Factors Influencing Performance Appraisal System In The Nigerian Civil Service: A Comparative Study Of Edo And Ondo States Civil Service Of Nigeria

JEWEREME, Ogbewere Bankole
ijewere4real@yahoo.com
Department of Public Administration, Obafemi Awolowo University, Ile-Ife

BENSON, Kunle Sehinde (Ph.D)
Department of Public Administration, Obafemi Awolowo University, Ile-Ife

ABSTRACT
The study assessed the factors influencing performance appraisal process in the Edo and Ondo States’ Civil Service of Nigeria. Primary and secondary data were utilised for the study. Primary data were collected through questionnaire. A total number of 490 copies of questionnaire were administered on purposively selected four core ministries from both Edo and Ondo States and officers on GL 07-12 and 13-17 were purposively selected. The ministries selected from both states were: Information and Orientation; Education; Transport; and Works. Four hundred and ninety (490) senior officers were randomly selected, meaning 245 respondents from Each State respectively, from the population of (2,452) of both states. Out of the 490 questionnaire distributed, 190 from each State totalling 380 (77.5%) questionnaires were retrieved. Secondary data were obtained through the technique of the content analysis from academic journals, internet and relevant textbooks. Data collected were analysed using descriptive and inferential statistics. The results showed that there is significant difference between the factors influencing performance appraisal process in the two States’ Civil Service - as fear of blackmail and physical attack (t=3.744; p<0.05); fear of reprisal (t=2.156; p<0.05); tribalism and nepotism (t=2.884; p<0.05); leniency (t=3.835; p<0.05); bribery (t=3.509; p<0.05); admiration of personal loyalty more than job performance/output(t=3.453; p<0.05) were all significantly different between Edo and Ondo States. The study concluded that performance appraisal has not been properly practised as a result of the inherent factors influencing appraisal process in the two states, leading to pseudo reports on subordinates with grievous consequence of inefficiency in service delivery. The study further concluded that the factors influencing appraisal process are more pronounced in Edo State than Ondo State.

Keywords: Employees, human resource management, performance appraisal systems, civil service

INTRODUCTION
Public service in most countries, developed or developing are undergoing profound reorganization. They are trying to provide improved services in the same vein having to drastically downsize their work force in the face of major fiscal constraints emanating from the global economic meltdown. A significant reason of such restructuring in public administration is the need to reinvent governance, and enhanced services with fewer resources. One of the most popular instruments adopted for restructuring activities in civil services of most countries, today is Performance Appraisal System. This argument is in the light of the view of Wholey (1989), that strengthening government performance, improving the productivity, quality, timeliness, responsiveness and effectiveness of public services and programmes through performance appraisal is important to all, as beneficiaries of public service and as taxpayers.

Although performance appraisal is an incentive for productivity, but it has been found to be difficult for objective implementation. According to Banjoko (2002, 142):

There is hardly any programme in the entire portfolio of personnel management that is difficult to objectively and effectively implement and yet so crucial to individual and organizational growth than performance appraisal. Performance appraisal is a systematic, organized and formalised process of assessing or evaluating individual employee's job related strengths and weaknesses.

In the opinion of Faizal (2005), Performance appraisal has two purposes: first, appraisal serves as administrative purpose. It provides information for making salary, promotion, and layoff as well as providing documentation that can justify these decisions in court. Second, performance appraisal serves a developmental purpose. The information can be used to diagnose training needs, career planning, and the likes.
For any career officer, especially civil servant, promotion is a justified reward for performance. But unfortunately, performance appraisal is being applied in many public services as a political instrument for helping to develop the cause of favourites or for hindering the career and progress of subordinates. Thus, objectivity that is so important in any appraisal procedure tends to be compromised for subjectivity and favouritism.

Adebayo (1981) opines that some senior officers in Nigerian Civil Service have been known to write false reports on their subordinates, giving to such subordinates merits and virtues that they did not worth. Adebayo (1981: 151) claims among others that:

The possible reasons for this situation are: a reporting officer who has himself been guilty of conduct unbecoming of an official in his position, and who knows that a certain subordinate official is aware of the conduct, becomes afraid to write an adverse report on the subordinate, lest he should turn round and expose him. The reporting officer's fear is that the subordinate may appeal against the report and bring to light the reporting officer's own misdemeanour.

The consequences of these factors in the Nigerian civil service among others are: inefficiency and low productivities, these stem from the fact that employees promoted under this state of affair will be incompetent to assume higher responsibilities. Obasanjo (2003) observes that our public offices have too long been showcased for combined evils of inefficiency and corruption, whilst being impediments for effective implementation of government policies.

This paper centres on the factors influencing performance appraisal in Edo and Ondo States Civil Services. These include among other factors; tribalism and nepotism, personal loyalty of subordinate staff to supervisors, fear of blackmail and reprisal in the case of adverse reports on subordinates on the part of many supervising officers, bribery, and leniency. Therefore, this study seeks to examine these problems in Edo and Ondo States Civil Services of Nigeria.

Statement of the Problem
Observation shows that civil servants in Nigeria are generally lazy as many of them come late to work and absent from duties with files accumulated without being treated. Yet, these civil servants score very high in the Annual Performance Evaluation Report (APER). Primordial relations underscore every aspect of performance appraisal in the Nigerian Civil Service. The merit system index in performance appraisal is supposed to be objectively practised and be the guiding principle in appointments and promotion, and this has not been so. The objectivity in appraisal system has been compromised as a result of ethnicity, nepotism and bribery. Favouritisms in the Nigerian Civil Service are extended to ethnic bloc members, friends, relations and those generally known (Ajayi, 2001 and Ayo 1998).

Extant literature shows that performance appraisal is not properly practised in many public organizations in Nigeria, leading to pseudo reports on subordinates with grievous consequences on the system. Most of the known studies focused on the civil service in general (e.g. Sociological and Attitudinal Factors Affecting Performance Appraisal in Nigerian Civil Service, Adebayo 1981) with little or no emphasis on the states’ civil service, from a comparative perspective. Edo and Ondo States are selected because observation shows that the former is a heterogeneous state with high presence of tribalism and nepotism, personal loyalty, leniency, fear of blackmail and reprisal influencing appraisal process, while that of the latter is relatively homogeneous with low presence of the above variables, hence this study.

LITERATURE REVIEW AND CONCEPTUAL ANALYSIS:
The Concept of Performance Appraisal
Armstrong (2001) notes that issue of accuracy and fairness in performance appraisal is one of the key research interests. The purpose of measuring performance is not to indicate only where things are not going according to plan but also to identify why things are going well so that steps can be taken to build on success (Akinyele, 2010). The concept of Performance appraisal is one of the most problematic components of human resource management (Messah and Kamencu 2011). All involved parties — supervisors, employees, and human resource administrators — typically are dissatisfied with their organization's performance appraisal system (Smith, 1996). Messah and Kamencu are of the view that the appraisal process is either a futile bureaucratic exercise or, worse, a destructive influence on the employee-supervisor relationship. This is certainly true of most organizations, at
least in the USA, wherein surveys typically reveal widespread dissatisfaction with the appraisal process (Huber, 1983; Walsh, 1986). Despite these indictments, managers are reluctant to abandon performance appraisal which they still regard as the only matrix to know the performance of employees as well as an essential tool of human resource management (Meyer, 1991).

Performance appraisal is an instrument through which an organization knows the weaknesses and strengths of its employees in order to re-enforce the strengths and improve on the weaknesses for the overall benefit of the employees and the organization (Ijewereme, 2013).

Performance appraisal is a periodic or an annual exercise. Performance appraisal is a periodic and systematic evaluation of an employee’s performance on the job for the primary purpose of determination of the individual’s efficiency, skills, improvement over time, specific talents, potentials, and weakness for the purpose of his development and extraction of information for human resources development decisions and policies (Azelama, 1995). Azelama further opines that the overall purpose is efficient attainment of the goals of the organization. Performance Appraisal system helps an organization to accomplish its mission and vision by judging effectiveness of the employees i.e. recruitment, selection, training and development (Jain and Garg, 2013)

Structural Pitfalls in Performance Appraisal
Banjoko (2002:160) argues that performance appraisal is highly susceptible to a number of errors or pitfalls. The three major problems in appraisal have to do with issues relating to appraisal reliability, validity and rating bias. How objective is the rater in assessing the performances of his subordinates. To enhance the accuracy and the acceptability of the appraisal reports efforts must be made by individual raters as well as the organization to deal with these problems.

In most cases, errors in performance appraisals emanate from the following situations:

i. The characteristics of the Rater: The outcome of an appraisal report is a reflection of the personality of the rater. Is he an impartial or an objective assessor?

ii. The characteristics of the Ratee: Sometimes, the performance or non-performance behaviour of the ratee may make the supervisor to be unduly favourable or unfavourable in his ratings of the subordinate.

iii. The Situational Factors: Here, the issue is for what purpose is the appraisal going to be used? Is it for promotion? If so, very many extraneous variables often infiltrate to contaminate and bias the appraisal report. The rater would want “his man” to be promoted and hence would tend to colour his ratings so favourably that whoever reads the report, would feel convinced that his man is qualified to be promoted. On the other hand, the subordinate who has stepped on the boss toes is bedevilled with a stinking appraisal report.

Validity of Appraisal
Validity in performance appraisal refers to the extent to which the chosen performance indices are valid indicators of what they are intended to assess and on which basis a judgement as to whether the ratee has performed well or not can be made (Banjoko, 2002). In the words of Salaman, Storey and Billsberry (2005) validity of appraisal refers to “whether the indicator actually measures what it is supposed to measure”. For example, profitability of a particular unit or group might be taken as an indicator of managerial effectiveness. It is possible that factors outside the manager’s control could have a greater effect on profitability, and thus it is not a valid indicator of managerial effectiveness. However, another example is in a checklist method appraisal, the raters often evaluate the employees on such criteria as personality, job knowledge etc. Personality as variable may not be a valid determinant of performance in most jobs. An employee may achieve excellent performance results without necessarily having a nice personality. To that extent the variable ‘personality’ may not be a universally valid measurement of employee performance. On the other hand, the extent of job knowledge as a performance criterion is a valid performance indices (Banjoko, 2002).

The validity of appraisal results can also be affected by the following problems:

(i) Halo Effect: The ‘halo’ effect reflects the tendency for the rater to be unduly or unnecessarily carried away or impressed by one particular trait or behaviour in the employee that is being rated. For example, a bank worker whose performance has been on the average may have his performance rating by his boss shooting up very high because he, for example, recently foiled a fraud attempt. The counterpart of ‘halo’ effect is ‘horn’ effect. The ‘horn’ effect works negatively for the employee. An employee who has maintained a very good rating since the beginning of the year may have his rating lowered by an unfavourable event e.g. if he gets involved in theft or fraud that occurs few weeks to the appraisal period.
theories of ability influence aspects of self-regulation including the goals that people set (e.g., Wood and 
Bandura, 1989), their level of self-efficacy, the resilience of their self-efficacy following setbacks (e.g., Wood 
and Bandura, 1989), their level of self-efficacy, the resilience of their self-efficacy following setbacks (e.g., Wood and Bandura, 1989), and their performance on complex decision-making tasks (e.g., Tabernero and Wood, 1999).

However, there is a dearth of literature that examines the factors influencing supervisors’/managers’ implicit theories on their judgments of others. This is the podium this study is built. Favoritism inherent in performance...
appraisal in Nigeria civil service is occasioned by reporting officer implicit personal nature. Implicit theories in Nigeria civil service can be domain specific, pertaining particularly to areas such as ability, morality, leniency, religious sentiment, ethnic affiliation (inherent in evaluator) tend to influence supervisor or reporting officer judgement of subordinates. Chiu, Hong and Dweck (1997) argue that judgments about others are more likely to be influenced by a person’s implicit person theory (IPT), that is, his or her domain-general implicit beliefs about the malleability of the personal attributes (e.g., ability and personality) that define the type of person that someone is, as well as how he or she behaves. This theory helps to explain the implication of Nigeria civil service supervisor’s or manager’s performance appraisal judgments. This is an important issue in Nigeria civil service psychology because failure by reporting officers/managers to recognize a significant decrease in the performance of a medical surgeon, a paramedic, a security guard, an accountant, or an auditor, a director holding sensitive position in Nigeria civil service, could be catastrophic. Similarly, failure to acknowledge a significant improvement in the behaviour of Nigeria civil servants can lead to civil servants demoralization, frustration, resentment, and withdrawal.

**METHODOLOGY**

Primary and secondary data were utilized in this study. Primary data were sourced through questionnaire. The study consisted of senior officers on GL 07 and above in Edo and Ondo States Civil Service. There were 1,225 of such officers from four core ministries (Education; Information; Works; and Transport) selected from Edo State Civil Service, while that of Ondo State were: 1,227. Cumulatively, there were 2,452 from both States. The sample were 490 staff which was 20% drawn from the population. Meaning, 245 in each State respectively. Out of the 490 questionnaire administered, 190 were retrieved from each state, totally 380 from both States. Secondary data were obtained through content analysis from academic journals and relevant textbooks.

**RESULTS AND DISCUSSION**

Data obtained from the study and the results are presented in table 1-2. The findings on “Bribery influences reporting officer in reporting favorably on a subordinate who should have earned a bad report for low performance in my civil service” was strongly agreed to by officers in Ondo and mildly agreed in Edo state civil service. In all, Ondo State had a mean score of 2.7, and Edo State civil service 2.3 mean score. The implication of the result is that the variable is very prevalent in Ondo State and recorded low presence in Edo States civil service.

<table>
<thead>
<tr>
<th>S/ N</th>
<th>VARIABLE</th>
<th>State</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>F %</td>
<td>F %</td>
<td>F %</td>
<td>F %</td>
<td>F %</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Bribery influences reporting officer in reporting favourably on a subordinate who should have earned a bad report for low performance in my civil service</td>
<td>Ondo</td>
<td>59 31.1</td>
<td>59 31.1</td>
<td>37 19.5</td>
<td>35 18.4</td>
<td>100.0</td>
<td>2.7407</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Edo</td>
<td>24 12.6</td>
<td>69 36.5</td>
<td>46 24.3</td>
<td>50 26.5</td>
<td>100.0</td>
<td>2.3602</td>
</tr>
<tr>
<td>2</td>
<td>Fear of blackmail and physical attack influence supervisor in giving favourable report on subordinate who should have earned a bad report</td>
<td>Ondo</td>
<td>22 11.6</td>
<td>45 23.8</td>
<td>65 31.4</td>
<td>57 30.2</td>
<td>100.0</td>
<td>2.1649</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Edo</td>
<td>29 15.3</td>
<td>78 41.2</td>
<td>47 24.9</td>
<td>35 18.5</td>
<td>100.0</td>
<td>2.5430</td>
</tr>
</tbody>
</table>
On “Fear of blackmail and physical attack influence supervisor in giving favorable report on subordinate who should have earn bad report” as described by a mean score of 2.54 from Edo State and mean score of 2.16 from...
Ondo state. The study revealed that the presence of the variable is very high in Edo and low in Ondo State. However, with 2.16 mean score, the operation of reporting officers of the Ondo state civil service was hardly influenced by fear of blackmail and physical attack.

In a similar vein, on the variable which says “Fear of reprisal in the case of adverse report on subordinate influences reporting officer in giving unmerited high rating to employees in my civil service”, the study found that Ondo state reflected a non-influencing result as 11.1% strongly agree, 28.6% agree and 34.9% disagree while 25.3% strongly disagree. For Edo state, we have a slightly different experience as 9.0% strongly agree, 43.4% agree, 30.7% disagree while 16.9% strongly disagree. Although, the mean score for the two states reflected a general disagreement rating, yet, there is a wide gap between Ondo and Edo states experience with the above variable investigated. Ondo state rated lower than Edo (2.25 against 2.45).

The study revealed similar agreement with “Ethnicity/Tribalism and Nepotism always have influence in performance appraisal system in my civil service”, both states were highly rated above 2.50 average mean standard score. While Ondo State mean scores was 2.6, and Edo State was 2.9. The rated mean score of Edo state was higher than Ondo which implies that Ethnicity/Tribalism and Nepotism have higher influence in performance appraisal system in Edo state civil service than Ondo state civil service.

For “Leniency tendency is more or less determinant factor in performance appraisal process in the civil service”, both Ondo and Edo rated to be agreed with mean scores of 2.50 against 2.90 respectively. It is clear from this report that both Ondo and Edo states agreed that Leniency tendency was a determinant factor in performance appraisal process in their respective civil service. But that of Edo State is remarkably higher than Ondo State. Moreover, variable six which states: “My reporting officer admires my personal loyalty more than my job performance/output" received weighted mean score of 2.56 against 2.66 for Ondo and Edo states respectively. This implies that Admiration of personal loyalty by Reporting officers is one of the factors that affect performance appraisal in Ondo and Edo states civil service, but it is a little more prevalent in Edo State than Ondo State.

Another very important factor considered was “My reporting officer gives performance ratings that reflect his or her personal like or dislike of employees”. Results obtained from the field showed that weighted mean scores of 2.26 against 1.79 for Ondo and Edo states Civil Services officers respectively. When this result is compared with Ondo state above, it became clear that majority of the officers in Edo states believed that their performance rating was not influenced by reporting officer’s likes/dislikes of performance test recipients than Ondo Civil service officers.

Overwhelming officers from both Edo and Ondo States’ civil service agreed that Proper training and retraining of supervisors/reporting officers on appraisal will influence objective performance evaluation of employees. The overwhelming endorsement of this variable is an indication that performance appraisal is not properly practised in the two states civil service, hence, the need for proper training and retraining of reporting officers in order to curtail pseudo reporting on subordinates and avoid grievous consequence of inefficiency in Edo and Ondo States civil service.

Lastly, majority of Edo and Ondo States civil servants acknowledged the fact that a knowledgeable and experienced reporting officer will be more objective in evaluation than knowledgeable and less experienced reporting officer and thus, regarded as one of the factors required to savage the challenges of performance appraisal in the two states civil service.
Table 2: Independent t-test Analysis of null hypothesis: There is no significant difference between the factors influencing performance appraisal process in Edo and Ondo States’ Civil Service

<table>
<thead>
<tr>
<th>S/N</th>
<th>VARIABLE</th>
<th>SA</th>
<th>AG</th>
<th>DA</th>
<th>SD</th>
<th>Total Score</th>
<th>Aggregate Score</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
<th>T</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bribery influences reporting officer in reporting favorably on a subordinate who should have earn a bad report for low performance in my civil service*</td>
<td>85</td>
<td>83</td>
<td>128</td>
<td>83</td>
<td>378</td>
<td>967</td>
<td>2.6570</td>
<td>1.86625</td>
<td>3.509</td>
<td>0.001</td>
</tr>
<tr>
<td>2</td>
<td>Fear of blackmail and physical attack influence supervisor in giving favorable report on subordinate who should have earn bad report*</td>
<td>59</td>
<td>122</td>
<td>112</td>
<td>93</td>
<td>378</td>
<td>887</td>
<td>2.3466</td>
<td>.99548</td>
<td>3.744</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>Fear of reprisal in the case of adverse report on subordinate influences reporting officer in giving unmerited high rating to employees in my civil service*</td>
<td>39</td>
<td>136</td>
<td>123</td>
<td>80</td>
<td>378</td>
<td>890</td>
<td>2.3545</td>
<td>.92776</td>
<td>2.156</td>
<td>.032</td>
</tr>
<tr>
<td>4</td>
<td>Ethnicity/Tribalism and nepotism always have influence in performance appraisal system in my civil service*</td>
<td>84</td>
<td>173</td>
<td>65</td>
<td>56</td>
<td>378</td>
<td>1041</td>
<td>2.7540</td>
<td>.96369</td>
<td>2.884</td>
<td>.004</td>
</tr>
<tr>
<td>5</td>
<td>Leniency tendency is more or less determinant factor in performance appraisal process in Nigeria Civil service*</td>
<td>64</td>
<td>198</td>
<td>65</td>
<td>48</td>
<td>375</td>
<td>1028</td>
<td>2.7413</td>
<td>.88950</td>
<td>4.835</td>
<td>.000</td>
</tr>
<tr>
<td>6</td>
<td>My reporting officer admires my personal loyalty more than my job performance/output*</td>
<td>92</td>
<td>150</td>
<td>75</td>
<td>58</td>
<td>375</td>
<td>1029</td>
<td>2.8165</td>
<td>0.99724</td>
<td>3.453</td>
<td>.001</td>
</tr>
<tr>
<td>7</td>
<td>My reporting officer gives performance ratings that reflect his or her personal like or dislike of employees*</td>
<td>38</td>
<td>64</td>
<td>132</td>
<td>143</td>
<td>378</td>
<td>765</td>
<td>2.0238</td>
<td>1.15484</td>
<td>3.883</td>
<td>.000</td>
</tr>
</tbody>
</table>
Proper training and retraining of supervisors/reporting officers on appraisal will influence objectives performance evaluation of employees in my civil service.

A knowledgeable and experienced reporting officer will be more objective in evaluating than knowledgeable and less experienced reporting officer.

**Hypothesis**

There is no significant difference between the factors influencing performance appraisal process in the two States’ Civil Services. The hypothesis in Table 2 above test the null hypothesis that there is no significant difference between the factors influencing performance appraisal process in the two States’ Civil Service against the alternative that is otherwise at 5.0% level of significant and 372 degree of freedom. The computerized independent sample t-test is used. The factors with P<0.05 for variables 1, 3, 4, 5, 6, 7, &10 were significant. Thus, the hypothesis is rejected and, it follows that there is significant difference between the factors influencing performance appraisal process in the two States’ Civil Service. The finding found out some of the factors identified to be influencing performance appraisal in Edo state civil service is different from Ondo state civil service.

**CONCLUSION AND RECOMMENDATIONS**

The study concluded that performance appraisal has not been properly practised as a result of the inherent factors influencing appraisal process in the two states, leading to pseudo reports on subordinates with grievous consequence of inefficiency in service delivery. The study further concluded that the factors influencing appraisal process are more pronounced in Edo State than Ondo, except on bribery where Ondo State recorded higher prevalence.

Therefore these recommendations are offered to enable human resource managers (in the public service, most especially Edo and Ondo States’ civil service) address performance appraisal more objectively.

- The Nigeria governments and heads of civil service should ensure that any reporting officer found to have collected bribe to influence favorable reports on subordinates including the giver are disciplined.
- Edo and Ondo States’ including Nigerian Federal Civil Services should be restructured to ensure that no civil servant is placed under the supervision of any of his or her tribal person.
- Supervisor/reporting officers most especially from Edo State’ civil service should endeavor to live above board without blemish and report factually without fear of blackmail and reprisal.
- Supervisor should endeavor not to allow personal loyalty of subordinates to becloud his/her sense of objectivity in the course of appraising subordinates.
- Proper training and retraining should be given to supervisors/reporting officers.
- Reporting officer with proven integrity should only be engaged in appraisal process if objectivity is to be guaranteed.
- There should be a clear commitment to performance appraisal throughout all levels of Nigeria public service to improve and have more objective performance appraisal system.

**REFERENCES**


139
This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE’s homepage: 
http://www.iiste.org

CALL FOR JOURNAL PAPERS

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. There’s no deadline for submission. Prospective authors of IISTE journals can find the submission instruction on the following page: http://www.iiste.org/journals/ The IISTE editorial team promises to the review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

Recent conferences: http://www.iiste.org/conference/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar