

SOCIAL DESIRABILITY RESPONSE BIAS IN THE SCALE – ‘ASSERTIVENESS’ IN INDIAN CONTEXT

ABSTRACT:

*A study on positional data of PMaps – Customer Service Orientation (CSO)[™] indicated **social desirability response bias** in one of its traits – **Assertiveness**. This research hypothesize – ‘Item’s social desirability hurts distractors/ incorrect options performance which in turn impact reliability for an assessment’. It was observed that people marked socially acceptable responses whenever they were exposed to variables in items that included – father or motherly figure, any elderly figure or had act of behaviour that has ethical conduct as per Indian context (ref. Table1 Positional data of Assertiveness Item). About **58.89%** candidates marked submissive response for the test item. The positional data discovered that assertive candidates were purposely reporting self as ‘submissive’ by marking the perceived desirable behaviour in the option that displayed mannerism towards elderly figures irrespective of their real responses as stating assertively to elders is considered as insult towards elders in Indian morals. This discovery was found helpful for creating a scientific tool considering the cultural context of India, an unbiased tool for the candidates that belonged to divergent culture. **The item calibration post 2016 also resulted in increase of Test reliability from 0.40 (Y.2016) to 0.75 (Y.2018). The research was conducted over (N) 78352 candidates pan India (2016-2018).***

CUSTOMER SERVICE ORIENTATION (CSO)[™]

PMaps Customer Service Orientation (PMaps CSO) is a scientifically validated Behavioural Assessment that identifies candidate’s inherent keenness in serving customers. It captures individual’s interest of going beyond the call of duty to provide fair solution to customer’s queries.

It assesses individuals on the basis of the following framework –

- Empathy
- Presence of mind
- Assertiveness
- Conscientiousness

RESEARCH FINDINGS:

PMaps Assessment is an India based Psychometry firm that creates various psychometry tools for organizations to help them in decision making, be it pre-hiring or post hiring or development of organization’s overall wellbeing. The given research findings gives an insight about one of its psychometry tool – **PMaps Customer Service Orientation (CSO)[™]** that is used worldwide by various leading organizations to improve their customer service experience. This customized tool for service sector helps organizations to hire candidates by scientifically measuring the prerequisite competencies for a service-oriented role. The organizations get hiring insights through scores of PMaps CSO[™], predicting their performance at the work place beneficial for HRs of organization.

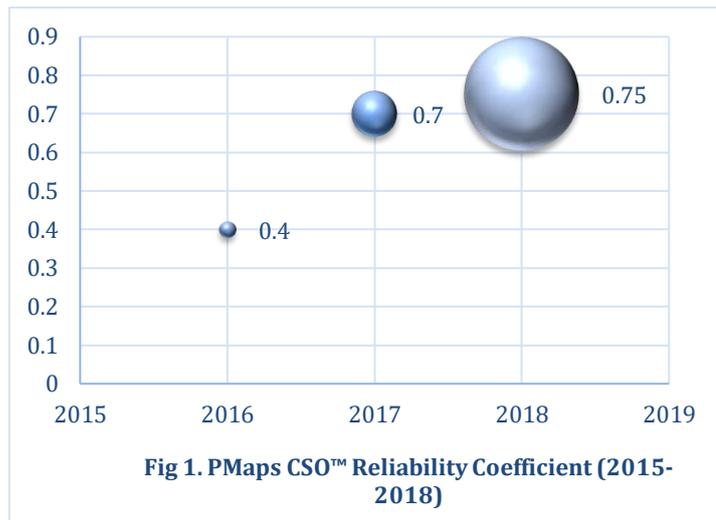
SYNOPSIS – ACHIEVING HIGH RELIABILITY FOR PMAPS CSO™:

The 2018 analysis was conducted over (N)65517 candidates across India, deriving at 0.75 reliability coefficient with 17.44 variance stating the test to be highly discriminating between good & bad performers in customer service sector.

The PMaps Customer Service Orientation (CSO)™ was launched in the corporate market after its pilot study in 2015. Since then the tool has undergone multiple versions and have showcased positive upliftment in the reliability.

The Fig 1. *PMaps CSO™ Reliability Coefficient (2015-2018)* gives an overview of the reliability coefficient obtained since its first exercise in 2016 till this year – 2018.

During these 3 years, the tool underwent multiple Item calibration process where every poor item was updated with new items based on the data driven observation keeping in line the test hypothesis.



Every item change was initiated and supported with live client data of high performers of the customer service industries where candidates scoring high in PMaps CSO™ were able to deliver efficient performance at their workplace.

During the 2016 analysis of **PMaps CSO™ V1** (Y.2015-2016), about 70% of items and their options were updated by replacing ‘very easy’ and ‘very difficult’ items based on Item Discrimination. Few items of them were reframed by changing the placement of words in the statement or eliminating words that would lead an individual to mark socially desirable responses. Major changes were made in the section – “Presence of mind” of the PMaps CSO™.

In the year 2017, the item calibration exercise resulted in reliability coefficient of **0.70** with variance of **0.72** on data of (N)**12235** candidates across India (Y.2016-2017). During this analysis, about **80%** of the items **displayed significant correlation** with their traits as well as with the overall **PMaps CSO™ V2** construct. The rest 20% was taken into consideration on the basis of item discrimination index, where the options with less attempts were improvised by making them more compelling in comparison to other options. Items with greater discrimination index were modified by increasing the difficulty of the item keeping the construct constant. The data points indicated that candidates who obtained scores above **65%** were able to outperform at their workplace and score high performance rating.

Consequently, the benchmark for later PMaps CSO™ V3 was set to 65% to provide better hiring to our clients. The shift of benchmark to 65% was found beneficial to organizations and similar raise in bars was observed on the graphs of performance rating of the hired employees.

The revised version **PMaps CSO™ V3** was analysed in August 2018 giving a reliability coefficient of 0.75 is a moment of achievement. During the analysis it was observed that few sections did not show any relationship with the candidate’s performance and was found to be an outlier. Hence, at present the **PMaps CSO™ V4** measure only four criterion led competencies. The two outlier competencies have been eliminated as it did not serve the purpose in the assessment. These changes are going to benefit organizations as we would be serving organizations a precise psychometry tool which would measure the prerequisite behavioural attributes through minimum count of questions, saving HR’s time in hiring and eliminate uncontrolled variables like boredom, random response bias by candidates.

Journey to achieving High Reliability – Assertiveness Scale for PMaps CSO™

A highly reliable assessment undergoes multiple item calibration exercise, where every item has to prove itself fit for the construct by showing high correlation with the defined trait, tool construct. A positional data indicates whether an item or option is performing good or bad in the assessment. While analysing data of PMaps Customer Service Orientation (CSO)™ over period of 3 years, an interesting pattern was observed throughout the test, giving high insight on candidate’s response style in one of the item of scale - *Assertiveness*.

ITEM CALIBRATION EXERCISE			
Scores	V1 2015 - 2016	V2 2016 - 2017	V3 2017 - 2018
1	34.03%	28.93%	44.33%
0.5	58.89%	65.67%	49.52%
0	7.07%	5.41%	6.15%

Table 1: Positional Data of Assertiveness Item

PMaps Assertiveness scale of PMaps CSO™ assess an individual’s ability to assert self at times of need and do not allow other to overcharge self.

PMaps CSO™ V1 – INDIANS BEHAVE SUBMISSIVE IN CONTEXT OF ELDERS

(Y.2015-2016)

In the scale of *Assertiveness* during calibration exercise in 2016, it was observed that candidates preferred to mark submissive options (scoring 0.5) compared to other options as assertive option included word “Papa” in it. As shown in the table 1, **58.89%** of appeared candidates marked option “*Be sad the whole day and lock yourself in your room.*” which had 0.5 scoring. Only **34.03%** people marked the option – “*Papa, please listen to me.*” and **7.07%** marked – “*Papa you cannot hit a grown-up child.*” in PMaps CSO™ V1.

It was observed that people from Indian demographics showcased themselves as submissive irrespective of high scores in assertiveness when they were exposed to items that contained variables of elderly figure – showcasing Socially desirable response style.

Ref - PMaps CSO™ V1 - (2015 - 2016) Options

- 1 *Papa, please listen to me.*
- 0.5 *Be sad the whole day and lock yourself in your room.*
- 0 *Papa you cannot hit a grown up child.*

PMaps CSO™ V2 – INDIANS ACCEPT THAT ELDERS ARE RIGHT MOST OF THE TIME (Y.2016-2017)

Taking the positional data into consideration, it was suggested to modify all the three options of PMaps CSO™ V1, eliminating the word “Papa” from the options. To weaken the 0.5-mark option of the test item, word “Father” was added to the statement of 0.5-mark option in PMaps CSO™ V2 to make the item more submissive in comparison to assertive option statement.

After Item correction, it was further observed that about 65.67% of appeared candidates (N=12235) chose the 0.5-mark option stating – “*Father is right in scolding me*” irrespective of their lower scores in Assertiveness. **Hence, it was concluded that people tend to give socially desirable answers when items contain variables like elderly figures, speak about moral behaviour or manners as per the demographics and its culture.**

Ref - PMaps CSO™ V2 - (2016 - 2017) Options

- 1 *Will you listen to my story?*
- 0.5 *Father is right in scolding me.*
- 0 *How could you slap me when its not my fault?*

PMaps CSO™ V3 – INDIANS ARE ASSERTIVE WHEN CONVERSATION ‘DOES NOT’ INVOLVE ELDERS (Y.2017-2018)

Based on the above findings, another version of CSO™ i.e. CSO™ V3 was launched in the year 2017 with no intervention of elderly figures in the options to avoid socially desirable responses from candidates. As per the obtained data of 79180 candidates post launching PMaps CSO™ V3, about **44.33%** of appeared candidates selected 1-mark option – “*Please listen to me first.*” showcasing themselves as assertive and about 49.52% of appeared candidates marked 0.5 option, “*It was my mistake that I have lost my phone.*”, which indicated that people found it comfortable or easier to behave assertively when the option of assertiveness did not have any intervention of elderly personality. The item showed 0.41 correlation with the trait – *Assertiveness*, justifying the changes to be positively in line with the test construct.

Ref - PMaps CSO™ V1 - (2017 - 2018) Options

- 1 *Please listen to me first.*
- 0.5 *It was my mistake that I have lost my phone.*
- 0 *How could you slap me when its not my fault?*

All the above insights were implied while updating items for PMaps CSO™ V4 (2018).

Hence, analysing positional data becomes a crucial part of reliability exercise for psychometricians to develop a rational tool to assess human behaviour.

OVERVIEW – DEVELOPMENT OF A PSYCHOMETRIC ASSESSMENT:

Creation of an efficient and reliable psychometric tool goes through rigorous data analysis. Though the field of Psychology uses subjective approach to understand human behaviour, but when it comes to ‘Psychometry’ (*Psychology + Analytics*), it enables the psychometricians to develop a scientific tool that not only precisely captures the essence of the behaviour, but also helps to rationally measure behaviour, and determine or construct normative groups as per their geographical and psychological factors. These formations of normative groups can give lots of insight to corporate world as it would help them to make the organizational hiring more systematic. It would make the hiring more productive by determining the fitment of candidates on the basis of their required job role competencies.

A psychometric tool undergoes several steps like- creation of Test design followed by Reliability-Validity exercise (Refer Chart 1: Steps of Item creation). The only variable that keeps changing to reject null hypothesis are the *items* of the test construct. **ITEMS** are the questionnaires – direct statements or situation-based questionnaires in various form, be it in text form, image, video or audio. The items of the test construct build the competencies of the framework resulting in creation of a psychometry tool. These items are evaluated by using various Test scales.

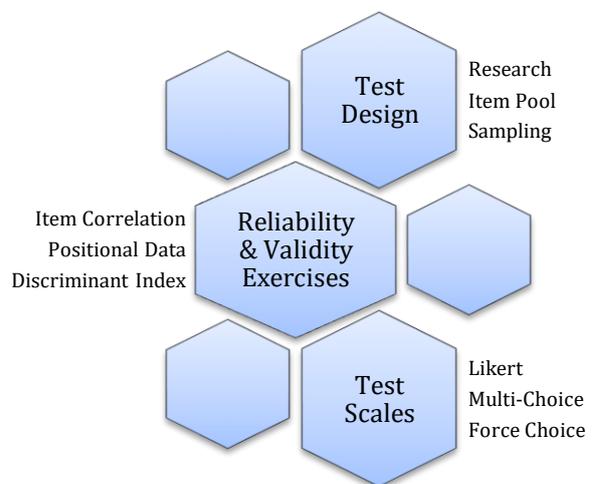


Chart 1: Steps of Item creation

An accurate test item is analysed by calculating the significant **inter-correlation** of items with its construct and trait. A **Test construct** is the Test design consisting of various behavioural competencies, traits and sub- traits that assess individuals’ behaviours. The calculated **correlation coefficient** of items helps to identify good and bad item from the Item pool. A **good item** is one that goes in line with the hypothetical construct vice-a-versa bad item, showing relative difference in behaviour of high performers and low performers. The persistent practice of addition of good items and elimination of bad items results in a reliable psychometry tool.

An item being good or bad over period of time is determined by understanding the positional data or p-value of the item obtained through candidate’s attempt or marking of option in the assessment. The **positional data** or p-value of the item obtained through client data helps to recognize poor items as well as options within an item. Positional data gives in-depth insight to psychometrician about their options created, how a pattern of marking options differ from one item to another on the basis of the variables used in the option.

The above-mentioned research paper given an in-depth insight how determining positional data gives you direction and helps in analysing, correcting test items; and eliminate factors

that are performing as an outlier in the construct, being an important step in item calibration. This would have become difficult without analytics, as subjective psychological theories alone do not have any way to give proof of their concept.

Author

Sonali Shahu

Psychometrician – Team PMaps

(For more details, you can reach up to me on– sshahu@pmaps.in)



PMaps Assessments provides a scientific suite of psychometric assessments that are reliable and valid and that help HR managers and recruiters from different industries and sectors to find out the true nature and personality traits of a candidate before hiring them. It also assists in taking strategic decisions for an organization for various strategic profiles.

To know more about our products and offerings, visit us at www.pmaps.in.

Contact:

+91 9930031535

support@pmaps.in

New Born struggle for nine months to take birth, but a scientific valid assessment struggle for twenty one month to become valid or take birth

