Impact of emotional intelligence and cognitive intelligence on

radio presenter's performance in All India Radio, Kolkata, India

Dissertation submitted in partial fulfillment of the requirements for the degree:

MASTER OF PHILOSOPHY IN COGNITIVE SCIENCE

By

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Kolkata- 700032

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Declaration

15/05/2019

This thesis titled "Impact of emotional intelligence and cognitive intelligence on radio presenter's performance in All India Radio, Kolkata, India" submitted by me for the award of the degree of Master of Philosophy, is an original work and has not been submitted so far in part or full for any other degree or diploma of any University or Institute.

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Dedicated to Sri Sri Maa Sarada Devi, the mother of all and my mother Smt Ani Ghosh Dutta .

Declaration of Originality and Compliance of Academic Ethics

I hereby declare that this thesis contains literature survey and original research work by the undersigned candidate, as a part of my Master of Philosophy of Cognitive Science degree during academic session 2018-2019.

All information in this document has been obtained and presented in accordance with academic rules and ethical conduct.

I also declare that, as required by this rules and conduct, I have fully cited and referred all material and results that are not original to this work.

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Preface

This research Paper aims at investigating the impact of emotional intelligence and cognitive intelligence on radio presenter's attention in the All India Radio, Kolkata (India's public service broadcaster). Attention plays an important role in our performances and productivity. we made a conceptual framework based on theories of emotional intelligence proposed by Salovey and Mayer (1989-1990) and a compensatory model of emotional intelligence, Cognitive intelligence, and job performance proposed by Stephen Cote and Christopher T.H. Miners (2006). For investigating the impact of emotional intelligence and cognitive intelligence on radio presenter's attention, Sample size consists 59 radio presenters (considering gender, academic qualification, Instructional mood, age group etc.) from All India Radio, Kolkata station. Ouestionnaires prepared based on cognitive (Henceforth called C based and represented by C1, C2,.., C5) as well as emotional intelligence (Henceforth called E based and represented by E1, E2,., E20). This were sent to around 59 respondents (Presenters) for getting their responses. Attention in performance were collected from the report of Program executive of All India Radio, Kolkata. The linear regression has been carried out using all the E-based and C-based variables as the predictor variables. The possible problem of autocorrelation has been tested by having the Durbinson-Watson (DW) Statistic. Values of this statistic, almost within the range of 1.80-2.20, indicates absence of any significant problem of autocorrelation. The possible problem of multicollinearity has been tested by having the Variable Inflation Factor (VIF) value. Values of this statistic, around within 2, indicates absence of any significant problem of multicollinearity. It is

inferred that the Attention Scores can be statistically regressed linearly on the E-based and C-based scores which can explain 74.50% of the variations in the Attention Scores (Attention in Performance).

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Chapter1: Introduction

This thesis is an attempt towards exploring the impact of emotional intelligence and cognitive intelligence on radio presenter's performance in the All India Radio, Kolkata (India's public service broadcaster). The theoretical ideas that induced this work will be explained in the next chapter. In this chapter I have given all necessary information about some keywords to study this thesis.

1.1 Productivity

Productivity is a measure of the efficiency of a person, machine, factory, system etc. in converting inputs into useful outputs. According to the definition by European Productivity Agency (E. P. A. The Concept of Productivity and Aims of the National Centres. Rome Conference 1958) with balancing of Japan Productivity Centre (JPC), Productivity is as a concept and made known as an "attitude of mind". It finds to improve things which meanwhile exists continuously and pressed that one can do better in day after day comparing the previous day, in simple words every day become better. In 1995, R.D. Pritchard explains three definitions which related to productivity: (1) Productivity is measure of output per unit of input, in other words is measure of efficiency (techno economic view); (2) Productivity is formation of effectiveness and efficiency (Rantanen H., 1995) indicates to (output / input + output / goal) as productivity; (3) It is prescribing to broader concept that whatever makes the organization has a better function.

Over and above, Asia Productivity Organizations (APO) defines the productivity as:

Productivity = Efficiency + Effectiveness

= "Doing things right" + "Doing the right things" (Organization A.P. In-country training program for productivity and quality practitioners In IRAN 2008) Kirikal and Tallinna (2005) introduce that productivity is considering as significant factor in analyzing, monitoring and supervising the performance which there is a consensus among scholars that the performance management is important element in continuous progress and successful management (Rantanen et al., 2007). Also, it can help firms to identify the weakness and strengths along with opportunities and threats which sprouting from market can be the other reason as to why productivity is significant in this level. Organizations evaluate their weak point and try to fill and produce what things they expect. This way supports them to control the output driving various departments. Father of modern management, Peter F. Drucker (1909-2005) defined the variation between effectiveness and efficiency. He mentions "doing the thing right" as efficiency. Measures of efficiency for a company related to quantity of resources used in producing the output of a process. It links primarily to company profitability. On the other hand, "Doing the right things" and select the activities in proper way are defined as effectiveness (Drucker, 1963). Measures of effectiveness for a company related to how well the process output(s) meets the needs of the customer. It links primarily to customer satisfaction.

Productivity is a combination of effectiveness and efficiency (Sheth & Sisodia, 2002). Achieving both effectiveness and efficiency in high level is important for an Organization. . In this thesis, we do an empirical analysis for watchiching impact of Emotional Intelligence and Cognitive Intelligence on productivity.

1.2 Attention

It can be hard to definitely describe in words what we mean when we say about attention. Attention is the sake by which we actively process a limited amount of information from a large amount of information obtainable through our senses, our stored memories and our other cognitive processes (Rao, R.P.N,2003). It covers both conscious and unconscious processes. In many cases, conscious processes are comparatively easy to study. Unconscious process are harder to consider, simply because we are not conscious of them (Jacoby, Lindsay & Toth,1992; Merikle 2000). There are four main functions of attention- Signal detection and vigilance, search, selective attention and divided attention. In this thesis, when we say attention in performance, we mainly consider divided attention.

1.2.1 Divided Attention

Any time we are engaged in two or more tasks at the same time, our attention is divided between those tasks. Early research in the area of divided attention shows that participants had great difficulty in monitoring two or more activities at once. In order to understand our capability to divide our attention, researcher have built capacity models of attention. These models help to interpret how we can perform two or more attention demanding task at a time. There are two several kinds of model. One kind of model recommends that there is one single pool of attentional resources that can be divided freely, and the other model recommends that there are multiple resources of attention (McDowd,2007). Figure 1 displays examples of two kind of models.



Figure 1: Capacity models of attention

Source: Cognitive Psychology, Sixth Edition, Robert. J. Sternberg, Chapter 4

1.3 Intelligence

Intelligence is a harmonic problem solving behavior toward naturalizing realization of applied goals and harmonious growth. Consistent behavior fatigues the goals that may lead to internal conflict. This concept of intelligence is based on affirmations that enforce the process of stepping towards the goals, adopting strategies to overcome obstructions and solving the problems (Emmons, 1999, Nasel 2004, Sternberg 1997).

The Western direction to intelligence is cognitive and includes informational processing, whilst the combined eastern direction to intelligence covers different elements of performance and man's realization, including cognition, intuition and emotion in an integrated framework (Nasel 2004). Usually, intelligence assists people to improve their harmony with the environment and trace the paths to deal with problem and issues.

1.3.1 Cognitive Intelligence

Cognitive intelligence holds intellectual capability such as logic, reasoning, reading-writing, analyzing and prioritizing. They take advantage of neo cortex only, not the emotional centers of the brain which also provide crucial and fateful information. These capabilities do not wants any social skills i.e. a mathematical equation can be solved itself or jot down an essay or balance a business book by yourself (Saxena & Saxena, 2012). Tests of cognitive ability are scales of performance. They count the ability to resolve problems in various cognitive domains (Brody, 2004). For example, a test of vocabulary, No one would doubt that a man who has a high score on this test has a huge vocabulary and better in the ability to define and perceive the meanings of words.

1.3.2 Emotional Intelligence

By proposing the concept of 'emotional intelligence' psychologists have tried to build it clear that emotion and intelligence are not two ends of one spectrum (Averill, 2007). To interpret the importance of emotion in man's evolution, social biologists argue that heart is more significant than brain. They further demonstrate that in tough and risky tasks, emotions are more necessary than being assigned to brain. It is the emotion that leads man in hazardous situations, loss of loved ones, and insistence in reaching the goals despite several failures, forming love relations, and creating a family. Different emotions make us for different tasks and lead us to a direction in which man has confirmed to be successful for several times (Ostadi & Zarehpour, 2009).

The concept of emotional intelligence evolved back in 1920's when Thorndike (1920) for the first time conceived the emotional intelligence in to three dimensions i.e. abstract intelligence, mechanical intelligence and social intelligence. Latterly in 1980s, several scholars formed further contributions to the concept of emotional intelligence, e.g. Gardner (2013) came up with the idea of intra-emotional intelligence and inter-emotional intelligence. The work of Steiner (1984) conceived the idea of EI. The contribution of these scholars gave rise to the elevation and improvement of the concept "emotional intelligence" by Salovey and Mayer (1990). In the following years, emotional intelligence was studied widely in the literature of organizational behavior, human resources, and management and many other disciplines.

The contribution of Salovey and Mayer (1990) is substantive, as they proposed a model for emotional intelligence by defining EI as part of the social intelligence, which take measures the ability of an individual to regulate his/her personal and other's emotions and feeling. It helps them split and manage their reasoning and actions. Mayer, Caruso and Salovey (1999) redefined the concept of EI as the ability of an individual to recognize access and produce emotions in order to facilitate the decisions. Moreover, EI helps access and regulate feelings, emotions and emotional knowledge to develop the growth of emotions and intellectuality.

1.3.3 Emotional Intelligence VS Cognitive Intelligence

Howard Gardner from the Harvard School of Education introduced that a single entity called intelligence does not exist. He presents an idea of "multiple intelligence". It indicates that there are many X-intelligence (Gardner & Hatch, 1989). Within them, emotional intelligence

is one of them as well as cognitive intelligence. Previous researches indicated that EI is as significant as cognitive intelligence because it is basic for better coordination (Abraham, 1991). It is true, CI is required to qualify an exam and to deserve a job but after getting a job (during job) it is EI which is more important (Barchard & Hakstian, 2004). We compare these two types of intelligence with iceberg, as shown in Figure 2 where cognitive intelligence is the upper part which we easily measure by examination and job's interview; but massive lower part is emotional intelligence which plays more significant role in job performance.



Figure 2: Comparing with iceberg

Table 1 indicates the difference between cognitive intelligence and emotional intelligence as elucidated by Brody (2004), Saxena, Saxena (2012). They described five distinct features in order to differentiate between them. They are effectiveness, convince, ability, test, consent.

Feature	Cognitive Intelligence	Emotional Intelligence
effectiveness	Only effective when	Being effective both alone
	functioning alone.	and as a group member.
convince	Using an Intellectual appeal	Using an emotional appeal
	to convince someone of	to convince someone to
	something.	something.
ability	Not being able to access the	Being able to sympathize
	feelings of others and	with others knowing that
	understanding how the	they are coming from.
	emotions are affecting the	
	circumstance.	
Test	Tests of cognitive ability are	Mayer-Salovey- Caruso
	measures of Performance.	Emotional Intelligence Test
	They assess the ability to	(MSCEIT) tests knowledge
	solve problems in various	of emotional but not
	Cognitive domains.	necessarily the ability to
		perform tasks that are
		related to the knowledge
		that is assessed.

Consent	The existence of correct	Responses to the emotional
	answer to cognitive ability	intelligence test can only be
	items implies that it is	correct if they are
	possible for a person with	consensual.
	unusually high cognitive	
	ability to provide a response	
	to an item that is	
	non-consensual and correct.	

Table 1: Cognitive Intelligence VS Emotional Intelligence

Source: Brody N (2004) & Saxena & Saxena(2012)

1.4 Radio Broadcasting in India

Broadcasting commenced in June 1923 during the British Raj with programs by the Bombay Presidency Radio Club and other radio clubs. According to an contract on 23 July 1927, the private Indian Broadcasting Company Ltd (IBC) was authorized to operate two radio stations: the Bombay station which began on 23 July 1927, and the Calcutta station which followed on 26 August 1927. The company moved into liquidation on 1 March 1930. The government took over the broadcasting facilities and started the Indian State Broadcasting Service (ISBS) on 1 April 1930 on an experimental basis for two years, and permanently in May 1932 it then moved on to become All India Radio on 8 June 1936 (All India Radio|Aakashvani|Prasar Bharati. About-All India Radio|Aakashvani|Prasar Bharati. Available from http://prasarbharati.gov.in/AIR/aboutair.php [accessed May 10,2019]).

1.4.1 All India Radio

Broadcasting in India actually commenced about 13 years before All India Radio (A.I.R) came into existence. In April 1930, the Indian Broadcasting Service, under the Department of Industries and Labour, begun its operations on an experimental basis. Lionel Fielden was coronated the first Controller of Broadcasting in August 1935. In the following month Akashvani Mysore, a private radio station was established. On June 8, 1936, the Indian State Broadcasting Service became All India Radio.

The Central News Organisation (CNO) appeared into existence in August, 1937. In the same year, AIR entered under the Department of Communications and four years later entered under the Department of Information and Broadcasting. When India got independence, there

were six radio stations in India, at Delhi, Bombay, Calcutta, Madras, Tiruchirapalli and Lucknow. There were three in Pakistan (Peshawar, Lahore and Dacca). AIR then had a coverage of just 2.5 % of the area and 11% of the population. The following year, CNO was divided into two divisions, the News Services Division (NSD) and the External Services Division (ESD). In 1956 the name AKASHVANI was accepted for the National Broadcaster. The Vividh Bharati Service was begun in 1957 with popular film music as its main component. AIR today is accessible to almost the entire population of the country and nearly 92% of the total area and broadcasts in 23 languages and 146 dialects catering to a vast spectrum of socio-economically and culturally diverse masses.

AIR handles at present 18 FM stereo channels, called AIR FM Rainbow, targeting the urban audience in a regenerative style of presentation. Four more FM channels called, AIR FM Gold, broadcast linked news and entertainment programmes from Delhi, Kolkata, Chennai and Mumbai. With the FM wave sweeping the country, AIR is enhancing its Medium Wave transmission with additional FM transmitters at Regional stations.

In keeping with the Government decision for transition to the digital mode of transmission, AIR is switching from analog to digital in a phased manner. The technology took up is the Digital Radio Mondiale or DRM. With the target of entire digitization by 2017, the listeners can look forward to highly augment transmission quality in the near future(All India Radio|Aakashvani|Prasar Bharati. About-All India Radio|Aakashvani|Prasar Bharati. Available from http://prasarbharati.gov.in/AIR/aboutair.php [accessed May 10,2019]).

Chapter 2: Literature review

The human side of organizational representation is instinctively associated with motivation. Social scientists have been cultivating motivation for decades, trying to what motivates human behavior, how and why. The 'two factor theory' (also known as Herzberg's motivation-Hygiene Theory or dual-factor theory) represents that there are certain factors in the workplace that cause job satisfaction, while a separate set of factors cause dissatisfaction (Herzberg, Mausner & Snyderman, 1959). Maslow's (1943) Hierarchy of needs states that individuals' most basic needs must be met before they become motivated to attain higher level of needs. The Hawthorne Effect (Landsberger, 1958) indicated that employees become motivated to work harder as a response to the care being paid to them, rather than the genuine physical changes themselves. Vroom's (1964) Expectancy Theory mentions that people will chose how to behave depending on the outcomes they except as a result of their behavior. It is also impacted by excuse - the belief that a reward will be received if performance expectancies are met its goal. Weiner's (1985) attribution theory is preeminently about achievement. He stated that most important factors affecting attributions are ability, effort, task, difficulty and luck. Neurologist and psychiatrist Viktor Frankl concept of Logotherapy is based on the proposition that the primary motivational force of an individual is to find a meaning in life. The following list of tenets illustrates basic principles of Logotherapy (I) Life has meaning under all circumstances, even the most pathetic ones. (II) Our main motivation for living is our will to search meaning in life. (III) We have freedom to search

meaning in what we do, and what we experience, or at least in the stance we take when faced with a situation of unchangeable suffering (Marshall & Marshall, 2012).

Previous research works have unfolded strong correlation between emotional intelligence and work related performances. In this respect, Mayer and Cobb (2000) are of the opinion that emotional intelligence construct positive effect on job performance and interpersonal interactions, thereabout making a impressions on the work related outcomes of the individuals. Familiarity between emotional intelligence and performance standard was investigated by many research scholars. Fox and Spector (2000) explored that criterion based emotional intelligence has positively affect the performance of individuals in interview.

Day and Carroll (2004) claimed that the relationship between various perspectives of emotional intelligence and individual performance in terms of decision making. Averill (2007) explored that people with strong emotional intelligence are able to perceive the beliefs and rules. They are also very good to assess the situation and evolves their emotions skillfully. In, highly cognitive tasks, emotional intelligence significantly affects the productivity of individual. Emotional intelligence assists individuals in estimating their performances in team work (Offermann,Bailey, Vasilopoulos, Seal & Sass, 2004). Whereas, the measures of cognitive intelligence assist in calculating the individual tasks performance of the learners like class tests. Over and above, the measures of cognitive intelligence and emotional intelligence assist in predicting the elevation of the leadership (Kellett, Humphrey & sleeth,2006).

Stéphane Côté and Christopher T. H. Miners made a critical observation through the paper 'Emotional Intelligence, Cognitive Intelligence, and Job Performance' entitled (Administrative Science Quarterly, Vol. 51, No. 1 (Mar., 2006), pp. 1-28). In this paper, they propounded compensatory model in which cognitive intelligence limited the association between emotional intelligence and job performance, so that the association became more positive as cognitive intelligence decreases. They assumed that individuals with low cognitive intelligence may harvest relatively large returns from high emotional intelligence because they tend to set out low job performance in most, if not all jobs. When job performance is low, the room for correction and improvement is large. Job performance that is not performed through cognitive intelligence may be performed through emotional intelligence via multiple supplementary techniques. The first technique concerns expertise at identifying and understanding the emotions of other individuals. In most, if not all jobs, organization members interact with supervisors, co-workers, support staff, and outsiders such as clients, customers, or patients (Rafaeli and Sutton, 1987; Sutton, 1991). The second technique by which emotional intelligence may augment the job performance of individuals with low cognitive intelligence concerns how regulating emotion impresses the quality of social relationships (Grandey, 2003; Grandey et al., 2005). The third technique by which emotional intelligence may augment the job performance of individuals with low cognitive intelligence concerns the impressions of emotions on how people think and act (Loewenstein and Lerner, 2003; Seo, Feldman Barrett, and Bartunek, 2004). They presented various past researchers' works and suggested that emotional intelligence may certainly relate to the job performance of organization members with low cognitive intelligence and, as such, pay off for low cognitive intelligence. Emotional intelligence, however, should become less positively associated with job performance as cognitive intelligence increases. Individuals

with high cognitive intelligence are expected to set out high job performance and hence permit little room for correction and improvement. Although emotional intelligence may help individuals with high cognitive intelligence recognize other people's emotions, manage their own emotions, improve their own decisions, and augment their own motivation, emotional intelligence should contribute little to their job performance because they already earn high job performance.

Their Compensatory model suggested following two hypothesis:

Hypothesis 1: The association between emotional intelligence and task performance becomes more positive as cognitive intelligence decreases.

Hypothesis 2: The association between emotional intelligence and organizational citizenship behaviour (OCB) becomes more positive as cognitive intelligence decreases.

They took 175 full time employees of a large public university as a participants. Their mean age was 41 (s.d. = 11, range = 22 to 65), and 67 percent were female. Participants had an average of 19 full years of work experience (s.d. = 11, range = 0 to 49 full years) and had worked at the university for an average of 10 full years (s.d. = 9, range = 0 to 37 full years). They measured emotional intelligence through the Mayer-Salovey-Caruso Emotional Test (MSCEIT; Mayer, Salovey, and Caruso, 2002), a 141-item ability test of emotional intelligence. The MSCEIT holds tasks that ask respondents to recognize emotions in photographs of faces and in images and landscapes, compare different emotions to different perceptions such as colours, indicate how emotions make an impression on thinking and reasoning, assemble emotions into complex feelings, know how emotions transition from one to another, and rate the effectiveness of different emotion regulation strategies in both

intrapersonal and interpersonal contexts. They gave several explanations for choosing of MSCEIT. The MSCEIT is a capability test in which respondents are put forward with emotional problems and asked to pick the best answer among a set of options (Mayer, Caruso, and Salovey, 2000). The capability test approach to measuring emotional intelligence addresses some of the serious limitations of the contending self-report and peer-report approaches. They also selected MSCEIT because it displays a high test-retest correlation (.86; Brackett and Mayer, 2003) and high internal reliability (above .90; Brackett and Mayer, 2003).

For cognitive intelligence, they used the Culture Fair Intelligence Test, Scale 3, Form A (Cattell, 1973) to measures cognitive intelligence. Fifty items are divided into four timed subtests that involve different perceptual tasks to avoid dependability on a single skill. They gave several explanations for choosing of the Culture Fair Intelligence Test. The test expresses adequate internal reliability (.74; Cattell, 1973). The validity of the test is confirmed by considerable evidence. The test correlates extremely with other tests of cognitive intelligence, including the Wechsler Adult Intelligence Scale (r = .74) and the General Aptitude Test Battery(r = .74; Cattell, 1973). The test pretends job outcomes (e.g., Turnage and Muchinsky, 1984), memory performance (e.g., Maylor, 1993), and processing speed (e.g., Smith and Stanley, 1987).

They used hierarchical multiple regression to test the hypotheses. They integrated the continuous predictors to simplify the interpretation of the findings (Cohen etal., 2003). They entered education level, the number of hours worked per week, the dummy codes for occupation, the Big Five traits, leader-member exchange, the leader-member exchange by

cognitive intelligence interaction, emotional intelligence, and cognitive intelligence in step 1 and the emotional intelligence by cognitive intelligence interaction in step2. After analysis, their result justified hypothesis 1 but hypothesis 2 was partially supported by their result.

Past research has consistently or clearly proposed that emotional intelligence and cognitive intelligence relate to job performance in independent and fulfilling linear ways (Goleman, 1998; Mayer, Salovey, and Caruso, 2000). This study proposed, instead, that emotional intelligence and cognitive intelligence are compensative with respect to task performance and organizational citizenship behavior directed at the organization (OCBO). Emotional intelligence becomes a stronger predictor of task performance and OCBO as cognitive intelligence decreases.

This research conceptualized emotional intelligence and cognitive intelligence as isolate broad sets of abilities that are subsumed under general intelligence in the hierarchical model and emotional intelligence has a plus point for them who are with low cognitive intelligence, but we see many complex projects with high cognitive intelligent organizations members experience substantial cost overruns and delays in completion, and fail to deliver their objectives. For example, the FIFA World Cup 2014 project budget increased from the originally estimated EUR 1 billion to EUR 11 billion. Such failures in complex projects are not unique to sport events. The construction of Denver International Airport exceeded the original budget by 200% and was delivered 16 months over schedule (Flyvbjerg, 2005). Researchers including Dvir et al. (2006) and Sauser et al.(2009 have found that challenges in complex projects are primarily attached with managerial, rather than technical issues.

Chapter 3: Gap Analysis

SI.	Authors	Title of the	Journal	Page	Issues	Areas not
no.	Name	Paper	(volume no.)	Number	consider	addressed
	(Year)					
1	Atiq Ur	The	Review of	11-22	Emotional	Cognitive
	Rahman,	Moderating	Economics		intelligence,	intelligence,
	Fayaz Ali	Role of	and		job	Attention in
	Shah,	Supervisory	Development		performance	performance.
	Shahid Jan	Support in	Studies		Pharmaceuti	
	(2019)	the	(5)		cal Sales	
		Relationship			Representati	
		of Emotional			ves	
		Intelligence				
		and Job				
		Performance				
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SI.	Authors	Title of the	Journal	Page	Issues	Areas not
no.	Name	Paper	(volume	Number	consider	addressed
	(Year)		no.)			
2	Ruth Sabina	Emotional	APJIHT	1-20	Organisational	Cognitive
	Francis,	Intelligence,	(Vol. 7		citizenship	intelligence,
	Elangkovan	Perceived	No. 2)		behaviour	Attention in
	Narayan	Organisation			(OCP),	performance
	Alagas and	Support and			emotional	
	Manimekalai	Organisation			intelligence,	
	Jambulingam	Citizenship				
	(2018)	Behaviour:				
		Their				
		Influence on				
		Job				
		Performance				
		among Hotel				
		Employees				

SI.	Authors	Title of the	Journal	Page	Issues	Areas not
no.	Name (Year)	Paper	(volume no.)	Num	consider	addressed
				ber		
3	Chao Miao,	Emotional	Career	1-17	Emotional	Cognitive
	Ronald H.	intelligence and	Development		intelligence,	intelligence,
	Humphrey,	entrepreneurial	International		entrepreneurial	Attention in
	Shanshan	intentions: an	(19)		intentions	performance
	Qian, Jeffrey	exploratory				
	M. Pollack	meta-analysis				
	(2018)					
4	Azadeh	Examining the	International	1034	Emotional	Cognitive
	Rezvania,	interdependencies	journal of	- 1046	intelligence,	intelligence,
	Pouria	among emotional	Project		trust, and	
	Khosravib,	intelligence, trust,	management		performance i	
	Neal M.	and performance	(vol 30, issue			
	Ashkanasy	in infrastructure	1)			
	(2018)	projects:A				
		multilevel study				
		1				

Sl.	Authors	Title of the	Journal	Page	Issues	Areas not
no.	Name	Paper	(volume no.)	Number	consider	addressed
	(Year)					
5	Chao	Emotional	Leadership &	679- 690	Emotional	Cognitive
	Miao,	intelligence	Organization		intelligence	intelligence,
	Ronald H.	and authentic	Development		, authentic	Attention in
	Humphrey,	leadership: a	Journal (Vol.		leadership	performance
	Shanshan	meta-analysis	39 No. 5)			
	Qian					
	(2018)					
6	Keri A.	Self- and	Personality	222-233	Emotional	Cognitive
	Pekaar*,	other-focused	and Individual		intelligence	intelligence,
	Arnold B.	emotional	Differences		scale	Attention in
	Bakker,	intelligence:	(120)			performance
	Dimitri	Development				
	von der	and				
	van dei	validation of				
	Linden, &	the				
	Marise	Rotterdam				
	Ph. Born	Emotional				
	(2018)	Intelligence				
		Scale (REIS)				

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	Juan Luis	early career:	Journal of		Job	Attention in
	Castejon &	the mediating	human		Performance	performance.
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	Tomas	Personality,	6,49.		Potential	Cognitive
	Chamorro-Pr	Intelligence				intelligence,
	emuzic	and the				Attention
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		Career				
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	Leeaand	intelligence,	Sport		intelligence,	intelligence,
	Packianathan	emotional	Managemen		job	Attention
	Chelladura	labor, coach	t Quarterly		satisfaction,	
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		and turnover				
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	, Sadia	intelligence	Journal (3)		performance	Attention in
	Anwar,	on teacher's			in higher	performance
	Misbah	performance			education	
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		Pakistan.				
12	Hyun Jung	How	Internation	1-17	Emotional	Cognitive
	Lee	emotional	al Review		intelligence,	intelligence,
	(2017)	intelligence	of		job	Attention
		relates to job	Administra		satisfaction	
		satisfaction	tive			
		and burnout	Sciences			
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	Jimenez, B. Solé,	cognition in	Affective	1 /	Intelligence,	intelligence,
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	Herman	Intelligence,	Business		spiritual	Attention
	Sjahruddin	Spiritual	and		intelligence to	
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		and employee				
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	Batool, Nighat	intelligence	BUSINESS		intelligence	And
	Parveen &	and job	REVIEW		,job	Cognitive
	Syeda Azra	commitment	JAN 2017		satisfaction	intelligence
	Batool	:			and job	
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		and job				
		performance				

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	Danvila Del	study on			(AC), and	
	Valle	low-skilled back			performance	
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					positions.	
23	Moshe	Emotional	Gifted	163–	Emotional	Attention
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	(2016)	intelligence:			intelligence,	performance
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	Rezvani,	emotional	al journal	1122	intelligence,	intelligence,
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	(2016)	Performance: A	Consumer		satisfaction	intelligence
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27	Lee Bee Yoke	The Mediatory	Medwell	806-812	Emotional	Attention
	, Siti Aisyah	role of job	Journal,		intelligence	And
	Panatik	satisfaction	10 (6)		, Job	Cognitive
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	Malachy, Professor	and contextual	Governance		contextual	Cognitive
	Bello Sabo, Dr A.M.	performance	and		performance	intelligence
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	Hakkak,	the effects of emotional	of Work		intelligence,	intelligence,
	Amirhooshang	intelligence on social-mental	and		social-mental	Attention in
	Nazarpoori,	factors of human	Organiza		factors of	performance
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33	Deepika Dabke	Impact of	Business	1-14	Emotional	Cognitive
	(2015)	Leader's	Perspective		Intelligence	intelligence
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	Oz,	Intelligence and	Social and		Language	intelligence
	Mehmet	Attitudes Towards	Behavioral		Learning,	
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	Pastor	emotional	Economics	992	intelligence,	intelligence
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	(2014)	intelligence and	Difference		workplace	
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	Vigoda-Gadot	politics,emotion	Vol. 43		and work	and attention
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	(1993)					Performance
50	Howard	Multiple	Educational	4-10	Multiple	Emotional
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	Thomas	Go to School:	Vol. 18, No. 8			ognitive
	Hatch	Educational				intelligence,
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Chapter 4: Objectives & Scope of Present Study

In this article, we have done a holistic approach for understanding the impact of emotional intelligence and cognitive intelligence on Radio Presenter's attention in Performance in All India Radio, Kolkata (India's public service broadcaster). Following are the aims and objectives of the study:

- I. To find out the difference between cognitive intelligence and emotional intelligence of Radio Presenters.
- II. To understand the effect of cognitive and emotional intelligence (independent variables) on Attention in performance (dependent variable) of Radio Presenters.
- III. To have an objective assessment of the emotional intelligence and cognitive intelligence on Radio Presenter's attention in Performance.

Chapter 5: Research Methodology

5.1. Sample

For the existing study convenience 59 radio presenters who were working in All India Radio, Kolkata station (India's public service broadcaster). of India were chosen. 67.8% sample were consisted on females and the rest 32.2% were males. Largely the respondents were from 20 to 35 years of age group.

5.2. Measures

In order to measure the emotional intelligence of the presenters, ten personality test (each test contains 2 questions) have been used adapted from Philip Carter's "Test Your EQ" (2009) and for all the questions five point Likert scale has been implemented for example 4 for most agree/ most applicable, down to 0 for least agree/ least applicable. Hence force, questionnaires based on emotional intelligence called E- based and represented by E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20. Previously, we said ten personality test adapted from Philip Carter's "Test Your EQ" (2009) which were Success Factor (E1, E2), Attitude (E9, E10), Content or Restless (E11, E20), Extrovert or Introvert (E3, E4), Optimist or Pessimist (E5, E6), Open or Closed (E13, E14), Non-aggression (E7,E8), Adventurous or Timorous (E15, E16), Patient (E17, E18), Self Confidence (E12, E19).

In order to measure the cognitive intelligence of the presenters, five general intelligence test (each test contains 4 questions) have been used adapted from various competitive examinations questionnaires(of previous years) for government job in India. For, all the test, five point Likert scale has been implemented where, 0 = 0 marks (all wrong answers),

1=1 marks(1 right answer), 2= 2 marks (2 right answers), 3= 3 marks (3 right answers), 4= 4 marks (4 right answers). Hence force, tests based on cognitive intelligence called C- based and represented by C1 (Coding Decoding), C2 (Determine Relation), C3 (Odd man out and analogy), C4 (Mathematical Operations), C5 (Number Series).

In order to measure the attention in performance, attention score were collected from the report of programme executive of All India Radio, Kolkata.

Figure 3 shows the conceptual model for the present investigation.



Figure 3: Conceptual model

Chapter 6: Study Undertaken

For Present study, we sent questionnaire to 59 presenters of All India Radio, Kolkata. We got the data from Programme Executives and 59 radio presenters who were working in All India Radio, Kolkata station (India's public service broadcaster). of India .

6.1 Presenters of All India Radio

As India's National Broadcaster and also the premier Public Service Broadcaster, All India Radio (AIR) has been serving to inform, educate and entertain the masses since it's commencement, truly holding up to its motto – 'Bahujan Hitaya: Bahujan Sukhaya'. Radio presenters of AIR is the introductory voice of the broadcast and also keeps the show flowing in order to entertain an audience. The job activities can range from interviewing, introducing, controlling live phone calls, reading news and sport, informing the listeners about the weather or creating and controlling conversation. Radio presenters work mainly in a studio, but the exact environment may vary (AIR Kolkata: India's Public Service Broadcaster. Available from: http://airkolkata.gov.in/home/index.[accessed May 11,2019]).

6.2 Selection Procedure of Presenters

All India Radio Kolkata invites applications for creation of fresh panel of 'Assignees for Programme Presentation' several times in a year as and when required basis as per programme exigencies. This process is not for permanent employment. The applicants will be required to undergo a three-tier screening process (Written Test, Voice Test, Interview) and successful aspirants may be invited for assignment on 'as and when required' basis. A presenter can get maximum six duties in a month. Duty time varies 1 hour to six hours in a day. Candidates, who are graduates from a recognized Institution and are between 20 to 40 years, may apply(AIR Kolkata: India's Public Service Broadcaster. Available from: http://airkolkata.gov.in/home/index.[accessed May 11,2019]).

6.3. Responsibilities of Radio Presenters

Radio presenters are responsible for being the 'voice' of a radio station. This gives them a variety of responsibilities relating to engaging their audience and representing the station in a respectable light. These include:

- Researching features that will come up during the radio show.
- Planning the general direction of the show. This may include writing and scripting in preparation.
- Meeting guests for the radio programme beforehand and discussing the outline of interviews.
- Working with a sound technology team and assisting them in sound check.
- Introducing and controlling music and other features throughout the show.
- Ensuring the smooth running of the radio programme.
- Conducting interviews with guests in person (either live or recorded beforehand) or on the telephone.
- Selecting a playlist suitable for the audience and time of the day.
- Reading from a script or improvising.

6.4. Skills and Working Condition

Radio presenters of AIR have to have skills which enable them to engage a varied audience and create an original show each time they host. This means they have to have an extremely creative and outgoing skills set, including:

- Possessing excellent oral communication and presentation skills.
- Having the capacity to manage more than one task at a time (for example, handling computer for filler and controlling live phone call at a time.)
- Having the capacity to work to a rigid schedule and manage their time effectively.
- Being able to work efficiently within a team.
- Being able to make decisions under pressure and to improvise to a high standard if necessary.
- Being up to date with current affairs and possessing research skills which can ensure accuracy of the information they are discussing on radio.
- Holding a strong work ethos and being prepared to work hard to succeed.
- Having the ability to create dynamic and original shows consistently.
- Having an easy-going sense of humour which appeals to the masses.
- Understanding media law and legislation and following it meticulously in their work.

Radio presenters of All India Radio mainly work in broadcasting studios which are small rooms, usually with a sound desk, computers with special software, a phone set, a microphone, attached by a glass window to a sound technology room. This enables them to be in contact with the sound team constantly but also have control over the running of their own show.

6.5. The Importance of paying attention at radio Presentation

We all know that attention to detail is important because it helps prevent mistakes and makes success easier. Radio Presenters are the voice of the station, they create the tone and style of the station and establish a relationship for listeners. A good radio presenter knows how to captivate and engage their audience and for this total attention in work is important. The most difficult challenge for a lot of radio presenters is controlling their mood. No matter what is going on outside of work, or if you get an angry caller, always remain enthusiastic, energetic and positive. Enthusiasm is catchy and negativity drags everyone down. It is important that you understand and relate to your audience so that they can relate to you. As a presenter you need to know and keep yourself informed about the latest news and trends so that your audience can connect with you.

6.6. Main Working Hypotheses

H₀: There is no possible linear regression of Attention scores using scores of the E-based and C-based scores as predictor variables;

H₁: There is a significant linear regression of Attention scores using scores of the E-based and C-based scores as predictor variables;

6.7. Initial Data Transformation

All the variables in the original data were on ordinal scale. To facilitate linear regression modeling and factor analysis, all the data were standardized by applying the formula x standardized = $(x - \overline{x}) / \sigma x$.

6.8. Data Validation

The Cronbach's Alpha value was 0.719 ensuring adequate validity of the data considered for the statistical analysis.

6.9. Data Distribution of Variables

The dependent and all the predictor variables were tested for normality. None of the variables were found to be normally distributed. The test-statistic and the corresponding p values of all the variables for Kolmogorov-Smirnov & Shapiro-Wilk tests are appended below. The box plots for all the variables and the normal Q-Q plot for the dependent variable are shown below. It is seen that four of the predictor variables and the dependent variable contain outliers.

Predictor Variables

Tests of Normality

	Kolmo	gorov-Sm	irnov ^a	Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
E1	.211	59	.000	.853	59	.000
E2	.337	59	.000	.789	59	.000
E3	.234	59	.000	.853	59	.000
E4	.299	59	.000	.828	59	.000
E5	.481	59	.000	.441	59	.000
E6	.199	59	.000	.864	59	.000
E7	.204	59	.000	.860	59	.000
E8	.178	59	.000	.874	59	.000
E9	.427	59	.000	.540	59	.000
E10	.261	59	.000	.766	59	.000
E11	.441	59	.000	.601	59	.000
E12	.282	59	.000	.845	59	.000
E13	.444	59	.000	.452	59	.000
E14	.405	59	.000	.617	59	.000
E15	.235	59	.000	.797	59	.000
E16	.275	59	.000	.802	59	.000
E17	.234	59	.000	.834	59	.000
E18	.183	59	.000	.867	59	.000
E19	.272	59	.000	.783	59	.000
E20	.153	59	.001	.893	59	.000
C1	.270	59	.000	.845	59	.000
C2	.181	59	.000	.856	59	.000
C3	.193	59	.000	.867	59	.000
C4	.242	59	.000	.837	59	.000
C5	.184	59	.000	.868	59	.000

a. Lilliefors Significance Correction



Dependent Variable

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
AT	.074	59	.200*	.981	59	.476

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction



Chapter 7: Findings of Study & Discussion

7.1. The Linear Regression Results

The linear regression has been carried out using initially all the E-based & C-based variables as the predictor variables.

The possible problem of autocorrelation has been tested by having the Durbinson-Watson (DW) Statistic. Values of this statistic, if within the range of 1.80 - 2.20, indicates absence of any significant problem of autocorrelation.

The possible problem of multicollinearity has been tested by having the variable Inflation Factor (VIF) value. Values of this statistic, if within 2, indicates absence of any significant problem of multicollinearity.

The robustness of the linear regression models have been tested by the F Statistic (at 5% level of Significance) with the following hypotheses:

 H_0 : There is no statistically significant relation between the predictor variables and the dependent variables.

 H_1 : There is statistically significant relation between the predictor variables and the dependent variables.

The statistical significance of the regression coefficients have been tested by t statistic (at 5% Level of Significance) with the following hypotheses:

H₀: The regression coefficient is not statistically significant.

H₁: The regression coefficient is statistically significant.

The construction of the model has been done considering the constant term in the regression equation as there can be an attention score even when there are no E-based or C-based scores. Inclusion or exclusion of the constant term in the equation has been determined by subjecting the obtained value of the constant term to t test at 5% Level of Significance using the following hypotheses:

H₀: The constant term is not statistically significant.

H₁: The constant term coefficient is statistically significant.

Adjusted $R^2 =$	0.745		DW Statistic =	2.217
ANOVA Results				
F Statistic =	29.227	p-Value =	0.000	
Predictor Variables	Coefficient (β)	t-Statistic	p-Value	VIF
E6	0.201	7.782	0.000	1.045
E14	0.118	4.560	0.000	1.049
E19	0.110	4.291	0.000	1.021
C1	0.089	2.574	0.013	1.857
C2	0.085	2.758	0.008	1.496
C5	0.091	2.712	0.009	1.754

Linear Regression Considering all 59 data-points





An attempt was made to obtain regression equations on randomly selected 50 observations by 5 iterations and to test the validity of the five obtained models on the rest 9 observations to arrive at the best-fit model. The results are appended below.

Linear Regression Considering 50 randomly selected data-points Iteration 1

Adjusted $R^2 =$	0.772		DW Statistic =	2.111
ANOVA Results				
F Statistic =	28.693	p-Value =	0.000	
Predictor Variables	Coefficient (β)	t-Statistic	p-Value	VIF
E6	0.220	7.756	0.000	1.045
E14	0.115	4.271	0.000	1.032
E19	0.107	3.981	0.000	1.012
C1	0.088	2.406	0.021	1.865
C2	0.080	2.448	0.019	1.499
C5	0.098	2.814	0.007	1.658





Adjusted $R^2 =$	0.730		DW Statistic =	1.981
ANOVA Results				
F Statistic =	27.530	p-Value =	0.000	
Predictor	Coefficient (β)	t-Statistic	p-Value	VIF
Variables				
E6	0.213	7.351	0.000	1.043
E14	0.151	5.142	0.000	1.035
E19	0.108	3.811	0.000	1.008
C1	0.100	2.609	0.012	1.653
C5	0.134	3.595	0.001	1.670

Linear Regression Considering 50 randomly selected data-points Iteration 2







Adjusted $R^2 =$	0.785		DW Statistic =	1.931
ANOVA Results				
F Statistic =	23.321	p-Value =	0.000	
Predictor Variables	Coefficient (β)	t-Statistic	p-Value	VIF
E2	0.063	2.223	0.032	1.339
E6	0.155	5.221	0.000	1.332
E14	0.113	3.897	0.000	1.320
E15	0.114	3.299	0.002	1.773
E18	0.074	2.450	0.019	1.413
E19	0.106	3.226	0.002	1.363
C1	0.127	3.457	0.001	2.085
C5	0.155	4.549	0.000	1.871

Linear Regression Considering 50 randomly selected data-points Iteration 3






Adjusted $R^2 =$	0.833		DW Statistic =	1.979
ANOVA Results				
F Statistic =	23.368	p-Value =	0.000	
Predictor Variables	Coefficient (β)	t-Statistic	p-Value	VIF
E2	0.062	2.207	0.033	1.389
E4	-0.066	-2.316	0.026	1.457
E5	0.065	2.741	0.009	1.140
E6	0.193	7.891	0.000	1.145
E12	0.062	2.423	0.020	1.152
E14	0.135	5.403	0.000	1.198
E18	0.056	2.084	0.044	1.364
E19	0.082	3.174	0.003	1.318
C2	0.113	3.801	0.000	1.603
C5	0.138	4.839	0.000	1.489

Linear Regression Considering 50 randomly selected data-points Iteration 4







Adjusted $R^2 =$	0.672		DW Statistic =	2.504
ANOVA Results				
F Statistic =	13.523	p-Value =	0.000	
Predictor Variables	Coefficient (β)	t-Statistic	p-Value	VIF
E6	0.128	3.524	0.001	1.476
E12	0.121	3.473	0.001	1.265
E14	0.096	2.519	0.016	1.192
E15	0.098	2.191	0.034	2.096
E16	0.126	3.405	0.001	1.517
E17	-0.106	-2.223	0.032	2.707
E18	0.119	3.413	0.001	1.170
C2	0.257	7.872	0.000	1.264

Linear Regression Considering 50 randomly selected data-points Iteration 5



The MAPE obtained for all the five models are too high. This is because of the low number of observations.

As such it is better to move along with the model obtained by considering all the observations. The results thus are organization-specific.

7.2. Factor Analysis Results

As there are twenty E-based variables, an attempt has been taken to go for factor analysis in order to reduce the number of E-based variables.

However, the low VIF values obtained in the regression models above indicate a very low multicollinearity amongst the predictor variables. Such a situation indicates that factor analysis will not be very useful in reducing the number of predictor variables.

Still, as the VIF factors were calculated by considering all E-based & C-based variables, Factor Analysis has been proceeded with.

Two modes have been resorted to:

- To let the model decide the number of factors based on cut-off Eigen Value of 1.00;
- ii. To chose the number of factors by the researcher which in this case has been kept at 5 to keep a parity with the number of C-based variables.

For measuring the Sampling Adequacy, the Kaiser-Meyer-Olkin (KMO) Test has been done. A value of greater than 0.50 indicates sampling adequacy to proceed for Factor Analysis. To test the existence of statistically significant interrelationships between the predictor variables has been tested by using the Bartlett's Test of Sphericity at 5% Level of Significance with the following hypotheses:

 H_0 : There are no statistically significant relations between the predictor variables and as such the predictor variable matrix is an identity matrix

 H_1 : There are statistically significant relations between the predictor variables and as such the predictor variable matrix is not an identity matrix

7 Factors – Based on Eigen Values

KMO	and	Barti	etts	lest	
			-		

Kaiser-Meyer-Olkin Adeo	.565	
Bartlett's Test of	Approx. Chi-Square	314.381
Sphericity	df	190
	Sig.	.000

The KMO Value of 0.565 indicates the Factor Analysis may not be useful as the observed value just grazes the cut-off value of 0.50 vis-à-vis the desired value of close to 1.00.

However, the Null Hypotheses in the Bartlett's Test is rejected indicating that there might be statistically significant relations between the predictor variables. This indicates that Factor Analysis might be useful.

Accordingly, we proceed with the Factor Analysis and have the following observations:



		Component						
	1	2	3	4	5	6	7	
E1		.383	328				.478	
E2				.431	.329	352		
E3		.477	434		.350			
E4	.345		.567				.444	
E5					.549			
E6	.666	.406						
E7		.511	.325	.419	358			
E8				.705		.371		
E9	.517	588						
E10		405		.336		.308		
E11	.597							
E12				357	.401	.363	485	
E13	.453				595			
E14	.576	608						
E15	.775							
E16	.619							
E17	.783	.313						
E18			.623					
E19			.536	394		.392		
E20	.352	.332	.496					

Component Matrix^a

Extraction Method: Principal Component Analysis.

a. 7 components extracted.

		Component					
	1	2	3	4	5	6	7
E1						.586	356
E2					.671		
E3	.313					.621	
E4			.554		.565		
E5						.699	
E6	.724				.300		
E7				.756			
E8				.857			
E9		.769					
E10		.560					
E11	.399	.495					
E12							.776
E13	.405	.422			391		485
E14		.780					
E15	.767						
E16	.700						
E17	.862						
E18			.715				
E19			.784				
E20	.363			.373	.521		

Rotated Component Matrix^a

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 7 iterations.

The Factor Components (Based on the Rotated Component Matrix)

Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
E6	E9	E18	E7	E2	E1	E12
E15	E10	E19	E8	E4	E3	
E16	E11			E20	E5	
E17	E13					
	E14					

Adjusted $R^2 =$	0.573		DW Statistic =	2.122
ANOVA Results				
F Statistic =	16.553	p-Value =	0.000	
Predictor Variables	Coefficient (β)	t-Statistic	p-Value	VIF
F1	0.128	2.684	0.010	1.336
F2	0.215	3.959	0.000	1.168
F3	0.088	2.154	0.036	1.056
F5	0.147	2.848	0.006	1.171
F6	0.219	4.320	0.000	1.108

Regression Results considering the 7 Factors and the 5 C-based Variables as predictor variables

The Adjusted R² values are not better than that of 74.50% as was obtained in the original regression using all the predictor variables initially and which ended with the final regression model having only three E-based and 3 C-Based predictor variables. Thus Factor Analysis could not yield any better result than the original regression model.

5 Factors – Based on Researcher's Choice

Kaiser-Mey	er-Olkin	Measure	of	Sampling	565
Adequacy.					
Bartlett's	Test	of Approx.	Ch	i-Square	314.381
Sphericity		df			190
		Sig.			.000

The KMO Value of 0.565 indicates the Factor Analysis may not be useful as the observed value just grazes the cut-off value of 0.50 vis-à-vis the desired value of close to 1.00.

However, the Null Hypotheses in the Bartlett's Test is rejected indicating that there might be statistically significant relations between the predictor variables. This indicates that Factor Analysis might be useful.

Accordingly, we proceed with the Factor Analysis and have the following observations:



Component Matrix^a

	Component					
	1	2	3	4	5	
E1		.383	328			
E2				.431	.329	
E3		.477	434		.350	
E4	.345		.567			
E5					.549	
E6	.666	.406				
E7		.511	.325	.419	358	
E8				.705		
E9	.517	588				
E10		405		.336		
E11	.597					
E12				357	.401	
E13	.453				595	
E14	.576	608				
E15	.775					
E16	.619					
E17	.783	.313				
E18			.623			
E19			.536	394		
E20	.352	.332	.496			

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

Rotated Component Matrix^a

	Component					
	1	2	3	4	5	
E1		358	304			
E2		.481			.320	
E3	.356		387		.458	
E4			.617			
E5					.636	
E6	.723				.345	
E7				.754		
E8				.739		
E9		.722				
E10		.507				
E11	.493	.372				
E12				409	.329	
E13	.484				590	
E14		.806				
E15	.750					
E16	.720					
E17	.845					
E18			.650			
E19			.681			
E20	.303		.399	.447		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 7 iterations.

Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
E1	E2	E4	E7	E3
E6	E9	E18	E8	E5
E11	E10	E19	E20	E12
E13	E14			
E15				
E16				
E17				

The Factor Components (Based on the Rotated Component Matrix)

Regression Results considering the 5 Factors and the 5 C-based Variables as predictor variables

Adjusted $R^2 =$	0.730		DW Statistic =	2.111
ANOVA Results				
F Statistic =	27.095	p-Value =	0.000	
Predictor Variables	Coefficient (β)	t-Statistic	p-Value	VIF
F1	0.215	4.763	0.000	1.164
F2	0.216	5.364	0.000	1.076
F3	0.105	2.890	0.006	1.020
F4	0.098	2.708	0.009	1.033
F5	0.177	4.235	0.000	1.057
C4	0.147	5.567	0.000	1.027

The Adjusted R² values are not better than that of 74.50% as was obtained in the original regression using all the predictor variables initially and which ended with the final regression model having only three E-based and 3 C-Based predictor variables. Thus Factor Analysis could not yield any better result than the original regression model.

Chapter 7: Conclusion

The present study has been conducted at All India Radio, Kolkata on presenters in order to evaluate their performance. Based on the results obtained by the Linear Regression without reduction in number of variables and Linear Regression after reducing the number of predictor variables by Factor Analysis, the best Regression Equation of Attention Score on the E-based & C-based scores are as under:

By virtue of this equation, the six predictor variables can explain 74.50% of the variations in the Attention Scores. The six predictor variables i.e. E6 (Optimist or Pessimist), E14 (Open or Closed), E19 (Self Confidence), C1 (Coding Decoding), C2 (Determine Relation) & C5 (Number Series) are the statistically significant predictor variables among the 20 E-based & 5 C-based scores considered in the study.

This linear equation does not have significant problems owing to Autocorrelation & Multicollinearity. The robustness of the model is also confirmed by the rejection of the null hypotheses framed for testing the statistical significance of the F-statistic in ANOVA test.

Accordingly, the Null Hypotheses (Main Working Hypotheses) is rejected and it is inferred that the Attention Scores can be statistically regressed linearly on the E-based & C-based scores which can explain 74.50% of the variations in the Attention Scores.

However, this equation also reveals that 25.50% of the Attention Scores are still unexplained by the selected predictor variables i.e. the E-based & C-based scores. This unexplained portion may be due to other factors not considered in the study.

Chapter 8 : For Future Study

Future researcher can replicate the same study in any other radio station of All India Radio. They also can replicate the same study in any Radio stations in any country. In this existing study , dependent variable was attention in performance, future researchers should also consider other dependent variable like Presenter's satisfaction.

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Appendix

(Questionnaires based on Emotional & Cognitive Intelligence)

General	Informa	ation
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Survey on radio presenters , All India Radio Kolkata

*Required

- 1. Email address *
 2. Age: *
 3. Gender: *
 Mark only one oval.
 Male
 Female
 Other:
- 4. Academic Qualification: *
- 5. Experience as a presenter (In years): *
- 6. Any hobby you like most & Best: *
- 7. You can mention anything besides the above 6 points:

Form1

Survey on radio presenters , All India Radio Kolkata.

		https://docs.google.com/forms/d/1UVtR3qyjP
8.	. 1. Do you think it is difficult for you to focus on o playing music, concentration on talking, maintain programme? *	ne task (example: Phone handling, is the script etc.) at a time in live radio
	Voc. it is difficult	
	Sometimes difficult.	
	Slightly difficult	
	Not at all.	
9.	2. How necessary is the help and cooperation of e Executives, Duty officers etc.) in order to achieve Programme? *	others (Co-presenters, Programme a high level of success in Radio
	Mark only one oval.	
	Not very important as there are many very su	ccessful self-made presenters.
	little important	
	Quite important	
	Very very important.	

10. 3. When in conversation with co-presenter in a radio programme how often do you dry up and find yourself struggling to continue the conversation? *

Mark only one oval.

\bigcirc	always
\bigcirc	More than occasionally
\bigcirc	occasionally
\bigcirc	Less than occasionally
	Never

11. 4. Would you denominate yourself as talkative? *

Mark only one oval.

		NI-
)	110
_	_	

- It depends on various external factors.
- It depends on one or two external factors.
- It depends who I am talking to
- Yes.

- 12. 5. If at first, you don't succeed in a new launched live programme, then what you do? * *Mark only one oval.*
 - Only Curse your luck.
 - Curse your luck and think about where you went wrong.
 - Only think about where you went wrong.
 - Try again
 - Think about where you went wrong and try again.
- 13. 6. Do you think other people see you as a positive person? *

Mark only one oval.

	May	be	not
--	-----	----	-----

- I don't really know
- Yes, May be
- Yes, in general
- Yes, obviously
- 14. 7. How often have people told you to chill out or calm down? *

Mark only one oval.

\bigcirc	Always
\bigcirc	More than occasionally
\bigcirc	Occasionally
\bigcirc	Less than occasionally
\bigcirc	Never

15. 8. Would you bend the rules to win if given opportunity? *

Mark only one oval.

Yes, always.
I don't really know
I hope not, but cannot be sure.
My answer perhaps 'No'

🔵 No

Form 2

In each of the following choose from a range 0 to 4 which of these statements/ descriptions you most agree with or most applicable to you. Choose one of the numbers 0-4 in each of the statements/ descriptions. Choose 4 for most agree/ most applicable, down to 0 for least agree/ least applicable.

16. 9.You feel good when you know your listeners like and respect you * Mark only one oval.



17. **10.** You do not become jealous over other people's achievement. * *Mark only one oval.*



18. **11. You enjoy your job as a presenter in All India Radio.** * *Mark only one oval.*



19. 12. You do not feel nervous during the interaction with someone very famous or influential artist in live programme. *

Mark only one oval.



20. **13.** You always try to be frank and honest with yourself and others. * *Mark only one oval.*



21. **14.** You are pleased when people acknowledge that you have done well. * *Mark only one oval.*



22. **15. You are creative.** * *Mark only one oval.*



23. **16.** If you have something to say you come straight to the point and say it. * *Mark only one oval.*



24. **17. You are a very good radio listener.** * *Mark only one oval.*



25. **18. You rarely, if ever, lose your temper. *** *Mark only one oval.*



26. **19.** In a complicated situation, you have much more confidence in the decisions you make yourself, rather than in the decisions made by others. * *Mark only one oval.*



27. **20. You have made the most of your life, till date.** * *Mark only one oval.*



Form 3

Coding Decoding

28. **1.1. If HOT coded as 862, COLD coded as 3634, then what is code for MOISTURE?** *Mark only one oval.*



29. **1.2. If TEA is coded as YJF, then what will be code for POT?** *Mark only one oval.*

a) VTY
 b) UTY
 c) UYT
 d) UTS

30. 1.3. If '234' stands for ' LOVE IS GOD', '236' stands for 'GOD IS BAD' and '5246' stands for 'SO LOVE IS BAD', then which number stands for 'BAD'?

Mark only one oval.

a) 2
b) 3
c) 4

- () d) 6
- 31. 1.4. If shoe is called cap, cap is called trousers, trousers is called gloves, then to protect your head from sun heat, what do you need?

Mark only one oval.

- 📄 a) Shoe
- b) Gloves
-) c) Trousers
-) d) Can't be determined.

Form 4

Read the following information to answer the given questions I) A, B, C, D, E and F are six family members.II) There is one doctor, one lawyer, one engineer, one pilot, one student and one housewife.III) There are two married couples in the family.IV) F, who is lawyer, is father of A. V) B is pilot and mother of C. VI) D is grandmother of C and is house wife.VII) E is father of F and is a doctor.VIII) C is brother of A.

32. 2.1. How many female members are there in the family?

Mark only one oval.

- a) 3 only
- b) 2 only
-) c) 3 or 4
- d) None of this.

33. 2.2. How is A related to D?

Mark only one oval.



-) b) Grand-son
-) c) Son
- d) Grand-daughter or Grand- son

34. 2.3. Which of the following statement is definitely true?

Mark only one oval.

- a) A is engineer.
- b) E is the father of pilot.
- c) D is mother of pilot
- d) F is the father of engineer.

35. 2.4. Who is the student?

Mark only one oval.

-) a) A
-) b) C
-) c) B's son
-) d) Either C or A

form 5

Odd man out and Analogy

36. 3.1. Odd man out

Mark only one oval.



d) Province

37. 3.2. Odd man out

Mark only one oval.

- a) SUV
- b) NQR
- c) TWX
- d) HKL
- 38. 3.3. ? : YACE :: GIKM : OQSU Mark only one oval.
 -) a) SQUM
 - b) RTUW
 - c) QSUW
 - d) VTRW

39. **3.4. Friend is to foe as brave is to ?** *Mark only one oval.*

> a) Attack b) Bravery

- c) Coward
- d) Weak

Form 6

Mathematical Operation

40. **4.1. Correct the following equations by interchanging two signs:** 15÷9×3-74+2=5 *Mark only one oval.*

a) + and –
 b) ÷ and ×
 c) + and ÷
 d) None of this.

41. **4.2.** Correct the following equations by interchanging two signs:3-9×27+9÷3=3 *Mark only one oval.*

a) + and –
 b) × and÷
 c) - and÷
 d) None of this.

42. 4.3. If '+' means' x', ' -' means '+', '*' means '+', and 'x' means '-', then what will be the value of 16÷64-4×4+3=?

Mark only one oval.

- a) 20 b) 15 c) 52 d) 12
- 43. 4.4. When 0 written as @, 1 written as \$, 2 is written as \$@, 3 written as \$\$, 4 is written as \$@@ and so on. Then which of the following will represents 11?
 Mark only one oval.

a) \$@\$\$
b) @\$\$\$
c) \$\$@\$
d) None of this.

Form 7 Number Series 44. **(5.1.) 5, 8, 7, 10, 9, 12, ?** *Mark only one oval.*



None of this.

45. **(5.2.) 11, 3, 14, 17, 31, 48, ?** *Mark only one oval.*

) a) 80

- b) 95
-) c) 79
- d) None of this

46. **(5.3.) 5, 5, 10, 20, 40, ?**

Mark only one oval.

\bigcirc	a) 50
\bigcirc	b) 60

-) c) 100
- None of this.

47. **(5.4.) 91, 94, 99, 106, ?, 126**

Mark only one oval.

- a) 109
-) b) 121
-) c) 112
- d) None of this.

 $\Box\,$ Send me a copy of my responses.

