

# Investigating the Impact of Entrepreneurship Online Teaching on Science and Technology Degrees on Students Attitudes in Developing Economies: The Case of Egypt

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## ABSTRACT

*This paper investigates the influence of entrepreneurship online teaching in science and technology degree courses in developing economies and the impact of this teaching on students' attitudes towards starting a small business enterprise (SBE). An organised examination of the literature related to entrepreneurship teaching is discussed and illustrated to provide an archive of past research points to explore and develop a clear understanding about the influence of entrepreneurship online teaching to science and technology degree students in developing economies (Egypt). Based on this review, the study validates a conceptual model utilising a positivist research philosophy with a quantitative approach, in which data is collected based on survey strategy through questionnaires to address different levels of the study. The findings indicated that there is very few research studies related to entrepreneurship teaching in developing countries and no single study related to entrepreneurship teaching in Egypt. The study provides great benefits for entrepreneurs, policy makers, practitioners, researchers, and educators by providing an understanding for all the issues related to teaching entrepreneurship on science and technology degree courses. This paper benefits researchers and scholars towards suitable future research studies which in turn will contribute to the related accumulated knowledge in the field.*

**Keywords:** *Egypt, Entrepreneurship, Online Teaching, Science and Technology Degrees, Small Business Enterprises, Students Attitudes*

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## INTRODUCTION

The concepts of Enterprise, New Product Development and Entrepreneurship has gained a lot of interest and attraction from researchers, policy makers and practitioners during the last two decades, to develop a better understanding of how they can be used to increase organisations productivity efficiently and effectively. Unlike business students, higher education science and technology students often appears to be on the disadvantage side of the complete adoption and diffusion of these very important concepts as a result of: their academic background, the nature of the modules provided to them by higher education science and technology schools around the world, the nature of their specialisation as well as the lack of training provided to them regarding enterprise, new product development and entrepreneurship.

In the light of the current global economic crises affecting all countries (especially developing countries), the fact that entrepreneurial graduates can create a great change in the business environment, the arguments of entrepreneurship researchers that the world today (including Europe) requires more entrepreneurs that are willing to innovate and create new ventures to facilitate economic growth (Packham et al., 2010), and keeping into consideration that most governments are working very hard to encourage higher education institutions to develop able and talented graduates that have a wide variety of entrepreneurial and innovation skills that can be used in starting their own businesses, it is extremely important to investigate the influence of teaching entrepreneurship on science and technology degree courses in developing countries and the impact of this teaching on students' attitudes towards starting a small business enterprise (SBE) or their own businesses.

On the other hand, developing economies face many challenges, not least of which are the approaches to higher education as a foundation for its potential future prosperity. World leaders have recognised (in a survey of entrepreneurship in higher education) (World Economic Forum,

2009) that high-growth enterprises are essential for the success of national economies and that such activities have been insufficiently supported in most countries over recent decades. Moreover, they illustrated that decision-makers across society need to help in promoting collaboration between universities and business, and that entrepreneurship education has an important contribution to make. In addition, it is argued in the same report that, with the world facing unprecedented economic, environmental and social challenges, all members of society need to be more entrepreneurial in the way they live their lives. It has also been highlighted that entrepreneurship is not for business alone and that public bodies and social ventures need to recruit such graduates to effect change in their own organisations (Herrmann et al., 2008).

## THEORETICAL BACKGROUND AND LITERATURE REVIEW

### Entrepreneurship

An entrepreneur is often considered to be someone who is prepared to undertake a new enterprise or someone who wants to change things. Entrepreneurs may be considered those who are able, or at least willing, to realise a new opportunity, whereas management may be focused on the best and most efficient way of operating the existing processes. Entrepreneurship is now widely recognised along with innovation as a pathway to prosperity, essential for the acceleration of economic growth in both developed and developing countries to create wealth, reduce unemployment, and tackle poverty (Entrepreneurs in Japan, 2011; Schumpeter, 2011; South Korean Entrepreneurs, 2011).

### Historical Context

Entrepreneurship is not a new concept as businesses have been launched all around the globe for centuries. The word entrepreneur is understood to have been introduced over 250 years ago (Burns, 2011), based on the French 'entreprendre', which mean the ability to take

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