Measuring efficiency of distance educational institutes in India

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Abstract

In a period of Rajiv Gandhi Government was given more emphasized to HRD Departments. So new policy have adopted that continuation education programs empowered to working people. There are no of institutions imparting various courses on distance education mode for upgrade knowledge of peoples. Our primary purpose of the research study is the role of distance educational system and measuring their performance. Here percentile and rank statistical tool has been evaluating the efficiency of distance educational institute. These methods take into account of inputs as (resource reach), outputs as (result) and the process took as (Learning experience) components and calculated their technical efficiency. Technical ability is treated as performance and comparison among them. In this paper twenty-seven distance educational institute chose as their benchmarking performance on purpose to find out their effectiveness. The limitation of our research is considered as a different parameter for improving quality of distance educational institutes. The parameters are likes inputs (resource reaches) and outputs (result) and incorporated as experiment model to calculate a score.

Keywords: Human Resource Development (HRD), UGC (University Grad commission), benchmarking, AICET (All India council of Technical Education), etc.

Introduction

In the policy of continuation education program of universities and institution are imparting various course in distance education mode. In this model, Indira Gandhi National Open University (IGNOU) running with 2.8 million students retain the pole position in India first ever objective rating of distance education. Now there is a huge of distance learning institute. These institutes are imparting education by their study centre. It accounts for a massive part of 30 percent of total enrolment in the country. Some institutions are providing useful materials, class and assessment facilities. Some are only arranged assessment services but not offered classes. Some are followed objective type in the examination, and some provide long type pattern like regular students. Although these distance learning institutions are also a supply of good study notes and materials. Herewith questionable those institutes have provided quality of course. What type monitoring to study center conducted by distance learning department of universities, scale and parameter of examination and overall the produced proper output in sustainable market. The quality of distance educations is depended on same compare regular course etc. According to Mr. Naresh head of Research Career 360 that all existing Distance Learning institute of some selected university and their study center out of 249 institutes 176 learning institutes currently offer distance education programmed. The lack of adequate data of the Distance Education Council (DEC) as also here public domain shortlisted was done based on student enrollment. But the scenario information that student enrollment 114 institutes out of 176 institutions. Indira Gandhi Nation Open University from 1986 imparting good quality education in distance learning programs. Now Mumbai University and Symbiosis reputed institutions providing service to distance learning. On 2002 notification of UGC regarding distance learning systems have face problem of their authorization. It is concluded that Distance Education Council in IGNOU established and recognized the distance education course. In 2012 Karnataka State Open University imparting B.Tech engineering course and a diploma in Engineering course are imparting through distance mode. After this problem, so distance education subject to verification of recognition. For the purpose of human resource development, knowledge and skill up gradation distance learning institutions are imparting undergraduate course in science and humanities as well as some professional course as per requirement of the recent trend. For e.g. Anamalai University has giving diploma and P.G diploma in fire safety management course through distance mode and also imparting MBA in safety management and P.G. diploma in VLSI and M.Sc. in Geo informatics course through distance learning process. On growing demand of food services Indira Gandhi National Open University offering M.Sc. in dietetics foods service management. Some institute introduces new specialization course on increasing demand of the current market. These courses are MBA in shipping and Logistic management, security and cyber program entrepreneur's development, Insurance management export and import management, Technical writing, education administration.

Literature Review

In evaluating performance in a different tools measure lot of research paper has been published. Aferssa B (2005) has asses the performance health institution using intensive case units. Their research paper has calculating health institutions. Monzer Kalif (1999) has evaluated the performance of financial

institution by Zokhah theory of Islamic finance frame work. Gagan Pratap (2014) has evaluated the performance of higher education institute in India. Desheng(Dash) W.U. has assessed branch efficiencies of a large banks using neural network approach.

Percentile rank use clarifies the interpretation of score standardize test. For the modern test theory grade of raw scores is interpreted as the examination in norms and group who scored at or below the score of interest (1996).[2,3] Percentile rank not on an equal interval scale the different between any other two score whose difference in percentile rank is the same. There is no standard definition of percentile the same however all definition yield similar result when the new observation is very large.[6] In the limit as sample size approach infinite and data points be 50 density sample size approach infinite and data points become 50 frequency

spaced appear continuousm100P[th] percentile(0<P<1) approximates in inverse of cumulative distribution fraction thus formed evaluate as p′ approximates the lower distribution fraction Same methods for calculating are nearest rank methods.[4]

Research Methodology

In this investigation study about the performance of distance education are based on of data collection on various sources and ranking after examining. The performance is based on study material and personal contact programs and teaching classes. Studies about distance education institute are whether give quality education based on testing analysis of data from 27 no's distance learning institute list in Table 1.

Table 1: List of Universities imparting distance education

Sl. No	Name of Institution/University imparting Distance education	Location
1	Indira Gandhi National University	New Delhi
2	IMT Distance & Open learning Institute	Ghaziabad
3	Directorate of Distance Education Anamalai University	Annamalainagar
4	Directorate of Distance Education Sikkim Manipal University	Gangtok
5	University of Delhi(Distance education department)	New Delhi
6	DDE-Osmania University	Hyderabad
7	Madurai Kamraj University (Distance education department)	Madurai
8	Symbiosis Centre for Distance Learning	Pune
9	University of Madras (Distance education Department)	Chennai
10	Dr.B.R.Ambedkar Open University	Hyderabad
11	Shivaji University(Distance education Department)	Kolhapur
12	M.P. Bhoj Open University	Bhopal
13	U.P. Rajarshi Tandon Open University	Allahabad
14	Vardhaman Mahaveer Open University	Kota
15	Kurukshetra University(Distance education Department)	Kurukhetra
16	University of Calicut (Distance education Department)	Khozikode
17	Andra University (Distance Education Department)	Vishakapatnam
18	Karnataka State Open University	Mysore
19	Maharshi Dayanand University(Distance Education Department)	Rohtak
20	Acharya Nagarjun University(Distance Education Department)	Guntur
21	DDCE Utkal University	Bhubaneswar
22	Tamil Nadu Open University	Chennai
23	DDCE Sambalpur University	Sambalpur
24	University of North Bengal Distance Education Department	Darjeeling
25	Jaipur National University (Distance Education Department)	Jaipur,
26	Punjab Technical University (Distance Education Department)	Jhalndhar
27	Shohibit University	Uttar Pradesh

The school for Open and Distance Learning Institute Systems (ODLS) in India approximately there are 300 no's in the different city out of 226 institutes are currently offering distance education program. In the nature of operation lack of adequate data, we take 27 no's of institutes data as sampling for the survey. On the response of receiving from we were finally brought 27 no's institutes on ranking purpose subject to the different parameter, weight is on Table 2. Analysis tools. In Nearest Rank method percentile often given in the text, is the p the percentile (0<P<100) of the list of N order values in the list such that P percent of data is less than or equal to that value. This is obtained by fines calculated the ordinal rank and then taking the value from the order list that corresponds to that position. The ordinal position n is calculated using this formula.
n-P/100 ×N Equ.1

A percentile calculated using Nearest Rank method will always be a member of the original order lists. The 100th percentile is defined to be the largest value in the order lists. The percentile rank of a score is the percentage of the score it its frequency distribution that is equal to or lower than it. For example, a test score that greater than or equal to 75% of scores of people taking the test is said to be at the 75 percentile rank. Percentile ranks are commonly used to clarify the interpretation of standardized score test. For proof theory percentile rank of the row, scores are interpreted as the percentages of examinees in the norms groups who scored at below the score of interest. Whereas difference in percentile ranks is the same for e.g., 50-25=25 is not the same distance as 60-35=25 because of bell-curve shape, so percentile rank not on an equal interval scale, that is different between any two scores is no same between any other two scores who difference in percentile rank is the same. The mathematical formula is

$$\frac{c_i + 0.5 f_i}{N} \times 100\% \ \text{……. Equ.2}$$

Whereas c_i is the count as all score less than the score of interest area and f_i the frequency of the score and N number of examinees from samples. The distribution is usually distributed; the percentile rank can be inferred.

Table 2: List of Parameter used Input (Resource Reach)

Sl. No	Parameter	Explanations	Weight
1	Faculty Ratio	No of faculty in full time/total student enroll	5.0
2	Academy Councilors	No of academic councilor/total student enroll	3.0
3	Study center Ratio	No of study center/total student enrolls	5.0
4	No of course offering		5.0
5	Current enrollment		5.0
6	Active enroll ratio	Active Enrolment/ years in existence	7.0

Process (Learning & Experience)

Sl. No	Parameter	Explanations	Weight
7	Quality(Materials)	Quality of course material	10.0
8	E-Platform	Quality of E-platform by testing	7.0
9	Audio & Visual	Audio visual learning programs	6.0
10	Exam Schedule		7.0
11	Responsive	Student friendliness & forthcoming	5.0
12	Contact Class		5.0

Output

Sl. No	Parameter	Explanations	Weight
13	Pass Ratio	No of student pass/total student enroll	20.0
14	Transparency		5.0
15	Special Project		5.0
	Total		100%

Table 3: Ranking in Resource Reach

Name of Institution	Rank	Percent
Indira Gandhi National University	1	100.00%
Directorate of Distance Education Anamalai University	2	96.10%
U.P. Rajarshi Tandon Open University	3	92.30%
Directorate of Distance Education Sikkim Manipal University	4	88.40%
University of Delhi(Distance education department)	5	84.60%
Dr. B.R. Ambedkar Open University	6	80.70%
Karnataka State Open University	7	76.90%
Tamil Nadu Open University	8	73.00%
DDCE Utkal University	9	69.20%
M.P. Bhoj Open University	10	65.30%
Punjab Technical University (Distance Education Department)	11	61.50%
IMT Distance & Open learning Institute	12	57.60%
Madurai Kamraj University (Distance education department)	13	53.80%
Acharya Nagarjun University(Distance Education Department)	14	50.00%
Vardhaman Mahaveer Open University	15	46.10%
Symbiosis Centre for Distance Learning	16	42.30%
Maharshi Dayanand University(Distance Education Department)	17	38.40%
University of Madras (Distance education Department)	18	34.60%
North Bengal University Distance Education Department	19	30.70%
Shivaji University(Distance education Department)	20	26.90%
Andra University (Distance Education Department)	21	23.00%
Kurukshetra University(Distance education Department)	22	15.30%
DDCE Sambalpur University	22	15.30%
University of Calicut (Distance education Department)	24	7.60%
Jaipur National University (Distance Education Department)	24	7.60%
DDE-Osmania University	26	3.80%
Showhibit University	27	0.00%

Table 4: Rank of Learning Experience

Name of Institution	Rank	Percent
IMT Distance & Open learning Institute	1	100.00%
Directorate of Distance Education Sikkim Manipal University	2	96.10%
Indira Gandhi National University	3	92.30%
Karnataka State Open University	4	88.40%
Symbiosis Centre for Distance Learning	5	84.60%
M.P. Bhoj Open University	6	80.70%
University of Delhi(Distance education department)	7	76.90%
Dr. B.R. Ambedkar Open University	8	73.00%
Acharya Nagarjun University (Distance Education Department)	9	69.20%
DDE-Osmania University	10	61.50%
University of Madras (Distance education Department)	11	61.50%
Directorate of Distance Education Anamalai University	12	53.80%
Maharshi Dayanand University (Distance Education Department)	13	53.80%
Punjab Technical University (Distance Education Department)	14	50.00%
Andra University (Distance Education Department)	15	46.10%
Madurai Kamraj University (Distance education department)	16	38.40%
Shivaji University(Distance education Department)	16	38.40%
Showhibit University	18	34.60%
U.P. Rajarshi Tandon Open University	19	30.70%
Vardhaman Mahaveer Open University	20	26.90%

DDCE Utkal University	21	19.20%
Tamil Nadu Open University	21	19.20%
University of Calicut (Distance education Department)	23	11.50%
Jaipur National University (Distance Education Department)	23	11.50%
Kurukshetra University(Distance education Department)	25	3.80%
DDCE Sambalpur University	25	3.80%
North Bengal University Distance Education Department	27	0.00%

Table 5: Rank of Student Results & Efficiency

Name of Institution	Rank	Percent
Directorate of Distance Education Sikkim Manipal University	1	100.00%
Shivaji University(Distance education Department)	2	96.10%
IMT Distance & Open learning Institute	3	92.30%
Dr. B.R. Ambedkar Open University	4	88.40%
DDE-Osmania University	5	84.60%
Symbiosis Centre for Distance Learning	6	80.70%
Directorate of Distance Education Anamalai University	7	73.00%
Maharshi Dayanand University(Distance Education Department)	7	73.00%
Indira Gandhi National University	9	69.20%
Andra University (Distance Education Department)	10	65.30%
Acharya Nagarjun University(Distance Education Department)	11	61.50%
M.P. Bhoj Open University	12	57.60%
DDCE Utkal University	13	50.00%
Tamil Nadu Open University	13	50.00%
University of Delhi(Distance education department)	15	46.10%
Punjab Technical University (Distance Education Department)	16	42.30%
University of Madras (Distance education Department)	17	38.40%
Punjab Technical University (Distance Education Department)	18	34.60%
Madurai Kamraj University (Distance education department)	19	30.70%
U.P. Rajarshi Tandon Open University	20	26.90%
North Bengal University Distance Education Department	21	15.30%
Jaipur National University (Distance Education Department)	21	15.30%
Showhibit University	21	15.30%
Kurukshetra University(Distance education Department)	24	11.50%
University of Calicut (Distance education Department)	25	3.80%
DDCE Sambalpur University	25	3.80%
Karnataka State Open University	27	0.00%

Table 6: Rank of Total Efficiency

Name of Institution	Rank	Percent
Indira Gandhi National University	1	100.00%
Directorate of Distance Education Sikkim Manipal University	2	96.10%
IMT Distance & Open learning Institute	3	92.30%
Dr. B.R. Ambedkar Open University	4	88.40%
Symbiosis Centre for Distance Learning	5	84.60%
Directorate of Distance Education Anamalai University	6	80.70%
DDE-Osmania University	7	76.90%
Shivaji University(Distance education Department)	8	73.00%
M.P. Bhoj Open University	9	69.20%
University of Delhi(Distance education department)	10	65.30%
Maharshi Dayanand University(Distance Education Department)	11	61.50%
Acharya Nagarjun University(Distance Education Department)	12	57.60%
Andra University (Distance Education Department)	13	53.80%
University of Madras (Distance education Department)	14	50.00%

Punjab Technical University (Distance Education Department)	15	46.10%
U.P. Rajarshi Tandon Open University	16	42.30%
Tamil Nadu Open University	17	38.40%
DDCE Utkal University	18	34.60%
Karnataka State Open University	19	30.70%
Madurai Kamraj University (Distance education department)	20	26.90%
Vardhaman Mahaveer Open University	21	23.00%
Showhibit University	22	19.20%
Punjab Technical University (Distance Education Department)	23	15.30%
Kurukshetra University(Distance education Department)	24	11.50%
University of Calicut (Distance education Department)	25	7.60%
DDCE Sambalpur University	26	3.80%
North Bengal University Distance Education Department	27	0.00%

Result Discussion

Performance of distance education is a base source of data collected and ranked after examining 27 no's of the institution in three board domain namely resource reach, learning experience, and result & efficiency. The results are amazing. The IGNOU, which convinces by top over all ranking. It has tremendous potential for increasing its pass percentage and customer services. In other words, some have invested massive hardware and study center, while the focus on technology like e-learning system and on line examination exclusively. Very few have scored consistently across categories showing that the needs of sustain investment and strategies thinking. The distance learning institution input resource is 30% including faculty ratio (no's of faculty in full time, total student enroll) as 5%, academy councilor ratio (no's of academic councilor total student enroll) 3%, study center ratio (no's of education center and total student on roll) as 5%, current enrollment as 5%, no's course offering as 5%, Active enrollment is 7%. Learning experience (process) is 40% which including quality of course materials (also based on recognisation or accreditation by external agency as 10%, e-learning platform (verification and testing) with telephone counseling availability (including active toll free no) as 7%, Audio video programs as 6%, exam schedule 7% and 5% for responsiveness another 5% denote as contact class. The output parameter is based on 30% for pass ratio count as 20% and 5% taken for transparency and 5% count as an individual project. The resource reaches different city were different rates like Kolkata the resource used (56.77%) whereas the resource of distance education in Chennai (15.45%) and Mumbai (21.36%). On above all comparison, Indira Gandhi National Open University percentage of data is very high in the of resource reach, learning experience and after analysis of the resulting efficiency. In response, North Bengal University, Kurukshetra University, and Showhibit University secure meager rate.

Conclusion

In 21st century distance and continuation education programme play vita role to update human's knowledge, training, skill, and value needed. Distance and continue a training program for financial unsound and working people who stop their education in the past due to any reason. This paper includes survey and analysis of government and private universities distance and continuation departments and national and state open universities and their data and measuring their performance by percentile methods. Distance course in future become a high quality of education if Distance Education Council (DEC) will frame a standard policy to all and examination systems. Both universities and open schools will benefit.

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