The Discussion on the Construction of Accurate Identification System for Financial Aid to Poor Students in Colleges and Universities

Yang Jiao

School of Information, Shanxi University of Finance and Economics

980409446@qq.com

Keywords: poor students, accurate identification, system construction

Abstract: In recent years, China has issued a series of measures to improve the financial aid of students. However, due to that colleges and universities have the problem of inaccurate identification of poor students to varying degrees, the implementation efficiency of poverty financial aid in colleges and universities is still low. Therefore, it is urgent to build an accurate identification information screening system for poor students in colleges and universities. This paper takes the imperfect screening system for poor students in colleges and universities and the insufficient informationization degree of poor students identification as the problems, puts forward the importance of accurate identification system for poor students in colleges and universities, and tries to discuss the construction of accurate identification system for poor students in colleges and universities from the perspective of functional demand and module assumption.

1. Introduction

General Secretary Xi Jinping has stressed that the country shall promote the ambition first before alleviating poverty and the country must promote the wisdom before alleviating poverty. It can be seen that the poverty alleviation education is strongly important. Since the founding of the People's Republic of China, poverty alleviation education has existed. In recent years, in order to fulfill the solemn promise of "not allowing a student to drop out of school due to family financial difficulties", the CPC central committee and the state council have issued a series of policies and measures to improve student financial aid, and invested a lot of human, material and financial resources to ensure poor students can enroll smoothly and keep their mind on studying. However, the depth and efficiency of university financial aid are still in the primary stage, and the implementation efficiency of university poverty financial aid is still low. The reason for that is that it does not accurately identity poor students.

2. Current status of identification of financial aid for poor students

At present, the state attaches great importance to students funding with the family economic difficulties in colleges and universities, sets up a policy system for providing financial aid to students from poor families in colleges and universities in an organic way in various forms, such as national scholarships and national motivational scholarships, national stipends, national student loans (including the campus national student loans and origin of student credit loans), providing part-time jobs for students studying at college and tuition waiver in colleges and universities. In the policy system, students from poor families are defined as "students who are unable to afford the basic expenses of study and living during their study in school due to the insufficient funds raised by the students and their families". Regarding the verification system, measures and regulations, students must first report the family's financial difficulties to the university, and provide the "Questionnaire of Students in Colleges and Universities and Families" with the official seal of the township (town) or street civil affairs department where the family is located, then the university shall, in accordance with the standards and regulations set by relevant departments, organize schools, colleges (departments) and classes to grade and determine by democratic evaluation.

However, at present, there are problems in poverty alleviation education in colleges and universities across the country. There are always some problems in the false identification of family economic difficulties of college students, and the violation of disciplines such as elections in class, which makes it difficult to carry out poverty alleviation education.

2.1. Unscientific screening mechanism for poor college students

At present, most of the identification of poor students in colleges and universities in China takes the form of class voting, and no standardized identification system has been formed. This will lead to such practical problems as the lack of objectivity in verifying the poverty status of poor college students, the lack of unified evaluation standards and the inaccuracy of subjective evaluation in the democratic class evaluation. To some extent, this increases the difficulty of identifying poor students, making it difficult for the state's poverty alleviation education policy to truly benefit poor students.

2.2. Imperfect supervision mechanism for poor students in colleges and universities

Lack of effective supervision and authenticity verification process, due to the lack of supervision mechanism, is unfair to education in the starting point of funding. First, most colleges and universities do not specially set up the supervision group to identify poor students and conduct the review on the result of poor students identification, this promotes the counterfeiters' fluke mind to a certain extent; Second, the result of poor students' identification in most colleges and universities will not be publicized, and students and teachers can not play their due supervision role.

2.3. Low identification informationization degree of poor college students

Currently most of the identification information collection of poor students in colleges and universities in China is collected and stored through the Intranet. Although it has entered the stage of informatization, poor students identification information still lacks transparent information display platform, and identification of poor students' personal information, living information, learning information and financial information is not managed and controlled through the intellectual way, which is difficult to grasp the track of information comprehensively, systematically and accurately.

3. The importance of financial aid identification system for poor students to colleges and universities

With the progress of the society, the characteristics of poor college students have become more and more vague, and it is no longer possible to judge them simply by their clothing and diet. Besides, quite a number of poor students have used mobile phones, computers and other electronic products. It is almost difficult to distinguish them from ordinary college students at the first glance. The traditional evaluation methods for poor students in colleges and universities can no longer adapt to the accurate identification of poor students in colleges and universities, especially under the condition that poor college students screening mechanism is not perfect, poor college students identification information level is not high. In the era of big data, colleges and universities can accurately screen out students with real family economic difficulties by mining students' data and then conducting data analysis, and realize the informatization and intelligent management of personal electronic archives of poor students. Therefore, it is of great significance for colleges and universities to establish the aid identification system for poor students, which is mainly reflected in that the accurate identification system for poor students in colleges and universities can solve the problem of inaccurate identification of poor students in colleges and universities, it can scientifically and accurately assess the real economic situation of students who apply for poverty subsidy, so that the really poor college students can get the deserved financial aid, and the students who are not poor but cheat have no any chance.

4. Function demand and module assumption of college poor students identification system

The accurate identification system for poor college students should be designed to collect, count and analyze the multidimensional information data of the applicant as far as possible on the premise of respecting the privacy of the poor students applying for subsidy, highly synthesize and summarize the effective information in the applicant data, and refine several representative evaluation indexes, according to these indicators, establish a set of scientific, intelligent and highly accurate identification model to improve the precision of poverty alleviation work in colleges and universities, so as to optimize the targeted poverty alleviation work in colleges and universities, making the national poverty alleviation policy truly benefit every poor student and his or her family.

4.1. The system's function demand

The accurate identification system for poor college students is mainly used by schools and students applying for poverty subsidy. Students who apply for poverty subsidy complete the application by logging into the system and filling in or modifying their basic personal information. The college completes poverty certification by reviewing students' application information and referring to the evaluation results of the system. Therefore, the accurate identification system for poor college students should have the following four functions(see Fig 1).
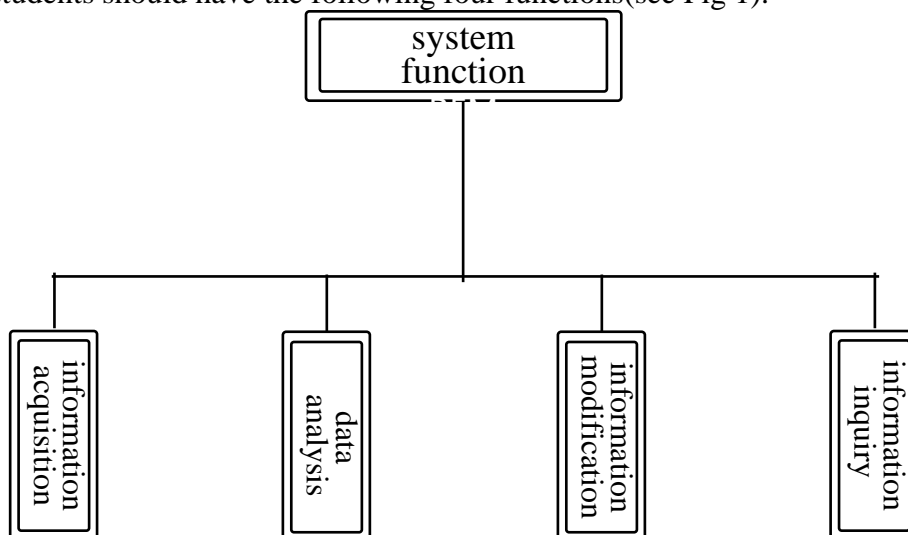

Fig 1 system function diagram

4.1.1. Information acquisition function

The information included in the identification system database is composed of three parts: A. basic personal information provided by the applicant; B. create an interface with the database of the office of academic affairs of the school, and introduce the corresponding students data (such as whether the students are entitled to subsistence allowance, whether they have a file registration card, their annual family income, whether they and their family members suffer from major diseases, consumption records of campus one-card, daily travel modes, etc.); C. evaluation by counselors and students (the applicant's consumption habits, moral character, whether they have bad habits, etc.). In addition, the collected data should be classified and sorted, and information files should be established for each student to form a systematic, complete and sustainable data set.

4.1.2. Data analysis function

Data analysis is the core function of this system. The number of poor students in China is large, and the number of samples is huge. Data analysis is often accompanied by a large number of features. At this point, it first uses the decreasing algorithm to clean the collected data and select features to obtain real and effective data sets. Then, it uses decision tree and other classification algorithms to process the data and establish a classification model to identify the students with real

family financial difficulties.

4.1.3. Information modification function

System administrators and users can apply for maintenance and modification of relevant information according to the actual operation of the system and changes in personal information.

4.1.4. Information inquiry function

In order to fully respect the privacy of poor students and their families and ensure that their information will not be leaked and abused, the inquiry of the accurate identification system for poor students in colleges and universities will be conducted grading management, users that are granted permissions can view information within the corresponding permissions.

4.2. The system's module assumption

4.2.1. User management module

This module mainly realizes the management of different users, including user registration and login, user permission setting, viewing user information list, new user password initialization and so on.

4.2.2. Information display module

This module is used to display the relevant documents about applying for poverty subsidy issued by the national education department and colleges and universities, and the list of poor students who finally get the certification qualification and other relevant information.

4.2.3. System maintenance module

The system maintenance refers to the regular update and backup of the database, the regular killing of viruses and the detection of system vulnerabilities, and the regular maintenance and replacement of the corresponding equipment. Once the data in the database crashes or is damaged, the whole system may be paralyzed, causing irreparable losses to the poverty alleviation work. Therefore, enough attention should be paid to system maintenance.

4.2.4. Monitoring report module

This system has the monitoring report channel, the goal is to fully display the supervisory function of the teachers and students. If students or other persons find that an applicant has committed fraud in the application process, they can report it real-name (anonymously) through this channel.

5. Conclusion

Based on the analysis of the current situation of poverty alleviation education in colleges and universities in China and the existing problems, this paper attempts to establish an information screening system aimed at accurately identifying the poor students in colleges and universities, takes the advantages of the system, such as high intelligence, high precision, multi-role and strong interaction, to assist colleges and universities to better complete poverty alleviation education work to a certain extent and further improve the pertinence and effectiveness of poverty alleviation education work, makes colleges and universities do "accurate identification, accurate help", so that every poor student can get the state and social support, making the light and heat of the national poverty alleviation policy warm the heart of every poor student!

References

[1] Park A.Wang S.and Wu G.Regional poverty targeting in China [J], Journal of Public Economics: 86(2002)123–153.

[2] The World Bank,An update to the World Bank's estimates of consumption poverty in the

developing world[M].World Bank 2012.

[3] Wang Sangui, Guo Zihao.On the Precision Poverty Alleviation in China[J].Guizhou Social Science,2015,(5):147-145.

[4] Wang Jizhang.Precision poverty reduction: a revolutionary change in the approach to poverty reduction [J].China Poverty Alleviation,2015(11):28-30.

[5] Wang Jingyu, Zhang Jinglin, Guo Yanli.A Modern Management Method-Security Management Information System[J].Chinese Journal of Safety Science, 1999, 9 (5) :22~26.

[6] Shen Daqiang.Probe the Informatization of Academic Administration in Universities[J].Journal of Guangxi University, 2005, (11) :49-51.

[7] Sun Huamei, Huang Tiyun.Design and Implementation of Model Management System in Decision Support System[J].Operations and Management, 2002, 11 (6) :1 6.