

HR BASIS FOR THE IMPLEMENTATION OF GREEN TECHNOLOGIES AND THE PRACTICE OF UZBEKISTAN

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Abstract: This article analyzes human capital in the development of the service sector in the context of a green economy. It examines the role of training qualified personnel in green services, retraining existing personnel, and their adoption of green technologies. The study utilizes questionnaires, expert interviews, document analysis, and international experience. The results reveal that Uzbekistan faces problems such as a shortage of specialists with green competencies, a lack of relevant programs in the education system, and an underdeveloped personnel training system at enterprises. The article proposes solutions to these problems by updating education, creating online learning platforms, providing subsidies to enterprises, and implementing a certification system. The study aims to strengthen the human capital foundations for the sustainable development of the service sector within a green economy.

Keywords: Green economy, services, human capital, professions, qualified personnel, education system, green technologies, sustainable development, personnel retraining, green competencies.

Introduction

Today, a green economy is a system built not only on new technologies or investments, but also on human capital. Particularly in the service sector—tourism, education, healthcare, finance, and logistics—effective implementation of green technologies requires not only equipment but also people who understand, manage, and develop them. Therefore, human capital with green competencies is a crucial resource in a green economy.

Although Uzbekistan also places significant emphasis on the implementation of green technologies within the framework of its "Strategy for Transition to a Green Economy," the shortage of qualified personnel for their implementation remains a serious problem. Despite service sector companies installing new energy-saving systems, there is a need for specialists to properly use, monitor, and develop them.

In this regard, this article analyzes the role of human capital in the green services sector, the state of the system for training qualified personnel, existing problems, and practical proposals for their solutions. The goal is to strengthen the human foundations of sustainable development of the service sector in a green economy. This study utilized mixed methods.

First, through document analysis, we examined documents such as the "Strategy for Transition to a Green Economy" of the Republic of Uzbekistan, the "National Program for Personnel Training," the "Concept for Digitalization of the Education System," as well as UN, ILO, and UNESCO reports on "green jobs."

Second, a survey was conducted. Two hundred service sector workers (hotel managers, healthcare workers, bank employees, education specialists, and logistics operators) in the

Tashkent, Samarkand, Fergana, and Kashkadarya regions were interviewed. The following questions were asked:

Have you received training in green technologies?

Who is responsible for managing green systems at your enterprise?

Would you like to obtain additional qualifications?

Third, expert interviews were conducted with specialists from the Ministry of Higher Education, Science, and Innovation of Uzbekistan, the Agency for the Development of Green Economy, EcoLab, and Green Skills Uzbekistan.

Fourthly, a comparative analysis was conducted to examine the system of green professions, educational programs and personnel training mechanisms in countries such as Germany, Estonia and South Korea.

Results

The study yielded the following key findings:

1. The number of employees with green competencies is extremely low: according to the survey, 82% of respondents had heard of "green technologies" but lacked the opportunity to apply, manage, or develop them in practice. Only 11% had received additional training on green systems.

2. Shortcomings in the education system: areas such as "green management," "sustainable services," and "energy efficiency" have not yet been widely adopted in higher education institutions. Most educational programs are based on a traditional approach.

3. Low level of staff training at enterprises: despite the fact that hotels have solar panels installed, there is no specialist to monitor them. Despite the implementation of a paperless system in medical centers, employees do not utilize it to its full potential.

4. There are successful examples: After training employees in "green service standards," energy consumption at the Grand Samarkand Hotel decreased by 18%.

The Tashkent Medical Academy has introduced additional courses on "digital healthcare";

An internal training program on "green finance" has been developed for Kapital Bank employees.

5. International experience: In Germany, mandatory modules on "green skills" exist for all service sector professionals;

In Estonia, all citizens can learn green skills for free through an online platform;

In South Korea, companies receive government grants to train employees in green technologies.

6. Key challenges: Lack of standard programs for green skills;

Low green competence of teachers themselves;

Inability of employees to find the time and resources for additional training.

Discussion

The implementation of green technologies is not only a technical undertaking but also a process of transforming people. For a successful green transformation in the service sector, every employee—whether a hotel employee, a doctor, a bank manager, or a logistics operator—must understand green principles and integrate them into their daily work.

To achieve this goal in Uzbekistan, the following measures can be proposed:

1. Modernization of the education system: Introduce subjects such as "green services," "sustainable management," and "energy efficiency" as mandatory or optional courses in higher and secondary vocational educational institutions.

2. Retraining of teachers: Organize advanced training programs in the field of "green" economics and "green" technologies for existing teachers.

3. Developing internal training systems at enterprises: The state can provide subsidies to enterprises for training employees in "green" professions.
 4. Online learning platforms: Organize free online courses, such as the "Academy of Green Professions." Thanks to this, everyone, whether rural or urban, will be able to gain "green" knowledge.
 5. Certification system: Specialists with "green" competencies should be awarded special certificates. This will become a selection factor for employers.
- Importantly, "green" human capital is not only a specialist, but also a thoughtful, responsible, and future-oriented citizen. They not only use "green" technologies, but also improve them.

Conclusion

Human capital is the foundation for the development of the service sector in a green economy. The introduction, effective use, and development of green technologies is only possible with qualified personnel possessing green competencies. Currently, the shortage of such personnel in Uzbekistan remains a serious obstacle.

However, this problem can be solved by modernizing the education system, expanding training programs at enterprises, developing online platforms, and leveraging international experience. In the future, a "green service" will become not just a service, but a service provided by knowledgeable, responsible, and innovative professionals.

Therefore, the first step toward a green economy is education, training, and trust in people.

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