# Impact on Behaviours and Behavioural Engagement of Employees established using Advanced Psychometric Testing Tools founded on DISC Theory

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**ABSTRACT**

This research has tried to talk about how Psychometrictools established on the foundation of DISC theory effecting behavioural engagement. This research further highlighted how behavioural management in IT sector employees is important in understanding of employee's engagement of employees. The result portion of this research has talked over collected responses about people agreement and disagreement on the understanding of Psychometric tools and their result of assessment on employees.

***Keywords***: Psychometric Tools, Behavioural Engagement, DISC Theory, Employees Management, Behavioural Engagement, Employee Productivity, Marston's Disc Theory, Performing Teams with Different Behaviours, Engaging Team, Behaviours, Human Resource Management.

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## I. INTRODUCTION

Behavioural engagement is one of the most important parts in today's modern time and age for business organization's success. This involves positive attitude towards employees and increase collaboration in the business firm. This also includes persistence and proactive and adoptive nature of employees that helps to expand the job roles. With the help of Behavioural engagement business firms are able to go beyond the role. William Marston's behavioural DISC theory is one of the most important factors to understand the employees' behaviours and behavioural pattern. This theory deals with 4 type of behavioural traits that have a direct relation with employee behaviour such as dominance, submission, inducement, and compliance. In the ITsector of Pune; the study of the behaviours is needed to be understood to increase behavioural engagement between employees. This DISC theory is a powerful and profound model to understand human behaviour in the IT sector of Pune, which a major IT sector of India with an export of 1.52 lakh crore rupees and with 4 lakh employees.

**Aim and the Objectives**

This experimental study has aimed to understand important impact and effect of using advance psychometric testing tools founded on DISC theory on behavioural engagement on employees of IT sector in Pune. This study will also concentrate on the William Marston's DISC theory to understand the impact of behaviours on employee's behavioural engagement. This study has focused on the IT sector of Pune.One of the major aims of the study is to gather in-depth information about impact of Behavioural Engagement on employees.

**Research objectives**

- To understand the concept of the William Marston's DISC theoryimpacting the behavioural engagement among the employees of the IT sector of Pune
- To find out challenges of implying William Marston's DISC theory and Psychometric Test among the employees of the IT sector of Pune
- To discuss the concept of Behavioural engagement of IT sector employees
- To recommend some solution to implyPsychometric Test among the employees of the IT sector of Pune

## II. DISCUSSION OF THE PREVIOUS RESEARCH

**Perception of cased on Behavioural management among the employees of the IT sector of Pune**

As per the views by Wanyama and Eyamu (2021), psychometric tests are an important catalysing factor in case of talent management procedureof organisation from theseabove-mentioned ITsector. Thathas been initiated from the process of talent acquisition towards the development of talentas per the views of "DISC Theory" by "psychologist William Moulton Marston" in the rationale manner.In this regard, application of this Psychometric isassociated with development of recruitment process, "Training and Development", development of organizational planning as well as fair performance evaluation andmost importantly evaluation of employee engagement patter in the rationale manner. On the other hand, as per this DISC theory, development of individual rank as well as "Primary Personality Types" is associated with four distinct factors such as "dominance, influence, steadiness and conscientiousness" as well.

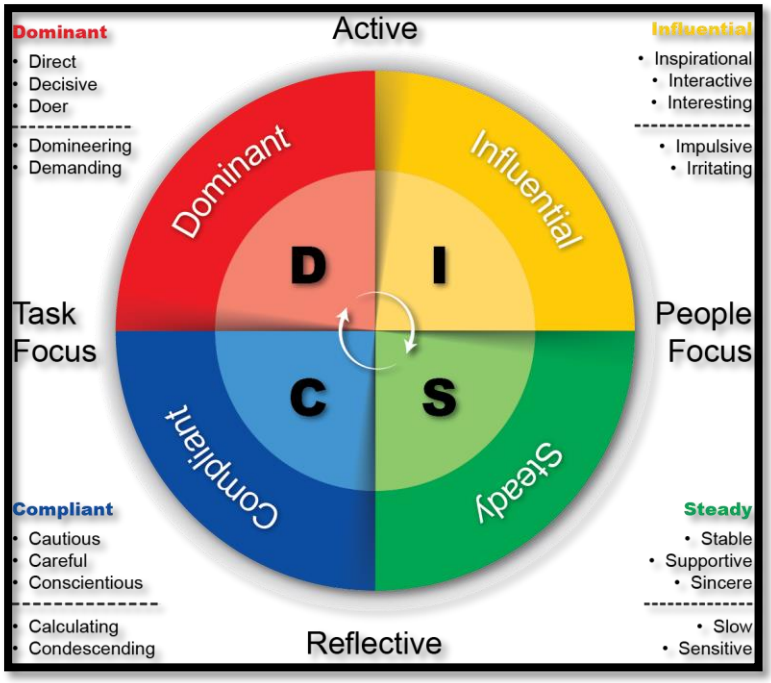


**Figure 1:Importance of DISC Assessment**

(Source: As guided by Pathania and Rasool 2019)

The profiling of this "DISC Psychometric test" is immensely related with non-judgemental terms in order to assist workforce to distinguish their behavioural differences in the workplace. In a wider sense, this DISC is considered as an important mean of personal assessment as well as personal awareness tool that works on behavioural managements as well as behavioural management of the work force in order to promote important resiliency of teamwork and working productivity rate in the rationale manner. For instance, the renowned IT sector in Pune or the highest employers in this country context that is "Tata Consultancy Services (TCS)" has adhered psychometric test as an important perspective of "Personality Trait Test and a Behavioural Test" which is mainly coined as TCS NQT as well (Pathania and Rasool 2019).This test is also associated with development of aspiration towards its potential employees and strengthening of their screening progression in a rationale manner. In this regard, this organisational data has also mentioned that TCS gas decided to launch to around "20000 seat campus in Pune in order to expand their workforce in this region dueto potential behavioural management and supportive work environment in this context.

**Challenges associated with implementation of Psychometric assessment by Pune based IT Sector**

According to point of view by Mahmood*et al.* (2018), it has been highlighted that HRM or the "Human Resource Management" team of thissector areresponsible for determination ofthe qualityinterpretation over assessing psychometric evaluation among employees based on this considered theoretical aspect. In this regard, HRM and leadership management of this secretor can face immense conflicts from this perceptive of whole assessment as well as report interpretation prospect.

***Data Complexity***

As major IT sector or the Giant IT sector have developed their business in this state of India therefore, they possess a high range of the workforce as well.In this regard, practice-based evidence has highlighted that TCS, Infosys and Accenture are the giant industry or the largest

employers in Pune (Gilani and Cunningham 2017).Hence, their psychometric result is associated with huge range of statistical data and technical terminology such as "psychometric validity", "factor analysis" or "normative data" which can reduce the knowledge explanation capability.

***Different Interpretations***

This test of IT sector of the Pune is mostly associated with positive interpretation of the "person's personality, intelligence, or behaviours" or the general information can be interpreted in the adverse manner during development of this "Cognitive ability assessment" in the rationale manner. Based onthe workforce constitution of Pune it has been highlighted that a wide massof the migrant employees is working in their various branch or sector which can create immense challenge in front of HRM teams of these sector in Pune.

***Assessment of the Reliability and Validity***

Reliability and this validity are the two important components that are associated with important constitution of "precision, accuracy, consistency, and explicability" as well.These measures can be evaluated through understanding of real time score that is necessary to relate with specific individual assessment (Bailey *et al.* 2017). In this regard, IT sector faced immense challenge from the perspective of developing viability measures over concluding individual report and expatriation perceptive.

***Cultural Differences***

Based on the essential perception by Adnan*et al.* (2020),it has been mentioned that cultural diversity is an important means of organisational culturein forint of thisIT sector that create immense change during development ofpositive communication measures in the hierarchical treeof this IT sector in the rationale manner.

***Ethnical Concerns***

This psychometric assessment can play an essential role towards interpretation of individual lives pattern, carer choice metrics, educational legacy and opportunity as well as mental health conditions and these are relayed upon interpretation of reports. Ethical consideration can be hampered through reduction of confidentiality of reports, lack of informed consent, and avoiding stereotyping and stigmatisation pattern during conduction of this test in this IT workforce based on Pune.

**Significance of Behavioural Engagement among Pune Based IT sector**

According to the important perception by Youngstrom*et al.* (2017), it has been supported that business environment of the IT sector of India is immensely anticipate several parameters such as business climate, financial markets along with political twists as well as potential geopolitical twists and most importantly its various turns as well.In case of IT sector in Pune, where more than about four lakhs of employees are officially registered; behavioural management has played an essential role for interpretation of quality analytics over performance management.In addition, based on the statistical evidence it has been highlighted thatmore than of 800organisations in IT sectoris operating theirtechnologicalservice in Punewhich aredealing with massive statue ofthis behavioural engagementpatternin the work place.According to the essential perception by Ercolano and Pascucci (2017), it has been supported thatBehaviouralEngagement plays an important role towardsdetermination ofthis rate of participation and rate of involvement in a particular project in this considering sector of Pune, India. Considering the essential activity of this sector, it has been described that adoption of the quality resolution over behavioural management is immensely associated with development of the positive attitude towered interpretation of revolutionary terms over behavioural management.

**Figure 2:List Top IT Sector in Pune**

(Source: As guided by Decuypere and Schaufeli 2021)

Based on the "The Tech Scene in Pune", it has been highlighted that there are around 3200 active business performing and accounting for around 2% of the whole IT start up and this city is becoming "Indian IT hub" as well.Various multinational corporations from IT sector have already established headquarter in Pune. Therefore, IT sector list of Pune has constituted with "Mindbowser, Tech Mahindra, Client Ltd, HCL, Cubage Software, Atlantic, Enact, PubMatic, Cisco, Deloitte, Microsoft, Oracle, Wipro, Infosys, Accenture, Tata Consultancy, Cognizant, L&T Limited, Capgemini, BMC Software, IBM, and Amdocs" as well (Decuypere and Schaufeli 2021). Most of these listed organisationshave not experiencedthe usefulness of using psychometrics tools for behavioural engagement of employees and that accounted as less than 10% of IT sector companies in Pune has been using psychometrics tools.



**Theoretical Perspective**

***"Theory of Planned Behaviour"***

This "Theory of Planned Behaviour" or TPB has considered individual act as an important perception of rationale act as per their attitudes along with potential subjective norms, and most importantly "perceived behavioural control" as well.This theory gas supported behavioural engagement pattern of employees along with decision-making capability of the leadership management as well.

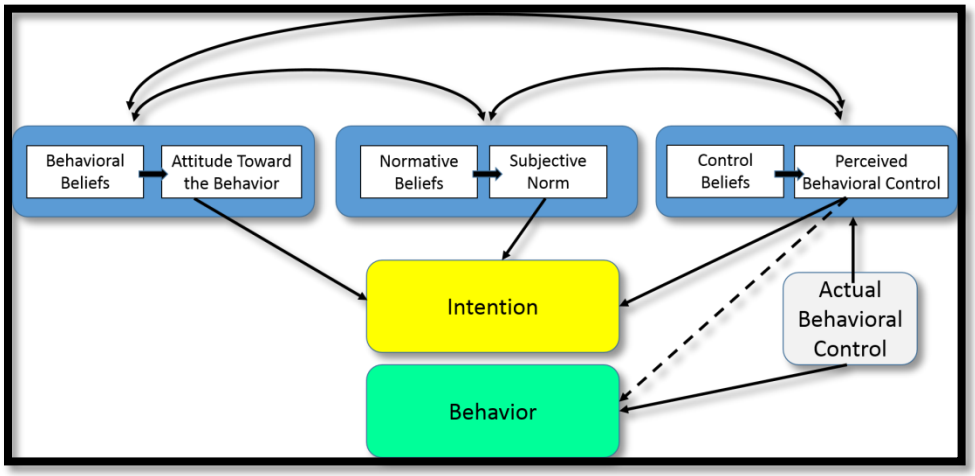


**Figure 3: Concept on "Theory of Planned Behaviour"**

(Source: As guided by Bailey *et al.* 2017)

The TPB theory has reflected over important categorisation of the Psychometric test as per the views and accountancy of this William Marston's DISC theory through understanding of attitudes, behavioural believes along with normative beliefs, subjective norms towards perceived behavioural management in the workplace (Bailey *et al.* 2017).In case of this Pune based IT sector, behavioural engagement of the workforce is directed towards interpretation of teamwork saucers rate as well as IT project success rate as well.

In this regard, as per the views by Oktay*et al.* (2019), it has been supported that leadership practice and its important action are correlated with determination of employee engagement pattern.Lack of the employee engagement is associated with determination of the lower rate of the productivity as well as reduced pattern of the job satisfaction measurement the same time.

**III. METHODS**

This particular research work has followed "Positivism Research Philosophy" in order to adopt clear perception over this research aim. One of the most important benefits of this research philosophy is associated with accumulation of fractural and authentic information in order to develop relative and real-time insight over this research interest in the more authentic manner. As per the words of Kurniawan (2018), "Positivism Research Philosophy" can provide an important philosophical direction to a research progression through distribution of real-time resonance in order to improve quality interpretation over accumulated information.In addition, this research work has supported by association of "Deductive Research approach" in order to improve reliable insight over this research aim and its important variables for understanding importance and impact on Behaviours and Behavioural Engagement of Employees established using Advanced Psychometric Testing Tools founded on DISC Theory as per this geographic region of Pune, India.As per the words by Thomas*et al.* (2018), ithas been described that "Deductive Research approach"be considered as an important meanof quantifying ideas as well as concept over a particular research aim in order toimprove important possibility measures.



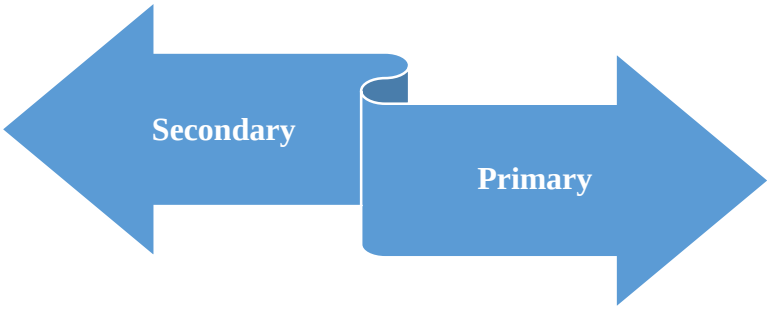


**Figure 4: Data collection method**

(Source: Influenced bySchuurman 2020)

This empirical study has adopted "Primary Quantitative data collection" procedure in order to accumulate real-time view on this specific study and research progression. With regards to the outlook of Schuurman (2020), it's been directed thatthis "Primary Quantities research method"can promote accumulation of granted information up to date data as well as relevant

insight over research aim for the purpose of enabling accurate trends. This study has followed essential observational resiliency over this research insight through adoption with respect to thesurvey method being a critical tool for "Primary Quantitative Research Design" for the purpose toshape this data collection process. In this regard, this study has initially selected 128-population size and after that has followed this "formula of Slovin" in orders to extract the sample size with respect to this study as well as research.

***"The population size (N) is 128, and we have chosen a 5% margin of error. The sample size (n) has been determined using the Slovin formula."***

***"n= {N/ (1+N*e^2)}"***

***= "{128 / (1 +1280* 0.05^2)}"***

***= 96.969 =97***

From applying this "formula of Slovin" this study has calculated 97 total sample size in order to establish this research aim as well.In addition, the participant read selected from HRM team members from the IT sector of Pune, India in order to develop depth insight over behavioural management prospect. Therefore, this study has developed total 12 research questions among this two are demographic where rest 10 questions are based on this research interest.This questionnaire for surveyhas beenformulated via "Google Form" andthe linkhas been forwarded to these 97 respected participantsin order toimprove time management resiliency of thiswhole research process.The accumulated data from this survey has been interpreted through follow up of "Numerical data Analysis" tool in order to develop proper interpretation over these research findings.These accumulated data have been interpreted through adoption of essential accountancy support and relevant information as per existing study and theoretical viewpoint in order to improve reliability and validity metrics. As this study has followed human participation, hence this research has adhered ethical concern through providing voluntary participation and maintenance of confidentiality of participant's data in terms of improving quality resiliency of this research process.



**IV. RESULT**

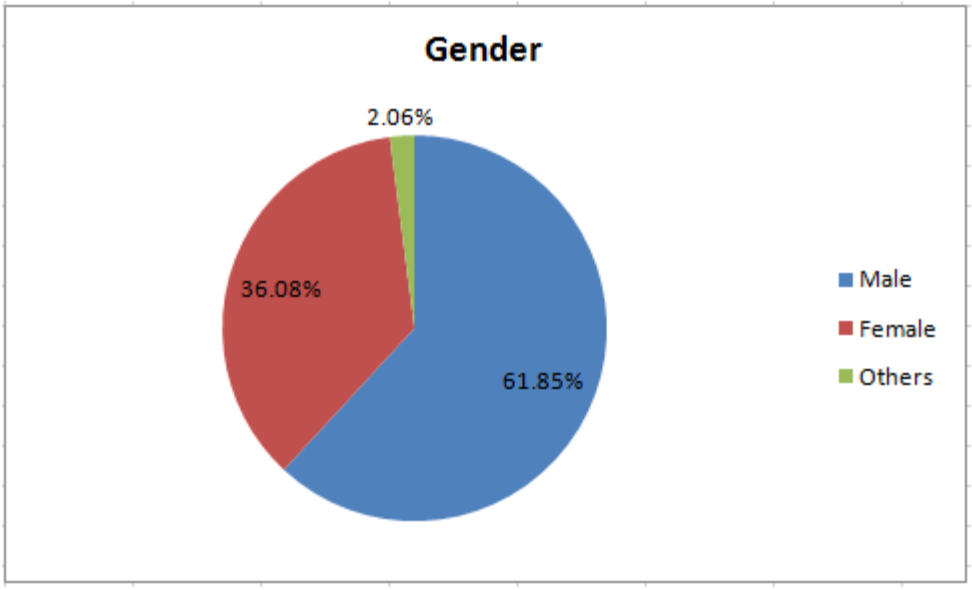


**Figure 5: Gender**

**Analysis**

The above graph mentioned the gendered response towards the questions based on Psychometric performances of employees working under IT sectorof Pune. The above graph further reflected 60.82% of male respondents has answered the 12 questions based on Psychometric test done

in this result chapter. Remaining 37.11% of respondents are female for these responses and rest 2.06% are others.

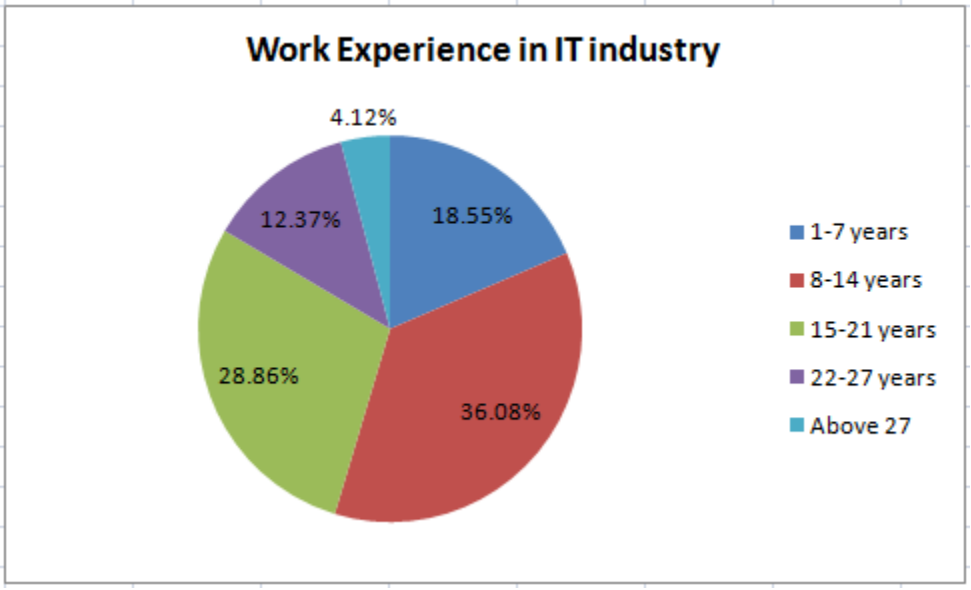


**Figure 6: Work Experience**

**Analysis**

The above graph showcased the work experience that employees had in the organization for the over the counter of years. The above graph showcased 18.55% of employees has 1-7 years of experienced in the IT sector. Apart from that 36.08% ofemployees has 8to 14 yearsof experiences, 28.86% of employees have 15-21 years of working experience, 12.37% of total employees have 21 – 27 years of experiencearound 4.12% of employees has more than 27 years of experience.



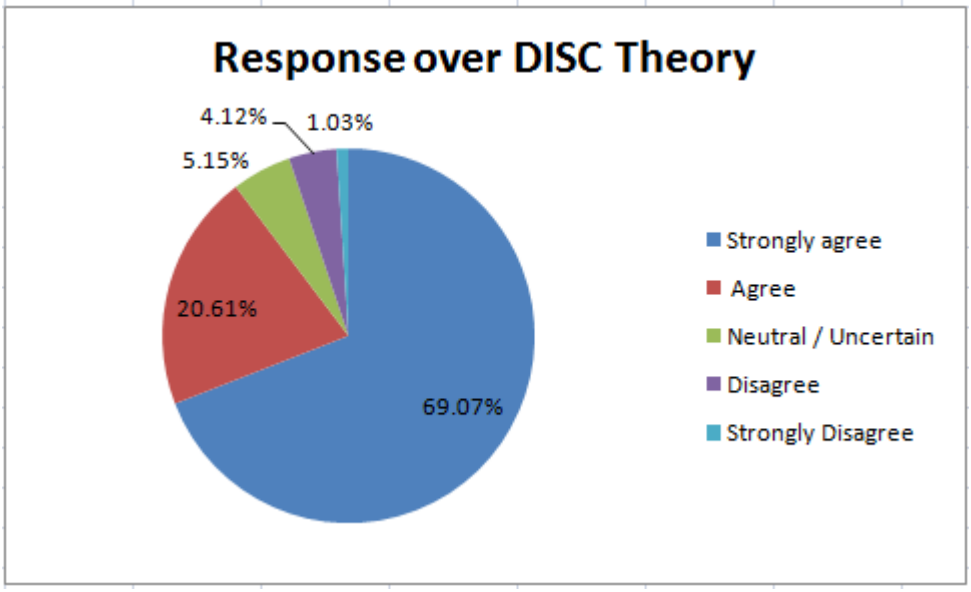


**Figure 7: Response over DISC Theory**

**Analysis**

The above graph highlighted the responses believe over DISC theory over understanding of personalities and Behaviours of people aka employees in IT working sector.Based on the result ofthe above graph it has been included that 69.07% ofpeoplestronglyadmitted with thestatement thatDISC theory isimportant forunderstanding Behavioural values ofpersonality profiling and

Behavioural understanding ofIT sector employees are also depending on the DISC theoryand it's four characteristics. Apart from the range of 20.61% and 5.15% of employees are either neutral or agreed with the statement. This data view has also supported that 4.12% of total respondents have denied and while 1.03% of total respondents have strongly denied to this statement. As per the opinion ofBailey *et al.* (2017), people in most of the time does not know about DISC assessment and Psychometric assessment therefore they either disagreed or being neutral about usability of DISC theory.

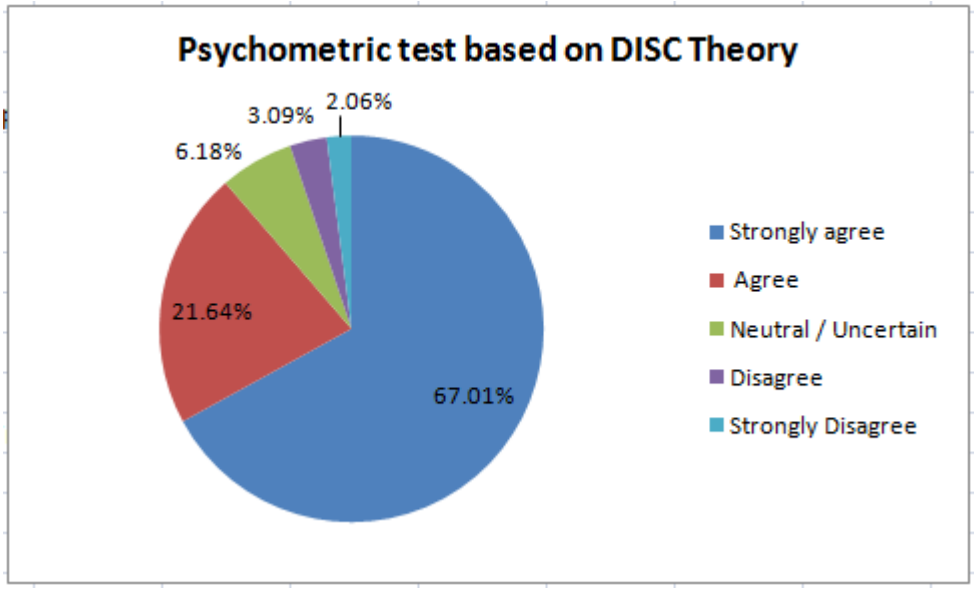


**Figure 8: Psychometric test based on DISC Theory**

**Analysis**

As per the above graph stated the amalgamation of Psychometric test based on DISC theory could be impressive and more 67.07% of people has strongly agreed, 21.65% of people agreed, 6.18% of people disagreed and 3.09% of people has neutral about the statements and 2.06 of people has strongly denied about the statements. ThePsychometric test is a per the opinion ofWorld Health Organization(2017), isimportant to understand the Behavioural engagement andemployee's engagementwithin IT sector therefore, if thePsychometric test amalgamated with DISC theory, then deeper level of understanding about Behavioural andemployee'sengagement could have beendiscovered in proper manners.

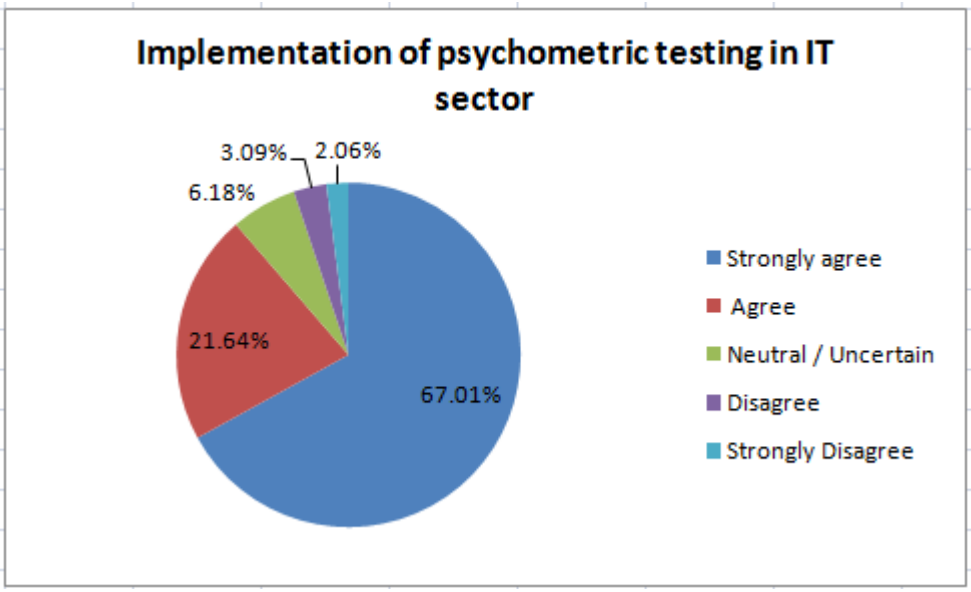


**Figure 9:Implementation of psychometric testing in IT sector**

**Analysis**

The above graph mentioned that in the question of if the implementation of psychometric test can have high Behavioural engagement value in their IT sector, 40.20% of people strongly agreed with the statement, whereas 46.39% of employeesagreed.Further,4.12% of employees disagreed while 6.18% of employees stayed neutral and 3.09% of population strongly disagreed for the above question. As per the findings of Pays*et al.* (2019), more than 45% of organization has provided quarterly survey system to collect responses over employee's management. Employee's management is chosen to create employee's engagement better.



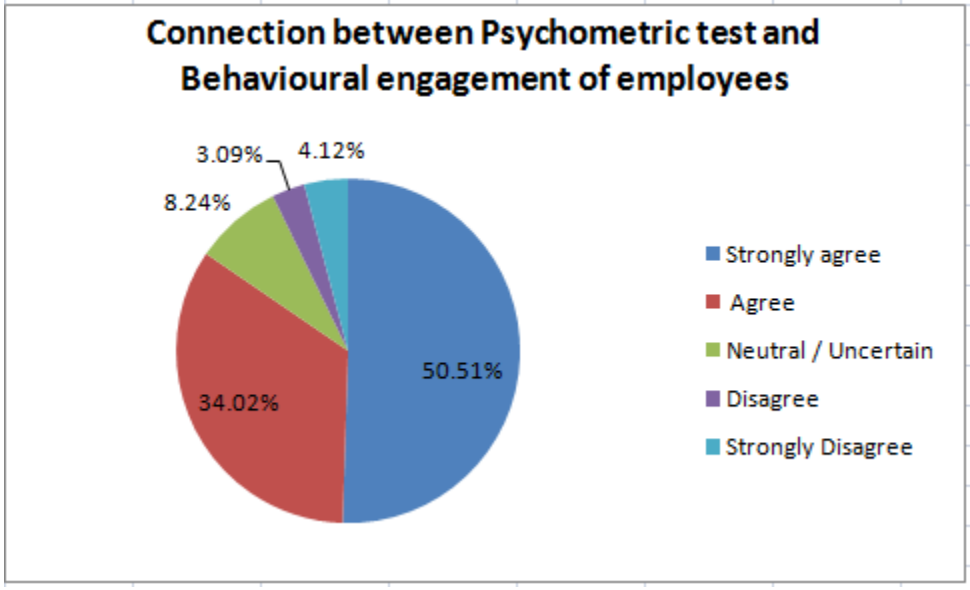


**Figure 10:Connection between Psychometric test and Behavioural engagement of employees**

**Analysis**

Theabove graph highlighted 50.51% of employeeshavestrongly agreedwiththe statement thatthe connection between Psychometric test andBehavioural engagement of employees are so instant thateven IT sector employees agreedtowardsthe statements. Whereas, 34.02% of population

agreesforabovequestion, 8.24% of employees areneutral, 3.09% of populationdisagreesand 4.12% of employeesstrongly disagreefor the above question. Response level where there is no disagreement has been associated with the Behaviour of the importance of Psychometric test in relation with DISC theory.

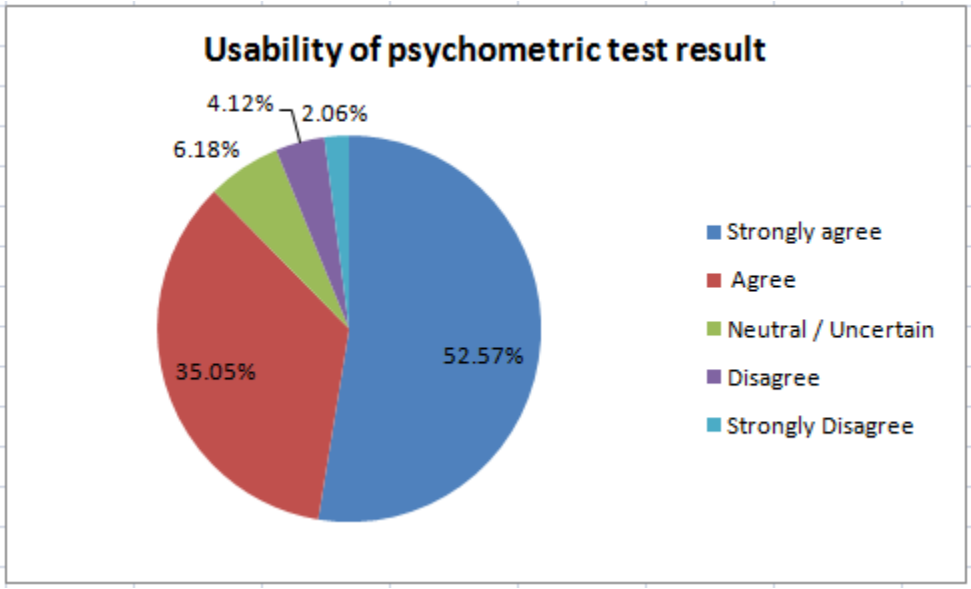




**Figure 11: Usability of psychometric test result**

**Analysis**

The answers of the question which is based on the believing result of Psychometric test result and how far the organization could be affected with the statement of engagement of employees based on the psychometric test result. As per the opinion of Lee*et al.* (2019), Psychometric test result as technologically could have been incorrect but in 70% of the cases the organization should be lived on psychometric test result due to its capability of understanding employees' demand. Theabove graph mentioned thatexact of52.57% of responses collected over thestrongagreed statement,35.05% of responses collected overagree statement. Whereas this data view has also supported that 6.18%, 4.12%, and 2.06%of responses collected over are respectably stay neutral, disagree and strongly disagree with this statement.

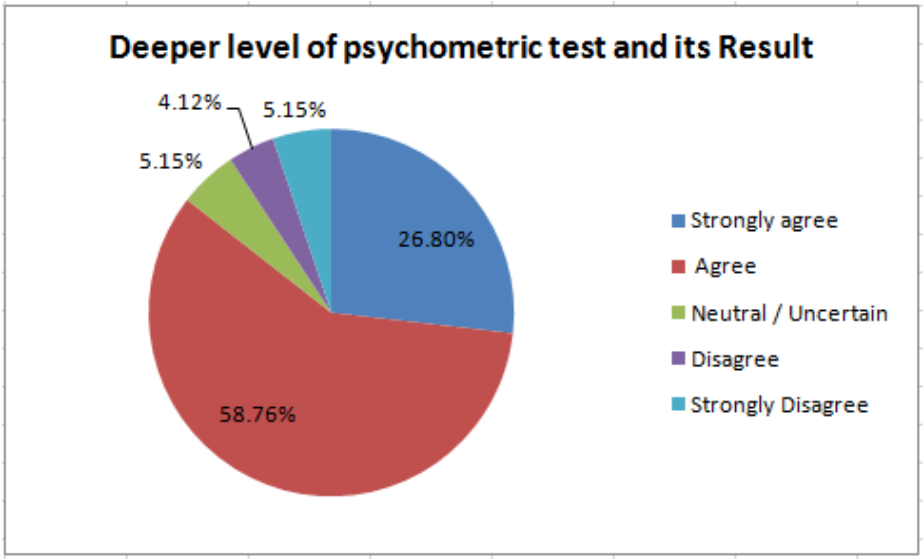


**Figure 12:Deeper level of psychometric test and its Result**

**Analysis**

Theabove graph highlighted that in thequestion of deeper level of Psychometric test andits utilization with Behavioural engagement hasdeeper understanding of Behavioural engagement has collected responsesthat 26.80%of employees hasstrongly agreed with thestatement thatpsychometric testis based onDISC theoryis useful for deeper understanding of Behavioural managementand 58.76% ofpeoplehaveagreedwith the statement whereas 5.15% stays neutral, 4.12% disagree and 5.12% of total participants have strongly disagreed with this statement.Therefore, as perthe opinion of Uddin*et al.*(2019), deeper level of understanding is needed for psychometric test therefore people should adapt psychometric test for deeper level of Behavioural understanding over employees.

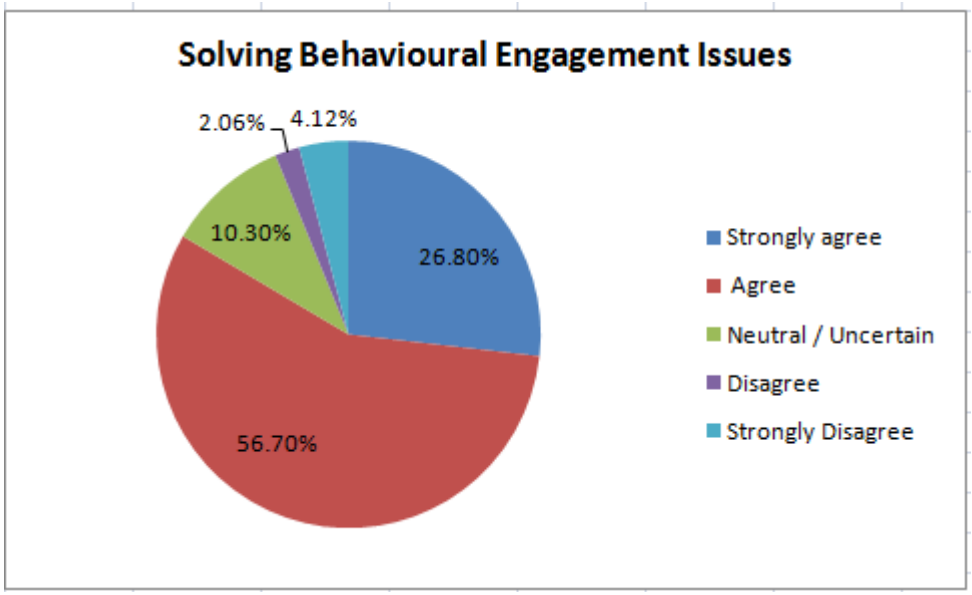


**Figure 13:Solving Behavioural Engagement Issues**

**Analysis**

The above graph highlighted in the question that if Psychometric test help with understand of Behavioural engagement and 26.80% of people strongly agreed with the statementof Behavioural engagement and helps with Psychometric test. As per the opinion of Gutermann*et al.* (2017), Psychometric test are very important in the cases of understanding, behavioural arrangement of employees. Maximum 56.70% of employees provide agreed with this statement and 10.30% of people stay neutral with these statements. Whereas, this data view has also supported that 2.06% of people stay in denial phase with these statements and 4.12% of people stay in strongly denial phase with these statements. Therefore, based on the finding of this research it has been provided on the analysis that psychometric test truly believed in accessing statement with Behavioural engagement issues and Psychometric test has the ability to understand employee's behavioural engagement issues.

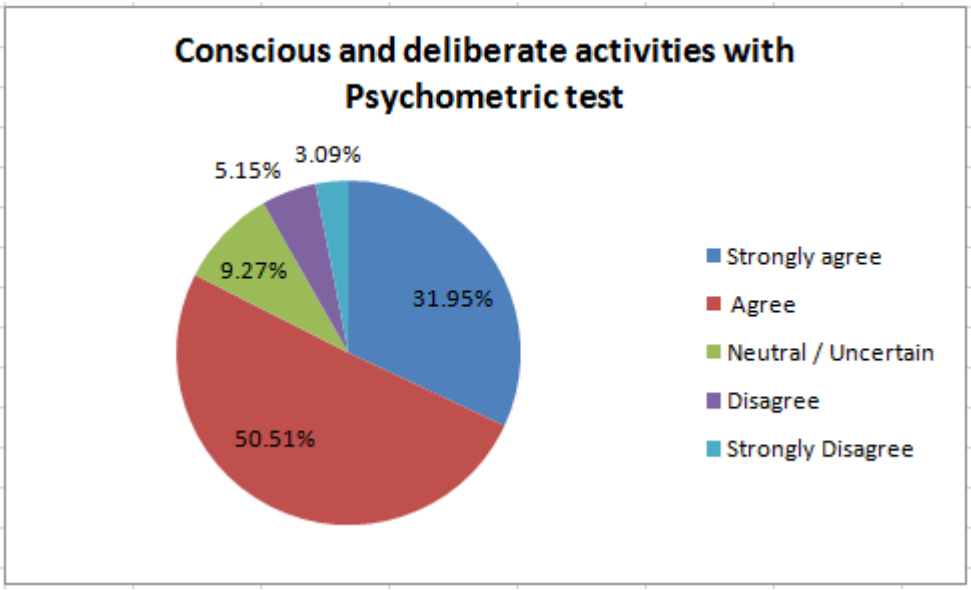




**Figure 14:Conscious and deliberate activities with Psychometric test**

**Analysis**

The above graph highlighted with the statement that, the conscious and deliberate activities that manages and influenced Behavioural engagement of employees have collected responses of 31.95% strongly agreed and 50.51% agreed with the statements. Whether 9.27% o of people was neutral, 5.15% of people disagreed with the statement as well as 3.09% of people strongly disagreed with the statement. Therefore, in both of the cases the result is agreed by people that psychometric test helps with Behavioural engagement.

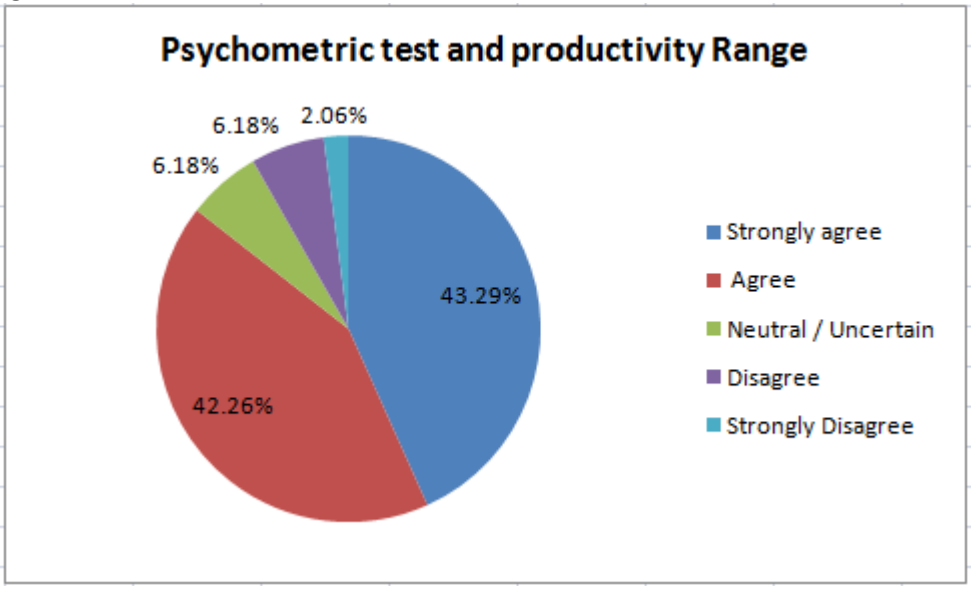


**Figure 15: Psychometric test and productivityRange**

**Analysis**

Theabove graph highlighted that 43.29% ofemployees havestrongly agreed, 42.26% of employees agreed, 6.18% of employees have neutralised and 2.06 % ofemployees strongly disagreed with the statement thatpsychometric test based on DISC theoryprovidedproductive guidance towardsBehavioural engagement of employees. Whereas this data view has also supported 6.18% of employees have denied to this statement.

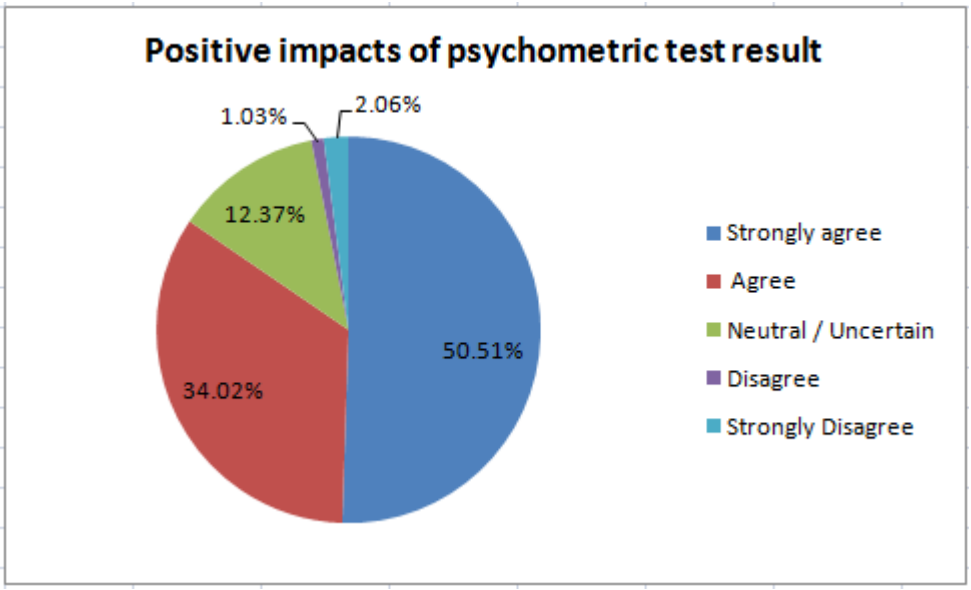


**Figure 16: Positive impacts of psychometric test result**



**Analysis**

As per the above graph stated that there are 50.51% of people and 34.02% people strongly admired and agreed with this particular statement associated with there are positive impacts of Psychometric test and further 2.06% of people strongly deniedand 1.03% of people denied and 12.37% of participants stay neutralas well.

**V. CONCLUSION**

From the overall discussion, this study can conclude that behaviours and behavioural engagement of employees in Pune of the IT sector have been established using advanced psychometric testing tools founded on DISC theory.This theory and this important test are associated with demonstration of essential view over strength and performance assessment of this considering workforce that has been directed towards organisational performance management.In this regard, hiring process by leadership and management team of this considered sector of Pune is associated with development of the workforce performance variation across the significant job purpose in this considered sector of Pune. Thesepsychometric tools are associated with determination of self-efficiency level among employees and evaluation of their behavioural engagement with distribution of the quality assessment and their collaborative skills as well.These four important behavioural traits of the psychometric test are associated with determination of quality analysis over important perception of strength and the grey areas of the employees in the rationale manner.

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