Narcissistic Leadership and Team Creativity: Assessing the Mediating Role of Information Searching Effort and Moderating Role of Environmental Uncertainty

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Abstract

The aim of this research is to assess impact of narcissistic trait of leadership on team creativity. Focus of our research will be to analyze the mediating effect of information searching effort along with the moderating effect of environmental uncertainty between narcissistic leadership and team creativity under the concept of attention-based theory and social information processing (SIP) theory. Data collection was carried out through self-administrative questionnaires from a total of 300 respondents from IT departments and higher educational institutions that are based in the twin cities (Rawalpindi and Islamabad) of Pakistan by using simple random sampling. For testing the mediation and moderation, structural equation modeling and Preacher & Hayes regression analysis was used. Findings of this study confirm that information searching effort positively mediates between narcissistic leadership with team creativity. Also, environmental uncertainty moderates between narcissistic leadership and team creativity. This research expands the application of attention theory for enhancing the creativity of team members.

Keywords: narcissistic leadership, attention theory, team creativity, information searching effort, environmental uncertainty, social information processing theory.

1. Introduction

Due to the turbulence in the external stimulus, individuals possessing narcissistic personality with dominance and tendency are more likely to become leaders. Our market environment has been largely transformed by continuous change of demand, innovation and rapid change in technology. The organization has undergone through critical stages of innovation, creativity and transformation which has become new vehicle for the development of a country.

Information and technology along with R&D teams are playing crucial roles for decision making and problem solving, thus making competitive decisions at various service sectors including IT firms and higher educational firms. Hence, stimulating, fostering and instilling team creativity in the IT departments of educational institutions has paramount importance in the development of service sector firms (Florida& Goodnight 2005); (Rego et al., 2007). High-tech enterprises and IT departments in education institutions face competitive and rapidly changing environment in that uncertain environment, individuals with narcissistic tendency are more likely to become leaders for an organization. IT departments including high tech enterprise firms (HTE) are crucial for solving technical problems and building competitive advantage (Brunell et al., 2008).

Previous studies have shown that complementary leadership practices have significant influence on individual's proactive behavior (Yuan & Zhou, 2015). Narcissistic leaders possess high level of motivation, creativity and their personality characteristics determine the need for admiration, self-confidence, lack of empathy, pervasive pattern for grandiosity manifested by narcissistic leaders becomes the source of psychological concern to a certain extent for team members. Narcissism trait of leadership has regarded as a negative as well as positive trait. Narcissistic personality disorders can be characterized as those individuals who are preoccupied with self-esteem, power, pervasive personality of disorders, and lack of feeling for others. Narcissists often pursue the role of leadership and carryout work for their personal interest which offset the well-being of others (Asrar-ul-Haq & Anjum, 2020).

According to identity theory, the features of organizational narcissism relate to entitlement and superiority, denial and rationalization, self-aggrandizement and exhibitionism (Pertuz-Peralta et al., 2020). Clinical perspective defined narcissistic personality disorders (NPD) largely influenced by pervasive pattern of grandiosity and a general lack of empathy and need for admiration. Narcissist behavior disorder is characterized by exploitative interpersonal relationships with colleagues, expression of arrogant and haughty attitudes (Felty et al., 2015). In academic sphere Narcissism has been positively related to engage in academic dishonesty, lack of sub-sequential guilt, tendency to cheat, attributes non-contingent to success and personality disorders. Evidence from past studies and clinical research narcissism studies to the behavior is often associated with narcissistic leadership possessing aggressive reactions to self-esteem threats, self-serving, increased intimidating, offensive, humiliating and hostile behaviors, poor listening skills and exaggerated evaluations of one's selves (Campbell et al., 2002).

In a recent study by Zhou et al. (2019) explored the relationship of narcissistic leadership and team creativity through information searching effort and by exploring the moderating role of participative decision making and further advised to analyze the effect of narcissistic leadership on team creativity and information searching effort along with other variables such as team compositions, management & autonomy and dynamic environments. In another research by Duchon and Drake (2009) suggested that valuable increasing number of narcissists individuals working within an organization may consequently result in a warped organizational culture and characteristics that enables an accepting behavior towards associated behaviors and attitudes, as well as synchronizing and expediting frequent expressions of self-obsession and rationalizations of unethical behavior. Past

studies on narcissistic leadership checked the effect of self-esteem and found that both narcissism and high self-esteem is associated with positive self-views, but each is associated with positivity in different domains of the self (Campbell, Rudich& Sedikides2002); (Raskin et al., 1991). Luo et al., 2014) argued that team leadership plays a crucial role in increasing creativity of team members and have pointed out those personality traits that play pivotal role in academic research of leadership but sill mechanism between team leadership, personality traits, information searching effort and team context need to be further explored. Moreover, various studies have also confirmed that narcissistic traits are more often and common among leaders. Hence, this study aims to fulfill the above research gap by focusing on the influence of narcissistic leadership on team creativity by assessing the mediating role of information searching effort and moderating role of environmental uncertainty based upon attention theory for enhancing leader's performance.

This research can provide useful inspiration and managerial implication for practitioners in leadership and development. People tend to consider narcissistic leadership as a negative trait. Employees of R&D departments and employees of IT departments at education institutions may display high level of narcissist behavior. But the findings of our study suggest that R&D and employees of IT departments at education institutions with narcissistic traits will have a positive impact and could inspire and instill team creativity through the mediating role of information searching effort.

1.2. Research Objectives

➢ To investigate the impact of narcissistic trait of leadership and team creativity.

➢ To find out the impact of information searching effort and team creativity.

➢ To analyze the impact of narcissistic leadership and information searching effort.

➢ To examine how information searching effort mediates between narcissistic leadership and team creativity.

➢ To assess how environmental uncertainty moderates the relationship between narcissistic leadership and information searching effort.

2. Literature Review

2.1. Narcissistic Leadership and Team Creativity

Recently the influence of leaders' personality traits on perceived employee behavior, such as humility and big five traits has become an emerging area of concentration for research, but the influence of narcissistic leadership has not been explored much (Stajkovic et al., 2018; Ou et al., 2018). Narcissistic is also prevalent among various successful business "Stars" such as Bill Gates, Steve Jobs and Jack Welch, who all to some extent has narcissistic personality (Maccoby, 2004). Recent research has also provided evidence that narcissistic leaders possess charisma and bold vision that effectively attract followers (Grijalva et al., 2015). Large number of authors in their studies has realized that team leadership plays a significant role in motivating and increasing the creativity level of teams

and their level of innovation (Elkins & Keller, 2003). Due to high egoistic, overwhelming and self-esteem narcissistic leaders are more prone to cognitive dependency among subordinate employees which in turn may inhibit and forbid follower's innovative and creative behavior. Some studies have recognized that narcissistic leaders take high risk as believe in their abilities and skills and they are willing to innovate. Narcissistic leaders tend to over evaluate his or her creative decision making and problem-solving skills and gain benefits from creativity and innovation. Hence, narcissistic those who are "productive narcissistic" empower members of the teams to adopt new methods and approaches for problem solving (Byrne & Worthy 2013). Previous studies have also conceptualized that leaders who promotes subordinates level of performance also challenge their creativity, encourage them to take calculated risk and monitor their innovative efforts. Therefore, Narcissistic leaders that aim to focus on innovative and creative experimentations have a larger positive impact on creativity of team members (Zhou et al., 2019). Based upon all the above discussion it can be conceptualized that;

➢ **H₁:** Narcissistic leadership is positively related to team creativity.

2.2. Narcissistic Leadership and Information Searching Effort

Leaders with self-concept trait and selfless concern try to put extra mile effort to maintain their positive image and they live meaning about their self-concept. Narcissists often accept change and are often engaged in the search for inspiration. For obtaining new concepts and new perspectives, narcissistic leaders make continuous efforts for searching information and they make their subordinates and followers as their role models (Jaussi & Dionne, 2003). According to attention-based theory, participative and effective decision-making team need to pay attention to different areas. Team's attention and concentration largely shows effort for searching of information which points out that the degree to which resources need to mobilize for information searching tasks and activities. Attention theory also contributes that information searching effort of team creativity explains that how narcissistic leadership affect employee creativity and innovation behavior through information searching effort of employees and teams of an organization (Ocasio, 1997). Narcissistic leader's makes effort for searching different ways of information and thus it helps to increase the team creativity of employees. Recent research has suggested that leaders' narcissism possess both "Dark side of organizational behavior" and "Bright side of organizational behavior." In an organization structure with high dependence and involvement, active participation in organization, members of the teams need to be more actively engage in organizational process of decision making. Hence, they are more motivated for searching new information (Spekman & Stern, 1979). Previous studies show that intent of information searching efforts helps in identifying haphazard and vulnerabilities at workplace such as avoiding unpredictable danger and risk, seeking opportunities and effective decision making (Zhouet al., 2019). Hence, based on all the above discussion it can be conceptualized that

➢ **H₂:** Narcissistic leadership is positively related to information searching effort.

2.3. Information Searching Effort and Team Creativity

Information exchange is a central team process that influences the outcomes of team (Mesmer et al., 2009). Regular high-quality exchange of information is indispensable in an organization and allows team members to increase their innovation and exchange of knowledge, past experiences and ideas (Hülsheger et al., 2009). Recent empirical work suggests that exchange of knowledge and information increase the rate of product innovation (Smith et al., 2005). Team creativity requires thinking divergently and combines the previously related and unrelated knowledge, products and processes into something new that results into the interaction of team members. Previous research shows that information searching, and knowledge sharing is very crucial for team creativity. According to the componential theory of creativity, creativity includes three important components including intrinsic task motivation, creative thinking skills and expertise. Cognitive level of decision-making body determines the distribution and searching of knowledge and information that can resultantly instill the creativity level of teams. Therefore, team information search effort improves team information collecting, disseminating and gathering capabilities that can bring creative insights and stimulates team creativity (Shalley et al., 2004). Sharing information and knowledge that can be used to increase the mutual understanding among members of a team and make use of encouragement to seek insight from team members to broaden their scope of collecting information and knowledge which is a significant source of creativity for team members (Men et al., 2019). Hence, on the basis of all the above stated discussion it can be logically hypothesized that;

➢ **H₃**: Information searching effort is positively related to team creativity.

2.4. Narcissistic leadership, Team Creativity and Information Searching Effort

The dimension of narcissistic leaders' charisma, leaders possess charm excellent speech skills that encourage their level of confidence make them understand that they are well applicable and qualified for their jobs and thus facilitating their creativity at work (Zhang et al., 2018). According to the Componential theory of creativity both the broader pool of related knowledge and enhanced knowledge, skills and capabilities can be connected to increase creativity level of employees (Cohen & Levinthal, 1990). Narcissistic leader attracts the attention resources of team members, improves smooth practices of information search behavior of individuals give necessary information that spurs creativity and innovation in the team members of the organization. Hence, current study assesses the mediating effect of effort for information search on narcissistic leadership and creativity level of teams. Narcissistic leadership better comprehend the attention resource of team members that can able to improve the information searching behavior and effectiveness that provides necessary support for creativity of teams. Therefore, the present study assesses the mediating effect of Information searching effort on narcissistic team leader and effective creativity of teams. Moreover, in an organization of high involvement in problem solving and work processes along active participation in problem solving, members of teams are more likely to be dependent and involved in participative decision

making processes which can inspire and encourage individuals to search and exchange of new information that helps to increase the creativity of teams in an organization (Spekman & Stern, 1979). Hence, on the basis of all the above discussion it can be hypothesized that;

> **H4:** Information searching effort mediates the relationship between narcissistic leadership and team creativity.

2.5. Narcissistic Leadership, Environmental Uncertainty and Information Searching Effort

Environmental uncertainty can be described as a situation in which upcoming events, changes and incidents are hard to foresight and predict. Environmental uncertainty denotes uncertain and unpredictable environmental changes. When environmental uncertainity is high leaders will engage in innovative activities, search for more information in the organization means that they try to break the conventional ways of thinking and working (Darvishmotevali et al., 2018). Under uncertain environment and situations employees prefer leader narcissism. Furthermore, the efficiency of leaders must be taken into consideration in the light of combined effect of leaders situational and environmental factors. In the light of social information processing (SIP) theory, leader's speech, behavior and environments affect subordinate's perception and behavior (Yang et al., 2020). Under social information processing theory, cognitive dependence is defined as the dependence of employees through information searching and processing activities such as perceiving, feeling, attitude and perception is called perception process. In SIP model environmental characteristics follower perceptions attitude needs behavior by which subordinates and followers collect information upon the traits of leaders and derive perceptions about their leaders, for instance follower appreciate and praise narcissistic leaders charisma and self-praise and clinical disorder of grandiosity are willing to be consistent with them which derive the leaders for making increased information searching efforts under the environmental uncertainty (Zalesny & Ford, 1990). Hence, based upon all the above aforementioned discussion points stated above it can be conceptualized that

> **H5:** Environmental uncertainty moderates the relationship between narcissistic leadership and information searching effort in such a way that the "effect" is stronger when environmental uncertainty is high than low.
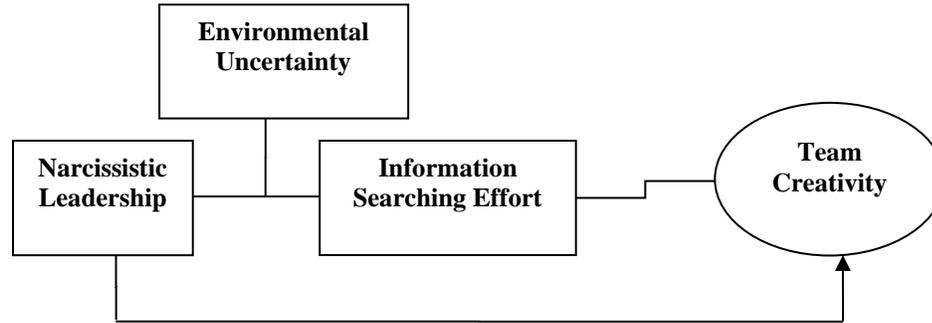
2.6. Research Framework

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        ┌─────────────────────┐
        │   Environmental     │
        │    Uncertainty      │
        └─────────────────────┘

┌──────────────┐   ┌──────────────────┐        ⬭
│ Narcissistic │   │   Information    │     Team
│  Leadership  │   │ Searching Effort │   Creativity
└──────────────┘   └──────────────────┘
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Figure 1: Research Framework

Research framework is based on attention-based theory and social information processing (SIP) theory.

2.7. Theoretical Underpinnings and Contribution

Attention theory supports the theoretical framework designed for this study. According to attention-based theory, an attention considered being as scarce and valuable resource in a team and the ability to process information is a scarce resource (Ocasio, 2011). Previous studies have provided the results that senior management team giving attention positively influences the organizations decision making and innovative behavior of team members. Hence, founded upon attention-based theory this study implicates information searching effort as the important mediating and criterion variable of team attention distribution which aims to explain effect upon team Creativity (Ocasio, 1997). Also, Yang et al. (2020) suggested that social information processing (SIP) theory explains environmental uncertainty that has been introduced as an undertaking condition as narcissistic leaders perceived to be as reliable and trusted by followers that inhibit them to perform their job more creatively in a new manner. Social information processing theory (SIP) depicts that individuals can use their past experiences to comprehensively and largely analyze and judge social information. Social environment helps individual by providing clues, hints and information that can conceive the actions and events around according to the social information processing (SIP). This provides meaning that individual attitudes and needs are the product of information processing by which individual makes an understanding about sense of world around them.

3. Research Methodology

3.1. Demographics of Study

Different demographic characteristics were incorporated into the study to build up a profile of representatives dealing with different sectors. In order to test the demographics such as gender, marital status, age, qualification and experience of respondents which are

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considered as factors in our research. The percentage contribution considered in this research for gender was 17%, 23% for marital status, 25% for age factor, 18% for qualification of respondents and 17% contributed for number of years of respondents which makes a cumulative percentage of 100%.

3.2. Measures and Scales Used

We used structured questionnaire and gathered response from the respondents on 5-point continuum Likert scale that ranges from "1 to 5" from the variables introduced in the study of narcissistic leadership, team creativity, information searching effort and environmental uncertainty. Whereas, 1 represented as strongly "Disagree" and 5 represented to be as "Strongly Agree".

3.2.1. Narcissistic Leadership

Narcissistic leadership of respondents was measured by using 9-points item scale adopted from Jones & Paulhus (2014). The Cronbach's alpha of 7 items for narcissistic leadership was found to be 0.759.

3.2.2. Team Creativity

Team creativity of respondents was assessed and measured by using 8 points item scale originally developed by Barczak et al. (2010). The Cronbach's alpha of 8 Items for team creativity was found to be 0.807.

3.2.3. Information Searching Effort

Information search effort of participants was carried out and measured by 5 points item scale originally developed by Li et al. (2013). The Cronbach's alpha of 7 items of information searching effort was found to be 0.799.

3.2.4. Environmental Uncertainty

Environmental uncertainty of participants was carried out and measured by 3 points item scale originally developed by De Hoogh et al. (2005). The Cronbach alpha of 3 items of environmental uncertainty was found to be 0.597.

3.3. Research Design

The purpose of the study was causal research for investigating the connection of topic to learn about narcissistic leaders and type of study is quantitative in nature. The unit of analysis will be employees working in IT departments & firms of higher educational institutes that are based in twin cities of Pakistan. Time horizon of research was cross sectional and primary data was collected by distributing questionnaires for the purpose of data analysis.

3.4. Sampling Technique

Simple random sampling (SRS) was carried out to collect responses randomly from the respondents of R&D and IT departments of higher educational institutions that are based in twin cities including Islamabad and Rawalpindi in Pakistan. Study respondents from these twin cities are considered to be as true representative of our entire population of our research study.

3.5. Data Analysis Technique

Preacher and Hayes (2008) process 3.4 model and analysis of moment structure (AMOS version 27) was used for testing the mediation and moderation effect of introduced variables by using SPSS add-in software.

3.6. Data Collection and Sample Size

A sample size of 300 respondents was used with the help of self-administrative questionnaire by distributing questionnaires to the employees who are working in IT departments & higher educational institutions that are currently based in twin cities of (Islamabad and Rawalpindi) of Pakistan. For the selection of total sample size, the number of items in the instrument can either be multiplied by 5 or 10 according to the rule of thumb. Total number of items in the questionnaire were 23 and as per according to the rule of thumb, the total ideal of sample size would be $23 \times 10 = 230$ and still we used more larger sample size for the better generalizability of findings of results.

4. Analysis and Results

4.1. Data Screening

Before entering the collected data into SPSS for conducting the data analysis several important steps were taken into account to ensure the accuracy of collected data. For linear regression model there must be linear relationship between IV's and DV's, replaced all the missing value by using list-wise deletion method detected and removed all the outliers, residuals, skewness and kurtosis. Data was analyzed using SPSS software with the respective codes of the variable like narcissistic leadership (NL), team creativity (TC), information searching effort (ISE) and environmental uncertainty (EU).

4.2. Correlation Analysis

Table 1: The Correlation between Narcissistic Leadership with Team Creativity

	1	2	3	4	5	6	7	8	9
Gender									
Marital Status	-.139								
Age Group	.347 **	.276**							
Educational level	.347 **	.161**	.94						
Job experience	0.19	0.41	.237**	.452**					
NL	0.29	.328**	.378**	.036	.039	**0.759**			
TC	.341**	.330**	.315**	.085	.255**	.460**	**0.807**		
ISE	.240**	.222**	.454**	.151*	.004**	.254**	.438* *	**0.799**	
EU	.153*	0.28	.032	0.21	.92	.173**	.147 *	.069	**0.597**

Note: The correlation between narcissistic leadership with team creativity has the highest correlation and is and statistically significant (r = 0.438**), p< .001).N = 300. Scale reliabilities of variables are given in parentheses. **Correlation is significant at the 0.01 level (2-tailed).

Above table 1 correlation analysis describes the degree of association between two or more variables and determines the extent to which values of two variables are proportional to each other (Sekaran, 2010). Above reported table 1, describe the result of correlation analysis in which first hypothesis was assumed to be positive and this was found to be in line with H_2, as narcissistic leadership has very strong correlation with team creativity as the reported results has (r =.255**, p < 0.01) whereas scale reliability of narcissistic leadership was found to be **0.759** considered to be as good reliability. H_2 was assumed to be positive, as narcissistic leadership is positively related with team creativity and the results of this certain hypothesis was found to be supported as the (r = .254*, p < 0.01) is significantly and positively related with information searching effort, Whereas the value of scale reliability was found to be **0.807** also considered to be as good reliability. H_3 was assumed to have positive relationship between information searching effort and the results of this relationship was found to be supported as (r= .438**, p < 0.01) whereas, scale reliability of information searching effort was found to be **0.799** considered to be as good reliability.

4.3. Confirmatory Factor Analysis

Structural equation modeling (SEM) is a widely used technique for data analysis in the area

of management sciences. In order to test the conceptualized and hypothesized association among latent variables, SEM through IBM AMOS version 27 was used to examine the constructs for underlying latent variables and observed variables and to check the accuracy and goodness of fitness for the entire measurement model. There are various indicators of Goodness of Fit measures for the model fit including (Chi-square/Df, AGFI, NFI, CFI, GFI, TLI, AGFI and RMSEA) that are described below in Table 2.

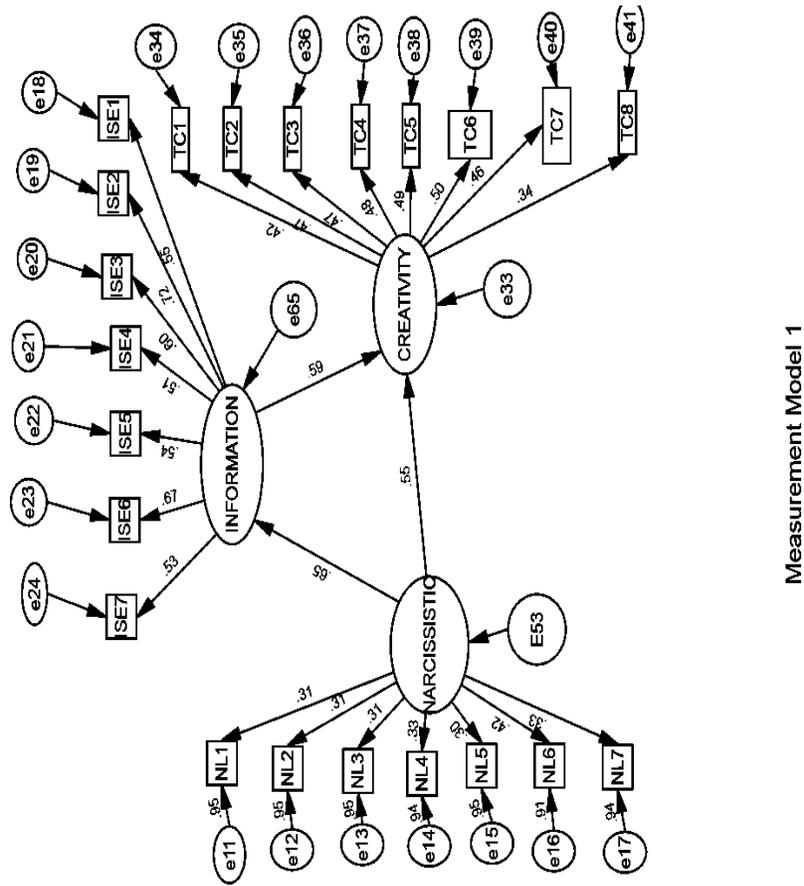*4.4. Measurement Model 1 (Structural Equation Modeling)*

Measurement Model 1

Table 2: Goodness of Fit Measures for Model Fit

| Model	RMESA	NFI	AGFI	GFI	CFI	X2/DF
Default Model	.865	.887	.992	.945	.975	2.243

Table 2 describes the statistics of goodness of fit measures for default model fit that are acceptable (χ^2/df = 2.243, CFI= 0.975, RMSEA = .865, NFI = 0.887, AGFI = 0.992, GFI = 0.945, CFI=0.975 that support default model. Value of X2/DF was found to be 2.243 which found to be less than permissible limit of 3, RMSEA value is 0.865 found to be supported which is less than permissible limit of 0.08, AGFI value was 0.992 found to be supported which is increased from the acceptable value of 0.90. CFI value was 0.975 found to be supported which was higher from the acceptable value of 0.95. NFI value was 0.887 found to be supported which is higher from the acceptable value of 0.95.

4.5. Measurement Model 2 (Structural Equation Modeling)

Table 3: Confirmatory Factor Analysis (CFA)

Model	RMESA	NFI	AGFI	GFI	CFI	X2/DF
Default Model	0.68	.983	0.94	0.956	0.96	2.551

Above table 3 describes the statistics of default model fit that are acceptable (χ^2/df= 2.551, CFI= 0.96, RMSEA = 0.68, NFI = 0.983, AGFI = 0.94, GFI = 0.956, CFI=0.96 that support default model. Value of X2/DF was found to be 2.551 which found to be less than permissible limit of 3, RMSEA value is 0.68 found to be supported which is less than permissible limit of 0.08, AGFI value was 0.94 found to be supported which is increased from the acceptable value of 0.90. CFI value was 0.96 found to be supported which was higher from the acceptable value of 0.95. NFI value was 0.983 found to be supported which is higher from the acceptable value of 0.95.

MEASUREMENT MODEL 2
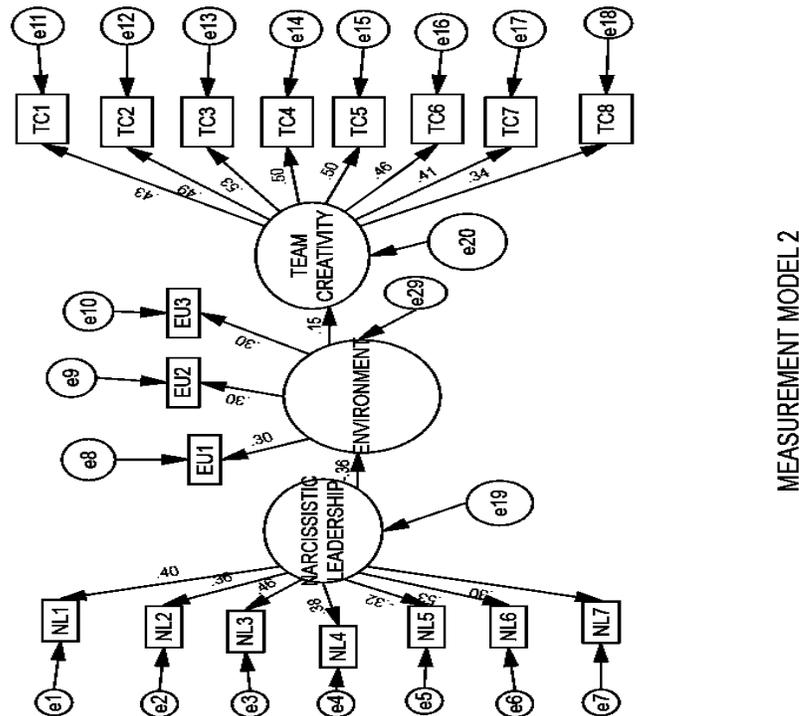
4.6. Preacher and Hayes Process Models

The aim of this study is to explore the impact of narcissistic leadership on team creativity. Narcissistic leaders increase information searching that result increasing the team creativity in an organization. We also find that environmental uncertainty plays a moderating role of narcissistic leadership and information searching effort.

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For assessing the moderation and mediation we used Preacher and Hayes process (2008) model. We used 3.4.0 version (Preacher and Hayes, 2008) for process model and model 1 for moderation analysis and model 6 for serial mediation. We used confidence interval with 95% and bootstrapping technique of 1000 resampling. We developed slope of the interaction terms and developed direct and indirect interaction terms by using Hayes process model 1.

4.7. Serial Mediation of Narcissistic Leadership, Information Searching Effort & Team Creativity

This describes the positive relationship of narcissistic leadership and team creativity and the relationship of narcissistic leadership and information searching effort that provide support to our conceptualized hypothesis No. 1 and 2. While the relationship of information searching effort and team creativity is positive and significant that results to accept our H_3. Narcissistic leadership with information searching effort is a significant predictor of team as the p-value 0.00 is less than 0.05 and the t value is greater than -2 & +2. The results of indirect bootstrapping shows (LLCI = .0660, ULCI = .2075) and beta estimate was found to be **β** = .6349 that accepts our hypothesis No. 4.

4.8. Results of direct effects of Narcissistic Leadership, Information Searching Effort and Teams Creativity

Table 4: Results of Direct effect

Variables	R	R²	P	T	ULCI	LLCI
Direct effects						
NL to TC	.5604	.5119	.0000	11.9970	0.4399	0.3382
IV to Mediator						
NL to IS	.6539	.6457	.0000	4.3368	0.2579	0.1341
Mediator to DV						
IS to TC	.7087	.5022	.0000	7.2113	0.2211	0.1872

Results of indirect effects of Narcissistic Leadership, Information Searching Effort and Team creativity

Note: PROCESS Procedure for SPSS, Model 4. p <.05, p-value:.000<.05

Bootstrapping with 1000 resampling is used to check the indirect effects of narcissistic leadership, information searching effort and team creativity.

Table 4: Indirect effects of Narcissistic Leadership, Information Searching Effort and Team Creativity

	B	Boot S. E	LLCI	ULCI
NL ⟶ ISE ⟶ TC	.6349	.6458	0.0660	0.2075

Note; N = 275 Unstandardized coefficients of regression, Bootstrapping = 5000, B = Beta coefficient, LLCI = Lower Level Confidence Interval, ULCI = Upper Level Confidence Interval, NL = Narcissistic Leadership, ISE = Information Searching Effort, TC = Team Creativity.

Mediation test of Preacher and Hayes process model was carried out for assessing the bootstrapping of the indirect effect of narcissistic leadership with team creativity through information searching effort as the mediating variable of our research model which provides support for our conceptualized hypothesis H4. Above table 4 shows the results of mediated model was found to significant as the value of beta estimate was found to be .6349 considered to be as a good coefficient estimate.

4.9. Preacher and Hayes Process Model

H5 describes the moderating interaction between narcissistic leadership and information searching effort in which environmental uncertainty is higher than narcissistic leadership and information searching effort increases that shows the result of interaction term that is also significant (P < 0.05), narcissistic leadership with environmental uncertainty is a significant predictor of information searching effort as the p-value 0.00 is less than 0.05 and the t-value is greater than -2 & +2 beta estimate was found to be 2.610, as a result hypothesis No. 5 was accepted.

Table 5: Model Summary

R	R	F	df1	df2	P
0.53	0.58	34.7072	3.000	271.000	.0000

Path Confidents

	B	S. E	T	P	LLCI	ULCI
Constant	111.4947	19.4268	5.7392	.0000	73.24	149.74
Narcissistic Leadership	3.9511	.7082	4.167	.0000	0.3453	1.2569
Environmental uncertainty	7.1734	1.4741	4.8661	.0000	.1756	.2712
NL×EU	.3577	.0539	4.7830	.0000	.1516	.3637

Interactions: NL*EU

	ΔR2	F	df1	df2	P
NL*EU	2.610	22.8771	1.0000	271.000	.0000

4.10. Moderation Analysis with Interactive Effects

Significant interactions for high and low values were derived from minimum and maximum descriptive statistics of the moderator are shown in figure 1. This figure illustrates the positive effect of narcissistic leadership on information searching effort that was stronger when environmental uncertainty was high which supports our H5.

Influence of Environmental Uncertainity on the relationship between NL and EU
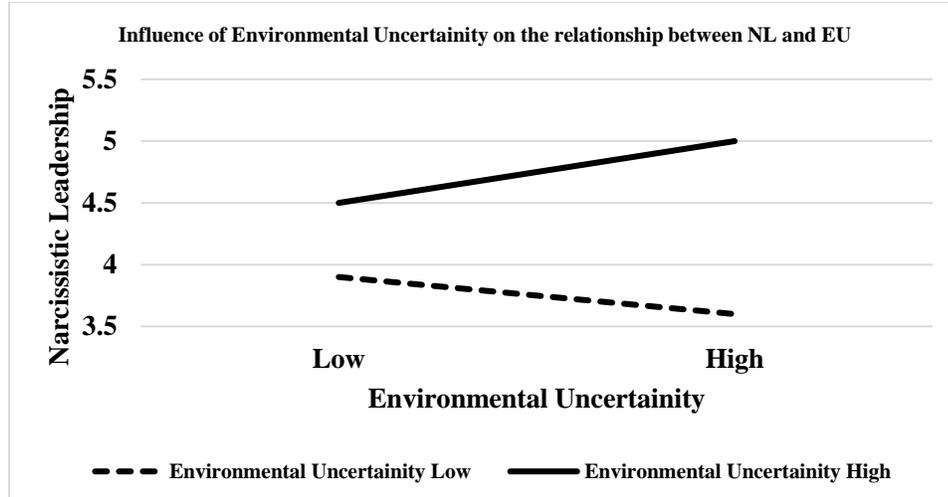
NL= Narcissistic Leadership   EU= Environmental Uncertainty   ISE= Information Searching Effort

Figure 1: Interactive Effect of Narcissistic Leadership and Environmental Uncertainty on Information Searching Effort

5. Discussion and Findings

In past, it has been revealed that various personality traits of leaders have impact on creativity and innovative behavior and the role of narcissistic leadership has been neglected. Moreover, various researchers have focused that negative effect of leader's narcissism on the performance of organization. Early clinical researches in psychology describe narcissism, mental illness and Machiavellianism as the three dark side or dark personality traits. However, by deeply exploring the idea and research in narcissistic leadership by various psychologists and researchers, the idea of narcissism has expanded beyond the dark and strained understanding of narcissism towards creativity, productivity and innovativeness. Owens et al. (2015) asserted that Narcissism is uncertain, complex and contradictory combination of traits which is usually characterized by the self-attraction, more superiority and desire for attaining power. This expectation of power motivates and encourages narcissistic leaders to take risk, remain productive, creative and innovative (Maccoby, 2004).

Recent results indicated that narcissism and team creativity is positively related to each other and results of our first hypothesis was found to be accepted with very strong relationship was found between narcissistic leadership and team creativity. Results of this hypothesis were found consistent and verified with the prior study of Yang et al. (2020) in which it has been depicted that narcissistic leadership trait has significant positive impact on individuals active, rational behavior. Narcissistic leaders proclaim to be as enthusiastic and charismatic and their grandiosity can strongly persuade them to fit into prototype of a creative and innovative individual. Results of second hypothesis between narcissistic leadership and information searching effort was also found to be positive and supported.

Results of this hypothesis are compliant and also in line with the work of Spekman & Stern (1979) in which it has been reported that narcissistic leaders attract larger set of information, better attracts the attention resource of team members, improve the efficiency and effective working of employees and team members information searching behavior provides necessary information searching and processing support for increasing the creativity level of teams. Results of third hypothesis between ISE and TC was also found to be positive and supported. The findings of this suggested hypothesis are verified and also compliant with the study of Zhao, & Anand (2013) in which it has been reported that attention based approach focus upon on an individual ability to process knowledge and information is conceived to be a limited and a scarce resource by effectively concentrating and paying attention is the prime focus of attention based theory, narcissistic leadership can better attract and seek the attention of members of a team and may improve their effectiveness in searching information and provides adequate knowledge & information that provide support to team creativity. Results of our fourth hypothesis were also found to be positive and supported in which information searching information mediates between narcissistic leadership and team creativity. Results of this suggested hypothesis are supported with the study the previous study of (Shalley et al., 2004) in which it has been observed that narcissistic trait leaders exert increased effort to search for knowledge and information. Also increased level of information search efforts helps to increase the team creativity. Moreover, results of our fifth hypothesis also found to be positive and accepted in which environmental uncertainty strongly moderates the relationship between narcissistic leadership and information searching effort. The results of this suggested hypothesis are compliant with the prior study of Yang et al. (2020) in which social information processing (SIP) theory explains the effectiveness of leader narcissism that vary from situation to situation under high environmental uncertainty, employees like leader narcissism and prior literature also suggest that innovative and creative behavior suggest those environmental uncertainty characteristics that can impact institutionalization and implementation of creative and innovative behavior in different innovation processes.

5.1. Limitations and Future Directions

Current study follows the time horizon of research that was cross sectional. Self-administered questionnaires for data collection were distributed among employees those who are working in IT departments and higher educational firms that are based in federal capital Islamabad and Rawalpindi in Pakistan. For enhancing generalizability and applicability of this study for future researches, it is strongly recommended to increase and select more diversified pool of respondents representing and working at different managerial levels and service providing firm. Secondly, this study has undertaken environmental uncertainty as moderating variable; future studies should undertake other factors and contextual variables such as team composition, counterproductive work behavior (individual and organization) and managerial autonomy as the mediating variable of the study and preferably use technique of hierarchal regression analysis for moderation purpose. Third, this research considers Narcissism as a stable and bright personality trait but there are other researchers and a scholar who shows that narcissism may have also dark

sides that can be volatile. Therefore, futuristic research studies should also consider longitudinal data and times series data for testing the effect of narcissism at different levels of teams and organization at different times and intervals.

5.2. Conclusion

There is increasing trend of narcissistic leadership among young people of an organization. The aim of this paper was to assess the impact of narcissistic trait leadership on team creativity along with the indirect effect of narcissistic leadership. Overall the findings of the current study revealed that leaders of research and development possess trait of being as narcissistic and can inspire creativity and innovative behavior among team members. Also, narcissism should be considered as trait and must be considered in employees, managers and supervisors while in the process of recruiting, selection and promotion. Various organizations must offer adequate training and employee development programs for employees to possess narcissistic personality trait which is closely linked with positive elements such as charisma, vision and creativity. It also may produce some negative and biased context such as conduct of unethical behavior, obstructing communication unable to maintain and develop long term relationship with people. Overall, we concluded that employees must foster and promote innovative and creative behavior among employees and organization should abstain and prevent negative effect of narcissism and should minimize environmental uncertainty for clear and smooth information searching for enhancing team creativity and innovative behavior of an organization.

Research Grant

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