

# The Case Analysis on Outlay Management Evaluation of University Library under Digital Information Environment

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*Abstract—The implication of outlay management of university library contains its budget, daily management and management systems. The paper probes into its evaluation which includes evaluation contents, weights and value numeration methods. Finally, the paper sets forth results of university library outlay management and carries on the case analysis.*

*Keywords—digital information environment; digital libraries; university libraries; outlay management; evaluation*

## I . INTRODUCTION

*The Stipulation of Libraries of Common Colleges and Universities* made on February 21, 2002 provides that university libraries' outlay must be in budgets [1]. Their outlay includes the operation cost and special funds, and the former mainly consists of literature information resources purchase cost, equipments maintenance cost and business cost [2]. However, literature information resources purchase cost may be mostly used to buy books, CDS, databases, journals

and audio-visual material, and it determines the tasks and benefits of university libraries.

If we want to measure whether it is standard for university libraries' outlay management, we can carry on the appraisal to it. What's more, we intend to take the university library as a case to exam evaluation index system of outlay management.

## II .CONSTRUCTING EVALUATION INDEX SYSTEM

According to the content characteristics of the university library outlay management, evaluation system is divided into 1 one-level indicators and 5 indicators, that is: fund sources, fundraising channels, financial system, the allocation of funds and the democratic supervision. Based on the above indicators and analytic hierarchy process methods, specific evaluation index system is shown in TABLE I .

TABLE I . EVALUATION INDEX SYSTEM OF UNIVERSITY LIBRARIES OUTLAY MANAGEMENT [3]

| One-level Indicator<br>(Weighting, $W_i$ ) | Two-level Indicators | Weighting<br>( $W_{ij}$ ) | Specific Items and Grading Methods (Indicator Total Scores, $S_{ij}=100$ )                                                                                                   |
|--------------------------------------------|----------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outlay management<br>( $w_1=1$ )           | Fund sources         | 0.157                     | Whether financial support of the university are steady-going (50) .<br>Whether the proportion of the library's funds to university total expenditures have reached 5% (50) . |

|  |                            |       |                                                                                                                                                                                                                                                                                                                                                                                                            |
|--|----------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Fundraising channels       | 0.182 | When evaluating this item, we can rate it according to fundraising channels. The more channels, the higher score.                                                                                                                                                                                                                                                                                          |
|  | Financial system           | 0.243 | We should pay more attention to examine whether the use system of funds and the management system of check, cash come-and-go funds and fixed assets have been established, constantly improved and strictly implemented.                                                                                                                                                                                   |
|  | The allocation of funds    | 0.228 | We should invest the allocation proposition of literature information resource purchase cost, equipment maintenance cost and office cost, and then investigate whether literature information resource purchase cost holds the great proportion( 60 ). In addition, we should examine the allocation proposition of entity literature and virtual ones and the languages of books and periodicals ( 40 ) . |
|  | The democratic supervision | 0.190 | Invest whether the librarians and representatives of the readers are absorbed in outlay management and accept their supervision by listening the opinions and suggestions ( 50 ) . Examine whether the business expenditures are regular or irregularly given notice to the library committee ( 50 ) .                                                                                                     |

III.THE WEIGHT DEVELOPMENT

The weight is the quantity that reflects every index importance in the index system. We develop weight by the paired comparison principle [4].Through pairwise

comparisons with each index in the same level, we can give the ratio and compute the weight of each index according to the relative importance between both sides. In the meantime, every ratio is given by relevant experts and scholars. Each weight of two-level index is shown in TABLE II .

TABLE II . WEIGHT DEVELOPMENT BY THE PAIRED COMPARISON PRINCIPLE [5]

| Weight<br>Index            | Paired Comparison |      |       |     |       |     |      |      |      |     | Comp-<br>ared<br>Score | Weight |
|----------------------------|-------------------|------|-------|-----|-------|-----|------|------|------|-----|------------------------|--------|
| Fund sources               | 0.45              | 0.35 | 0.375 | 0.4 |       |     |      |      |      |     | 1.575                  | 0.157  |
| Fundraising channels       | 0.55              |      |       |     | 0.425 | 0.4 | 0.45 |      |      |     | 1.825                  | 0.182  |
| Financial system           |                   | 0.65 |       |     | 0.575 |     |      | 0.55 | 0.65 |     | 2.425                  | 0.243  |
| The allocation of funds    |                   |      | 0.625 |     |       | 0.6 |      | 0.45 |      | 0.6 | 2.275                  | 0.228  |
| The democratic supervision |                   |      |       | 0.6 |       |     | 0.55 |      | 0.35 | 0.4 | 1.9                    | 0.190  |
| Total                      | 1                 | 1    | 1     | 1   | 1     | 1   | 1    | 1    | 1    | 1   | 10                     | 1      |

IV . EVALUATION METHODS

When evaluating outlay management specifically, we can gather relevant evaluation information by entering the appraised university library to listen to reports, issue questionnaires, talk with individuals and go on the field trips. At the same time, we should

record and tidy up the collected information.

V .EVALUATION VALUE NUMERATION METHODS

If the total score of university library outlay management is S, and the mark of each two-level

index is  $S_{ij}$ , we can get  $S = S_1$ . what's more, the value numeration method of  $S_1$  is:

$$S_i = W_i \sum_{j=1}^n W_{ij} S_{ij} \quad (\text{when } i=1, n=5).$$

On the basis of above calculating method, we can get total score of outlay management, and then determine final rating according to originally planned grade (such as the score from 85 to 100 is judged to be outstanding grade, the score from 75 to 84 is judged to be good, and the score less than 65 is not eligible).

## VI. CASE ANALYSIS

In order to test the accuracy and scientificness of the total evaluation system, we take the Library of Hubei University of Education as an example to evaluate its outlay management according to above evaluation criterion and the scoring scale.

Our evaluation information sources mainly come from *the guide of Library of Hubei University of Education* and its main web [6], and meanwhile we also get other important data by visiting leaders, librarians and investing readers' opinions.

The score of each two-level index in turn is: fund sources (  $90 \times 0.157$  ), fundraising channels (  $60 \times 0.182$  ), financial system (  $90 \times 0.243$  ), the allocation of funds (  $85 \times 0.228$  ), and the democratic supervision (  $80 \times 0.190$  ).

Then, according to (1), we calculate total score, that is:

$$S_1 = 0.157 \times 90 + 0.182 \times 60 + 0.243 \times 90 + 0.228 \times 85 + 0.190 \times 80 = 81.5.$$

So, the total outlay management evaluation score of this library is:

$$S = S_1 = 81.5.$$

According to the score, it is judged to be good, which suits its characteristic of provincial university library, so we think the outlay management evaluation system is reasonable and scientific.

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