

## The Psychometric Dimension of HCBA

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### ABSTRACT

*People matters, processes powered by algorithms, technology leverages, and scenario personas are making the sense of HR-4.0 in the digi-era. The Yellow, Red, Green and Blue Worlds define the 'Future of Work and Workforce' in the Gig Economy. The Cognitive Capabilities and Computing (IBM), Entrepreneurial Talent (GTCI, 2019), Robotics and Autonomous Agents, Advanced Machine Learning (AML) and Artificial Intelligence (AI), Robust and Reliable Solutions and Wearable Tech in Workplaces redefined and reshaped Human Capital Management (HCM).*

*Human Capital Analytics (HCA) emerged as a 'Talent Decision Science' and Human Capital Behavioural Analytics (HCBA) as a 'Predictive EBM and Powerful Data Science'. The Psychometric Assessment and Analysis predicts the behaviour of workforce and providing sensitive insights and inferences to the C-Suite and Collar Peers. The Personality Tests of MBTI, 5-Factor Model, DISC Theory, Predictive Index, California Psychological Inventory, Caliper Profile, FIRO-B, 16 PF-5, and Thomas Killman Conflict Instrument (TKI) are the basis for HCBA and Competitive and Institutional Isomorphism, Configuration are 3-Dimensions influence HCA.*

*An earnest attempt has been made to cast an eye on the future of HCBA in the backdrop of Psychometric Assessment and Analysis. The main objective of the study is to assess the personality traits and occupational stressors in predicting counter productive work behaviour within the time span of 30-40 minutes between the age group of 18-70.*

**Key words:** HCBA, TKI, HCA, C-Suite.

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## Human Capital Behavioural Analytics (HCBA) - The Future of HCM

The **Industrial Revolution-4.0** transforms the lives, workforce and communication systems, redefined and reshaped every aspect of human life. Automation and Digitalisation permeates in every sphere of life, Artificial Intelligence (AI) and Agile Technologies, Disruptive and Discontinuous Innovations, Performance Management 2.0 and People Analytics transform the HR landscape seamlessly(**Pwc, 2017**)<sup>1</sup>.The integration of *Yellow* (Humans Come First), *Red* (Innovation Rules), *Green* (Companies Care) and *Blue* (Corporate is King) Worlds define the ‘Future of Work and Workforce’. Keeping in view the redefined and reshaped workforce, application and adoption of new skills, modern employee experience, CHROs’ cater the expectations and demands of Today’s and Tomorrow’s skilled workforce as well as the clientele(**KPMG, 2019**)<sup>2</sup>.The Human Capital Behavioural Analytics (HCBA) emerged as a powerful value proposition and occupied a pivotal position within the canvas of change.

India embraces the Gig Economy and is one of the most complex and dynamic work habitats in the globe. There is a paradigm shift from Employee Engagement to Employee Experience, Customer Intelligence to Emotional Intelligence, Talent Management to Brain Mapping and HR is what will drive this change(**Economic Times, 03<sup>rd</sup> Mar, 2019**).The businesses will increase their employee engagement spending by 45% in 2019(**G2 Crowd Report, 2018**).People matters, processes powered by algorithms, technology leverages, and scenario personas are making the sense of **HR-4.0** in future*i.e.*, My Work is My Life and the Opportunities I have are Priceless. (**Deloitte, The future of Human Resources: A Glimpse into the Future, 2019**).

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1. PwC Report on Performance Management in India: A Change Beckons, 2017, p.3.

2. The Future of HR 2019: In the Know or in the No, KPMG International, 2019.

### **The Human Capital Behavioural Analytics (HCBA) - The Empirical Evidences**

**Artificial Intelligence(AI)** assesses the honesty, integrity and personality of the working class. **Psychometric Assessment** can provide insights about the work precincts, working conditions and working styles whilst providing employers the natural strengths of the workforce (**English, 2007**).<sup>3</sup>The **HCBA** predicts the Collar & C-suite perspectives on the future of work and Off-The-Shelf Retention Models from SAP, Oracle, Workday, ADP, Deloitte, Ultimate Software *etc.*, help to understand drivers for attrition.

The **Human Capital Management (HCM)** enables CHROs not only drive organizational performance, but sustain it (**Deloitte - The Human Capital Platform, 2019**). **Davenport and Harris (2006)**<sup>4</sup> define ‘Analytics as the extensive use of qualitative and quint-essential data and analysis, explanatory and predictive models, and fact-based management to drive decisions and actions.’ Data Analytics deal with HCM are in the form of Talent Intelligence (**Snell, 2011**)<sup>5</sup>, Talent Analytics (**Davenport, Harris and Shapiro, 2010**)<sup>6</sup>, HRAnalytics (**Mondore, Douthitt and Carson, 2011**)<sup>7</sup> or Workforce Analytics (**Hoffmann, Lesser and Ringo, 2012b**)<sup>8</sup>. HCM Analytics can be defined as a predictive and prescriptive power ranging from HRIS or HR Metrics to the end of the spectrum for the benefit of strategic decision making by organizing, analysing, interpreting and presenting the data. (**Bassi, 2011**)<sup>9</sup>.

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HCM Analytics supports CHROs' in decision-making, critical and cognitive thinking and the appraisal of all forms of evidence. **Evidence Based Management (EBM)** intends to contribute organizational and management effectiveness in a context-specific (**Baron, 2011**<sup>10</sup>), helps to increase efficiency and generate better business results (**Harris et al., 2010**)<sup>11</sup>. Human Capital Behavioural Analytics (HCBA), a predictive EBM, evaluates the causal relationship between HR Practices and Organizational Performance influencing the business strategy and performance, by applying statistical techniques and experimental approaches based on metrics of efficiency, effectiveness and impact in relate to Recruitment, Selection, Training and Development (**Lawler, Levenson & Boudreau, 2004**<sup>12</sup>; **Boudreau & Ramstad, 2006**<sup>13</sup>). EBM relied upon 4-Sources of Information viz., (i) Findings from Academic Research, (ii) Contextual Inferences, (iii) Expertise and Judgment of the Practitioner, and (iv) Perspectives of Stakeholders (**Briner et al. 2009**)<sup>14</sup>.

**Boudreau and Ramstad (2007)**<sup>15</sup> defined HCM Analytics as a 'Talent Decision Science' and Workforce Analytics contain the elements of Business Intelligence and predict insights and inferences from HRIS.

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### Psychometric Testing - The Human Capital Dimension

Psychometric Tests can be of great value in the process of 'Recruitment and Selection' because of their objectivity and validity (Schultz & Schultz,1998)<sup>16</sup>. Kemp (1999)<sup>17</sup> opined that if Psychometric Tests are used properly in HRM Process, these deliver invaluable information which is not easily gleaned in interviews. Van der Walt (1998)<sup>18</sup> is of the view that these tests are more reliable and valid with compare to others. Psychometric Tests provide the sensitive insights and inferences and they remain the most effective way of predicting behaviour Mittner (1998)<sup>19</sup>.

Psychometric Tests are used to measure individual behavioural traits, numerical, verbal and diagrammatic reasoning, memory, inductive reasoning, speed of perception, testing of knowledge and skills, the ways of behaving, thinking and feeling (Koli and Llaci, 2005)<sup>20</sup>. Personality Tests serve as decision-making tools ranging from screening of Curriculum Vitae, Interviews, Competency Testing, Assessment Centres, Role Play Exercises. The Psychometric Questionnaires designed to showcase the personality preferences and emotional intelligence of incumbents (English, 2007, Perotin, 2001)<sup>21</sup>. The following are the prominent 'Personality Tests' used in the process of Recruitment, Selection, Training and Development viz., *Myers Briggs Type Indicator (MBTI)*, *Big Five Factor Model*, *DISC Theory Predictive Index*, *California Psychological Inventory*, *Caliper Profile*, *FIRO-B*, *16 PF-5*, and *Thomas Killman Conflict Instrument (TKI)*.

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The HCA Framework deals with (i) Competitive Isomorphism (Product/Market/Technology), (ii) Institutional Isomorphism(Social/Cultural/Legal)and (iii) Configuration of the Company(Organizational/Administrative/Cultural Heritage)(**Paauwe, 2004**)<sup>22</sup>.The integration of 3-Dimensions influences the degree and nature of application of HCA. The Psychometrics measure the cognitive response of the brain in relate to skills, abilities or personality. The 2-Types of Psychometric Assessments are: (i) Ability Tests and (ii) Personality Questionnaires (**Pwc, Psychometric e-Learn**)<sup>23</sup>.The FREE Psychometric Tests in relate to: (i) Business Personality Reflections (ii) Verbal Reasoning; (iii) Integrity; (iv) Student Research on Gender Roles in the Workforce; (v) Student Research on Work Behaviour in the Workforce determine the behaviour of HR Personnel in a specific context.Some of the Psychometric Tests adopted in the process of Workforce Recruitment, Selection, Training, Development and Performance Appraisal*inter alia include:*

- Hogan HPI, HDS, MVPI
- SHL OPQ 32i, Verbal, Numerical and Inductive Reasoning
- Talent Q
- Genesys 15FQ+ Personality Profile and Numerical, Verbal&Abstract Reasoning Tests
- Saville Wave
- California Psychological Inventory
- Watson Glaser Critical Thinking
- Situational Judgement (Call Centre Dilemmas, Managerial Judgement)
- Myers - Briggs Type Indicator (MBTI)
- 360 Degree Survey(Source: [www.h2r.co.nz/psychometric-assessment](http://www.h2r.co.nz/psychometric-assessment))

The main objective of the study is to assess the personality traits and occupational stressors in predicting counter productive work behaviour. The Time Specified for the Online Test is 30-40 minutes and is confined to the Age Group of 18-70. The

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respondents have held the Present Status for at least 6 months and an Average Weekly Working Hours of at least 20([www.psychepress.com](http://www.psychepress.com)).

### Questionnaire for Personality Testing in the Workplace

Personality Traits	To What Extent Do You Agree or Disagree With The Following Statements				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My Goals in Life are Clear					
2. If People are Rude To Me I Just Shrug it off					
3. I am Confident in What I Do					
4. I can Work even when Things are Disorganised					
5. I consistently put Full-Time and Effort into Everything I Do					
6. I prefer achieving My Goals than assisting Others to achieve their Goals					
7. I would describe Myself as an extremely Competent Person					
8. I prefer working within a Stable rather than Flexible Environment and I am Ambitious					
9. It's better to get a Job Done than Aim for Perfection					
10. I am able to Complete Tasks as well as, or better than Other People					
11. I Like to be In-Charge of Other People					
12. I Strive To Do The Best I Can					
13. I Feel Uneasy if I'm the Centre of Attention					
14. I am Confident in My Abilities To Complete Difficult Tasks at Work.					

15. I am Happy to make Speeches in Public.					
16. It is very important for Me To Achieve My Goals					
17. I Like To React To Things on the Spur of the Moment					
18. I believe I'm More Intelligent than Most					
19. I don't like Unexpected Responsibilities					
20. I approach Life in an Easy-Going Manner					
21. I tend to take on Other People's Problems					
22. I feel like a Failure compared to My Friends and Co-Workers					
23. I like to Have Plenty of Time To Myself					
24. People often comment on How Comfortable I'm in Giving Orders					

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Source: Online Psychometric Test([www.psychometricinstitute.com](http://www.psychometricinstitute.com))



## Psychometric Test - The Analysis and Assessment

### Your Score & Suitability for the Role

Unsuitable			Suitable				Very Suitable		
1	2	3	4	5	6	7	8	9	10

*Scores in the green area represent high suitability*

A 'High Score' on a Personality Trait doesn't always mean 'Higher Suitability'. Each Role has its 'Better' or 'More-Matching' Personality Profile. E.g., Bank Employees are likely to take risks which means that a 'Low Score' on the Risk Taker Trait is very suitable. However, Sales Personnel prefer to take risks and dares to initiate contact with potential customers which mean that a 'Low Score' on the Risk Taker Trait is unsuitable. To interpret the results, Scores showcase with Number and Colour. If the Score is in Green Area, then Employers prefer your personality as a plus when assessing your suitability for the role.

**Note: (i) Unsuitable for the Role (ii) Suitable for the Role; (iii) Very Suitable for the Role.**

### Personality Test Variable - Confidence (The Ability To Succeed)

Self-confidence is one of the most important indicators for success in the workplace. Therefore, most employers regard it as one of the most important factors in making a selection decision.

*Your result implies that you believe that you have the intelligence, ability and drive required to achieve successful outcomes. You are confident in your ability to overcome hurdles and difficulties along the path to accomplishing your goals in the workplace. A high score in this trait indicates to employers that you are highly employable and are likely to be successful in your role.*

### Personality Test (Confidence) - Recommendations

#### Your Score & Suitability for the Role

Unsuitable			Suitable				Very suitable		
1	2	3	4	5	6	7	8	9	10

*Scores in the green area represent high suitability*

### Personality Test Variable - Achievement Driven

This trait measures the extent to which you strive to achieve excellence and accomplish your goals. This trait assists employers to learn about your inner drive and ambition for excellence in the role. Employers are interested in taking on-board people who have an ambition to excel in what they do. It reassures the employer that you will invest all your efforts to achieve your work-related goals.

*Your result indicates that you are likely to have a strong inner drive to achieve excellence in what you do. You have an ambition to be successful, and often have a strong sense of direction career-wise and in life. You are likely to be willing to stay later than others or invest more effort than others to accomplish tasks to the best of your capabilities. A high score on this trait is highly desirable by employers. Please bear in mind that an extremely high drive for achievement is usually associated with being a workaholic.*

### The World of Digitalisation - Future of HCBA

In the era of digital transformation, the HCBA emerged as a Game Changer for HCM and Future of Work (**CapGemini**).The AI fuelled HCBA identifies real entity risk, predicts possible threats, focus on employee experience and ROI (**Accenture**).The reliability and validity of Psychometric Testing paramount in the Recruitment and Selection Decisions, Career Choice, Training andDevelopment, Team Building and Team Management, Conflict Resolution and Performance Appraisal*etc.*

The Human Capital Behavioural Analytics (HCBA) will take HCM to a different dimension and it can derive huge insights from big data and predict probable issues way before they strike an organisation. It also plays a key role in predicting 'Attrition', enabling organisations to take 'Retention Steps' on time, and also tracking 'Employee Engagement Trends' which are directly proportional to organisational productivity and efficiency. Further, it cultivates the fact-based and data-driven culture that many organizations and leaders try to pursue.

It's a Time to Transform. The future of HCBA would involve designing specific programs and strategies to ensure an engaged workplace, happy employees, reward strategies that 'Mapping Talents' and ensuring there is 'Diversity and Inclusion' in every sense. The presence of 'Human Touch with Emotional Intelligence' is absolutely critical to the success of 'Human Capital Behavioural Analytics'.

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