

Chapter 1

A Systematic Literature Review on Entrepreneurship Intention Among Engineering Students: Impact of Personal, Academic, and Social Factors

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ABSTRACT

Engineering education now emphasises business ownership and entrepreneurship. “What are the key factors influencing engineering students’ intentions to start their businesses?” asks this literature review. Several scholarly journals and databases met the inclusion requirements after a thorough search. Personality, education, society, and social networks influence engineering students’ entrepreneurial ambition, according to the research. Creativity, risk-taking, and self-efficacy favourably affect entrepreneurial intentions. Research projects and entrepreneurship classes can also impact students’ company startup views. Finally, families, friends, peers, and mentors can influence kids’ entrepreneurial ambitions. This study has important implications for engineering educators and policymakers seeking to promote entrepreneurship among engineering students, including designing more effective entrepreneurship education programmes and informing engineering entrepreneurship policy.

DOI: 10.4018/978-1-6684-8781-5.ch001

1. INTRODUCTION

Entrepreneurship is the process of identifying and pursuing new opportunities or innovations with the intention of creating or contributing value to society, typically through the establishment of a new business venture or the introduction of a new product, service, or technology (Moroz & Hindle, 2012). Gartner (1985) viewed entrepreneurship as the process of creating new ventures and presented a conceptual framework that distinguished between the individual-level and firm-level facets of entrepreneurship. However, entrepreneurship encompasses a broader set of skills and attitudes that are not limited to the domain of business. Entrepreneurship can be understood as a mode of thought and behavior characterized by originality, innovation, risk-taking, and a willingness to challenge the status quo. These characteristics are applicable not only within the context of a business firm, but also in areas such as social entrepreneurship, public policy, and individual development (Nabi & Holden, 2008). Entrepreneurial intent is a psychological prerequisite for entrepreneurial behavior, and entrepreneurial behavior cannot exist without it. Only aspiring entrepreneurs with substantial entrepreneurial intentions are likely to engage in business activities (Noel, 2002). Engineering students are becoming increasingly engaged in entrepreneurship, with more enrolling in entrepreneurship courses and programmes. There is an increase in the number of engineering students conducting research on their entrepreneurial intentions. There are also a growing number of support systems for engineering students interested in entrepreneurship, such as funding opportunities, mentorship programmes, and networking events (Barba-Sánchez & Atienza-Sahuquillo, 2018). Numerous engineering students are interested in pursuing entrepreneurial endeavors with a positive impact on society or the environment, and social entrepreneurship is gaining popularity among engineering students. Students of engineering possess valuable technical expertise in developing new products and services, but they may need to develop additional business skills in order to successfully launch and operate a business (Vodă & Florea, 2019). Despite engineering students' expanding interest in entrepreneurship, there are still obstacles to overcome, such as limited access to funding and cultural barriers within the engineering field (Soomro & Shah, 2022).

There is a growing recognition of the importance of entrepreneurship education in engineering, as it equips students with the skills and knowledge necessary to succeed in a job market that is swiftly changing and highly competitive. In addition, many engineering students are interested in launching their own businesses in order to implement their technical knowledge and pursue their passions. The study of entrepreneurship among engineering students is a rapidly developing field with significant implications for engineering education and innovation in the future (Küttim et al., 2014). However, Existing articles suffer from a number of limitations. First, there is a lack of a comprehensive analysis of the impact of personal, academic, and social factors on the entrepreneurial intentions of engineering students. While some previous evaluations may have examined some of these factors in isolation, a more comprehensive and integrated understanding of how they influence students' entrepreneurial aspirations is lacking (Tan et al., 2020). An additional shortcoming of previous evaluations may be a lack of emphasis on engineering students (Bazan et al., 2020). This paper aims to address this deficiency by focusing on this population, which is crucial given the distinctive characteristics and challenges of engineering education and professions. In addition, this study aims to provide engineering educators and policymakers with more specific and actionable recommendations for promoting entrepreneurship among engineering students. While prior studies may have identified factors that influence entrepreneurial intentions, they may not have provided as much guidance on how to effectively leverage these factors to support students' aspirations (Liñán & Fayolle, 2015).

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