, coordination, and implementation of all aspects

of a project to ensure its successful completion.)

- o Requirements Gathering Team (Identifying, documenting, and communicating the requirements for a project or product.)
- HR Management (Teams work together to manage human resources functions, such as recruitment, employee relations, benefits administration, and training and development.)

Appendix C

The Cognitive Flexibility Inventory (Dennis & Vander Wal, 2010).

Read each statement carefully. Indicate how you feel about each statement by circling the the appropriate number using the following scale:

- 1 = Very strongly disagree; 2 = Strongly disagree; 3 = Mildly disagree; 4 = Neutral;
- 5 = Mildly agree; 6 = Strongly agree; 7 = Very strongly agree
- 1. I am good at "sizing up" situations. Strongly disagree Strongly agree

1 2 3 4 5 6 7

- 2. I have a hard time making decisions Strongly disagree Strongly agree when faced with difficult situations. 1 2 3 4 5 6 7
- 3. I consider multiple options before Strongly disagree Strongly agree
 making a decision.
 1 2 3 4 5 6 7
- 4. When I encounter difficult situations, Strongly disagree Strongly agreeI feel like I am losing control.1 2 3 4 5 6 7
- 5. I like to look at difficult situations Strongly disagree Strongly agree from many different angles.

 Strongly disagree Strongly agree

6. I seek additional information not	Strongly disagree Strongly agree
immediately available before attributing	1 2 3 4 5 6 7
causes to behaviour	
7. When encountering difficult situations,	Strongly disagree Strongly agree
I become so stressed that I can not think	1 2 3 4 5 6 7
of a way to resolve the situation.	
8. I try to think about things from another	Strongly disagree Strongly agree
person's point of view	1 2 3 4 5 6 7
9. I find it troublesome that there are so	Strongly disagree Strongly agree
many different ways to deal with	1 2 3 4 5 6 7
difficult situations.	
10. I am good at putting myself in others'	Strongly disagree Strongly agree
shoes.	1 2 3 4 5 6 7
11. When I encounter difficult situations,	Strongly disagree Strongly agree
I just don't know what to do.	1 2 3 4 5 6 7
12. It is important to look at difficult	Strongly disagree Strongly agree
situations from many angles.	1 2 3 4 5 6 7

13. When in difficult situations, I consider multiple options before deciding how to behave.	Strongly disagree Strongly agree 1 2 3 4 5 6 7
14. I often look at a situation from	Strongly disagree Strongly agree
different view-points	1 2 3 4 5 6 7
15. I am capable of overcoming the	Strongly disagree Strongly agree
difficulties in life that I face.	1 2 3 4 5 6 7
16. I consider all the available facts and	Strongly disagree Strongly agree
information when attributing causes	1 2 3 4 5 6 7
to behaviour.	
17. I feel I have no power to change	Strongly disagree Strongly agree
things in difficult situations.	1 2 3 4 5 6 7
18. When I encounter difficult situations,	Strongly disagree Strongly agree
I stop and try to think of several ways	1 2 3 4 5 6 7
to resolve it.	
19. I can think of more than one way to	Strongly disagree Strongly agree
resolve a difficult situation I'm confronted with.	1 2 3 4 5 6 7
20. I consider multiple options before	Strongly disagree Strongly agree
responding to difficult situations.	1 2 3 4 5 6 7

APPENDIX D

Group Climate Questionnaire (MacKenzie, K. R.,1983).

Read each statement carefully and as you answer the questions think of the group as a whole. Indicate how you feel about each statement by choosing the appropriate number using the following scale: Not at all (0) A Little Bit (1) Somewhat (2) Moderately (3) Quite a bit (4) A Great Deal (5) Extremely (6)

1. The members liked and cared about each other. 0 1 2 3 4 5 6 2. The members tried to understand why they do the 0 1 2 3 4 5 6 things they do tried to reason it out. 3. The members avoided looking at important 0 1 2 3 4 5 6 issues going on between themselves. 0 1 2 3 4 5 6 4. The members felt what was happening was important and there was a sense of participation. 5. The members depended upon the group leader(s) 0 1 2 3 4 5 6 for direction. 0 1 2 3 4 5 6 6. There was friction and anger between the members 7. The members were distant and withdrawn 0 1 2 3 4 5 6 from each other.

8. The members challenged and confronted
each other in their efforts to sort things out

9. The members appeared to do things the way
they thought would be acceptable to the group

10. The members rejected and distrusted each other.

0 1 2 3 4 5 6

11. The members revealed sensitive personal
information or feelings.

0 1 2 3 4 5 6

12. The members appeared tense and anxious.