



## Measuring stakeholders' perception of *Sansad Adarsh Gram Yojana*

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### ABSTRACT

Rural development programs act as boon to millions of rural inhabitants globally. So, it becomes extremely important for policy makers to study the perception of grassroot beneficiaries for effective implementation of ongoing program as well as plan for similar programs in future. In this study, the authors have attempted to study an ambitious rural development program named as *Sansad Adarsh Gram Yojana* launched by Government of India, through the lens of the beneficiaries. The program aims at adoption of villages and transforming them into Model Villages. The perception of the villagers was measured and perceived factors facilitating and inhibiting the program were identified through a multi-dimensional perception scale constructed through Principal Component Method. The study was carried out in four villages of Maharashtra and Telangana during 2018. The perception of 320 respondents when analysed, resulted in factors like Government-Public liaison ( $Y_1=671.86$ ), Infrastructure and Education ( $Y_2=383.14$ ), Local political environment ( $Y_3=267.42$ ), Collective power of villagers and youth ( $Y_4=255.98$ ), Equality ( $Y_5=236.71$ ) and Cultural and inherent values ( $Y_6=143.03$ ) facilitating the program while lack of separate funding ( $Y_{10}=-12.88$ ), bureaucratic hurdles ( $Y_8=19.09$ ), presence of village factions ( $Y_9=25.05$ ), lack of coordination among government departments ( $Y_{11}=59.65$ ) and faulty village adoption policy ( $Y_7=130.85$ ) hindering the progress of the program. Majority of villagers from Tikekarwadi (53.33%) of Maharashtra and from Dandepally (56.66%) of Telangana had favourable perception towards potential of the program while villagers from Inovolu (63.33%) of Telangana had neutral perception and from Malunja Budruk (80%) of Maharashtra had unfavourable perception. The classification was done on basis of Cumulative Cube Root Frequency Method (CCRF) and significant difference was found in perception scores of the respondents.

**Keywords:** Model Villages, Multidimensional Perception Scale, Principal Component Analysis, Rural Development Programs, Stakeholders' Perception

In India 68.84% of the population lives in 640867 villages (Census of India 2011) and rural development features as one of the top national development agendas. So, to take a step towards rural sustainability, Government of India on 11<sup>th</sup> October, 2014 rolled out an ambitious program named as *Sansad Adarsh Gram Yojana* (SAGY) for transforming villages into progressive or Model Villages. In this program, each Member of Parliament has to adopt a

village and strive to transform it into a Model Village (<http://saanjhi.gov.in/>) by undertaking all interventions of health, education, infrastructure, sanitation, hygiene, livelihood and social aspects of human development in that village (Govt. of India 2014). Studying the perception of stakeholders of rural development programs is crucial for successful implementation of the ongoing program and also provides cues for framing the draft of future programs. Hence this study was undertaken to determine the extent of trust of rural people on the potential of SAGY and identification of major factors which can either facilitate or hinder the process of development of their village. This was done on the basis of measuring their perception by a multidimensional perception scale.

Conceptually, perception is the process by which people translate sensory impressions into a coherent and unified view of the world around them (Kassin *et al.* 2008). Like most of the psychological variables, perception is multi-faceted. Perception of a rural development intervention is expected to carry numerous underlying aspects involving individual

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and social angles of perception. Hence measuring perception using unidimensional scale may give faulty result due to multi-collinearity effect among the statements (Som *et al.* 2018). Costa and Menichini (2012) had used multi-dimensional approach to assess stakeholder perception on CSR commitment of companies. Barker *et al.* (2007) had conducted multidimensional assessment of self-perceptions for aging. Ramesh *et al.* (2019) had studied perceived faculty training needs by teachers of Indian agricultural universities. But there was dearth of multidimensional scale for measuring perception of rural development programs especially Model Village program. Therefore, an attempt was undertaken to construct a multi-dimensional scale to measure perception of respondents towards development of Model Village.

**MATERIALS AND METHODS**

*Locale of study:* Certain villages of India had reached their epitome of development long before the start of SAGY and were declared by Ministry of Human Resource Development, as successful Models apt to be replicated in other parts of the country. So in order to tap the perceptions of villagers inhabiting the villages adopted under the SAGY, such states were selected for study which already had some pre-existing Model Villages to serve as reference in the back of the mind of respondents of SAGY villages while responding to the multidimensional perception scale in the study. Maharashtra and Telangana have highest concentration of such pre-existing Model villages. Hence four districts (two from each state) where the pre-existing Model villages were located were purposively selected. One village which was adopted under the SAGY from the year 2014, was randomly selected from each selected district. The villages of Malunja Budruk in Shirampur block of Ahmednagar district and Tikekarwadi in Junnar block of Pune district were selected from Maharashtra while Inovolu in Wardhannapet block of Warangal district and Dandepally in Kamalapuram block of Warangal Urban (earlier Karimnagar) district were selected from Telangana (2018). Eighty permanent residents from each village were randomly selected as final respondents (n=320). Maharashtra and Telangana also share similar agro-ecological conditions. As according to the Indian Council of Agricultural Research agro-ecological zone classifications, Maharashtra is part of the semi-arid region of Deccan plateau while Telangana belongs to semi-arid region of Northern Telangana plateau (<http://www.crida.in/cp-2012/>).

*Construction of multidimensional perception scale:*

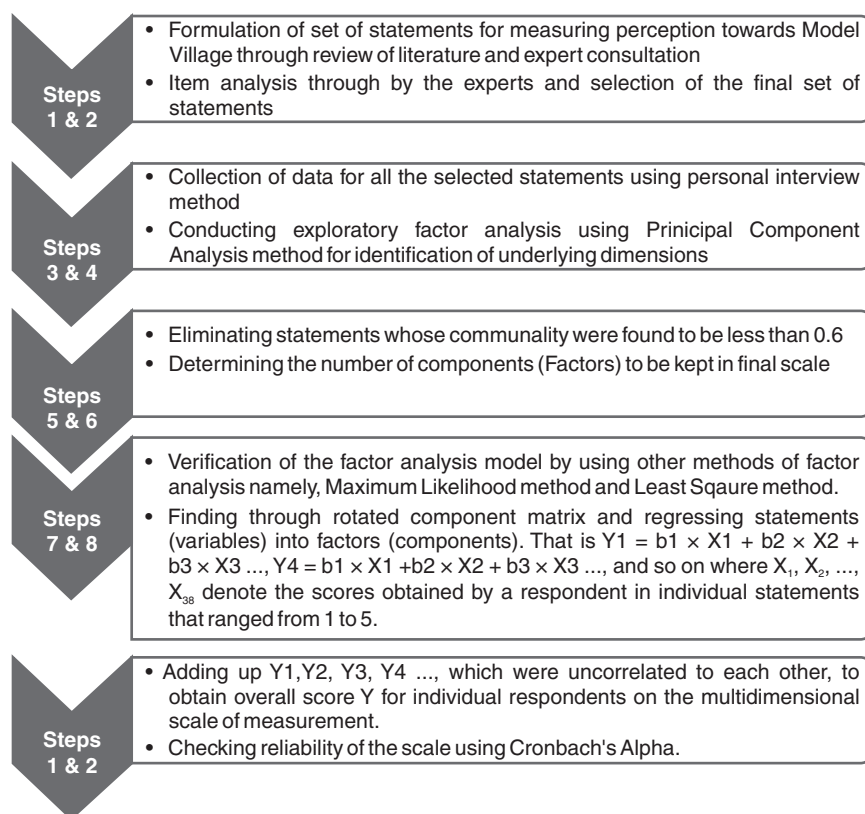


Fig 1 M-K-J-B-D (Maheshwari–Kumar–Jhamtani–Bhaskaran–Dandapani) method of scale construction.

For constructing the multidimensional perception scale, 320 non-sample respondents were interviewed. M-K-J-B-D (Maheshwari–Kumar–Jhamtani–Bhaskaran–Dandapani) method (Mohanty *et al.* 2009) was used to construct the scale in 10 sequential steps (Fig 1). For measurement of perception by using the constructed scale, the final 320 respondents were selected randomly from the locale of study and the scale was administered to them. To check significant difference in perception scores, independent t test was used. Data were analyzed by using the software SPSS (version 21.00).

*Determining potentiality of SAGY through facilitating and inhibiting factors:* The component scores  $Y_1, Y_2, Y_3, Y_4 \dots$  were carefully examined to determine the factors which were positive in nature and helped the Yojana to fulfil the dream of villagers to transform their villages into Models. These were adjudged as the facilitating factors and those which were found to be hindering the implementation of the program were adjudged as inhibiting factors. Their respective scores were checked to decide which of the factors among these two were dominant in study area. The results of Step 8 of the scale development process revealed the result of this analysis.

*Classification of respondents according to their perception scores:* The perception scores obtained by each of the 320 respondents obtained by adding  $Y_1, Y_2, Y_3, Y_4 \dots$  of each respondent individually were subject to Shapiro Wilk normality test and then classified by using

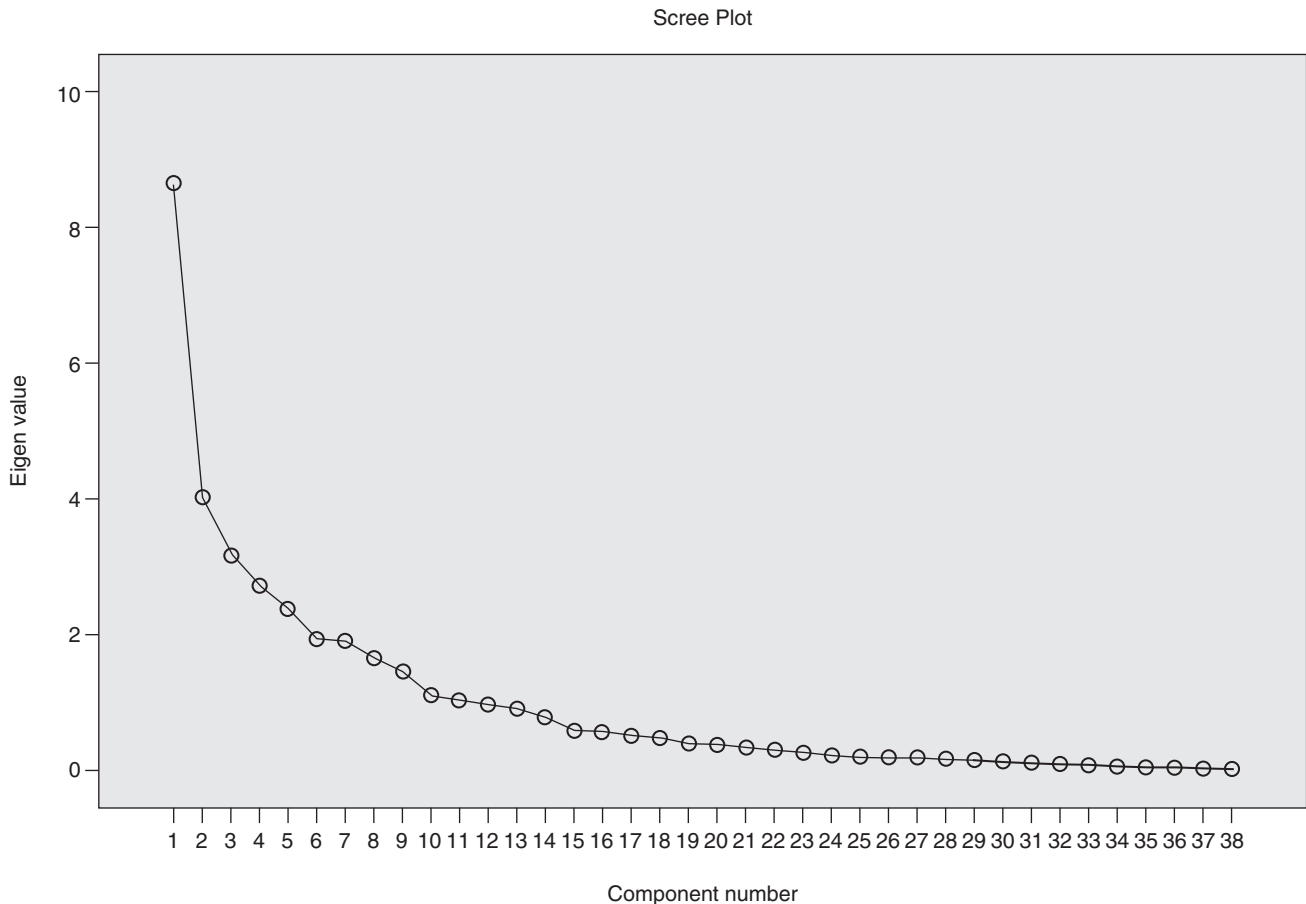


Fig 2 Scree Plot.

the method of Cumulative Cube Root Frequency into three categories of favourable, neutral and unfavourable perception towards the potential of the SAGY being able to develop their villages for better. This was done based on the logic that respondents scoring high on the perception scale had favourable perception about the program.

## RESULTS AND DISCUSSION

*Construction of multidimensional scale:* Stepwise results have been presented as follows:

*Item selection, Item analysis and data collection (Step 1, 2, and 3):* 38 statements were chosen whose t scores were more than 1.75 from a universe of initially 50 items. These 38 statements were presented to 320 respondents. Responses were recorded in 5 point continuum that ranged from strongly agree to strongly disagree and scores ranging from 5 to 1 were given accordingly.

*Conducting the factor analysis (Step 4, 5, 6, and 7):* Sampling adequacy and inter-correlation among variables (statements) were checked through Kaiser-Meyer-Olkin (KMO) test and Bartlett's test respectively. A score of 0.78 in KMO test indicated high sampling adequacy. Significant result in Bartlett's test led us to reject null hypothesis of non-collinearity (www.ibm.com). Through factor analysis one statement with communality less than 0.6 was rejected thus leading to 37 variables. Eleven components were

extracted through principal component analysis (PCA) explaining 78.28% of total variance. The screeplot (Fig 2) explain the fraction of total variance in data represented by each component.

*Regressing statements (variables) into factors (components) (Step 8):* The rotated component matrix obtained through PCA demonstrated the factor loadings which explained contribution of each statement (Variable) to the components (Table 1). On the basis of factor loadings of statements to a particular component (factor), the components were given a name to represent the group of statements that have major contribution to particular component (factor). Mathematically, each component could be regressed using factor loadings of the statements to obtain uncorrelated component scores of individual respondents (Table 1).  $X_3, X_4, \dots, X_{38}$  denote the scores obtained by a respondent in individual statements that ranged from 1 to 5. Similar method of obtaining component scores and index scores of each respondent was applied by Som *et al.* (2019) for measuring the impact of *Mera Gaon Mera Gaurav* program.

*Final score in multidimensional scale (Step 9):* After calculating the scores of individual components for a respondent the total score for each respondent is obtained by adding the regressed value of  $Y_1, Y_2, \dots, Y_{11}$ . These scores helped in classifying respondents into different

Table 1 Extracted components and Component scores

Component name	Major contributing items	Formula for component score	Component scores
Government-Public Liaison (Y <sub>1</sub> )	<ul style="list-style-type: none"> <li>Villagers' faith in government policies (7)</li> <li>Frequent visit of government Officials for monitoring developmental works (19)</li> <li>Villagers supporting the local developmental departments (10)</li> <li>Supporting the Member of Parliament in his activities and decisions (13)</li> </ul>	$0.013 * X_1 + 0.751 * X_2 + \dots + (-0.008) * X_{38}$	671.86
Infrastructure and Education (Y <sub>2</sub> )	<ul style="list-style-type: none"> <li>Connectivity of village with metal roads (6)</li> <li>Establishment of schools in the village and provision of quality education (31)</li> </ul>	$0.090 * X_1 + (-0.169 * X_2) + \dots + 0.846 * X_{38}$	383.14
Collective power of villagers and youth (Y <sub>3</sub> )	<ul style="list-style-type: none"> <li>Villagers pressing higher authorities for active implementation of Yojana activities (33)</li> <li>Youth actively representing villagers in meetings with government officials (37)</li> </ul>	$0.150 * X_1 + 0.031 * X_2 + \dots + 0.059 * X_{38}$	255.98
Local Political Environment (Y <sub>4</sub> )	<ul style="list-style-type: none"> <li>The Village Panchayat (local self govt.) is working hard to contribute towards village development (20)</li> <li>Political stronghold determines the finance for village development activities (23)</li> </ul>	$0.109 * X_1 + 0.064 * X_2 + \dots + 0.059 * X_{38}$	267.42
Equality (Y <sub>5</sub> )	<ul style="list-style-type: none"> <li>Importance of education and employment of women (28)</li> <li>Equal treatment of all villagers should be treated irrespective of caste, sex and socioeconomic strata (29)</li> <li>Better socioeconomic status of backward classes and minority communities play a major role in transforming a village into Model Village (35)</li> </ul>	$(-0.18 * X_1) + 0.106 * X_2 + \dots + (-0.101 * X_{38})$	236.71
Cultural and Inherent Values (Y <sub>6</sub> )	<ul style="list-style-type: none"> <li>Celebration of all festivals and organising of village fair unites all villagers together (9)</li> <li>For a village to develop, the inherent values of the residents of the village is most vital (30)</li> </ul>	$(-0.142 * X_1) + 0.105 * X_2 + \dots + 0.024 * X_{38}$	143.03
Faulty adoption policy (Y <sub>7</sub> )	<ul style="list-style-type: none"> <li>Adoption of one village by a Member of Parliament is making other villages hostile which is hampering developmental works in adopted village (15)</li> </ul>	$0.287 * X_1 + 0.036 * X_2 + \dots + (-0.005 * X_{38})$	130.85
Bureaucratic hurdles (Y <sub>8</sub> )	<ul style="list-style-type: none"> <li>Delay in active implementation of the Yojana activities at ground level due to red tapism and bureaucratic hurdles (34)</li> </ul>	$0.159 * X_1 + 0.133 * X_2 + \dots + 0.063 * X_{38}$	19.09
Village factions (Y <sub>9</sub> )	<ul style="list-style-type: none"> <li>Village factions hinder the implementation of developmental schemes (25)</li> </ul>	$0.049 * X_1 + 0.024 * X_2 + \dots + (-0.021 * X_{38})$	25.05
Lack of funding (Y <sub>10</sub> )	<ul style="list-style-type: none"> <li>Separate funding should be there for SAGY instead of leveraging on existing government schemes and their funds (11)</li> </ul>	$0.1 * X_1 + (-0.01 * X_2) + \dots + 0.106 * X_{38}$	-12.88
Lack of coordination (Y <sub>11</sub> )	<ul style="list-style-type: none"> <li>Government departments involved in the Yojana are working in water tight compartments (1)</li> </ul>	$0.756 * X_1 + 0.004 * X_2 + \dots + 0.117 * X_{38}$	59.65

perception categories.

*Reliability testing (Step 10):* The reliability of the scale was measured by using Cronbach's Alpha and the reliability coefficient was found to be 0.80 which was satisfactory.

*Determining potentiality of SAGY through facilitating and inhibiting factors:* The components and their scores derived through PCA in Table 1 reveals that Y<sub>1</sub> to Y<sub>6</sub> comprise of positive statements which facilitate the implementation of SAGY while Y<sub>7</sub> to Y<sub>11</sub> comprise of negative statements which tend to hinder motive of this

program. Hence they have been adjudged as facilitating and inhibiting factors towards development of Model Village and the inhibiting factors are the lacunae in SAGY which need to be amended.

*Facilitating factors:* The factors having high scores show the strengths of SAGY. Amongst them, government-public liaison was perceived to be the most dominant factor in facilitating the effective implementation of the program with the highest score of 671.86, followed by factors like Infrastructure and Education (383.14), Local political



Table 2 Village wise classification of farmers into perception categories

Perception level (Range of scores)	Maharashtra		Telangana	
	Malunja Budruk (n <sub>1</sub> =80)	Tikekarwadi (n <sub>2</sub> =80)	Inovolu (n <sub>3</sub> =80)	Dandepally (n <sub>4</sub> =80)
	(%)	(%)	(%)	(%)
Favourable (>21.56)	3.33	53.33	20.01	56.66
Neutral (14.45-21.56)	16.66	33.33	63.33	43.33
Unfavourable (<14.45)	80	13.34	16.66	0

environment (267.42), Collective power of villagers and youth (255.98), Equality (236.71) and Cultural and inherent values (143.03) existing among villagers as important determining factors behind realising the potential of SAGY.

*Inhibiting factors:* Amongst inhibiting factors, the lack of separate funding for SAGY was perceived to be a hurdle behind the non-performance of the *Yojana*, as the lack of finance restricted many development projects initiated under the program. The factor had a score of -12.88 which describes the pressing issue. Next big hindrance with a score of 19.09 was bureaucratic hurdle of red tapism and others which often are the characteristic of bureaucratic systems in most developing countries. The files often getting suppressed by officials to extract personal illegal benefits are one of the many. Presence of factions within village (25.05) and lack of coordination amongst government departments (59.65) were other hindering factors. Another interesting inhibiting factor discovered was the faulty adoption policy (130.85) of SAGY in which villages were randomly adopted by the MPs from their political constituencies without any justification which led to resentment and hostility amongst the non-adopted villages within the same constituency.

*Classification of respondents according to their perception scores:* For this purpose the individual perception scores of 320 respondents were subjected to normality tests at first. The Shapiro Wilk test came significant with a p value of 0.002 which suggested that the data was not normally distributed. Hence the method of Cumulative Cube Root Frequency Method (CCRF) was adopted to classify the respondents into 3 categories of having Favourable, Neutral and Unfavourable Perception towards the potential of the SAGY being able to transform their villages for better. Table 2 shows the percentage of respondents in different categories.

As evident from data (Table 2), with almost no progress in the village of Malunja Budruk regarding the implementation of the program, maximum (80%) villager's perceived program was a failure. The village had the crippling problem of damaged roads which remained unresolved even after implementation of SAGY. But Tikekarwadi and Inovolu had seen start of few development projects with Tikekarwadi having a dynamic village head who believed in creating collective pressure on government to implement the program effectively in his village. Inovolu was yet to see subtle work. Meanwhile Dandepally was the village which had made remarkable progress in its march towards a Model Village with new roads constructed, an irrigation canal dug up which was proving as a boon to villagers. The result was evident in the favourable perception scores (56.66%) with none having unfavourable perception of the program.

Significant difference amongst the perception scores of the respondents of four villages were checked using t test for equality of means (Table 3). It was found that scores for four villages significantly varied from each other as P value was <0.05 in all four pair-wise comparisons.

Therefore, the null hypothesis of no significant difference between the respondents of four villages was rejected. The differences in perception arise from different socio-economic and cultural scenarios of two states as well as micro-culture of the respective villages.

In total 1345 villages have been adopted since October, 2014 but the MPs adopting villages in 2<sup>nd</sup> and 3<sup>rd</sup> phase of SAGY has taken a considerable dip (Bhattacharyya *et al.* 2018). This may be because MPs have to complete their targets of developing the adopted village into a Model Village and then move onto their next identified village of the successive phases. But it seems the enthusiasm and fervour which was visible initially is fading with the successive phases (Ghildiyal 2017). The source of indifference towards the scheme is its design which does not provide a budget but seeks convergence of existing schemes. Also, parliamentarians worried that selecting one village in the constituency would trigger hostility among other villages and cost them politically. Also, MPs were being asked to focus on micro-level monitoring work in *gram panchayats*, which is the domain of Member of Legislative Assemblies (MLAs), thereby triggering a conflict between central and state legislators (Ghildiyal 2017). Such issues on discontinuities between planning and implementation and distrust of people in rural development programs had also been addressed by Does and Arce in rural development projects of Ecuador (2007). There are

Table 3 Significance of difference between respondents of four villages

	Tikekarwadi			Inovolu			Dandepally		
	t	df	Sig. (2-tailed)	t	df	Sig. (2-tailed)	t	df	Sig. (2-tailed)
Malunja Budruk	-11.500	158	.000	-10.261	158	.000	-10.245	158	.000
Tikekarwadi				-11.501	158	.000	-10.132	158	.000
Inovolu							-11.000	158	.000

financial, administrative, socio-psychological and ethnic complications in any social intervention. SAGY is no exception thus proving that rural transformation programs require planning and foresightedness.

There is dire need in ensuring convergence of schemes and their proper planning and implementation through stakeholder participation to achieve the vision of SAGY. The important facilitating factors though outweigh the inhibiting factors of SAGY, need to be strengthened more. Policy planners can take cue from this study to mend the ground level problems arising which hamper the effective implementation of the program. The method for constructing the multi-dimensional scale can be used to develop similar scales for measuring other socio-psychological variables. The scale can also be modified accordingly for measuring stakeholders' perception of any other rural development program.

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