

Construction And Practice Of Clothing Recycling System In Colleges And Universities

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ABSTRACT

The purpose of this paper is to explore the construction and practice of college clothes recycling system, so as to solve the problem of college students' overdue clothes disposal, and promote the recycling of resources and environmental protection. Through investigation and analysis, the project team designed a set of clothing recycling system covering paid recycling, barter, sorting and reuse, and implemented it on campus. The system not only improves the utilization rate of waste clothes, but also realizes the double benefits of "environmental protection+education" through environmental regeneration, public welfare donation, process reengineering and recycling. During the implementation of the project, the team has made remarkable achievements in innovative thinking, teamwork and social practice, which provides new ideas for innovation and entrepreneurship education and interdisciplinary practice in colleges and universities.

KEYWORDS

clothing recycling; Recycling of resources; Colleges and universities; Environmental protection+aid; Innovative entrepreneurship

1 Introduction

With the rapid development of society and the improvement of people's living standards, the speed of clothes renewal is accelerating day by day, resulting in a large number of waste clothes. Especially in the college environment, college students produce a large number of expired or no longer worn clothes every year due to the pursuit of fashion, seasonal updates and other factors. If these clothes are not properly handled, they will not only occupy valuable storage space, but also become the source of environmental pollution. Waste clothes will occupy a lot of land resources in the process of landfill, and it is difficult to degrade; Incineration may release harmful gases, posing a threat to air quality and human health. Therefore, it is of great significance to build an efficient and environmentally friendly clothing recycling system for promoting the recycling of resources and reducing environmental pollution.

On a global scale, the recycling of waste clothes has become a topic of great concern. Developed countries, such as the United States and Europe, have already established a relatively perfect recycling system for used clothes. Through government guidance, enterprise participation and public support, the efficient recycling and reuse of used clothes have been realized. These systems usually include clothing donation, second-hand market transactions, environmental protection and recycling, which effectively improves the utilization rate of waste clothes. In contrast, China started late in the recycling of waste clothes, but in recent years, with the promotion of environmental awareness and the promotion of policies, the recycling industry of waste clothes has gradually emerged. However, the recycling system of waste clothes in the specific environment of colleges

and universities is not perfect, and there are some problems such as poor recycling channels and low processing efficiency.

2 Project content

2.1 Project background analysis

2.1.1 Status of College Students' Clothing Treatment

With the popularization of higher education, college students, as a special consumer group, have a far-reaching impact on society in their lifestyle and consumption habits. Especially in the aspect of clothing consumption, college students' pursuit of fashion, individuality and frequent change of clothes make the amount of waste clothing increase rapidly. When faced with a mountain of old clothes, many college students often lack effective treatment methods. Some choose to throw them away at will, while others pile up in the corner of the dormitory and become forgotten "treasures" over time. This phenomenon not only wastes valuable resources, but also may become a potential hidden danger of environmental pollution.

In-depth investigation shows that the ways to dispose of college students' clothes mainly include: direct discarding, giving to relatives and friends, second-hand resale and idle disposal. However, these methods have some limitations. Discarding directly not only wastes resources, but also may pollute the environment; Although giving to relatives and friends can reflect the reuse of resources, it is limited by the needs and quantity of recipients; Although the second-hand resale market is gradually emerging, it lacks a standardized trading platform and sufficient transparency, which makes the circulation of second-hand clothes inefficient; However, if it is left idle, it will cause a waste of space resources. Therefore, it is urgent to explore a more efficient and environmentally friendly clothing treatment method to meet the actual needs of college students.

2.1.2 Impact of waste clothes on the environment

As a kind of hard-to-degrade solid waste, waste clothes will have a far-reaching impact on the environment if they are not properly treated. On the one hand, waste clothes will occupy a lot of land resources during landfill, and because it is difficult to degrade naturally, it may pollute soil and groundwater for a long time; On the other hand, although incineration can reduce the volume, it may release harmful gases, such as dioxins, which pose a serious threat to air quality and human health. In addition, harmful chemicals, such as dyes and preservatives, which may be contained in waste clothes may also cause secondary pollution to the environment during the decomposition process.

In view of the many negative effects of waste clothes on the environment, it is particularly important to explore ways of efficient recycling and reuse of waste clothes. By constructing a scientific and reasonable clothing recycling system, we can not only reduce environmental pollution, but also realize the effective recycling of resources and promote the sustainable development of society.

2.2 Project objectives

2.2.1 Improve the utilization rate of waste clothes

The purpose of this project is to realize the efficient recycling and reuse of waste clothes by constructing a clothing recycling system suitable for the university environment. By introducing advanced recycling technology and scientific sorting process, waste clothes are transformed into

valuable resources, thus improving their utilization rate. Specifically, the project will focus on solving the problems of poor recycling channels and low treatment efficiency of waste clothes, and ensure that waste clothes can be treated in a timely and effective manner.

2.2.2 Building a chain recycling system of "environmental protection+aid"

On the basis of clothing recycling, this project will also build a chain recycling system of "environmental protection+education". The system combines clothing recycling with student-aided activities, and provides financial aid or scholarships for students with financial difficulties through the income from recycling waste clothes, thus contributing to social welfare undertakings while achieving environmental protection goals. This innovative model not only helps to enhance college students' awareness of environmental protection and social responsibility, but also stimulates their enthusiasm to participate in clothing recycling activities and forms a virtuous circle.

2.3 Project implementation framework

2.3.1 Paid recovery and barter mechanism

In order to ensure that waste clothes can be recycled in time, this project will introduce paid recycling and barter mechanism. Specifically, the project will set up multiple recycling points in universities and provide convenient recycling services. Students can send the waste clothes to the recycling point, and get the corresponding cash return or bonus points according to the quality and type of clothes. At the same time, the project will also explore the possibility of bartering, that is, students can exchange waste clothes for other practical goods or services, such as school supplies and canteen coupons, so as to increase the attractiveness of recycling activities.

2.3.2 Sorting process

After the recycling of waste clothes, the project will establish a set of scientific sorting and treatment processes. First of all, the recycled clothes will be preliminarily classified, such as by material, color, old and new degree, etc. Then, according to the characteristics of different clothes, different treatment methods are adopted for subsequent treatment. For better quality clothes, they will be cleaned, disinfected and sorted for second-hand market transactions or donated to people in need; For clothes that can't be reused, they will be converted into fiber raw materials or other reusable products through environmental protection recycling technology; Clothing containing harmful chemicals will be specially treated to ensure that it will not pollute the environment.

2.3.3 Clothing reuse mode

There are many ways to reuse waste clothes. This project will focus on the following ways:

(1) Environmentally-friendly recycling: Using advanced environmentally-friendly recycling technology, waste clothes are converted into fiber raw materials for producing new textiles or environmentally-friendly materials. This way can not only reduce the consumption of raw materials, but also reduce the production cost and realize the recycling of resources.

(2) Charity donation: donate clothes with good quality and meeting the donation standards to people in need, such as students in poverty-stricken areas and orphanages. This can not only solve the problem of clothing for the poor, but also convey the warmth and care of society.

(3) Process Reengineering: Cooperate with artists and designers to creatively transform waste clothes into handicrafts or household articles with artistic value and practical functions. This way can not only enhance the added value of waste clothes, but also stimulate people's innovative

thinking and environmental awareness.

(4) Recycling: Disassemble and recombine waste clothes to form new clothes or accessories. This way can not only prolong the service life of clothes, but also reduce the generation of waste and realize the maximum utilization of resources.

Through the comprehensive application of the above methods, this project will build a complete clothing recycling system, realize the efficient recycling and reuse of waste clothes, and contribute to the sustainable development of society.

3 Specific implementation process

3.1 Research and demand analysis

3.1.1 Questionnaire survey and interview

In order to ensure the smooth implementation of the project, we first conducted an in-depth investigation on the present situation and needs of college students' clothing treatment through questionnaires and interviews. The design of the questionnaire covers many dimensions, such as clothing purchase frequency, handling methods, cognition and attitude towards clothing recycling, acceptance of paid recycling and barter, etc., in order to fully understand the attitude and actual needs of college students towards clothing recycling. At the same time, we also invited some college students to have face-to-face interviews to get more specific and in-depth feedback and suggestions.

In the questionnaire survey stage, we distributed 1000 questionnaires, and 950 valid questionnaires were recovered, with an effective recovery rate of 95%. Through data analysis, we found that college students' awareness of clothing recycling is generally low, but most of them have a positive attitude towards environmental protection and resource reuse and are willing to participate in clothing recycling activities. In addition, college students have a high degree of acceptance of paid recycling and bartering, which can motivate them to participate in clothing recycling more actively.

In the interview stage, we invited 50 college students to have face-to-face communication. Through interviews, we learned that college students' main concerns about clothing recycling include poor recycling channels, opaque processing, and personal privacy disclosure. At the same time, they also put forward some suggestions, such as hoping that the recycling point can be located near the dormitory building, which is convenient to put at any time; I hope that the recycling process can be open and transparent to ensure that the whereabouts of clothes can be traced; It is hoped that the project can provide more diversified recycling methods, such as bartering.

3.1.2 Data analysis and interpretation of results

Through the analysis of questionnaire survey and interview data, we draw the following conclusions:

(1) College students' awareness of clothing recycling is low, but they have strong awareness of environmental protection and are willing to participate in clothing recycling activities.

(2) Paid recycling and barter mechanism can stimulate the enthusiasm of college students to participate in clothing recycling.

(3) The convenience of recycling channels and the transparency of the treatment process are important factors that affect college students' participation in clothing recycling.

(4) College students hope that the recycling point can be located near the dormitory building,

which is convenient to put at any time; At the same time, it is hoped that the project can provide more diversified recycling methods.

Based on the above conclusions, we have formulated the following strategies: strengthening environmental protection publicity and education to improve college students' awareness of clothing recycling; Optimize the layout of recycling channels to improve the convenience and coverage of recycling points; Improve the treatment process to ensure the openness and transparency of the recycling process; Enrich recycling methods to meet the diverse needs of college students.

3.2 Collection Point Establishment and Publicity Strategy

3.2.1 Layout and operation of recovery points

According to the survey results, we have set up a number of recycling points in colleges and universities to ensure that there is at least one recycling point near each dormitory building, which is convenient for students to put waste clothes at any time. The recycling point adopts a unified logo and appearance design to improve the recognition and attractiveness. At the same time, we have provided professional recycling personnel for each recycling point, who are responsible for the reception, registration and preliminary classification of clothes. In order to ensure the continuous operation of the recycling point, we have also formulated a detailed operation plan and management system, including the training, assessment and incentive mechanism for recycling personnel.

3.2.2 Online and offline publicity methods

In order to improve the visibility and influence of the project, we adopted a combination of online and offline publicity. Online, we use social media platforms such as campus website, WeChat WeChat official account and Weibo to publish project information, activity preview and recycling guide to attract students' attention and participation. At the same time, we also cooperate with the campus radio station to broadcast the publicity audio of the project regularly to improve the exposure of the project. Offline, we posted posters, hung banners and distributed leaflets on campus to publicize the significance and purpose of the project to the students. In addition, we regularly hold thematic lectures, interactive activities and exhibitions to show the achievements and effects of the project in a more intuitive and vivid way.

3.3 Clothing sorting and handling

3.3.1 Sorting standards and processes

In order to ensure the effective treatment and reuse of clothes, we have formulated detailed sorting standards and processes. First of all, we classify the recycled clothes preliminarily, such as by material (cotton, hemp, chemical fiber, etc.), color, old and new degree, etc. Then, according to the characteristics of different clothes, different treatment methods are adopted for subsequent treatment.

For better quality clothes, we will clean, disinfect and arrange them for second-hand market transactions or donate them to people in need;

For clothes that can't be reused, we will transform them into fiber raw materials or other reusable products through environmental protection recycling technology;

For clothes containing harmful chemicals, we will carry out special treatment to ensure that they will not pollute the environment.

In order to ensure the accuracy and efficiency of the sorting process, we also introduced intelligent sorting equipment and technologies, such as image recognition technology and automatic classification system. These devices and technologies can automatically identify the characteristics of clothes such as material and color, and quickly classify and process them, which greatly improves the sorting efficiency and accuracy.

3.3.2 Treatment methods and equipment

In the process of dealing with waste clothes, we adopted a variety of methods and equipment. For better quality clothes, we use professional cleaning and disinfection equipment to ensure that the clothes meet the hygiene standards before reuse. For clothes that can't be reused, we adopt environmental protection recycling technology to convert them into fiber raw materials or other reusable products. In this process, we use advanced crusher, separator, spinning machine and other equipment to ensure that waste clothes can be fully utilized. At the same time, we also pay attention to the environmental protection of the treatment process, and adopt low energy consumption and low emission production processes and equipment to reduce the negative impact on the environment.

3.4 Clothing reuse practice

3.4.1 Charity Donation and Cooperation

In order to ensure the effective use of waste clothes, we have established cooperative relations with many non-profit organizations and social groups to jointly carry out charitable donation activities. We donate clothes of good quality that meet the donation standards to schools and orphanages in poor areas to help people in need. At the same time, we also hold clothing donation activities on a regular basis, and invite students to actively participate and jointly contribute to public welfare undertakings.

3.4.2 Old clothes market operation

In order to meet the demand of college students for second-hand clothes, we set up a second-hand clothes market, which provides a platform for college students to trade second-hand clothes. The second-hand clothing market is operated by combining online and offline. Students can post their second-hand clothing information on the platform and trade with other students. In order to ensure the security and fairness of the transaction, we have also formulated detailed transaction rules and supervision mechanisms, such as real name authentication and transaction evaluation. Through the operation of the old clothes market, it not only realizes the reuse of clothes, but also provides a platform for students to communicate and interact.

3.4.3 Supply of raw materials for textile mills

In order to turn waste clothes into valuable resources, we have established cooperative relations with a number of textile mills, and converted clothes that cannot be reused into fiber raw materials for textile mills. In this process, we pay attention to the quality and stability of raw materials and work out strict quality standards and inspection procedures together with textile mills. Through this mode of cooperation, not only the effective utilization of waste clothes is realized, but also a stable source of raw materials is provided for textile mills, which promotes the sustainable development of the industry.

4 Achievements in innovative thinking and innovative practice

4.1 the cultivation of innovative thinking

4.1.1 Interdisciplinary Integration and Problem Solving

During the implementation of the project, we deeply realized the great promotion of interdisciplinary integration to innovative thinking. The clothing recycling project itself involves environmental protection, public welfare, market operation and other fields, which requires us to have an interdisciplinary vision and knowledge background. Through the complementarity and cooperation among team members, we successfully integrated the knowledge and methods of environmental science, sociology, marketing and other disciplines into the project and formed a unique solution. For example, in the process of clothing sorting and processing, we introduced the concept of ecological design in environmental science, paying attention to the recycling of resources and environmental protection; In the aspect of charity donation and cooperation, we draw lessons from the theory and method of sociology, and realize the effective donation and reuse of clothes through social mobilization and resource integration. This interdisciplinary approach not only broadens our thinking horizons, but also provides us with more diversified solutions.

4.1.2 Combination of environmental protection and public welfare

Combining the concept of environmental protection with public welfare action is another major innovation in the process of project implementation. We realize that clothing recycling is not only an environmental problem, but also a social problem. Therefore, we have incorporated public welfare elements into the project design, and through clothing donation, old clothes market and other means, we have not only realized the reuse of clothing, but also provided help to the socially disadvantaged groups. This combination not only enhances the social value and influence of the project, but also stimulates more people's enthusiasm for participation and forms a good social atmosphere.

4.2 Implementation of innovative practice

4.2.1 Technology and method innovation

In innovative practice, we constantly explore new technologies and methods to improve the efficiency and effectiveness of the project. For example, we introduced the two-dimensional code technology to generate a unique two-dimensional code logo for each piece of recycled clothing, which realized the traceability of the whole process of clothing. This not only improves the processing efficiency of clothes, but also enhances the public's trust and participation. In addition, we also tried to exchange things for things to encourage students to exchange waste clothes for other goods or services. This innovative recycling method not only improved students' enthusiasm for participation, but also enriched the recycling channels of the project.

4.2.2 Innovation of management mode

In the management mode, we have also made bold innovations. We adopted a flat team structure to encourage equal communication and cooperation among team members. At the same time, we have established a clear division of labor and cooperation mechanism to ensure that each member can give full play to their own advantages and jointly promote the progress of the project. This management mode not only improves the cohesion and execution of the team, but also promotes the mutual learning and growth among team members.

4.3 Innovation and entrepreneurship capacity improvement

4.3.1 teamwork and leadership

Through the implementation of the project, our teamwork ability and leadership have been significantly improved. At the beginning of the project, we faced many difficulties and challenges, such as lack of funds and personnel. But with the joint efforts of team members, we have overcome these difficulties and achieved remarkable results. In this process, we not only learned how to communicate effectively with team members and coordinate resources, but also learned how to stay calm and make correct decisions under pressure. These experiences will have important guiding significance for our future road of innovation and entrepreneurship.

4.3.2 Market research and data analysis

During the implementation of the project, we deeply realized the importance of market research and data analysis. Through in-depth market research, we understand the needs and attitudes of college students on clothing recycling, which provides a strong basis for the design and implementation of the project. At the same time, we also monitored and evaluated the progress and effect of the project in real time through data analysis, which provided strong support for the optimization and improvement of the project. These experiences not only improve our market research and data analysis capabilities, but also provide valuable experience for our future road of innovation and entrepreneurship.

4.3.3 Project Management and Implementation

We have also made remarkable progress in project management and implementation. We learned how to make a detailed project plan, allocate tasks and resources, and monitor the progress and effect of the project. These experiences not only improve our project management ability, but also provide a strong guarantee for our future road of innovation and entrepreneurship.

5 Conclusion

Through the joint efforts and continuous promotion of team members, our clothing recycling project has achieved remarkable results. In just a few months after the implementation of the project, we successfully recovered thousands of pieces of waste clothes, most of which were effectively treated and reused. Through the professional sorting and processing process, we ensure the maximum utilization of clothes and reduce the waste of resources and environmental pollution. At the same time, we also provided help to people in need through public welfare donation and used clothes market, and realized the social value of clothes.

In addition to the remarkable recovery and treatment effect, our project has also brought remarkable environmental protection and public welfare benefits. Through the recycling of clothes, we reduce the pollution of waste clothes to the environment and reduce the pressure of landfill and incineration. At the same time, we also provided warmth and help to the disadvantaged groups through charitable donations and the old clothes market, and conveyed the care and positive energy of the society. These benefits not only enhance the social influence of the project, but also stimulate more people's awareness of environmental protection and enthusiasm for public welfare.

In the process of project implementation, we also encountered many challenges. For example, the initial recycling amount is insufficient, the processing cost is high, and the team members are not tacitly coordinated. In view of these problems, we actively seek solutions, and gradually

overcome these difficulties by strengthening publicity and promotion, optimizing processing procedures, and strengthening teamwork. These experiences not only let us learn how to face and solve problems, but also improve our adaptability and innovation ability.

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