

Chapter 8

A Review of the Promotion of Entrepreneurship in the Solar Water Heating Industry in Turkey

S. Ece Yilmaz

Adana Alparslan Türkeş Science and Technology University, Turkey

ABSTRACT

The integration of renewable energy and entrepreneurship concepts has the potential to foster economic growth. Despite its advantageous geographical position for solar energy utilization, Turkey's solar water heating system sector has yet to capitalize on its potential fully. Hence, there is a need to expand entrepreneurship in solar water heating systems. Consequently, attaining national and sustainable development goals can be facilitated alongside promoting regional development. This chapter examines the impact of entrepreneurship in the solar water heating system industry on economic growth, with a specific focus on Turkey's position in this sector. The evaluation is conducted by drawing upon relevant research. The chapter examines the various aspects that could potentially influence the development of entrepreneurship in the solar water heating system industry. It also proposes potential solutions to improve the prospects of solar water heating system entrepreneurship.

1. INTRODUCTION

The solar water heating system (SWHS) is a widely adopted solar energy technology that facilitates the transfer of heat from the sun's rays to a circulating medium,

DOI: 10.4018/978-1-6684-7127-2.ch008

typically water or air (Sadhishkumar & Balusamy, 2014). According to Kaygusuz & Kaygusuz (2002), these systems frequently supply hot water for domestic use in sunny coastal areas. In the present context, there is a growing trend towards its adoption due to economic factors. Consumers are compelled to seek other systems due to factors such as high volatility in currency rates and the occurrence of an energy crisis. Moreover, the increasing seriousness of environmental issues has contributed to the increased demand for these systems.

Turkey is strategically located in a geographically advantageous position to capitalize on solar, wind, and hydroelectric energy sources. Nevertheless, it has not yet attained its complete capacity. Turkey commonly utilizes SWHS, with a special focus on the Aegean and Mediterranean areas (IEA, 2021). According to Kapluhan (2021), the Mediterranean region is considered to be the highest-ranking area in terms of average annual total sunlight duration and yearly total radiation value. Research conducted on Turkey's radiation potential has revealed that the southern portion of the country exhibits higher suitability for radiation, particularly in the context of solar water heating (SWH) applications (Benli, 2016; Siampour et al., 2021). Based on data collected from the Adana Chamber of Commerce and Adana Chamber of Tradesmen and Craftsmen, it has been observed that a total of 53 enterprises operating in Adana, a Mediterranean region located in the southern part of Turkey renowned for its notable solar energy efficiency, are engaged in the production or distribution of SWHS. The current urban landscape lacks a sufficient number of enterprises that exhibit enhanced levels of production. Consequently, one may deduce that this figure is applicable even in a municipality characterized by optimal solar radiation levels and efficient infrastructure, indicating a general scarcity of firms engaged in the production of SWHS within the nation.

Furthermore, this particular case serves as evidence that the utilization of SWHS as a basis is not commonly observed in the renewable energy sector, hence indicating a deviation from usual entrepreneurial practices. Renewable energies play a crucial role in the advancement of regional development. Therefore, doing thorough research is crucial in order to identify the specific requirements and obstacles within a certain region, thereby ensuring the promotion of local development (Nalan, Murat & Nuri, 2009). Moreover, it is imperative to acknowledge that entrepreneurship plays a crucial role in fostering the development of economies at the regional, national, and global levels (Reynolds et al., 2005). According to Porter (1990), entrepreneurship is at the core of national advantage. Entrepreneurship refers to the capacity and inclination of individuals to identify and capitalize on opportunities, such as novel products and innovative manufacturing processes, and to effectively introduce their ideas to the market, even in the face of uncertainties and many impediments (Carree & Thurik, 2010). For instance, Germany in the 1990s witnessed a notable instance of a favorable correlation between entrepreneurship and regional prosperity. According

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/a-review-of-the-promotion-of-entrepreneurship-in-the-solar-water-heating-industry-in-turkey/332084

Related Content

ASEAN Toward Circular Economy and Sustainable Energy in Tackling Climate Change: Islamic Green Financing Taxonomy for Sustainable Finance

Khairunnisa Musari (2022). *Handbook of Research on Building Greener Economics and Adopting Digital Tools in the Era of Climate Change* (pp. 210-230).

www.irma-international.org/chapter/asean-toward-circular-economy-and-sustainable-energy-in-tackling-climate-change/309805

Trade and Industrial Policy for Development

John T. Thoburn (2016). *Handbook of Research on Comparative Economic Development Perspectives on Europe and the MENA Region* (pp. 25-35).

www.irma-international.org/chapter/trade-and-industrial-policy-for-development/143590

Sustainable Logistics Systems: A Conceptual Paper

Zhang Yu (2021). *International Journal of Circular Economy and Waste Management* (pp. 41-48).

www.irma-international.org/article/sustainable-logistics-systems/281612

Evolutionary Game Theory: In the Context of Waste Management and Supply for Chain Decision-Making

Arij Michel (2021). *International Journal of Circular Economy and Waste Management* (pp. 20-28).

www.irma-international.org/article/evolutionary-game-theory/281610

Rice Husk Power Systems: Exploring Alternate Source of Energy

Pulkit A. Gupta, Vedant Sharma and Mohan Krishna Gade (2015). *Promoting Socio-Economic Development through Business Integration* (pp. 112-123).

www.irma-international.org/chapter/rice-husk-power-systems/132381