
Identification of factors influencing the performance of government organisations and undertakings in India using analytic hierarchy process

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Abstract: There are various factors that are responsible for influencing the performance of any government organisation. By employing a multiple-criteria decision-making model (MCDM), the study is an attempt to measure preference and thereby identify factors influencing the performance of government organisations and undertakings in India. Important factors that are likely to influence the performance of government organisations and undertakings, including those significant in the current scenario, have been considered. The data were collected from government organisations and undertakings representing different sectors to ensure that the selection of factors was unbiased and fairly accurate. A well-known method for prioritisation in case of MCDM known as analytic hierarchy process (AHP) has been employed. The average value obtained for every criterion was used to prepare the paired comparison matrix. Results have showed that e-governance practices and process standardisation exhibit greater influence on the performance of government organisations as compared to the other factors.

Keywords: organisational performance; government organisations; process standardisation; government undertakings; e-governance practices; multiple criteria decision making; MCDM; analytic hierarchy process; AHP; India.

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1 Introduction

Performance is a multidimensional phenomenon. Primarily, it addresses efficiency, cost, quality, delivery and flexibility aspects relating to the achievement of better performance of an organisation (Biswaranjita et al., 2015). Until recently, performance of government organisations in India was somewhat a neglected area. Although the overall image of any government organisation in India in the minds of the people is somewhat gloomy, the initiatives launched by the government and increased public awareness have brought about a significant change. There are various factors that are in fact responsible for influencing the performance of any government organisation. Research, employing different scientific tools and techniques, has been carried out in the area of performance measurement of employees as well as that of organisations. However it has been observed that most of the past research was focused on analysing the impact of a particular factor(s) on the performance on employees and organisations and a need was felt to select the most significant factors in the Indian context.

The study is an attempt to select factors influencing the performance of government organizations and undertakings in India. Important factors that are likely to influence the performance of government organisations/undertakings, including those significant in the current scenario, have been considered. 'Analytic hierarchy process' (AHP), one of the most popular and widely accepted statistical tools, is employed to rate and select the factors influencing the organisational performance. Data for the study has been obtained from government organizations and undertakings representing different sectors and locations to ensure that the selection of factors was unbiased and fairly accurate. Therefore the outcome of this study can be employed for assessing the performance of most of the government organisations and undertakings in India.

2 Literature review

A study was designed to determine what factors most influence the productivity of state government workers in the USA (Jerry, 2012). Four open ended questions were framed and offered through a web based survey to 980 Wyoming state government workers. The respondents identified those factors perceived as most significant affecting the workplace productivity. Responses were categorised into factor groupings based on keyword identifiers which in turn were selected from the content of the questions. The factors identified were ranked in order of relative importance expressed by the respondents. Results indicated that poor management, bureaucracy, poor communication, insufficient budget and staffing were the key factors responsible for limiting the productivity.

A study to investigate factors influencing government employee performance via information systems was undertaken in Taiwan (Luarn and Huang, 2009). Data was collected from employees who used information systems (IS) and worked in 29 different units of the Taipei government. Reliability and validity were tested by Cronbach's alpha and factor analysis respectively. The results reveal that task-technology fit, computer self-efficacy and utilisation of IS are the three factors that affect the performance of government employees.

A research to study the factors affecting four dimensions of public service motivation namely attraction to public policy making, commitment to public interest, influence on compassion and self-sacrifice was carried out in the three southern border provinces of Thailand (Kachornkittiya et al., 2012). Data were collected from permanent municipal employees selected by multi-stage random sampling. Research hypotheses were formulated and regression analysis was employed to test the hypotheses. Results showed that goal perception and cultural understanding had positive influence on all four dimensions of public service motivation while transformational leadership had positive influence on three dimensions. Results also revealed that role stress had negative influence on commitment to public interest.

Employee performance evaluation using the AHP was designed to assess individual's contribution to the organisation (Islam and Rasad, 2006). The authors have presented ten guidelines for employee performance appraisal. The paper uses AHP to evaluate employee performances based on different criteria. Every criterion was divided into three sub criteria and 294 employees of a company were evaluated on these sub criteria. The overall ranking of the employees was obtained using the absolute measurement procedure. Company officials developed pairwise comparison matrices for determining the criteria and sub criteria and weights were computed using expert choice decision support software. It was observed that although this technique is somewhat time consuming, it has increased the accuracy and fairness of the process thereby enabling the management to make a sound decision.

A research on e-Government website (EGWS) performance and its relation with economic development using AHP was undertaken in Chinese provinces (Zhang et al., 2014). The researchers have used the ranking mechanism based on AHP to evaluate the EGWS. The study also used the correlation analysis to determine the impact of economic development variables on the performance of provincial EGWS. This study is based on the data collected from provinces of China and the findings may not be applicable to other countries. However such research will provide the policy makers to make more informed decisions.

Much research on identification of factors influencing the performance of government and non-government organisations has been carried out across the globe. Many of the studies carried out so far are of statistical nature where the primary goal was to identify good performing examples and unpack factors that drive the performance. These can be classified as attempts to predict performance. In contrast this paper proposes using a multiple criteria decision making (MCDM) model to measure preference. A need was felt to identify the factors influencing the performance of government organisations and undertakings in India by employing some well known statistical tool. AHP – a well known statistical tool has been employed to identify the factors influencing the performance. The study has also taken into account factors such as e-Governance practices that are significant in the current scenario. The outcome of this study will be helpful to focus on the key factors for further improvement in the performance. The study can be adopted for government organizations and undertakings, at least those considered in this study and can also be extended to other non-government organisations with suitable modifications.

3 Methodology

3.1 The AHP

The AHP (Saaty, 1980) is based on measurement through pairwise comparisons and is effective in dealing with complex decision making. The AHP works by developing priorities for alternatives and criteria used to judge the alternatives (Saaty and Vargas, 2012). AHP helps in complex decision making process and enables the decision maker to set priorities for arriving at the best possible decision. Pairwise comparison is the most important stage in the AHP. A factor which is of significant importance for one person might not be of same importance for the other. To obtain pairwise comparisons, a relative measure is used (Sebahat, 2013). Every criterion is compared with other criteria and preference score is assigned to every paired comparison. The score indicates how many times the criteria under consideration is important or significant for the respondent over the other criteria to which it is compared with. Psychological experiments (Miller, 1956) have shown that individuals cannot simultaneously compare more than seven objects (with a margin of two). This is the main reason why Saaty has used nine as the upper limit for his scale.

AHP also provides a consistency check to reduce bias in the decision making process. The AHP relies on knowledge and judgment of the experts/respondents to measure intangibles in relative terms. Whenever an alternative identical to an existing alternative(s) is introduced, AHP may reverse the ranking of the alternatives. This was observed by thinkers like Belton and Gear (1983) and Dyer and Wendell (1985) and thus other variants of AHP came into existence. However, AHP either in the original or ideal mode is widely accepted and is regarded as one of the most reliable MCDM method. If comparisons are not perfectly consistent, then AHP provides a mechanism for improving the consistency (Triantaphyllou and Mann, 1995). Thus AHP also reduces the bias, if any, in the decision making process.

Table 1 Fundamental scale of relative importance

<i>Intensity of importance</i>	<i>Definition</i>	<i>Explanation</i>
1	Equal importance	If both factors contribute equally to the performance
2	Weak or slight importance	If the factor has a slight importance over the other
3	Moderate importance of one over another	Experience and judgment slightly favours one factor
4	Moderate plus importance	Experience and judgment favours one factor slightly more than the other factor
5	Strong importance	Experience and judgment strongly favours one factor over the other
6	Strong plus importance	Experience and judgment favours one factor more strongly over the other
7	Very strong or demonstrated importance	If the factor is favoured very strongly over the other and dominance is demonstrated in practice
8	Very very strong importance	If the factor is very strongly favoured, dominance is demonstrated and is felt that the factor could be one of the deciding factors
9	Extreme or absolute importance	Evidence favouring one factor over the other is of the highest possible order
Reciprocals of above non-zero values	If an activity ' <i>i</i> ' has one of the above non-zero numbers assigned to it when compared with another activity ' <i>j</i> ', then ' <i>j</i> ' has the reciprocal value when compared with ' <i>i</i> '	Reasonable assumption

Following are the important steps of the AHP:

Step 1 Pairwise comparison

To make comparisons, we need a scale of numbers that indicates how many times more important or dominant one element is over another element with respect to the criterion or property with respect to which they are compared (Saaty, 2008). The respondent uses his knowledge and judgment to rate the factors against each other on a scale of nine. Initially the first alternative is compared with rest of the alternatives considering the first alternative as a reference point. Then the second alternative is compared with rest of the alternatives considering second alternative as a reference point and so on. Thus the AHP does not take a fixed reference point but treats all alternatives as reference points in order to minimise any bias which may be introduced through the selection of a single focus for the comparisons (Harker and Vargas, 1990). Table 1 shows the scale of relative importance introduced by Saaty (1980).

Step 2 Preparing a reciprocal matrix

The scores of all these comparisons are used to form a pairwise comparison (reciprocal) matrix. If the value for paired comparison of Criteria 1 and Criteria 2 (i.e., C_{12}) is ' x ', then the corresponding value for comparison of Criteria 2 with Criteria 1 (i.e., C_{21}) will be ' $1/x$ '. The following example shows the structure of a 4×4 reciprocal matrix:

$$\text{Matrix } A = \begin{bmatrix} C_{11} & C_{12} & C_{13} & C_{14} \\ C_{21} & C_{22} & C_{23} & C_{24} \\ C_{31} & C_{32} & C_{33} & C_{34} \\ C_{41} & C_{42} & C_{43} & C_{44} \end{bmatrix} \rightarrow \begin{bmatrix} C_{11} & C_{12} & C_{13} & C_{14} \\ 1/C_{12} & C_{22} & C_{23} & C_{24} \\ 1/C_{13} & 1/C_{23} & C_{33} & C_{34} \\ 1/C_{14} & 1/C_{24} & 1/C_{34} & C_{44} \end{bmatrix}$$

Step 3 Determining weights

Based on the pairwise comparison matrix, the AHP generates weights for every evaluation criteria. Initially the geometric mean (GM) for every criterion (row wise) is calculated. For instance, GM for the first row of the pairwise comparison matrix (i.e., $G.M_1$) is calculated as follows:

$$\begin{aligned} G.M_1 &= \sqrt[7]{C_{11}.C_{12}.C_{13}.C_{14}.C_{15}.C_{16}.C_{17}} \\ &= (C_{11}.C_{12}.C_{13}.C_{14}.C_{15}.C_{16}.C_{17})^{1/7} \end{aligned}$$

After obtaining individual GM , summation of the individual GM is obtained. Thereafter individual weights are obtained by dividing individual GM with summation of GM .

For instance, weight for the first criteria C_1 can be obtained as follows:

$$\text{Weight 1} = \frac{G.M_1}{\Sigma G.M}$$

Step 4 Consistency check

Consistency check must be carried out to ensure the consistency of the comparisons obtained through survey. The pairwise comparison matrix (say matrix A_1) is multiplied with the weight matrix (say matrix A_2) to obtain a new matrix (say matrix A_3).

Then every element of the matrix (A_3) is divided with the corresponding weight to obtain a new matrix (say matrix A_4). The average of this new matrix (A_4) is the value of λ max. Consistency index ($C.I$) is calculated using this value of λ max with the following formulae:

$$C.I = \frac{\lambda_{\max} - n}{n - 1},$$

where n is the number of criteria.

Consistency ratio ($C.R$) is the ratio of $C.I$ to the random consistency index ($R.I$). The values for $R.I$ are as shown in Table 2:

$$C.R = \frac{C.I}{R.I}$$

here:

n = number of criteria consider

and:

$R.I$ = random consistency index

If the $C.R$ is less than or equal to 0.1, the weights obtained using AHP are considered for further study otherwise the weights obtained are required to be modified by making suitable changes in the reciprocal matrix.

Table 2 Values for $R.I$ for small values

n	2	3	4	5	6	7	8	9	10
RI	0	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.49

Source: Saaty (1987)

3.2 Investigation of factors identified as criteria for performance measurement

Following are the factors which are critically affecting the performance of the organisations under study:

- *Work overload*: work overload happens when job demands exceed the time and resources available (Kirch, 2008). Job demands may be the main cause of stress at workplace in which the employees do not know how to manage themselves in order to meet their job needs (Karimi et al., 2014). Work overload is an important source of stress and a cause of concern for both the employees as well as the organisation. Different reasons such as inadequate staff and long leave availed by co-employees are responsible for the work overload. Researchers have observed many harmful effects of work overload on individuals as well as organisations. These include tiredness, anxiety, dissatisfaction, low productivity, absenteeism and rise in employee turnover.
- *Workplace politics*: organisational or workplace politics refers to the complex mixture of power, influence and interest-seeking behaviours that dominate individuals' activity in the workplace (Vigoda, 2002). Workplace politics is often referred to as dirty politics and include acts such as non-cooperation with fellow employees, excessive public criticism and gossiping, favour particular employees, hiding of important information from others and bias based on gender, caste and race. Even if one does not involve in such politics, one may be affected by the acts of notorious elements in the organisation. Such politics not only hampers the morale of the employees but also induces undue stress leading to decline in the performance. Every employee, including those indulging in dirty politics, feels that he/she should

not become a victim of workplace politics. However the truth is that workplace politics exists and one has to face it.

- *Right to information (RTI)*: in India, the Right to Information Act was passed in 2005. This act promotes transparency and accountability in administration by making the government more open to public scrutiny (Srivastava, 2010). This act is a powerful tool in the hands of the citizens and gives right to inspect work, documents, records or obtain certified copies of documents, records or samples. Information sought under this act has to be furnished to the applicant within 30 days. Delay in providing information, denying information, providing misleading information or even destroying information can attract penalty and disciplinary action for violation of the law. The act also provides a two-tier mechanism for appeal. This act has changed the overall work culture and has made the employees conscious about their duties. Although the act has brought transparency and discipline, it has induced fear in the minds of the employees, especially those directly involved in providing the information. Incidences of attacks on the RTI activities have been reported throughout the country. At the same time it has also been observed that a number of RTI's are purposefully targeted against a particular employee in order to harass him mentally. This has developed fear in the minds of the employees and the employees are therefore not seen in favour of this act.
- *Job transfer*: as per government policy on transfer, Class III employees are normally transferred from one place to another every six years while Class II and Class I employees are transferred every three years. Transfer is usually made from one city to another but in some cases transfers may be restricted to change of section or branch within the same city. As per the new policy, if both husband and wife are working in government organisations/undertakings, then they are posted in the same city. From the employee point of view there are several disadvantages of job transfer. The family of the employee gets disturbed and relocation increases the cost of living. If the employee has not shifted his family to the new place, he tends to take frequent leave to visit his family thereby affecting the work. The employee also gets mentally and emotionally disturbed due to job transfer outside the city. If the employee happens to be a female, the problems are even more intense.
- *Attitude of superior*: according to Business Dictionary, an attitude is a predisposition or a tendency to respond positively or negatively towards a certain idea, object person, or situation. It is often said that people do not leave jobs, they leave their superiors. The relationship between a leader and his subordinates can have a major impact on the performance of the employees (Gaur, 2013). A positive relationship leads to increased morale, dedication, loyalty, improved relations and thereby performance. On the other hand a bitter relationship between the superior and employees will affect the performance adversely.
- *e-Governance practices*: e-governance is the implementation and delivery of government services through the information communication technology to provide transparent, effective, efficient, responsive and accountable governance to the society (Dwivedi and Bharti, 2010). Government of India has launched 'Digital India Project' to transform India into a digitally empowered society and knowledge economy besides changing the manner in which governance and public services are

provided to the citizens. As per the framework provided by the government, e-Governance practices are being widely implemented in all government organisations and undertakings. There are numerous benefits of e-Governance practices. These include considerable savings in time and money, reduction in burden of work for the employees, effective and user friendly interaction of the customers and vendors with the organisation, reduction in errors and efficient data storage. As such, it has been observed that e-Governance initiative has gained a wide spread acceptance from all parts of the society.

- *Process standardisation*: a standard is a document, established by consensus and approved by a recognised body, which provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context (Website of the International Electrotechnical Commission, <http://www.iec.ch/standardsdev/publications/is.htm>). It has been observed that there is some variation in the process adopted by different branches of the same organisation. This is not only posing difficulties in execution of the work but also affecting the overall efficiency. One common example is sending of typed information in 'devnagari', i.e., local script using Microsoft Word assuming that the font used for preparing the document is available on the receiver's computer. Process standardisation serves as a foundation for effective implementation of management policies and reduces the burden on the employees. It also provides quick service to the vendors and customers thereby making interaction with the organisation an easy task.

Table 3 Factors affecting performance of government organisations and undertakings

<i>Sr. no.</i>	<i>Factors affecting performance</i>	<i>Abbreviation</i>
1	Work overload	C_1
2	Workplace politics	C_2
3	Stress due to poor working conditions/RTI, etc.	C_3
4	Job transfer	C_4
5	Attitude of superior/boss	C_5
6	e-Governance practices	C_6
7	Process standardisation	C_7

3.3 Data collection

The purpose of this study is to select the factors influencing the performance of government organisations and undertakings in India using the AHP. Various factors influencing the performance of government organisations and government undertakings were grouped together. Pairwise comparison between these factors was carried out and individual weights were calculated using the AHP. The seven factors that have been used in the pairwise comparison are shown in Table 3.

Initially 12 government organisations and undertakings representing different sectors were selected for the survey. A pairwise comparison survey form was designed and was distributed to five employees of every selected organisation on a random basis. The respondents were explained the concept of pairwise comparisons with a practical

example. Government organisations and undertakings representing different sectors were selected to ensure that the selection of factors influencing the performance was unbiased and fairly accurate. Responses could be obtained from ten out of the 12 organisations. Table 4 shows the list of government organisations and undertakings from where data has been collected.

Table 4 List showing government organisations surveyed

<i>Sr. no</i>	<i>Name of organisation</i>	<i>Sector represented</i>	<i>Region</i>
1	Bharat Sanchar Nigam Limited (BSNL)	Telecom	Pune
2	District Health Centre	Health	Nashik
3	Government Polytechnic	Education	Jalgaon
4	Income Tax Department	Finance	Pune
5	Life Insurance Corporation of India (LIC)	Insurance	Nashik
6	Maharashtra Housing and Area Development Authority (MHADA)	Housing	Nashik
7	Ministry of Finance, Government of India	Economic Affairs	North Block, New Delhi
8	State Agriculture Department	Agriculture	Nashik
9	UCO Bank (Nationalised Bank)	Banking	Ahmednagar
10	Zilla Parishad	District Administration	Ahmednagar

4 Application example

Various factors under consideration were given abbreviations from C_1 to C_7 as shown in Table 3. The survey forms obtained from different organisations were assigned numbers like A_1 to A_5 , B_1 to B_5 and so on. The opinion of all 50 respondents for every pairwise comparison was tabulated in a spreadsheet. The average values obtained from the spreadsheet for every pairwise comparison was used to of prepare the pairwise comparison matrix. The matrix (A_1) so obtained is shown in Table 5. Using these values, weights for every criterion were obtained with the help of formulae discussed in Step 3 of the methodology section.

It is observed that the summation of all weights equals to one. From the pairwise comparison matrix given in Table 5, it is observed that the weights of two factors namely e-Governance practices and process standardisation are significantly greater than the weights of other factors. The weight of e-Governance practices is 38.72% while that of process standardisation is 29.35%. As the relative importance matrix is prepared based on the opinion of the employees of ten different organisations mentioned in Table 4, this clearly indicates that the employees feel that implementation of e-Governance practices followed by process standardisation would certainly improve the performance of the organisation. The outcome of the study thus also helps the management to formulate strategies for improving the performance of the organisation.

The contribution of various criteria (based on the weights) for improving the performance of the organisation is shown in Figure 1.

Table 5 Pairwise comparison matrix based on the survey

Criteria	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	C ₇	GM	Weights		Matrix A ₃ (A ₁ × A ₂)	Matrix A ₄ (each element of A ₃ ÷ corresponding weight)
	Matrix A ₁								Matrix A ₂			
C ₁	1	4.00	2.6758	2.7872	3.0422	0.1400	0.1663	1.1129	0.10624	0.8442	7.9467	
C ₂	0.25	1	0.2831	0.7846	0.3666	0.1263	0.1281	0.3180	0.030365	0.2315	7.6265	
C ₃	0.3737	3.5321	1	0.9121	2.5228	0.2007	0.1816	0.7302	0.069711	0.5284	7.5809	
C ₄	0.3587	1.2743	1.0962	1	2.7628	0.2204	0.2129	0.6767	0.064600	0.4991	7.7262	
C ₅	0.6574	2.7270	0.3963	0.3619	1	0.1759	0.1871	0.5058	0.048283	0.3750	7.7672	
C ₆	7.1380	7.9175	4.9808	4.5359	5.6836	1	2.4915	4.0567	0.387244	3.0320	7.8298	
C ₇	6.0111	7.8047	5.5053	4.6965	5.3424	0.4013	1	3.0752	0.293555	2.2697	7.7318	
								ΣGM = 10.4755	Σ = 1.00		λ max = 7.74 (average)	

The 7×7 matrix (A_1) was multiplied with the 7×1 weight matrix (A_2) to obtain a new 7×1 matrix (A_3) as shown below:

$$\begin{array}{c}
 \text{Matrix 'A}_1\text{' } \\
 \left[\begin{array}{ccccccc}
 1 & 4.00 & 2.6758 & 2.7872 & 3.0422 & 0.1400 & 0.1663 \\
 0.25 & 1 & 0.2831 & 0.7846 & 0.3666 & 0.1263 & 0.1281 \\
 0.3737 & 3.5321 & 1 & 0.9121 & 2.5228 & 0.2007 & 0.1816 \\
 0.3587 & 1.2743 & 1.0962 & 1 & 2.7628 & 0.2204 & 0.2129 \\
 0.6574 & 2.7270 & 0.3963 & 0.3619 & 1 & 0.1759 & 0.1871 \\
 7.1380 & 7.9175 & 4.9808 & 4.5359 & 5.6836 & 1 & 2.4915 \\
 6.0111 & 7.8047 & 5.5053 & 4.6965 & 5.3424 & 0.4013 & 1
 \end{array} \right] \\
 \\
 \begin{array}{cc}
 \text{Matrix 'A}_2\text{' } & \text{Matrix 'A}_3\text{' } \\
 \left[\begin{array}{c}
 0.1062 \\
 0.0303 \\
 0.0697 \\
 0.0646 \\
 0.0482 \\
 0.3872 \\
 0.2935
 \end{array} \right] & \times & \left[\begin{array}{c}
 0.8442 \\
 0.2315 \\
 0.5284 \\
 0.4991 \\
 0.3750 \\
 3.0320 \\
 2.2697
 \end{array} \right]
 \end{array}
 \end{array}$$

Each element of the 7×1 (A_3 matrix) was divided with the corresponding weight (A_2 matrix) and a new 7×1 matrix (A_4) was obtained:

$$\begin{array}{ccc}
 \text{Matrix 'A}_3\text{' } & \text{Matrix 'A}_2\text{' } & \text{Matrix 'A}_4\text{' } \\
 \left[\begin{array}{c}
 0.8442 \\
 0.2315 \\
 0.5284 \\
 0.4991 \\
 0.3750 \\
 3.0320 \\
 2.2697
 \end{array} \right] & \div & \left[\begin{array}{c}
 0.1062 \\
 0.0303 \\
 0.0697 \\
 0.0646 \\
 0.0482 \\
 0.3872 \\
 0.2935
 \end{array} \right] = \left[\begin{array}{c}
 7.9467 \\
 7.6265 \\
 7.5809 \\
 7.7262 \\
 7.7672 \\
 7.8298 \\
 7.7318
 \end{array} \right]
 \end{array}$$

The average of the new A_4 matrix is the value of λ max. Consistency check was carried out with the help of formulae discussed in Step 4 of the methodology section:

$$\begin{aligned}
 C.I &= \frac{\lambda_{\max} - n}{n - 1}, \\
 &= \frac{7.74 - 7}{7 - 1} \\
 &= 0.1233
 \end{aligned}$$

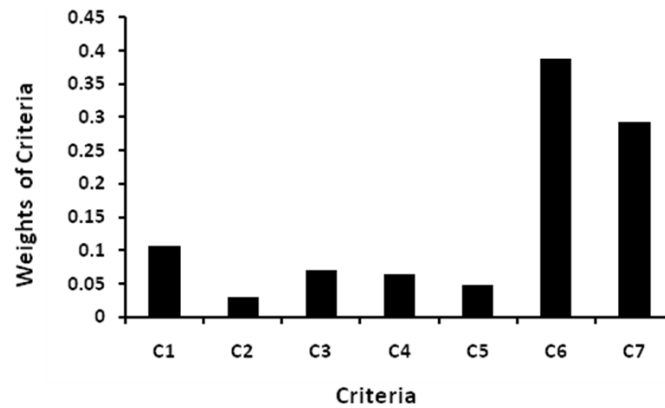
where n is the number of criteria:

$C.R$ is calculated as follows:

$$\begin{aligned}
 C.R. &= \frac{C.I.}{R.I.} \\
 &= \frac{0.1233}{1.32} \\
 &= 0.0934 \\
 &= 9.34\% < 10\% \text{ (Acceptable)}
 \end{aligned}$$

As the *C.R* for given weights is less than 0.1, the weights obtained in this work for various criteria considered are appropriate.

Figure 1 Contribution of various criteria



5 Conclusions

It is observed that the *C.R* for the relative importance matrix of various criteria considered in this study is less than 0.1 (i.e., 0.0934). Hence the evaluation of the preferences can be considered as appropriate. Therefore considering the weights of all factors, it can be concluded that the factors namely e-Governance practices and process standardisation play an important role in influencing the performance of government organisations and undertakings in India.

Although most of the organisations considered for the study are from the state of Maharashtra, efforts have been taken to select the organisations from different sectors and cities so that the results are generalised and can be made applicable to different government organisations and undertakings in India, at least those covered under the survey. Organisations covered in the survey include Central Government Organisations (Ministry of Finance – Govt. of India and Income Tax Department), State Government Organisations (Government Polytechnic, District Health Centers, Zilla Parishad and State Agriculture Department) and Public Sector Undertakings (BSNL, LIC, MHADA and UCO Bank). The factors of common interest of the above mentioned organisations are considered in this study.

Hence the findings of this study can be made applicable to any other organisation falling under this category. However this study has not taken into account the

demographic details (such as designation, gender and home town) of the respondents and therefore further research in this area is possible.

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