Role of Technological Innovation and Its Governance in Entrepreneurial Evolution

Rishi Kant Kumar, Chandragupt Institute of Management Patna, India Adeeba Hoor, Jawaharlal Nehru University, Delhi, India Sudhir K. Jain, Indian Institute of Technology, Delhi, India Rana Singh, Chandragupt Institute of Management Patna, India Kumod Kumar, Chandragupt Institute of Management Patna, India Prashant Kumar, O.P. Jindal Global University, India* Apurva Chamaria, Startups and Venture Capital, Google India, India

ABSTRACT

Studies showcase various aspects of innovation strategies, knowledge sharing, and the role of family firms. Despite this, the authors note the lack of a comprehensive review of technological innovation in entrepreneurship research. This study provides an overview of the relationship between entrepreneurship and technological innovation by conducting a systematic literature review spanning four decades, from 1979 to 2020. It aims to answer three research questions related to the theories and methodologies used, the examined themes, and the implications for researchers while emphasizing the role of electronics governance. Furthermore, the study identifies several key themes in literature, including social capital and entrepreneurship, economic growth and entrepreneurial economy, policy intervention, knowledge economy, and tech venture development. These themes reflect the multifaceted nature of the relationship and offer valuable insights for future research.

KEYWORDS

Entrepreneurship, Literature Review, Social Capital, Technological Innovations

1. INTRODUCTION

Entrepreneurship is identifying opportunities and the marketplace that transfigure enterprises into sustainable profit-making enterprises for economic growth (Cipolla, 1994). Schumpeter (1934) explains entrepreneurship as the ability to commence innovations. It occurs when there is innovation either in improved processes or products. Innovation, particularly technological innovation, like information and communication technologies (ICTs), creates new opportunities, drives competitive advantage, and enhances entrepreneurial culture (Kizgin et al., 2020). In addition, this technological innovation elevates the ability of national industry competition, providing a streamlined governance process. Electronic governance provides an atmosphere conducive to technological breakthroughs by providing digital infrastructure and streamlining administrative operations (Devadoss et al.,

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2003). Entrepreneurs gain from e-governance's information availability and decreased administrative responsibilities, allowing them to focus on creating and bringing new solutions to the market (Calista & Melitski, 2007). Furthermore, e-governance programs that encourage public-private partnerships and market access may enable entrepreneurs to use technology innovation as a driving factor for economic growth and corporate success. In essence, entrepreneurship and technological innovations are the twin engines of economic prosperity (Kropp & Zolin, 2005).

Considering technological innovation in the context of entrepreneurship, researchers investigated specific industries that aided competitive advantage (Song et al., 2010), commercialization of technological innovation (Wong et al., 2005), new density, and the potential of entrepreneurship innovation (Feki & Mnif, 2016). Many researchers even presented reviews on technological innovation. Yang et al. (2012) reviewed technological innovation and related strategies used by Chinese firms; Datta et al. (2015) examined innovation sources, types, and market entry. However, these studies failed to integrate with different technological innovation fields. Moreover, these studies just proposed the selected approaches for future study and did little to incorporate the literature. While these two studies dealt with the status and commercialization of technological innovation, the research of Jones (2017) focused on examining factors impacting the role of knowledge sharing in technological innovation, namely trust, training on technology, and good communication. Although it provided important insight, it restricted its reviews to articles that dealt with knowledge advancement only. Hence, it was not comprehensive in approach (Levy & Ellis, 2006).

In addition, some studies dealt with innovative intermediaries in sustainability transition and technological innovation in family firms (Gliedt et al., 2018), while some focus on the direct effects of family in evolvement on R&D expenditures, activities, and production outputs (De Massis et al., 2013). Further, it also explored the moderating effects on the relationship existing therein. These articles suffered the anomaly of a limited approach to the existing literature. Beyond this limitation, most past reviews tend to be general (Souitaris, 2003) or specific to a country (e.g., Yang et al., 2012) or domain (e.g., Cappellesso & Thomé, 2019; de Massis et al., 2013). In essence, a study summarizing the state of technological innovation in entrepreneurship research has not been performed yet. Motivated by this objective, the current study offers an overview of technological innovation in entrepreneurship. A literature review on technological innovation and entrepreneurship can inform research trends and advancement in knowledge till now. This study aims to explore the following questions:

- RQ1. What theories and methodologies are used to study research related to technological innovation in entrepreneurship?
- RQ2. What are the themes related to technological innovation and entrepreneurship that have been examined in the literature?
- RQ3. What are the implications for researchers in technological innovation and entrepreneurship?

To analyze the above research questions, we reviewed the last forty-one years of (1979-2020) papers based on content analysis to analyze the research questions. This study uses the TCM (theory, context, and methodology) analysis framework, which emphasizes reviewing theories, methodology, and context under which research was done to provide a broader picture of the research domain. Further, we provide insights in the discussion section and possible future research on technology and entrepreneurship.

The present paper uses a systematic literature review to identify six themes—technological innovation attitude, social capital and social entrepreneurship, economic growth and entrepreneurial economy, policy intervention and entrepreneurship, knowledge economy and entrepreneurial ecosystem, and tech venture development to examine the impact of technological innovation in entrepreneurship. Further, by providing major theories (e.g., achievement theory, psychological field

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