

Personality in the Workplace: A Gender Analysis of Eysenck's Personality Dimensions among Young Entrepreneurs in Kolkata

Dr. Mita Sengupta

Assistant Professor, Faculty of Management and Commerce Department

ICFAI University Tripura

Abstract

Personality of employees is a very crucial factor in determining the success of projects and ventures in the organization. In the research, a gender based study of total 322 young entrepreneurs and self – employed individuals from Kolkata were done in order to find out alignment between their personality dimensions and success and productivity achieved by them.

For analyzing, the personality of the respondents Eysenck's personality dimension models was used. Even though the model is popular for analyzing patients with mental disorders and criminal bent of mind, yet it was used for personality analysis of career minded professionals. The primary reason behind it is in the present times lives of professionals have become too complicated with stress both at work and at home.

So, the initiative was taken to find out whether dimensions such as extraversion, neuroticism and psychoticism has any impact on performance and leadership patterns for the respondents. Further, it was analyzed in depth which gender was more prone to be more of an extrovert, a neurotic or a psychotic. The results showed that both men and women in the Eysenck's personality model responded differently to career and professional goals. One gender was more prone to be a neurotic where as another gender was prone to be open minded and an extrovert.

Statistical techniques like Welch Anova, correlation, mean and standard deviation were used in SPSS for Windows version 20 to analyze the outcomes of the research.

Key words: extraversion, neuroticism, psychoticism, performance

The success of any organization depends largely on the quality of the workforce employed with the organization. The personality traits of a worker primarily drives their working style and work ethics. Personality speaks of as an individual's distinctive and consistent pattern of behavior that is unchanging and stable over a long period (Vaidehi and Raju, 2017). Therefore, the study of personality in the workplace is extremely significant in modern times as it enables organizations to achieve optimum productivity and generate excellent performance (Darko et al. 2022).

According to Hans J Eysenck personality comprises of individual differences which forms because of genetic factors (Eysenck and Gudjonsson, 1989). Personality is therefore considered an integral and indispensable part of study of scientific investigation conducted for educational or industrial purposes (Eysenck & Eysenck, 1985).

In our current study, the dimensions of Eysenck's personality are used to find out answers to the behavior of our respondents under study. Eysenck has identified three dimensions or super factors such as extraversion introversion, neuroticism-emotional stability and psychoticism-superego control (Eysenck, 1982).

Dimensions of Eysenck Personality Theory:

Extraversion is characterized by frequent social engagement with the external world and extroverts are more talkative, energetic and assertive (Eysenck 1967). Individuals who have low extraversion are usually characterized by being reserved, quiet and introspective; they do not draw energy from their external environment. However, it has been often observed that a high level of environmental arousal is required for extraverts to deliver high quality performance; leading to extroverts performing better than introverts as levels of environmental arousal accelerates (Mitchell and Kumari, 2016).

Neuroticism usually refers to the level of emotional stability. A high level of neuroticism is characterized by emotional instability and lack of integration with the individual behaving neurotically and feeling anxious, moody and extremely worried (Eysenck and Prell, 1951).

Psychoticism is the third dimension of personality and is high level of psychoticism is characterized by a person being troublesome, hostile, aggressive, psychopathic with a criminal bent of mind. On the other hand individuals with lower levels of psychoticism are altruistic, empathic, social and conventional (Eysenck, 1992).

Personality and leadership: The Great Man theory of Leadership comes up with the explanation that exceptional leaders are born with their innate qualities of determination, optimism and confidence; therefore leaders are not made but born and emerge as winners during trying and difficult times.

Trait Theory of Leadership on the other hand believed leadership was not within the control of a few heroic characters and depended on the personal qualities of the leader (Judge et al, 2002). Personal leadership qualities of a manager is imbibed and learnt from leadership coaching and mentoring sessions or simply by observing others in the job environment. Therefore, we can say that personality traits are learnt and are crucial predictors of leadership variables (Li et al., 2024). The Trait Theory of Leadership also hint that the personal characteristics of an individual determine what kind of a leader he is; leadership quality is also determined by studying the leader's relationship with their subordinates and the performance achieved by their team members (Garzon – Lasso et al. 2022).

Personality and Performance:

Personality is an indirect determinant of performance, which the individual brings to the organization along with his talent, skills and capabilities (Barrick and Ryan, 2003). Conscientiousness and emotional stability as personality traits are very much required for delivery of a superior quality performance. Employees who are higher on the Conscientiousness score are mature, careful and responsible and are able to provide superior quality performance. Employees who are calm, secure and emotionally stable in character are those who perform far better than emotionally weak and depressed individuals do. In addition, extraversion in jobs like sales and marketing where maximum interaction is required with the external environment is required for successful job performance (Barrick et al., 2001).

The study was conducted to identify how both the genders perform on the Eysenck personality dimension. Further it was also examined in addition which of Eysenck's personality dimensions were more suitable for becoming better performers and leaders in the corporate environment.

Hypothesis:

Hypothesis 1

Null Hypothesis (H_0): There is no significant difference between extraversion levels of male and female respondents

Alternative Hypothesis (H_1): There is significant difference between extraversion levels of male and female respondents

Hypothesis 2

Null Hypothesis (H_0): There is no significant difference between neuroticism levels of male and female respondents

Alternative Hypothesis (H_1): There is significant difference between neuroticism levels of male and female respondents

Hypothesis 3

Null Hypothesis (H_0): There is no significant difference between psychoticism levels of male and female respondents

Alternative Hypothesis (H_1): There is significant difference between psychoticism levels of male and female respondents

Hypothesis 4

Null Hypothesis (H_0): There is no significant difference between lie levels of male and female respondents

Alternative Hypothesis (H_1): There is significant difference between lie levels of male and female respondents

Research Methodology:

- **Research Design:** The research is comprised of descriptive methods and quantitative approaches. The goal of the research is not to find out a meaningful difference between the groups but to find out an absence of a meaningful difference or an equivalence of the groups under study.
- **Sampling:** The sample size of the study is 322 young entrepreneurs and self-employed professionals from Kolkata; 217 of them were men and 105 of them were women participants. The sampling technique used was convenience sampling where participants closely connected with the researcher was approached for the study.
- **Data Collection:** A questionnaire was constructed using a 5 – point Likert scale to capture the data in the research; where ever participants had a doubt, they were verbally explained about the survey questions. Scales were created for constructs such as Extraversion, Psychoticism, Neuroticism, Lie, Performance and Leadership to determine the personality of the respondents in a work setting.
- **Data Analysis:** Statistical analysis was done using SPSS for Windows, version 20 in the research study. The statistical techniques used were Correlation, One Way Anova, Descriptive statistics like mean and standard deviation. Cronbach alpha was used to test the reliability of the psychological constructs. The study was conducted using 95 % confidence level which shows a balanced approach between false positives and false negatives.

Scales Used in Research:

The study has included the following scales:

Extraversion scale – Extraversion as a construct is considered to be associated with being sociable, lively, and energetic with an emotionally positive bent of mind (Moeller et al. 2015). The scale created has 6 items of team, social, communication, motivation, large meetings and solitude. There are two inverse items showcasing constructs associated with introverts. All the statements of the scale were measured on a 5 – point Likert scale ranging from 1(strongly disagree), 2(disagree), 3(neutral), 4(agree) and 5(strongly agree). The scale has a Cronbach alpha of 0.786. George and Mallery (2003) have suggested that if the value of alpha is > 0.9 = Excellent, > 0.8 =Good, > 0.7 = Acceptable, > 0.6 = Questionable, > 0.5 =Poor, and < 0.5 = Unacceptable.

The extraversion scale consists of the following items:

I prefer working in teams.

I prefer engaging in social interactions with coworkers and colleagues at work.

I prefer open to expressing and communicating my views and opinions with coworkers at work.

I prefer motivating my team members and colleagues.

I prefer one on one meetings at work and not expressing myself at large meetings. (Inverse)

I prefer solitude and stay away from networking. (Inverse)

Neuroticism scale – Neuroticism as a construct is determined by emotional instability where an individual's behavior is characterized by worry, anxiety, fear, doubts, feeling envious and jealous (Eysenck 1967). The scale created has 6 items of overthinking, irritation, disinterest, emotional, inadequate, ungroomed. All the statements of the scale were measured on a 5 – point Likert scale ranging from 1(strongly disagree), 2(disagree), 3(neutral), 4(agree) and 5(strongly agree). The scale has a Cronbach alpha of 0.557. According to Nguyen et al. (2019), scales with fewer items as well as scales in psychological research have lower alpha. In such cases cronbach alpha of 0.5 was also considered to be reliable.

The neuroticism scale consists of the following items:

I think in great detail about how things can go wrong at work.

Work pressure irritates me.

Obstacles at work make me lose interest in work entirely.

I cannot keep my emotions at check and under control.

I feel I am inferior than other at work.

I do not take any initiative to look good and dress well at work.

Psychoticism scale – Eysenck has described psychoticism as a personality dimension which has traits of aggression, impulsiveness, manipulative minded, irresponsible and risk takers. High score on psychoticism is often found in individuals who either have a criminal bent of mind or are suffering from mental illnesses. The scale has 6 constructs which are ruthless, unkind, backstabbing, remorseless, manipulative and risktaker. All the statements of the scale were measured on a 5 – point Likert scale ranging from 1(strongly disagree), 2(disagree), 3(neutral), 4(agree) and 5(strongly agree). The scale has a Cronbach alpha of 0.660. As per Taber (2018), Cronbach alpha ranging from (0.45–0.98) is considered acceptable, cronbach alpha ranging from (0.64–0.85) is considered adequate and cronbach alpha ranging from (0.76–0.95) is considered fairly high.

The psychoticism scale consists of the following items:

I like to see others suffering and dealing with problems at work.

I have said hurtful things to my colleagues at work.

I feel my colleagues are speaking about me behind my back.

I do not feel guilty if my mistakes at work affect others negatively.

I prefer bending the rules to get my work done.

I enjoy taking risky and dangerous decisions at work.

Lie scale – The scale consists of items which allows lying to be diagnosed; this happens when a set of activities which are rarely done by the respondents are declared to be frequently practiced or when frequently practiced non desirable acts are denied by the same person (Eysenck and Eysenck 1976). The scale has 6 constructs namely respectful, compliant, expert, harmless, restraint and innocent. All the statements of the scale were measured on a 5 – point Likert scale ranging from 1(strongly disagree), 2(disagree), 3(neutral), 4(agree) and 5(strongly agree). The lie scale has a Cronbach Alpha of 0.486. As per Taber (2018), Cronbach Alpha ranging from (0.45–0.98) is considered acceptable for the purpose of research.

The lie scale consists of the following items:

I have never spoken negatively about any coworker.

I have never gone against any rule and regulations at the workplace.

I feel confident about my knowledge, skills and abilities at work (Inverse)

I have never created problems knowingly for my team at work.

I have never taken rash and impulsive decisions at work.

I have never manipulated a situation at work for my own advantage.

In addition to the above mentioned Eysenck personality dimensions, the following two scales were also used in the research.

Performance scale – All the statements of the scale were measured on a 5 – point Likert scale ranging from 1(strongly disagree), 2(disagree), 3(neutral), 4(agree) and 5(strongly agree). It has a Cronbach alpha of 0.805 and consists of the following items:

I meet deadlines and complete targets given to me on time.

I take ownership of my work and manage my responsibilities efficiently.

I am productive at work.

I provide speedy response to customers queries.

I take initiative to fulfill customers' needs and provide customer delight.

My service quality is excellent / good / average / below average / poor).

Leadership scale – All the statements of the scale were measured on a 5 – point Likert scale ranging from 1(strongly disagree), 2(disagree), 3(neutral), 4(agree) and 5(strongly agree).

It has a Cronbach alpha of 0.802 and consists of the following items:

I praise and appreciate my team members to motivate them.

I take initiative to brainstorm with my team members and coworkers.

I proactively resolve conflicts in the team.

My juniors openly seek my guidance on their problems.

I am open to receiving suggestions from my team members.

I provide constructive feedback to my juniors to develop them.

Descriptive Statistics

	N	Mean	Std. Deviation
Team	322	4.22	.978
Social	322	4.17	1.051
Communication	322	4.11	.916
Motivation	322	4.52	.774
Large Meetings	322	2.74	1.261
Solitude	322	3.04	1.337
Overthinking	322	3.98	1.012
Irritation	322	3.07	1.032
Disinterest	322	2.52	.928
Emotional	322	2.54	1.176
Inadequate	322	2.11	1.007
Ungroomed	322	2.00	1.085
Ruthless	322	1.57	.826
Unkind	322	1.80	1.137
Backstabbing	322	2.63	1.072
Remorseless	322	1.74	.944
Manipulative	322	2.46	1.099
Risktaker	322	3.22	1.021
Respectful	322	3.63	1.224
Compliant	322	3.72	1.230
Expert	322	1.67	.755
Harmless	322	4.39	.848
Restraint	322	3.96	1.022
Innocent	322	4.00	.957
Valid N (listwise)	322		

Table 1

The above table shows the mean and standard deviation of all items used in the Eysenck personality dimension study. The highest mean was for motivation with mean 4.52 and std. deviation 0.774.

Gender wise correlation between extraversion and leadership

Correlations ^a			
		Extraversion_ Composite	Leadership_ Composite
Extraversion_ Composite	Pearson Correlation	1	.613**
	Sig. (2-tailed)		.000
	N	217	217
Leadership_ Composite	Pearson Correlation	.613**	1
	Sig. (2-tailed)	.000	
	N	217	217
**. Correlation is significant at the 0.01 level (2-tailed).			
a. Gender = Male			

Table 2

Correlations ^a			
		Extraversion_C omposite	Leadership_ Composite
Extraversion_ Composite	Pearson Correlation	1	.480**
	Sig. (2-tailed)		.000
	N	105	105
Leadership_ Composite	Pearson Correlation	.480**	1
	Sig. (2-tailed)	.000	
	N	105	105
**. Correlation is significant at the 0.01 level (2-tailed).			
a. Gender = Female			

Table 3

For both male and female participants extraversion is significantly positively correlated with leadership. The correlation is stronger for the male respondents as they have a correlation of 0.613 in comparison to 0.480 for the female respondents. It shows that respondents of both gender tend to have extrovert characteristics for being good leaders.

Gender wise correlation between neuroticism and leadership

Correlations ^a			
		Neuroticism_ Composite	Leadership_ Composite
Neuroticism_ Composite	Pearson Correlation	1	-.091
	Sig. (2-tailed)		.182
	N	217	217
Leadership_ Composite	Pearson Correlation	-.091	1
	Sig. (2-tailed)	.182	
	N	217	217
a. Gender = Male			

Table 4

Correlations ^a			
		Neuroticism_Composite	Leadership_Composite
Neuroticism_Composite	Pearson Correlation	1	-.254**
	Sig. (2-tailed)		.009
	N	105	105
Leadership_Composite	Pearson Correlation	-.254**	1
	Sig. (2-tailed)	.009	
	N	105	105
**. Correlation is significant at the 0.01 level (2-tailed).			
a. Gender = Female			

Table 5

The result show there is no significant correlation between neuroticism and leadership for male respondents, whereas for female respondents there is a significant negative correlation between neuroticism and leadership elements. It shows for female employees neurotic behavior will lead to diminished success in their leadership ventures.

Gender wise correlation between psychoticism and leadership

Correlations ^a			
		Psychoticism_Composite	Leadership_Composite
Psychoticism_Composite	Pearson Correlation	1	-.013
	Sig. (2-tailed)		.845
	N	217	217
Leadership_Composite	Pearson Correlation	-.013	1
	Sig. (2-tailed)	.845	
	N	217	217
a. Gender = Male			

Table 6

Correlations ^a			
		Psychoticism_Composite	Leadership_Composite
Psychoticism_Composite	Pearson Correlation	1	-.217*
	Sig. (2-tailed)		.026
	N	105	105
Leadership_Composite	Pearson Correlation	-.217*	1
	Sig. (2-tailed)	.026	
	N	105	105
*. Correlation is significant at the 0.05 level (2-tailed).			
a. Gender = Female			

Table 7

The result show there is no significant correlation between psychoticism and leadership for male respondents, whereas for female respondents there is a significant negative correlation between psychoticism and leadership elements. It shows for female employees psychotic behavior will lead to diminished success in their leadership ventures.

Gender wise correlation between extraversion and performance

Correlations ^a		Extraversion_Composite	Performance_Composite
Extraversion_Composite	Pearson Correlation	1	.446**
	Sig. (2-tailed)		.000
	N	217	217
Performance_Composite	Pearson Correlation	.446**	1
	Sig. (2-tailed)	.000	
	N	217	217
**. Correlation is significant at the 0.01 level (2-tailed).			
a. Gender = Male			

Table 8

Correlations

		Extraversion_Composite	Performance_Composite
Extraversion_Composite	Pearson Correlation	1	.325**
	Sig. (2-tailed)		.001
	N	105	105
Performance_Composite	Pearson Correlation	.325**	1
	Sig. (2-tailed)	.001	
	N	105	105
**. Correlation is significant at the 0.01 level (2-tailed).			
a. Gender = Female			

Table 9

For both male and female participants extraversion is significantly positively correlated with performance. It signifies extrovert respondents were better performers than their introvert counterparts

Gender wise correlation between neuroticism and performance

Correlations^a			
		Neuroticism_Co mposite	Performance_ Composite
Neuroticism_Composite	Pearson Correlation	1	-.283**
	Sig. (2-tailed)		.000
	N	217	217
Performance_Composite	Pearson Correlation	-.283**	1
	Sig. (2-tailed)	.000	
	N	217	217
**. Correlation is significant at the 0.01 level (2-tailed).			
a. Gender = Male			

Table 10

Correlations^a			
		Neuroticism_Co mposite	Performance_ Composite
Neuroticism_Composite	Pearson Correlation	1	-.389**
	Sig. (2-tailed)		.000
	N	105	105
Performance_Composite	Pearson Correlation	-.389**	1
	Sig. (2-tailed)	.000	
	N	105	105
**. Correlation is significant at the 0.01 level (2-tailed).			
a. Gender = Female			

Table 11

There is a significant negative correlation between neuroticism and performance for both the genders. It shows neurotic anxious, worried behavior will only lead to reduced quality of performance for the respondents under study.

Gender wise correlation between Psychoticism and performance

Correlations ^a			
		Psychoticism_C omposite	Performance_Co mposite
Psychoticism_Composite	Pearson Correlation	1	-.130
	Sig. (2-tailed)		.056
	N	217	217
Performance_Composite	Pearson Correlation	-.130	1
	Sig. (2-tailed)	.056	
	N	217	217
a. Gender = Male			

Table 12

Correlations ^a			
		Psychoticism_C omposite	Performance_Co mposite
Psychoticism_Composite	Pearson Correlation	1	.099
	Sig. (2-tailed)		.316
	N	105	105
Performance_Composite	Pearson Correlation	.099	1
	Sig. (2-tailed)	.316	
	N	105	105
a. Gender = Female			

Table 13

There is no significant correlation between psychoticism and performance for both the genders in the study. It shows psychotic behaviours do not impact their performance either positively or negatively.

Hypothesis 1

Null Hypothesis (H_0): There is no significant difference between extraversion levels of male and female respondents

Alternative Hypothesis (H_1): There is significant difference between extraversion levels of male and female respondents

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Team	Between Groups	.047	1	.047	.049	.825
	Within Groups	306.735	320	.959		
	Total	306.783	321			
Social	Between Groups	.257	1	.257	.232	.630
	Within Groups	354.004	320	1.106		
	Total	354.261	321			
Communication	Between Groups	13.221	1	13.221	16.528	.000
	Within Groups	255.974	320	.800		
	Total	269.196	321			
Motivation	Between Groups	5.531	1	5.531	9.473	.002
	Within Groups	186.817	320	.584		
	Total	192.348	321			
LargeMeetings	Between Groups	.577	1	.577	.363	.548
	Within Groups	509.510	320	1.592		
	Total	510.087	321			
Solitude	Between Groups	3.817	1	3.817	2.145	.144
	Within Groups	569.574	320	1.780		
	Total	573.391	321			

Table 14

Robust Tests of Equality of Means

		Statistic ^a	df1	df2	Sig.
Team	Welch	.062	1	279.040	.803
Social	Welch	.199	1	170.400	.656
Communication	Welch	22.746	1	302.693	.000
Motivation	Welch	10.296	1	229.449	.002
Large Meetings	Welch	.373	1	213.354	.542
Solitude	Welch	2.432	1	242.613	.120

a. Asymptotically F distributed.

Table 15

In the above hypothesis null hypothesis is rejected and alternative hypothesis is accepted as there are significant differences between male and female respondents with respect to extraversion levels. The differences in extraversion levels are found out in the categories like communication and motivation.

A Welch's one way ANOVA was carried out to test the hypothesis as homogeneity was violated using the Levene's test ($p < 0.05$). The result showed that there was a significant difference in extraversion levels between both the genders. No Post – hoc analysis was possible as there are less than three groups.

This was supported as a statistically significant difference between means of two groups were found in Communication with mean of 4.11 and standard deviation of 0.916, $F(1, 302.693) = 22.746, p = 0.000$. Jiang (2023) have stated both the genders have sufficient differences in the way they communicate. He has said there are significant differences in the brain structure of both the genders as men are prone to have a well-developed left hemisphere and women mostly have a well-developed right hemisphere Zaidi (2010).

In addition, the significant different was also viewed in Motivation with mean of 4.52 and standard deviation of 0.774, $F(1, 229.449) = 10.296, p = 0.002$. This was supported by research done on motivation between genders by Thornton, III et al. (1997) and Kalkowski and Fritz (2004). Both the studies have focused on a male respondent having far more motivation to succeed in work settings in comparison to their female counterparts.

Hypothesis 2

Null Hypothesis (H_0): There is no significant difference between neuroticism levels of male and female respondents

Alternative Hypothesis (H_1): There is significant difference between neuroticism levels of male and female respondents

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Overthinking	Between Groups	4.951	1	4.951	4.891	.028
	Within Groups	323.897	320	1.012		
	Total	328.848	321			
Irritation	Between Groups	.723	1	.723	.679	.411
	Within Groups	340.908	320	1.065		
	Total	341.630	321			
Disinterest	Between Groups	.954	1	.954	1.109	.293
	Within Groups	275.394	320	.861		
	Total	276.348	321			
Emotional	Between Groups	.016	1	.016	.012	.914
	Within Groups	443.875	320	1.387		
	Total	443.891	321			
Inadequate	Between Groups	.095	1	.095	.093	.760
	Within Groups	325.101	320	1.016		
	Total	325.196	321			
Ungroomed	Between Groups	2.770	1	2.770	2.362	.125
	Within Groups	375.230	320	1.173		
	Total	378.000	321			

Table 16

Robust Tests of Equality of Means

		Statistic ^a	df1	df2	Sig.
Overthinking	Welch	5.819	1	258.063	.017
Irritation	Welch	.728	1	225.736	.394
Disinterest	Welch	1.273	1	246.484	.260
Emotional	Welch	.012	1	211.796	.914
Inadequate	Welch	.076	1	160.955	.783
Ungroomed	Welch	2.487	1	220.032	.116

a. Asymptotically F distributed.

Table 17

In the above hypothesis null hypothesis is rejected and alternative hypothesis is accepted as there are significant differences between male and female respondents with respect to neuroticism levels. The differences in neuroticism levels are found out in the categories like overthinking.

A Welch's one way ANOVA was carried out to test the hypothesis as homogeneity was violated using the Levene's test ($p < 0.05$). The result showed that there was a significant difference in neuroticism levels between both the genders. No Post – hoc analysis was possible as there are less than three groups.

This was supported as a statistically significant difference between means of two groups were found in Overthinking with mean of 3.98 and standard deviation of 1.012, $F(1, 258.063) = 5.819, p = 0.017$. Unal et al. (2025) have stated that women in general

are more prone to openly sharing their feelings of anxiety as they have lower psychological resilience and are more prone to experiencing psychological distress.

Hypothesis 3

Null Hypothesis (H_0): There is no significant difference between psychoticism levels of male and female respondents

Alternative Hypothesis (H_1): There is significant difference between psychoticism levels of male and female respondents

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Ruthless	Between Groups	8.378	1	8.378	12.720	.000
	Within Groups	210.753	320	.659		
	Total	219.130	321			
Unkind	Between Groups	11.444	1	11.444	9.082	.003
	Within Groups	403.230	320	1.260		
	Total	414.674	321			
Backstabbing	Between Groups	.205	1	.205	.177	.674
	Within Groups	368.817	320	1.153		
	Total	369.022	321			
Remorseless	Between Groups	.005	1	.005	.006	.939
	Within Groups	286.082	320	.894		
	Total	286.087	321			
Manipulative	Between Groups	32.472	1	32.472	29.236	.000
	Within Groups	355.419	320	1.111		
	Total	387.891	321			
Risktaker	Between Groups	7.363	1	7.363	7.196	.008
	Within Groups	327.419	320	1.023		
	Total	334.783	321			

Table 18

Robust Tests of Equality of Means

		Statistic ^a	df1	df2	Sig.
Ruthless	Welch	19.297	1	319.212	.000
Unkind	Welch	9.898	1	230.314	.002
Backstabbing	Welch	.176	1	204.132	.675
Remorseless	Welch	.006	1	190.195	.941
Manipulative	Welch	36.713	1	275.664	.000
Risktaker	Welch	7.503	1	217.262	.007

a. Asymptotically F distributed.

Table 19

In the above hypothesis null hypothesis is rejected and alternative hypothesis is accepted as there are significant differences between male and female respondents with respect to psychoticism levels. The differences in psychoticism levels are found out in the categories like ruthless, unkind, manipulative and risktaker.

A Welch's one way ANOVA was carried out to test the hypothesis as homogeneity was violated using the Levene's test ($p < 0.05$). The result showed that there was a significant difference in psychoticism levels between both the genders. No Post – hoc analysis was possible as there are less than three groups.

This was supported as a statistically significant difference between means of two groups were found in Ruthless with mean of 1.57 and standard deviation of 0.826, $F(1, 319.212) = 19.297$, $p = 0.000$. As per Meyers – Levy and Loken (2015) biological factors contribute to differences in how genders behave and mentally process ideas. As per Padgett et al. (2020) men are more prone all throughout their life span to be more aggressive and violent than women. Men because of their physical strength have

always been holding positions of power and prominence where they showed attitude of aggression and dominance. Women on the other hand were more into roles of nurturing and caring for their families and were thought of less ruthless.

In addition, the significant difference was also viewed in Unkind with mean of 1.80 and standard deviation of 1.137, $F(1, 230.314) = 9.898, p = 0.002$. As per Jasielska et al. (2025) kindness is represented in experiencing positive and compassionate emotions towards others. So, from this explanation unkindness involves having negative emotions for others. It ranges from being unforgiving, being mean and being rude to others. Youngs et al. (2023) reported that women are more kinder than men and are more prone to responding positively to others needs with compassion. Unkind behavior as suggested by Schnedler and Stephan (2020) can be passed on from one individual to another which is basically caused as the person facing unkindness initially was not able to regulate his emotions and therefore behaves unkindly with others as a reaction.

Significant difference in genders was also observed in Manipulative with mean of 2.46 and standard deviation of 1.099, $F(1, 275.664) = 36.713, p = .000$. As per Shyroka and Hrebin (2020) manipulation with regards to interpersonal relations is focused on controlling popular beliefs and consciousness in order to make others behave as per the manipulator. Authors like Bugental have thought of manipulation as a technique to survive in an unstable environment where an active manipulator tries to make others depend on him or her to reduce his or her instability. As per Grieve et al (2019) men are more prone to emotional manipulation than female participants in their study. It was found to be quiet engaging as women are thought of possessing more emotional intelligence and should have been the perpetrators of emotional manipulation. However the study showed otherwise where men were more capable of emotional manipulation than women.

Significant difference in genders was also observed in Risktaker with mean of 3.22 and standard deviation of 1.021, $F(1, 217.262) = 7.503, p = .007$. As per Byrnes et al. (1999) men are more of risk takers than their female counterparts. Risk takers according to the authors get involved in multiple problem solving approaches and are less hesitant to take career opportunities in spite of potential failures.

Hypothesis 4

Null Hypothesis (H_0): There is no significant difference between lie levels of male and female respondents

Alternative Hypothesis (H_1): There is significant difference between lie levels of male and female respondents

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Respectful	Between Groups	29.650	1	29.650	21.020	.000
	Within Groups	451.372	320	1.411		
	Total	481.022	321			
Compliant	Between Groups	3.472	1	3.472	2.306	.130
	Within Groups	481.811	320	1.506		
	Total	485.283	321			
Expert	Between Groups	10.486	1	10.486	19.477	.000
	Within Groups	172.275	320	.538		
	Total	182.761	321			
Harmless	Between Groups	.524	1	.524	.728	.394
	Within Groups	230.172	320	.719		
	Total	230.696	321			
Restraint	Between Groups	1.890	1	1.890	1.814	.179
	Within Groups	333.501	320	1.042		
	Total	335.391	321			
Innocent	Between Groups	.692	1	.692	.755	.385
	Within Groups	293.308	320	.917		
	Total	294.000	321			

Table 20

Robust Tests of Equality of Means

		Statistic ^a	df1	df2	Sig.
Respectful	Welch	21.032	1	205.948	.000
Compliant	Welch	2.455	1	223.373	.119
Expert	Welch	13.449	1	136.278	.000
Harmless	Welch	.779	1	224.800	.378
Restraint	Welch	2.321	1	281.728	.129
Innocent	Welch	.720	1	193.434	.397

a. Asymptotically F distributed.

Table 21

In the above hypothesis null hypothesis is rejected and alternative hypothesis is accepted as there are significant differences between male and female respondents with respect to lie levels. The differences in lie levels are found out in the categories like respectful and expert.

A Welch's one way ANOVA was carried out to test the hypothesis as homogeneity was violated using the Levene's test ($p < 0.05$). The result showed that there was a significant difference in lie levels between both the genders. No Post – hoc analysis was possible as there are less than three groups.

Significant difference in genders was also observed in Respectful with mean of 3.63 and standard deviation of 1.224, $F(1, 205.948) = 21.032$, $p = .000$. As per Lohse and Qari (2021), men were found to be more prone to deceptive behavior and lying in comparison to women until and unless they had to be audited for their honesty. Therefore men were highly susceptible to be falsely respectful to their seniors or mentors to grow in their career in comparison to women. Female respondents were more open to be honest in face to face interactions and therefore less of false respect was expected from them.

Significant difference in genders was also observed, in Expert with mean of 1.67 and standard deviation of 0.755, $F(1, 136.278) = 13.449$, $p = .000$. Kaul (2009) has stated that organizations think of including higher number of women employees in their senior positions when they make a positive impact on sales and bottom line. On the contrary Diekmann and Goodfriend (2006) said that men are ideally thought of as task oriented and are decision makers when problems arise, on the other hand women are thought of to be kind, compassionate and relationship oriented will have communal roles in the company.

Discussion:

It was found that extraversion in men and women were strongly correlated with leadership. Extraverted individuals preferred working in teams; supports social interactions with colleagues and believed in achieving targets by motivating their juniors. In our study, it was found correlation between extraversion and leadership was statistically significant at 0.613 for male participants and it was significant at 0.480 for women participants. The finding is supported in research done by Judge et al. (2002) which states that extraversion was the most consistent construct to correlate with leadership. Zhang et al. (2002) has stated that since extroverts are more sociable, confident, energetic and assertive therefore they can easily influence other and become better leaders. Lemoine et al. (2016) describes that as a group when the level of extraversion increases, the level of energy, communication, group bonding and cohesiveness increases which makes gender roles insignificant with reference to leadership.

It was researched by Wilmot et al. (2019) that extraversion is positively associated with higher performance as an individual with better communication skills, stronger motivational approaches and positive interpersonal relationships will find it easy to perform better on their jobs. The same sentiment was echoed in our research as it was found out extraversion has a significantly positive correlation with performance. The correlation is statistically significant for male respondents at 0.446 and for female respondents at 0.325.

The study found out women were more neurotic than men were and it hampered their leadership skills and made them poor leaders. Lynn and Martin (1997) have stated in their study that women are more neurotic in comparison to men and attribute it to genetic factors. As per Prochazka et al. (2018) neurotic individuals are more pessimistic and this results in decline of the leadership qualities where they are unable to positively motivate and influence others. This ultimately results in neurotic leaders being less energetic, less transformative and less successful than other leaders.

The study also found out that respondents who experienced from higher levels of neuroticism were prone to achieve lower levels of performance. There was a negative statistically significant result between neuroticism and performance for at -0.283 and for women at -0.389. It was discussed by Munjirin et al. (2023) that individuals who have high levels of neuroticism are suffering from anxiety, doubt and fear which weakens their academic performance.

The study further finds out that women are more psychotic in the study and there is a statistically significant negative correlation of -0.217 between psychoticism and leadership. It has been found out by Seeman (2010) that women after the age of forty are more prone to experiencing psychotic behavior in comparison to men because of medical and psychological reasons.

It was found out in the study that there is a statistically significant difference in the construct of extraversion with respect to male and female employees. The genders varied in the way they preferred to communicate. As per Gandhi and Chaudhary (2021) the purpose of communication of both the genders is different; the women in general communicate for nurturing social connections whereas the men communicate to achieve concrete results and to appear assertive which brings out their power centric attitude. The genders also varied in the way they motivated their juniors; as per Walker (2015) female leaders who have shown laissez faire leadership styles had employees who were highly motivated in their team, whereas male leaders who have shown transactional leadership styles had teams with higher motivation.

It was observed in the study that there is a statistically significant difference between male and female participants with respect to neuroticism; it was accepted in the research by Jamshaid et al. (2020) that women experienced more of rumination and worrying and it had made a major impact on their mental health. Constantly rethinking about negative past experiences made them feel traumatic and helpless and made them suffer from depression, anxiety and emotional distress.

It was revealed in the research that there is a statistically significant difference between psychoticism levels of both the genders in the research. Hall (2014) observed that being nice to others at work was found to be detrimental to being viewed and perceived as competent; therefore it was seen that negative traits of being ruthless and aggressive at work were found more in men than in women. When women showed more of ruthless agentic behavior like putting self-interest at the cost of others they were regarded as tough and aggressive and it went against their expected role of being communal and nurturing to others. Tomkova and Cigarska (2022) have described in their study that men were more manipulative than women employees at work and could persuade others to engage in almost any activity to use others for deception and for their own interest. Fisk (2018) found out in her study that women took fewer risks than men and were not as successful in achieving top outcomes; contrarily men were also found out to take more of imprudent risks where they lost heavily if they had taken incorrect decisions. The study further showed, even if the women were equally competent, yet they lost out competing with the men who will be taking reckless, irresponsible risk as organizations preferred confident and lucky individuals instead of competent ones.

It was seen in the research that there was a significant difference between both the genders with respect to lying. Elaad and Gonen – Gal (2022) observed in their research that men are more prone than women to lie in face to face communication as men strongly believe they have enhanced lying abilities, are more narcissistic in nature and could lie persuasively. These capabilities enabled the men under study to lie more frequently than women.

Limitations:

The research was focused on self-employed and entrepreneurs from Kolkata region. A wider approach of including entrepreneurs from different parts of the India would have generated a well conclusive research result. A larger sample size would have ensured there are no statistical errors in the study.

The research showed perspectives of personality dimensions included only in Eysenck model of personality. A wider research could have studied constructs like Openness, Conscientiousness, and Agreeableness to have a well-rounded understanding of the respondents' personality.

Conclusion:

The study showcases the variations in personality across genders in the work setting and has brought out a clear picture that there are significant differences in the gender perspectives of respondents' personality with respect to extraversion, neuroticism, psychoticism and lie constructs. Men and women are biologically created differently; hence they have vast differences in their approaches towards their career. Men may be quiet and reticent in the professional world but often are thoroughly bold, ambitious and aggressive workwise. Women on the other hand may show more of extrovert, social and communal nature but do exhibit strong neurotic traits. Different types of professions require different types of personality. Therefore, if chosen with adequate care the career which is aligned with their personalities, both men and women will be successful in being effective and efficient professionals in their career journey.

References

1. Alkahtani, A.H., Jarad, I.A., Sulaiman, M. and Nikbin. D. (2011). The Impact of Personality and Leadership Styles on Leading Change Capability of Malaysian Managers. *Australian Journal of Business and Management Research*, 1(2), 70 – 99. Retrieved from https://www.ajbmr.com/articlepdf/ajbmr_v01n02_06.pdf
2. Benco, O.C. (2024). Gender Bias at Workplace: A Study of the Unspoken Bias Towards Female Leaders Competencies in a Male Dominated Work Environment. *Global Journal of Human Resource Management*, 12(2), 1 – 39.
3. doi: <https://doi.org/10.37745/gjhrm.2013/vol12n2139>
4. Barrick, M.R., Mount, M.K. & Judge, T.A. (2001). Personality and Performance at the Beginning of the New Millennium: What Do We Know and Where Do We Go Next? *International Journal of Selection and Assessment*, 9(1/2). doi: <https://doi.org/10.1111/1468-2389.00160>
5. Barrick M.R. & Ryan A.M. (2003). *Personality and Work: Reconsidering the Role of Personality in Organizations*. Jossey – Bass, John Wiley & Sons.
6. Byrnes, J.P., Miller, D.C. and Schafer, W.D. (1999). *Gender Differences in Risk Taking: A Meta – Analysis*. *Psychological Bulletin*, 125(3), 367 – 383. doi: [10.1037/0033-2909.125.3.367](https://doi.org/10.1037/0033-2909.125.3.367)
7. Darko, L.I.O, Bans – Akutey, A., Ugoh, J.K., Ankomah, H. & Afriyie, E.O. (2022). The Role of Personality Differences in Achieving Organizational Productivity. *Annals of Management and Organization Research*, 4(2), 159 – 174. doi: <https://doi.org/10.35912/amor.v4i2.1587>
8. Diekmann, A. B., & Goodfriend, W. (2006). Rolling with the changes: A role congruity perspective on gender norms. *Psychology of Women Quarterly*, 30(4), 369–383. doi: <https://doi.org/10.1111/j.1471-6402.2006.00312.x>
9. Eysenck, H.J. & Gudjonsson, G.H. (1989). *The Causes and Cures of Criminality*. Springer Science + Business Media, New York.
10. Eysenck, S.B.G., Eysenck, H.J. and Barrett, P. (1985). A Revised Version of the Psychoticism Scale. *Personality and Individual Differences*, 6 (1), 21 –29. Retrieved from https://hanseysenck.com/wp-content/uploads/2019/12/1985_eysenck_eysenck_et_al_-_revised_version_of_the_psychoticism_scale_personality_and.pdf
11. Eysenck, H.J. (1982). The Biological Basis of Cross – Cultural Differences in Personality: Blood Group Antigens. *Psychological Reports*, 51, 531 – 540. Retrieved from https://hanseysenck.com/wp-content/uploads/2019/12/1982_eysenck_-_the_biological_basis_of_cross-cultural_differences_in_personality.pdf
12. Eysenck, H.J. (1967). *The Biological Basis of Personality*. Charles C. Thomas, Publisher.
13. Eysenck, H.J. & Prell, D.B. (1951). The Inheritance of Neuroticism: *An Experimental Study*. *Journal of Mental Science*, 97(408), 441 – 465. doi: <https://doi.org/10.1192/bjp.97.408.441>
14. Eysenck, H.J. (1992). The Definition and Measurement of Psychoticism. *Personality and Individual Differences*, 13(7), 757 – 785. Pergamon Press Ltd. Great Britain.
15. Eysenck, S.B.G., Eysenck, H.J. & Barrett P. (1985). A Revised Version of the Psychoticism Scale. *Personality and Individual Differences*, 6(1), 21 – 29. Pergamon Press Ltd. Great Britain.
16. Eysenck, H. J. (1991). Dimensions of Personality: The Biosocial Approach to Personality. 6 87 – 103. *Explorations in Temperament*. Springer Science + Business Media, New York.
17. Fisk, S.R. (2018). Who's on Top? Gender Differences in Risk – Taking Produce Unequal Outcomes for High – Ability Women and Men. *Social Psychology Quarterly*, 81(1), 185 – 206. doi: <https://doi.org/10.1177/0190272518796512>
18. Garzon – Lasso F. A., Arenas – Arango, S.M. & Illera – Osorio, M. (2022). Is There a Correlation Between Personality and Leadership? A Summary of the Main Theories. *Cuadernos Hispanoamericanos de Psicología*, 22(2), 1-17. doi: [10.18270/chps.v22i2.4443](https://doi.org/10.18270/chps.v22i2.4443)
19. George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference 11.0 update (4th ed.)*. Boston: Allyn & Bacon
20. Gandhi, R. & Chaudhary, A. (2021). How Men and Women Differ in Communication at Workplace. A Study Pertaining to IT Consulting and Application Software Companies. *Multidisciplinary International Research Journal of Gujarat Technological University*, 3(2), 23 – 35. Retrieved from <https://researchjournal.gtu.ac.in/News/3.%20MANAGEMENT.pdf>
21. Grieve, R., March, E. & Doorn, G.V. (2019). Masculinity Might Be More Toxic Than We Think: The Influence of Gender Roles on Trait Emotional Manipulation. *Personality and Individual Differences*, 138, 157 – 162. doi: <https://doi.org/10.1016/j.paid.2018.09.042>
22. Jamshaid, S., Malik, N.I., Haider, A.A., Jamshed, K & Jamshad, S. (2020). Overthinking Hurts: Rumination, Worry and Mental Health of International Students in China during Covid – 19 Pandemic. *Advances in Social Science, Education and Humanities Research*, 491, 17 – 24. doi: [10.2991/assehr.k.201201.004](https://doi.org/10.2991/assehr.k.201201.004)

23. Jasielska, D., Poraj – Weder, M. & Pajestka, G. (2025). Different Faces of Kindness. Development and Validation of the Kind Attitude Scale. *Journal of Personality Assessment*, 107 (5),1 – 11 . doi: <https://doi.org/10.1080/00223891.2025.2543010>
24. Jackson, C.J. & Francis, L.J. (1998). Interpreting the Correlation Between Neuroticism and Lie Scale Scores. *Personality and Individual Differences*, 26(1), 59 – 63. doi: [https://doi.org/10.1016/S0191-8869\(98\)00142-1](https://doi.org/10.1016/S0191-8869(98)00142-1)
25. Jiang, G. (2023). Analysis on Daily Communication Differences Between Males and Females. *Communications in Humanities Research*, 5(1), 442 – 446. doi: [10.54254/2753-7064/5/20230357](https://doi.org/10.54254/2753-7064/5/20230357)
26. Judge, T.A., Bono, J.E., Ilies, R. & Gerhardt, M.W. (2002). Personality and Leadership: A Qualitative and Quantitative Review. *Journal of Applied Psychology*, 87(4), 765 – 780. doi: <https://doi.org/10.1037/0021-9010.87.4.765>
27. Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, 87(4), 765–780. <https://doi.org/10.1037/0021-9010.87.4.765>
28. Kalkowski, K.L. & Fritz, S.M. (2004). A Survey of Gender – Related Motivation Studies. *Journal of Leadership Education*, 3(2), 19 – 34. doi: [10.12806/V3/I2/TF2](https://doi.org/10.12806/V3/I2/TF2)
29. Kaul, A. (2009). Gender and Workplace Experience. *Vikalpa*, 34(4), 79 – 83. doi: [10.1177/0256090920090407](https://doi.org/10.1177/0256090920090407)
30. Lemoine, G.J., Aggarwal, I. and Steed, L.B. (2016). When Women Emerge as Leaders: Effects of Extraversion and Gender Composition in Groups. *The Leadership Quarterly*, 27(3), 1 – 59. doi: [10.1016/j.leaqua.2015.12.008](https://doi.org/10.1016/j.leaqua.2015.12.008)
31. Lynn, R. & Martin, T. (1997). Gender Differences in Extraversion, Neuroticism, and Psychoticism in 37 Nations. *The Journal of Social Psychology*, 137(3), 369 – 373. doi: [10.1080/00224549709595447](https://doi.org/10.1080/00224549709595447)
32. Li, W., Zhang, H. and Zheng, Y. (2024). Personality and Leadership: A Critical Review and Future Research Agenda from a Dynamic Perspective. *Oxford Research Encyclopedia of Business and Management*. Publisher: Oxford University Press
33. Lohse, T.& Qari, S. (2021). Gender Differences in face – to face deceptive behaviour. *Journal of Economic Behavior & Organization*, 187, 1 – 15. doi: <https://doi.org/10.1016/j.jebo.2021.03.026>
34. Meyers – Levy, J. & Loken, B. (2015). Revisiting Gender Differences: What We Know and What Lies Ahead. *Journal of Consumer Psychology*, 25(1), 129 – 149. doi: <https://doi.org/10.1016/j.jcps.2014.06.003>
35. Mitchell, R.L.C. and Kumari, V. (2016). Hans Eysenck’s Interface Between the Brain and Personality: Modern Evidence on the Cognitive Neuroscience of Personality. *Personality and Individual Differences*, 103, 74 -81. doi: <https://doi.org/10.1016/j.paid.2016.04.009>
36. Moeller, S.B., Bech, P., Kessing, L., Mortensen, E.L., Austin, S.F. & Bukh, J.O.D.(2015). A Psychometric Validation Analysis of Eysenck’s Neuroticism and Extraversion Scales in a Sample of First Time Depressed Patients. *Depression & Anxiety*, 4(4), 1 – 6. doi: [10.4200/2167-1044.1000202](https://doi.org/10.4200/2167-1044.1000202)
37. Nguyen, M. C., Gabbe, S. G., Kemper, K. J., Mahan, J. D., Cheavens, J. S., & Moffatt-Bruce, S. D. (2019). Training on mind-body skills: Feasibility and effects on physician mindfulness, compassion, and associated effects on stress, burnout, and clinical outcomes. *The Journal of Positive Psychology*, 15(2), 194 – 207. doi: <https://doi.org/10.1080/17439760.2019.1578892>
38. Padgett, J.K. & Tremblay, P.F. (2020). Gender Differences in Aggression. *The Wiley Encyclopedia of Personality and Individual Differences: Personality Process and Individual Differences*, 3(1), 173 – 177. doi: [10.1002/9781118970843.ch206](https://doi.org/10.1002/9781118970843.ch206)
39. Prochazka, J., Vaculik, M., Smutny, P. & Jezek, S. (2018). Leader Traits, Transformational Leadership and Leader Effectiveness: A Mediation Study from the Czech Republic. *Journal of East European Management Studies*, 23(3), 474 – 501. doi: [10.5771/0949-6181-2018-3-474](https://doi.org/10.5771/0949-6181-2018-3-474)
40. Schnedler, W. and Stephan, N.L. (2020). Revisiting a Remedy Against Chains of Unkindness. *Schmalenbach Business Review*, 72(3), 347 – 364. <https://doi.org/10.1007/s12144-021-01882-6>
41. Seeman, M.V. (2010). Psychosis in Women: Consider Midlife Medical and Psychological Triggers. *Current Psychiatry*, 9, 64 – 76. Retrieved from https://www.researchgate.net/publication/235168923_Psychosis_in_women_Consider_midlife_medical_and_psychological_triggers
42. Shyroka, A. & Hrebin, N. (2020). Psychological Aspects of Manipulation within an Interpersonal Interaction: Manipulations and Manipulators. *Personality in Society: Psychological Mechanisms of Activity: Collective Monograph*, 34 – 53. Publisher: Liha – Pres.
43. Taber, K.S. (2018). The Use of Cronbach’s Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, 48(1), 1 – 24. doi: [10.1007/s11165-016-9602-2](https://doi.org/10.1007/s11165-016-9602-2)
44. Tomkova, A. & Cigarska, B.N. (2022). Identification and Assessment of Human Manipulation in the Work Environment. *International Journal of Organizational Leadership*, 11, 274 – 286.Retrieved from https://ijol.cikd.ca/article_60637_a817cb6c00d03fbd0d9337b2e062f49.pdf

45. Thornton, III, G.C., Hollenshead, J.D. and Larsh, S.L. (1997). Comparison of Two Measures of Motivation to Manage: Ethnic and Gender Differences. *Educational and Psychological Measurement*, 57(2), 241 – 253. doi: <https://doi.org/10.1177/00131644970570020>
46. Unal, B.U., Iyit, N., Akdogan, Y., Erdogan, B.G. and Altiparmak, Y.D. (2025). Psychological and Burnout Effects of the COVID – 19 Pandemic on Individuals. *Immunity, Inflammation and Disease*, 13(3), 1 – 9. doi: [10.1002/iid3.70181](https://doi.org/10.1002/iid3.70181)
47. Vaidehi, M. & Raju, P.A. (2017). Personality Theories: An Overview. *International Journal of Research and Analytical Reviews*, 4(3), 365 – 374. Retrieved from <https://www.ijrar.org/papers/IJRAR19D4816.pdf>
48. Wilmot, M.P., Wanberg, C.R., Kammeyer – Mueller, J.D. & Ones, D.S. (2019). Extraversion Advantages at Work: A Quantitative Review and Synthesis of the Meta – Analytic Evidence. *Journal of Applied Psychology*, 104 (12), 1447 – 1470. doi: <http://dx.doi.org/10.1037/apl0000415>
49. Walker, K.M. (2015). Perceptions of Leadership: Impact of Leadership Style and Gender on Employee Motivation [Dissertations and Doctoral Studies, Walden University]. <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=3048&context=dissertations>
50. Youngs, D.E., Yaneva, M.A. and Canter, D.V. (2021). Development of a Measure of kindness. *Current Psychology*. 42, 5428 – 5440. doi: <https://doi.org/10.1007/s12144-021-01882-6>
51. Zaidi, Z. (2010). Gender Differences in Human Brain: A Review. *The Open Anatomy Journal*, 2, 37 – 55. doi: [10.2174/1877609401002010037](https://doi.org/10.2174/1877609401002010037)
52. Zhang, J., Yin, K. & Li, S.Q. (2022). Leader Extraversion and Team Performance: A Moderated Mediation Model. *Plos One*, 17(2), 1 – 15. doi: [10.1371/journal.pone.0278769](https://doi.org/10.1371/journal.pone.0278769)