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Validity of Structured Personality Test : A Statistical Analysis Between Scores of Written Examination and Personality Test

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ABSTRACT: In this era of globalisation and rapid development where proper utilisation of human resources is of utmost priority, the role of a standardized selection process with minimal human bias is indispensable. It is the objective of almost every recruiting agency to select the best candidates for the job. In most of the cases, the recruitment process comprises of two broad assessment categories viz. written examination and personality test. The scores of the written examination is on an absolute scale, but in the case of personality test the marks though awarded on an absolute scale, is nothing but a pseudo-ranking scale in most of the cases. The study aims to test the validity of un-structured personality tests for selection of best candidates, the validation is made through some statistical analysis comprising of nature of the data (Descriptive Statistics, Histogram with Normality Probability Plot, selected Percentile value and Box Plot) and measures of association (Pearsonian Correlation Co-efficient). The study considers all the subject-wise papers given by a candidate and his/her corresponding personality test scores. Moreover, the homogeneity and existence of measures of association among different personality testing boards for a single recruitment were considered to establish the relationship among the said interview boards. The outcome of the study revealed that there is a need for structured personality test in case of all recruitments whether the number of candidates is large or small.

KEYWORDS: Written Test, Personality Test/Interview, Statistical Analysis, Pearsonian Correlation Co-efficient, Correlation Matrix, Validity.

ABBREVIATIONS: GS- General Studies, AR- Arithmetic & Reasoning, P1- Paper-I (GS & AR scores in summation), P2- Paper-II (English), P3- Paper-III (vernacular - Bengali / Nepali / Hindi / Urdu), TOTM/FWT-Total Marks obtained in Final Written Examination, PT- Personality Test, PTALLB- Personality Test for All RRBs, RPTBs/BDs-Range Personality Testing Boards.

I. INTRODUCTION

The process of searching and choosing the most suitable candidates for a new post or an existing vacancy is known as recruitment process. The recruitment process includes analysing the requirements of a job, attracting employees to that job, screening and selecting applicants, hiring, and adding the new employee to the organization. When organizations choose the right people for the job, train them well and treat them fairly, these people not only produce good results but also tend to stay with the organisation longer. In such circumstances, the organization's initial and on-going investment in them is well rewarded. Decisions made in the recruitment and selection process or stages will impact the organization in the future. Bad decisions made in the selection process can create serious costs for an organization and *vice-versa*, Sangeetha (2010)^[1]. Compton, Morrissey, Nankervis 2014 says "Getting recruitment and selection processes and techniques right the first time is crucial and is the product of human resource planning, job design, human resource development, remuneration systems, career and succession plans to satisfy and motivate qualified applicants (Compton, Morrissey, Nankervis 2014)^[2]". An organization may have all of the latest technology and the best physical resources, but if it does not have the right people it will struggle to achieve the results it requires. This is true across the whole spectrum of business or public service activity.

II. RELATED WORK

Selection is an extremely important aspect to consider for businesses due to a number of reasons. Often the performance of businesses relates directly to the people working within it, meaning the right people need to be hired to ensure organizational success (Henry & Temtime, 2009)^[3]. Recruitment is defined as “activities designed to either increase the number or to change the characteristics of individuals who are willing to consider applying for or accepting a job” (Rynes & Barber, 1990)^[4]. Recruitment and selection are vital functions of human resource management for any type of business organization. Recruitment and selection are at most times used synonymously. These are terms that refer to the process of attracting and choosing candidates for employment. The quality of the human resource the firm has heavily depends on the effectiveness of these two functions (Gamage, 2014)^[5]. It has been emphasized that recruitment procedures that provide a large pool of qualified applicants, paired with a reliable and valid selection regime, will have a substantial influence over the quality and type of skills new employees possess (Okoh, 2005)^[6]. In the case of Written examination there exists a bias at the time of evaluation of the answer scripts, called Examiner’s Bias. Another is Difficulty Bias, which arises due to the test taken over different non-identical sets of questions. These two biases can be removed by adopting- “Prof. Sahu’s Methodology of Distribution Dependent Equalization of Scores to remove Examiner’s Bias and/or Difficulty Bias”- (Intellectual Property Right Registration No: L-89634/2020 Dated 17-02-2020)^[7] and “Distribution Dependent Equalization of Scores towards Removing Examiners’ Bias: A Case Study of an English Paper” Sahu *et.al*^[8]. But in the case of Personality Test, as this depends upon the interaction between the candidate and the interviewer for a short interval of time, the probability of error that occurs is likely to be high, if the test is not well designed or structured. Similar findings are depicted below by several authors. “The human factor is known as being one of the key factors through which the organization may obtain success” Organizations may gain this success through recruitment and selection. (Florea & Mihai, 2014)^[9]. Recruiting and selecting the wrong candidates who are not capable come with a huge negative cost which businesses cannot afford. Thus, the overall aim of recruitment and selection within the organization is to obtain the number and quality of employees that are required to satisfy the strategic objectives of the organization, at minimal cost (Ofori & Aryeetey, 2011)^[10]. As explained by Opatha (2010)^[11] recruitment is the process of finding and attracting suitably qualified people to apply for job vacancies in the organization. It is a set of activities an organization uses to attract job candidates who have the needed abilities and attitudes. Sang (2005)^[12] discovered a positive association between recruitment and selection and business performance. When the best people are selected for the job, productivity increases (Osemeke, 2012)^[13]. According to Huselid (1995)^[14] it is the recruitment procedures that provide a large pool of qualified applicants, paired with a reliable and valid selection regime that will have a substantial influence over the quality and type of skills new employees possess. The implication of this line of thought is that an organization’s human resource policies and practices represent important forces for shaping employee behaviour and attitudes. Similarly, Rauf (2007)^[15] discovered that sophisticated recruitment and selection procedures are positively related to performance in organizations. Interviewing can be defined as a “conversation between two people in which one person tries to direct the conversation to obtain information for some specific purpose”. The challenge for the interviewer is to extract information as directly as possible from the respondent (Gorden, 1992)^[16]. As argued by István (2010)^[17], selection methods can be evaluated in several ways. One possible approach is to compare hiring techniques on the basis of their validity, impartiality, scope of usage, and cost. While reporting that recruitment is the only component for attracting and retaining knowledge workers, Unwin (2005)^[18] gave significance to the process involved during the time of recruiting and hiring good candidates. In a similar vein, DeVaro (2008)^[19] demonstrated that recruitment strategies can lead to positive organizational outcomes. When the best people are selected for the job, productivity increases (Osemeke, 2012)^[20]. A good interview can be likened to obtaining a life story from the respondent. In essence, storytelling gives a narrative account of an event, an experience, or any other happening” (Atkinson, 19980)^[21]. Today recruitment and selection is considered a key contribution to the sustainment of competitive advantage. Furthermore, recruiting the right people and selecting them to train, develop and work is a major feature in any organisation, Mary Argue, 2015^[22]. Astonishingly a few studies are available in the domain which ascertains the efficacy of structured Personality Test by adopting statistical techniques.

III. METHODOLOGY

For different organizations there are different stages for selecting candidates. In case of recruitment of police personnel or other uniformed sub-ordinate cadre recruitment, it basically consists of four stages of recruitment in the State of West Bengal. In the case of police constables i.e. lowest entry level cadre recruitment, there exists four stages viz. Preliminary Examination, Physical Measurement Test (PMT) & Physical Efficiency Test (PET), Main/Final

Written Examination followed by an Interview. In the case of Sub-Inspectors of Police (graduate level entry posts) all the stages mentioned for the recruitment of constabulary are being followed with a higher weightage of marks. A significant difference between these two selection processes is that in the case of Final or Main Written Examination, it is of an MCQ based pen and OMR paper examination for the lowest cadre post and a subjective type conventional examination at stage three for the higher cadre selection namely, SIs of Police or equivalent rank. Theoretically, the better performer in the Main Written Examination must reflect a better performance in the Personality Test as a whole, but practical experience reveal that there exists no correlation or a very few levels of correlation between the scores of Cognitive Examination and that of the Personality Tests of a candidate. This is due to lack of structured and well-designed Personality Test conducted by the different Range Recruitment (Personality Test) Boards (RRBs). To solve the problem, the marks of both the Main Written Examination and corresponding Personality Test Scores for a total number of 3099 is being considered. The measure of association between all the subjective papers (GS - General Studies, AR - Arithmetic & Reasoning, P1- Paper-I (GS & AR), P2- Paper-II (English), P3 - Paper-III (vernacular) and the total written examination marks (TOTM/FWT-Total Marks obtained in Final Written Examination) along with the Personality test scores (PT- Personality Test) conducted by different RRBs are being taken to judge statistically the efficacy of structured personality test. Moreover, the relationship across the RRBs are also being studied to find out the measures of association, if any.

IV. EXPERIMENTAL RESULTS

The Descriptive Statistics of all subjects for all candidates (3099) over all papers for all personality test boards across the nine RRBs are depicted below in the Table1. It may be noted that there are two candidates who have not attended the general studies paper and one candidate who absented from writing the arithmetic & reasoning paper. It may also be noted that the P1- Paper-I is of 100 marks which includes General Studies paper and arithmetic & reasoning paper, each of 50 marks. The Paper-II is an English paper carrying 50 marks. The Paper-III is the vernacular paper carrying 50 marks. So, the total written examination consists of 200 marks. The personality test marks is for a total of 30. It is observed that the total selection of the candidates lies within a range of 10-12 marks, so the marks of the personality test is of utmost importance for the final selection. So, the personality test must be designed in such a manner that every candidate facing the test must be given equi-probable exposure.

Table 1 : Table representing the Descriptive Statistics of All Marks (3099 candidates) of [FWT/Main Written Exam, Subject wise and Personality Test].							
	GS	AR	P1	P2	P3	TOTM	PTALLB
Valid N	3097	3098	3099	3099	3099	3099	3099
Mean	21.55	25.90	47.43	19.49	23.55	90.48	18.44
Std. Error of Mean	.116	.155	.172	.112	.107	.231	.083
Median	22.00	27.00	47.00	19.00	24.00	89.00	18.80
Mode	24	28	45	20	22	96	18
Std. Deviation	6.453	8.654	9.600	6.258	5.953	12.865	4.602
Variance	41.637	74.890	92.162	39.167	35.437	165.511	21.179
Skewness	-.002	-.326	.001	.431	.079	.380	-.983
Std. Error of Skewness	.044	.044	.044	.044	.044	.044	.044
Kurtosis	-.152	-.408	-.166	-.223	.541	-.171	2.425
Std. Error of Kurtosis	.088	.088	.088	.088	.088	.088	.088
Range	45	49	64	34	44	81	29
Minimum	2	0	16	8	3	60	0
Maximum	47	49	80	42	47	141	29
Percentiles	25	17.00	20.00	41.00	14.50	20.00	81.00
	50	22.00	27.00	47.00	19.00	24.00	89.00
	75	26.00	33.00	54.00	24.00	27.00	99.00

The Mean, Median, Mode & Standard Deviation (S.D.) are respectively for GS (21.55, 22.00, 24, 6.453), AR (25.90, 27.00, 28, 8.654), P1 (47.43, 47.00, 45, 9.600), P2 (19.49, 19.00, 20, 6.258), P3 (23.55, 24.00, 22, 5.953), TOTM (90.48, 89.00, 96.00, 12.865), PTALLB (18.44, 18.80, 18, 4.602). The closeness of values for mean, median, mode is a

depiction of the fact that the marks are uniformly distributed for each paper respectively. The same is reflected in Fig. 1, representing Histogram with Normal Probability Plot for all the papers including Personality Test considering all the RRBs in amalgamation). The measures of dispersion for all the above categories are more or less within the considerable limit. Moreover, from the above table it indicates that the Median Scores of Personality Test for all the Boards is 18.80. The 25th percentile and 75th percentile of Personality Test scores for all candidates are 16.00 and 21.40. From these percentile values, it is evident that all the RRBs awarded scores between 15 and 20.

Table 2 : Table representing the Percentiles of candidates (3099) for Written Exam Marks including Personality Test.

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average	GS	11.00	13.00	17.00	22.00	26.00	30.00	32.00
	AR	10.00	13.00	20.00	27.00	33.00	37.00	39.00
	P1	32.00	35.00	41.00	47.25	54.00	60.00	63.00
	P2	10.00	11.50	14.50	19.00	24.00	28.00	30.58
	P3	14.00	16.00	20.00	24.00	27.00	31.00	33.00
	TOTM	72.00	75.00	81.00	89.00	99.00	108.00	113.00
	PT ALLB	10.80	12.71	16.00	18.80	21.40	24.00	25.20

Table 3 : Table representing the Correlation Matrix for All Marks (3099 candidates) including Personality Test from [FWT, Subject wise and Personality Test].

	GS	AR	P1	P2	P3	TOTM	PTALLB
GS	1	-.222**	.473**	-.021	.077**	.378**	.044
AR		1	.753**	-.011	-.138**	.492**	.004
P1			1	-.026	-.073**	.700**	.033
P2				1	.137**	.531**	.161**
P3					1	.475**	.073**
TOTM						1	.137**
PT ALLB							1

** . Correlation is significant at the 0.01 level (2-tailed), * . Correlation is significant at the 0.05 level (2-tailed).

From the above correlation matrix it is evident that there exists a very low level of correlation between subject-group wise marks, paper wise marks, total marks with that of Personality Test Marks. So it may be inferred that there is no relationship of the Written Test Scores with that of the Personality Test Scores.

Figure 1 : Figure representing Histogram with Normal Probability Plot for All Marks (3099 candidates) including Personality Test for all the papers.

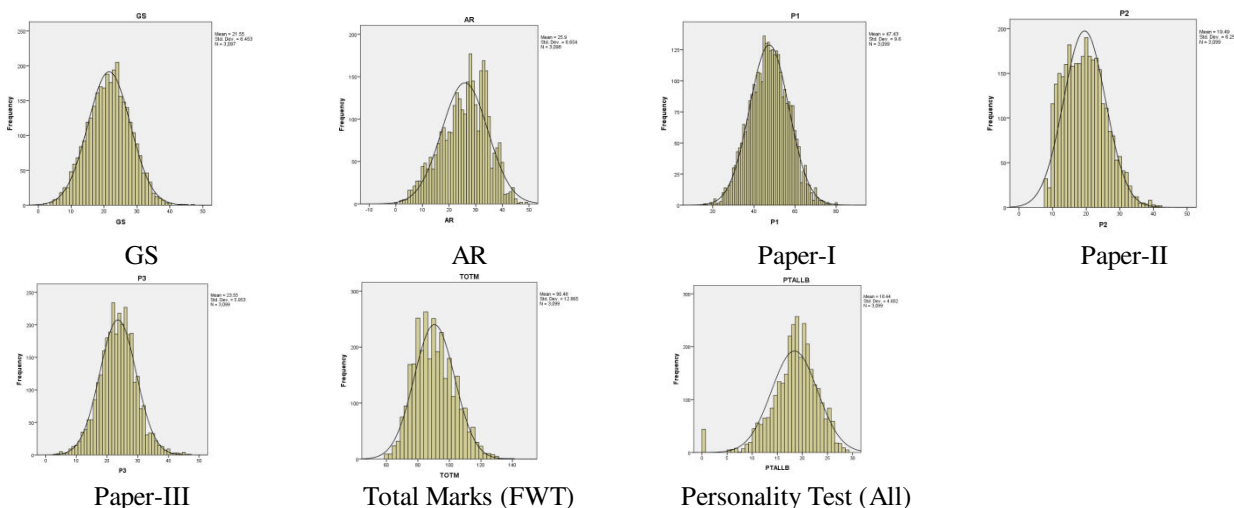
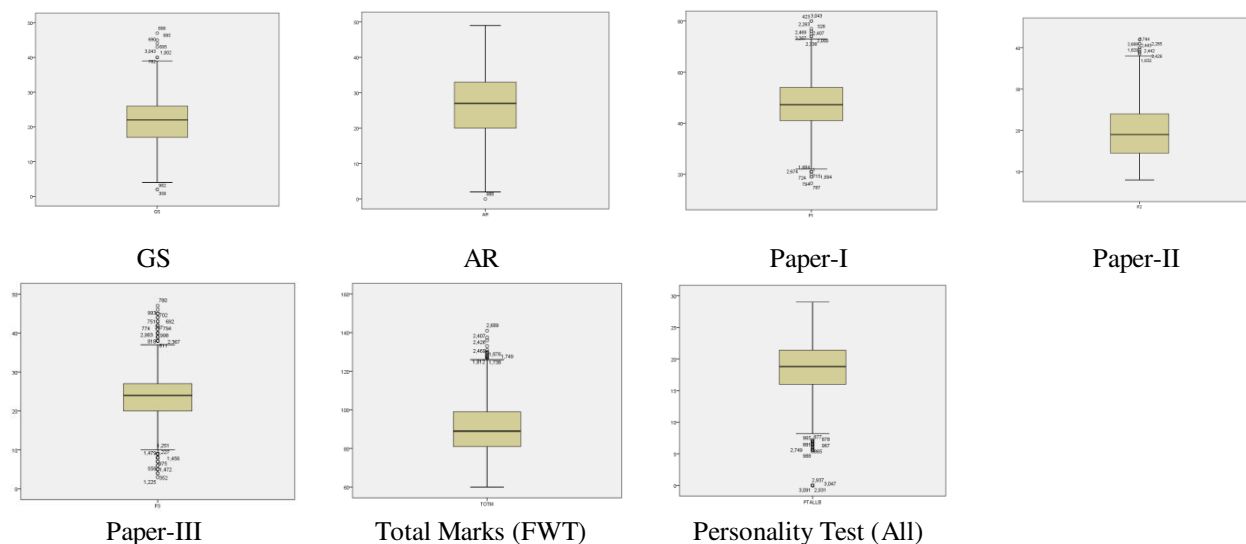


Figure 2 : Figure representing Box-Plot for All Marks (3099 candidates) including Personality Test



Another study and Statistical Analysis depicted here in the following part is to analyse the homogeneity with respect to awarding of marks among the RRBs towards the comparison of Personality Test marks across all boards (B1 TO B9).

Table 4: Table representing the Descriptive Statistics of Personality Test Marks for all boards.									
	BD1	BD2	BD3	BD4	BD5	BD6	BD8	BD7	BD9
Valid N	590	230	200	116	386	232	542	1345	270
Mean	19.22	18.79	16.77	19.90	17.95	19.39	18.84	18.13	16.8093
Std. Error of Mean	.147	.241	.393	.409	.206	.313	.268	.136	.31245
Median	19.75	18.90	17.60	20.40	18.50	18.90	20.30	18.40	15.8000
Mode	20	17	20	21	18 ^a	18 ^a	23 ^a	18 ^a	13.00
Std. Deviation	3.560	3.651	5.560	4.406	4.038	4.766	6.232	4.998	5.13415
Variance	12.673	13.327	30.916	19.412	16.303	22.719	38.834	24.977	26.360
Skewness	-2.253	-2.206	-.126	-1.632	-1.888	-.733	-.629	-.605	-.136
Std. Error of Skewness	.101	.160	.172	.225	.124	.160	.105	.067	.148
Kurtosis	9.817	10.218	-.775	5.910	6.378	1.857	-.155	1.083	.140
Std. Error of Kurtosis	.201	.320	.342	.446	.248	.318	.209	.133	.295
Range	26	25	22	28	26	28	29	29	27.20
Minimum	0	0	5	0	0	0	0	0	.00
Maximum	26	25	27	28	26	28	29	29	27.20
Percentiles	25	17.75	16.80	12.60	18.00	16.60	15.60	13.55	13.0000
	50	19.75	18.90	17.60	20.40	18.50	18.90	20.30	15.8000
	75	21.25	21.20	20.35	22.40	20.20	23.35	24.00	21.2500
	BD1	BD2	BD3	BD4	BD5	BD6	BD8	BD7	BD9

a. Multiple modes exist. The smallest value is shown

The Mean, Median, Mode & Standard Deviation (SD) are respectively for BD1 (19.22, 19.75, 20, 3.560), BD2 (18.79, 18.90, 17, 3.651), BD3 (16.77, 17.60, 20, 5.560), BD4 (19.90, 20.40, 21, 4.406), BD5 (17.95, 18.50, 18, 4.038), BD6 (19.39, 18.90, 18, 4.766), BD7 (18.13, 18.40, 18, 4.998), BD8 (18.84, 20.30, 23, 6.232), BD9 (16.8093, 15.8000, 13.00, 5.13415). The closeness of values for mean, median, mode is a depiction of the fact that the marks are uniformly distributed for each paper respectively. The same is reflected in Fig. 1, representing Histogram with Normal Probability Plot for all the papers including Personality Test considering all the RRBs in amalgamation). The measures of dispersion for all the above categories are more or less within the considerable limits. It is evident from the above that B-4 & B-8 were (LENIENT Boards), B-9 was a (STRICT Board) and B-2, B-5, B-6, B-7 were (MODERATE Boards).

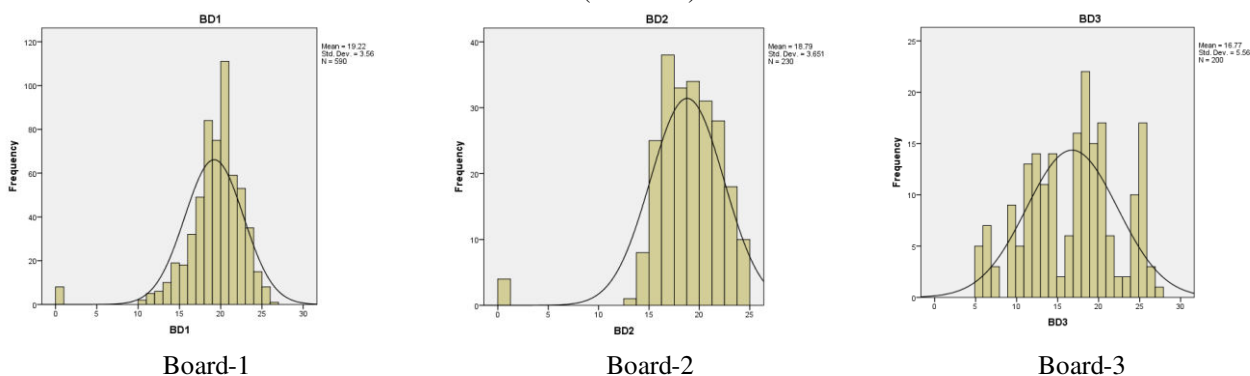
Table 5 : Table representing the Percentiles for Personality Test marks between the Boards (B1 to B9)								
		Percentiles						
		5	10	25	50	75	90	95
Weighted Average (Definition 1)	BD1	13.43	15.00	16.75	19.25	21.00	22.83	23.79
	BD2	15.00	15.40	17.05	19.00	21.40	23.40	24.21
	BD3	6.57	9.14	11.85	16.40	20.15	24.72	25.60
	BD4	14.05	15.28	18.00	20.40	22.40	25.00	26.29
	BD5	14.59	15.20	16.80	18.60	20.80	22.80	23.50
	BD6	12.62	13.54	14.80	18.20	21.60	24.40	25.03
	BD8	8.02	10.74	14.50	20.60	23.55	25.46	26.63
	BD7	13.57	14.88	16.73	18.30	19.80	21.06	22.23
	BD9	10.37	11.34	13.05	15.60	20.75	23.60	24.75

Table 6: Table representing the Correlation Matrix for Personality Test marks across all Boards (B1 to B9)									
	BD1	BD2	BD3	BD4	BD5	BD6	BD8	BD7	BD9
BD1	1								
BD2	.165*	1							
BD3	-.043	.055	1						
BD4	-.064	-.007	-.071	1					
BD5	-.040	.012	.084	.047	1				
BD6	-.027	-.084	-.102	.014	.033	1			
BD8	-.018	-.016	-.123	.174	.005	-.012	1		
BD7	-.012	.059	-.084	-.005	-.038	-.052	-.107*	1	
BD9	.099	.006	.092	-.073	.044	-.019	-.004	.025	1

*. Correlation is significant at the 0.05 level (2-tailed).

From the above correlation matrix, it is evident that there exists a very low level of correlation between different Boards in awarding Personality Test Marks. So this may be inferred that the marks given by each Board is heterogeneous in nature. So, it may be concluded that the Personality test was not conducted in a designed (or structured) format.

Figure 3 : Figure representing Histogram with Normal Probability Plot for Personality Test marks between the Boards (B1 to B9)



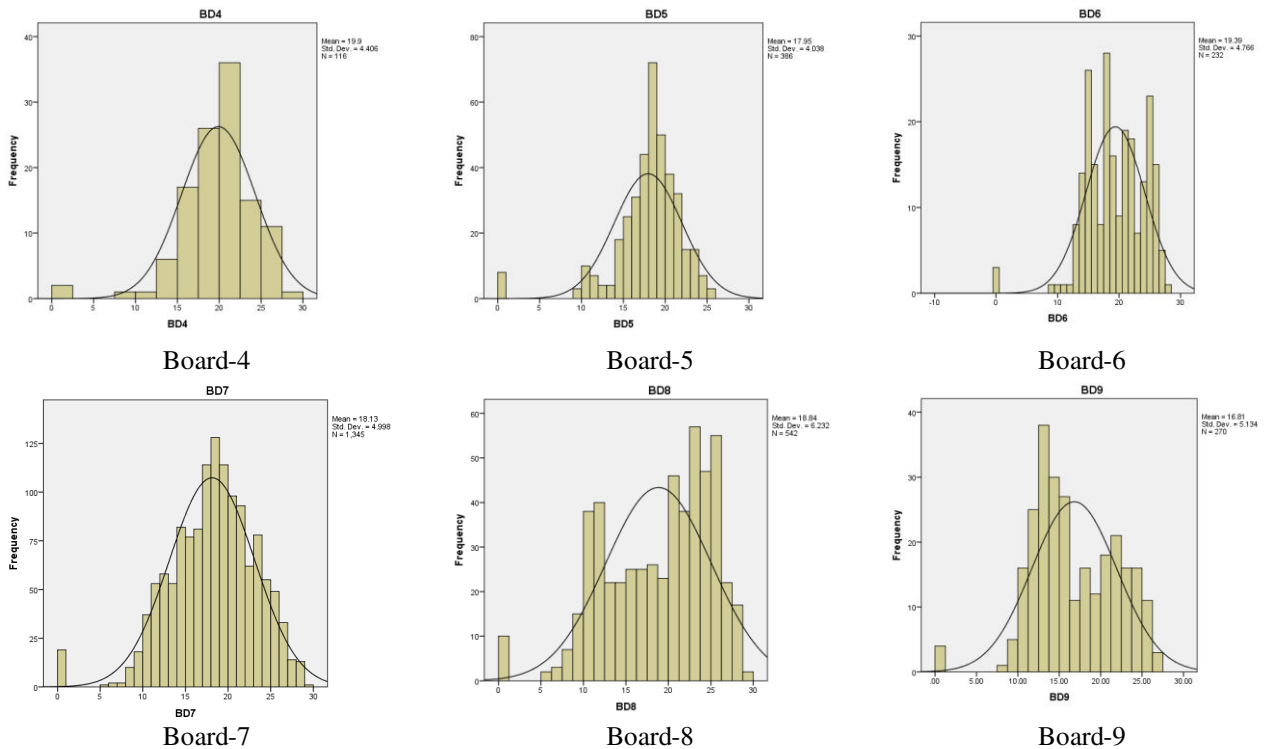
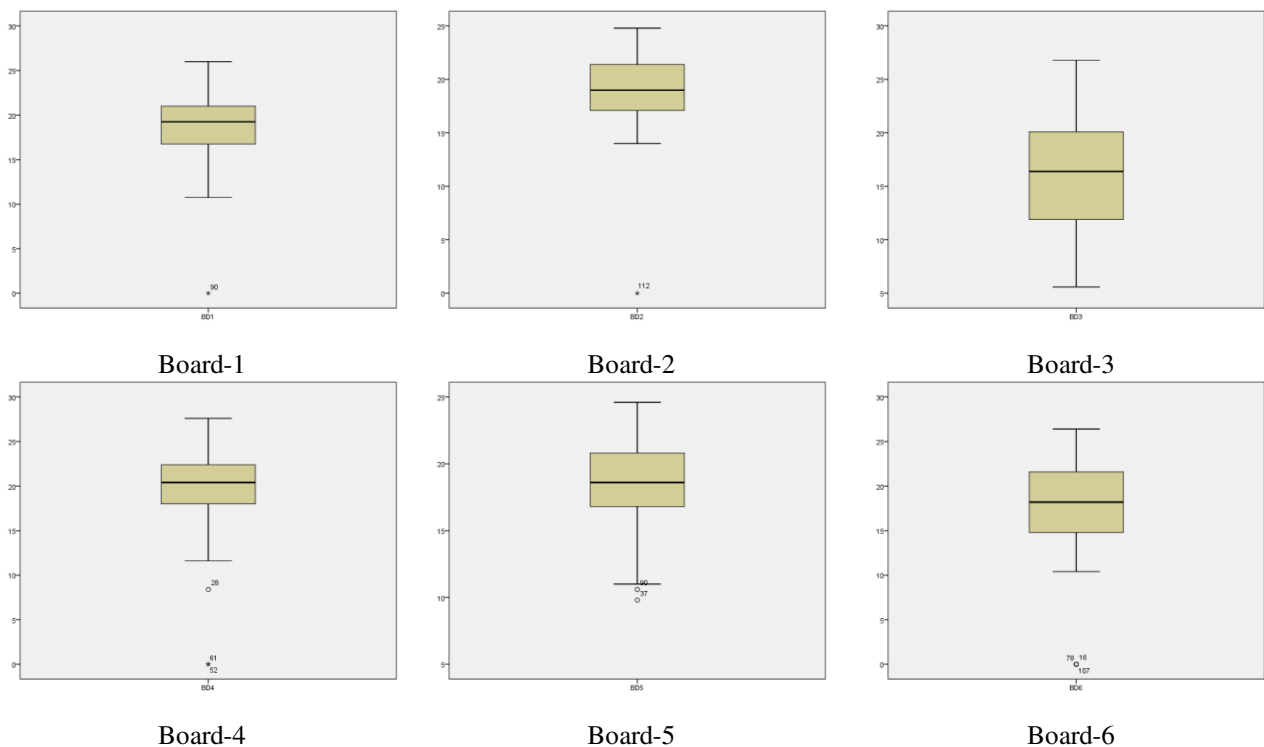
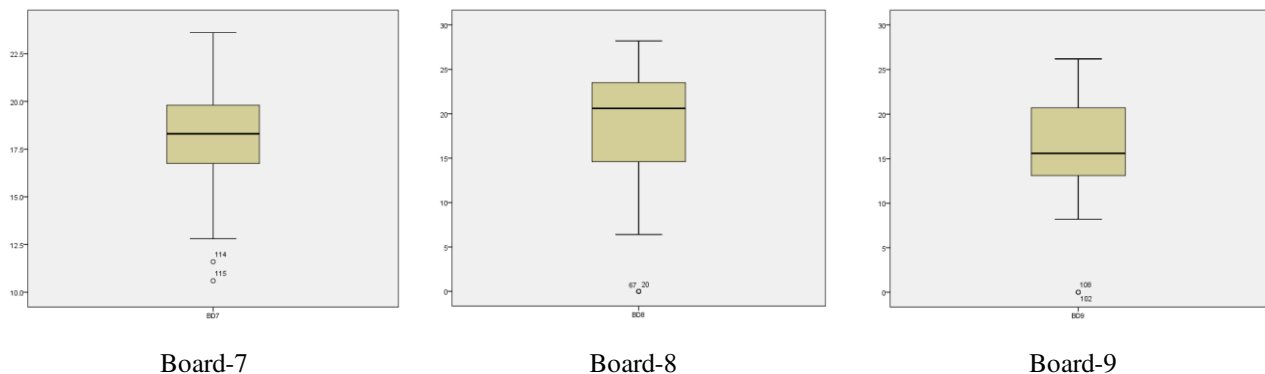


Figure 4 : Figure representing Box-Plot for Personality Test marks between the Boards (B1 to B9)





V. CONCLUSION

Practically, every time and everywhere real-world reaction of most candidates appearing for personality tests is that an interview process is extremely subjective and dictated by destiny. A good performer in a written examination must have a higher probability to score higher in the personality test, if the personality test is structured and controlled for rating bias. When the personality test is not conducted in a structured fashion there is ample scope for improper rating of the candidates for jobs. By the above statistical analysis it is evidently clear that there is a very low level of correlation between the written test marks and that of the personality test scores of candidates as a whole. Moreover, among the personality test boards some are lenient, moderate and strict. So, equi-probable exposure of all the candidates in case of personality test is not properly maintained by different RRBs. So, the analysis suggests that a structured personality test is of utmost important for a fair and transparent selection process involving interviews or personality tests.

REFERENCES

- [1] Sangeetha, K.(2010) "Effective Recruitment: A Framework", IUP Journal of Business Strategy,7(1/2),pp.93-107, Business Source Complete, EBSCO host. [Online].(Accessed:7 March 2015).
- [2] Compton R. L., B. Morrissey, and N.A. Nankervis. 2014., "Effective Recruitment and Selection Practices". Australia: CCH Australia Limited. ISBN:978-1-925091-15-1.
- [3] Henry, O., & Temtime, Z. (2009). Recruitment and selection practices in SMEs: Empirical evidence from a developing country perspective. *Advances in Management*, 3(2), 52-58.
- [4] Rynes, S. L., & Barber, A. E. (1990). Applicant attraction strategies: An organizational perspective. *Academy of Management Review*, 15, 286-310.
- [5] Gamage, A. S. (2014). Recruitment and selection practices in manufacturing SMEs in Japan: An analysis of the link with business performance. *Ruhuna Journal of Management and Finance*, Sri Lanka1(1), 37-52.
- [6] Okoh, A.O. (2005). *Personnel and human resources management in Nigeria*. Lagos: Amfitop Books.
- [7] Intellectual Property Right Registration No: L-89634/2020 Dated17-02-2020)
- [8] International Journal for Research in Engineering Application & Management (IJREAM) ISSN : 2454-9150 Vol-05, Issue-12, Mar 2020
- [9] Florea, N. V., & Mihai, D. C. (2014). analyzing the influence of factors on recruitment and selection performance using kalman filter. *Journal of Science and Arts*, 14(4), 299.
- [10] Ofori, D., & Aryeetey, M. (2011). Recruitment and selection practices in small and medium enterprises. *International Journal of Business*.
- [11] Opatha, H.H.D.N.P. (2010). *Human resource management*, Colombo, Sri Lanka: Author published.
- [12] Sang, C. (2005). Relationship between human resource management practices and perception of organizational performance, roles of management style, social capital, and culture: Comparison between manufacturing firms in Cambodia and Taiwan. Taiwan: National Cheng Kung University.
- [13] Osemeke, M. (2012). The impact of human resource management practices on organizational performance: A study of Guinness Nigeria Plc. *International Journal of Arts and Humanities*, 1 (1), 79-94.
- [14] Huselid, A. M. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3). 635-672.
- [15] Rauf, M.A. (2007). *HRM sophistication and SME performance: A case of readymade garment manufacturers and exporters in Lahore*. Pakistan Report, London: HMS.
- [16] Gorden, R.L. (1992). *Basic interviewing skills*. Long Grove, IL: Waveland Press, Inc.



- [17] István, J. (2010). Selection methods used in recruiting sales team members. Periodica Oeconomica, October, 110–117.
- [18] Unwin, K. (2005). Recruiting knowledge workers. HRM Review, 5 (10),5-9.
- [19] DeVaro, J. (2008). The labor market effects of employer recruitment choice. European Economic Review, 52 (2), 283–314.
- [20] Osemeke, M. (2012). The impact of human resource management practices on organizational performance: A study of Guinness Nigeria Plc. International Journal of Arts and Humanities, 1 (1), 79-94.
- [21] Atkinson, R. (1998). The life story interview. Thousand Oaks, CA: Sage Publications.
- [22] Mary Argue, 2015: The Importance of the Strategic Recruitment and Selection Process on Meeting an Organisation's Objectives, Master of Business Administration, General Management, Dublin Business School, May 2015

BIOGRAPHY



Professor Somen Sahu, a Statistician and Fishery Economist by profession, is a Professor and Head of Fishery Economics & Statistics, Faculty of Fishery Sciences, West Bengal University of Animal and Fishery Sciences, Kolkata. Prof. Sahu completed B.Sc. Honours in Statistics from [Ramkrishna Mission Residential College, Narendrapur](#) (Calcutta University)

in 1991, Post-graduated in Statistics from Burdwan University in 1993 (1st. class 2nd.), M.B.A. (P.G.D.P.M.) from National Institute of Personnel Management in 1995 with **Gold Medal**. He completed his Ph.D. from Jadavpur University in 2006. He was a National Scholar. His areas of interest are Bio- Statistics, Statistical Software Handling, Biomonitoring, Management Information System and Extension Education in different Agricultural fields. He introduced a new Model viz. **“Dr. Sahu’s Networking Model”** which is an econometric model for optimization of production-technology (enhancement of Productivity Index) in inland fisheries which was adopted by Department of Fisheries, Government of West Bengal. He is a field based fishery research scientist and academician of repute. Another pioneer work in his credit that he has successfully introduced the concept of deep sea marine cage culture which is acclaimed by all concerned relating to fishery sciences. He got published more than 40 (Forty) research publications in different peer reviewed National and International journals , **guided and guiding more than 61 (Sixty One) [Master's (42) and Ph.D.(19)] scholars**. He had also bagged the Intellectual Property Right accreditation applicable over 177 countries on the globe, on the **—PROF. SAHU’S METHODOLOGY OF DISTRIBUTION DEPENDENT EQUALIZATION OF SCORES TO REMOVE EXAMINER’S BIAS AND/OR DIFFICULTY BIAS** (Registration No: L-89634/2020 Dated 17-02-2020) and **STATISTICALLY DESIGNED TECHNIQUES OF RECRUITMENT PROCESS TO MAXIMISE TRANSPARENCY AND MINIMISE ERRORS : PROF SAHU’S PROTOCOL** (Reg. No. L-94966/2020 Dated 23.09.2020) as a co- author. He is the founder Secretary of International Organization of Biological Data Handlers. He has life membership with various scientific & professional societies & organizations. At present, he is associated with different organizations in State and National level. For his active contributions in the field, he has been awarded **“LIFE TIME ACHIEVEMENT AWARD- 2017”** , **“MATSYA SATHI SAMMAN-2018”**, **“BEST SCIENTIST AWARD-2020”** during Bengal Aqua Expo (over different years) by Sri Chandranath Sinha, Hon'ble MIC, Dept. of Fisheries, Govt. of W.B. . He received the **—BEST TEACHER AWARD-2019”**, **F. F. Sc.**, from his University. He is also associated with the following organizations in different capacity viz. **—MARINE ADVISOR”, Department of Fisheries, Govt. of West Bengal, Expert Member of ICAR- CMFRI** (Central Marine Fisheries Research Institute), Govt. of India, **Expert Member of ESSO-INCOIS** (Indian National Center for Ocean Information Services), Govt. of India, **“Honorary Statistical Adviser”, West Bengal Police Recruitment Board**, Govt. of West Bengal, former Editor In- Chief, The Indian Journal of Agriculture Business, Co-Principal investigator, All India Network Project on Mariculture, ICAR.



Mr. K. Hari Rajan served in the **Indian Police Service** for 33 years and has been holding the post of Chairperson, West Bengal Police Recruitment Board since late 2012, having retired in mid - 2018. He is a recipient of the Indian Police Medal for meritorious service and President Police Medal for distinguish service. He has had the privilege of conducting 21 recruitment drives and one departmental promotion examination. The



board has been conducting recruitments for Secondary school level and Graduate level entry posts for the subordinate uniformed services under the Govt. of West Bengal. He has been taking an avid interest in fine tuning the Written Examination, Physical Test & Personality Test system of the police recruitment board and has also developed processes to curb malpractices in examinations. The co-author has held several posts within the police department including about seven years in the traffic department in the Kolkata Police & West Bengal Police and still retains a keen interest in traffic, transportation and urban issues.



Mr. Syamantaka Sahu, has completed his schooling from Don Bosco School, Park Circus, Kolkata and is currently pursuing his M.Sc. in Zoology from the Vidyasagar University. From a very young age he has been homeschooled in Statistics and Statistical software handling. He has actively been involved in ground level fishery research and data collection. He has received his training on Time-Series- Forecasting from Earth Space Science Organisation (ESSO) - Indian National Center for Ocean Information Services (INCOIS). He has published 7 international papers in peer reviewed journals to his credit. He had also bagged the Intellectual Property Right accreditation applicable over 177 countries on the globe, on the —PROF. SAHU'S METHODOLOGY OF DISTRIBUTION DEPENDENT EQUALIZATION OF SCORES TO REMOVE EXAMINER'S BIAS AND/OR DIFFICULTY BIAS (Registration No: L- 89634/2020 Dated 17-02-2020) and STATISTICALLY DESIGNED TECHNIQUES OF RECRUITMENT PROCESS TO MAXIMISE TRANSPARENCY AND MINIMISE ERRORS : PROF SAHU'S PROTOCOL (Reg. No. L-94966/2020 Dated 23.09.2020) as a co-author.



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