



**IFMR GRADUATE SCHOOL OF BUSINESS**

**Working Paper WP 22 - 006**

**August 2022**

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**INTRODUCTION TO SCIENTIFIC PHILOSOPHY OF ENTREPRENEURSHIP**

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**Abstract**

The concept of entrepreneurship has been studied and debated for long, yet there seems to be no consensus on its definition and its disposition as a discipline. It has been argued that entrepreneurship should be a subset of the discipline of Economics, since both study human behaviour for satisfaction of wants through allocation of resources, and interaction with things of value (Toma et.al, 2014). However, Winter (2016) and Bögenhold. et.al (2014) suggest that the essence of the concept of entrepreneurship lacks linearity and incorporates a lot of elements from other domains to fall only under the purview of Economics. It is multidimensional drawing on economic theories, growth models, industrial and management theories for reason and explanations (Lindgren and Packendorff, 2009).

The objective of this paper is to examine this trajectory in order to understand and further clarify this issue by employing insights from the Philosophy of Science, which helps transpire such inquisitiveness (Okasha 2016).

**Keywords-** Modern Entrepreneurship, Philosophy of Science, Neo-Classical Economics

## INTRODUCTION TO SCIENTIFIC PHILOSOPHY OF ENTREPRENEURSHIP

### Introduction

Philosophy of sciences helps us in seeking answers to debatable issues. It enables scientists to reason and expand their logical and inquisitive thought processes for theory construction, to understand the physical and metaphysical functioning of the world (Okasha,2016; Carsrud et.al,2014). Philosophy of science allows us to seek various explanations and arguments regarding our inquiries. In order to make use of scientific research methodologies within social sciences it is important to understand how to modify Philosophy of sciences to fit different types of research objectives (Carsrud et.al, 2014). The same is applicable to the domain of entrepreneurship, where, for instance, concept like Stoicism by early philosopher Zeno (301 BC), that derived ethics from natural phenomena; or Polanyi's substantivism (Karl Polanyi, 1944) and tacit knowledge (Micheal Polanyi, 2009) have offered philosophical explanations on "being an entrepreneur."

In this paper we investigate the trajectory of the development of the concept of entrepreneurship through the lens of philosophy of science and in historical contexts (Carsrud et.al, 2014). Meanwhile also searching for explanations of the debate over the lack of a dominant definition of entrepreneurship and why this discipline is not a sub-set of mainstream economics, since both study human behaviour for satisfaction of wants through allocation of resources, and interaction with things of value (Toma et.al, 2014). However, Winter (2016) and Bögenhold. et.al (2014) suggest that the essence of the concept of entrepreneurship lacks linearity and incorporates a lot of elements from other domains to fall only under the purview of Economics. It is multidimensional drawing on economic theories, growth models, industrial and management theories for reason and explanations (Lindgren and Packendorff, 2009).

### Literature Review

Logical positivists propagate empiricism, the idea that observational evidence is crucial combined with rationalism, the idea that our knowledge has a part which is not derived from observation. Studies show that value creation is the essence of entrepreneurship and economics. Both disciplines study human behaviour and allocation of resources, but entrepreneurship is thought to be outside the purview of economics (Bull & Willard, 1993; Toma et.al, 2014).

Logical positivists hold an objectivity assumption of the social reality which tends to freeze socio-economic behaviour (Carsrud et.al, 2014), whilst entrepreneurship tries to change existing social structures and social reality. This objectivity assumption is also followed into discipline of economics even though the subjectivity is intertwined, which sidelines other fields that study human behavior but could not satisfy this criterion.

Determinism when applied excessively restricts understanding of the entrepreneurial behaviour (Pittaway, 2005). Determinism Theories tend to rule out the element of human action and choice, which is critical to understand entrepreneurship, by implying that it is the forces outside of an individual's control that influence entrepreneurial behaviour. Yet a look into the history on the observations of entrepreneurship suggests that entrepreneurs initiate action to fulfil unsatisfied needs or to improve any inefficiencies present (Bull & Willard,1993).

One may think of applying Hempel's (2001) covering law to tease out the phenomena but scientific philosophy helps us to understand that causality also has a great role to play. Here, adopting Hempel's (2001) empiricist view would help to understand the reasons. Also, one might adopt an anti-realist view here to look into the past, observe and thereby explain the phenomena.

Modern entrepreneurship concept borrows three major factors namely risk, uncertainty and profit (Foss & Klein,2020) from economic theories, and a fourth factor, the innovativeness, that was added later on by Schumpeter (Croitoru,2012). These dominant and well-established factors explain why an entrepreneur excels in comparison to regular businesses. Schumpeter (Croitoru,2012) defined "entrepreneur" as the person who innovates or makes "new combinations" of production. He contended that entrepreneur brings in radical change rather than an incremental change and there is a greater linkage to historical facts and abstract models to be done while studying entrepreneurship.

Schumpeter (Croitoru,2012) explained how because of innovation, creative destruction takes place, and newer discoveries replace older ones but are always built on the older ones. According to him, capitalism could only be understood as an evolutionary process of creative destruction, innovation and entrepreneurship. This explanation combined with Kuhn's (1970) incommensurability helps us get clarity as to why there is still no consensus on one definition of entrepreneurship. Kuhn's (1970) explanation of paradigm shifts or scientific revolutions are

similar to the creative destruction process of Schumpeter which transforms the underlying belief systems. This makes comparison of any two paradigms almost impossible or in other words, incommensurable.

Kuhn (1970) also highlighted that it was not entirely impossible and there is a scope for partial translation helping the proponents of both, the old and new paradigms communicate to some extent. The explanation of partial translation might have been possible due to underlying foundation laid by older paradigm to build onto the newer paradigm as explained by Schumpeter's creative destruction process.

Efforts to develop the concept of entrepreneurship by Foss & Klein (2020) were based on explanations via inductive approach in research using observations of experience. They say that Knight brought in the concepts from economics such as risk, uncertainty and profit to associate with entrepreneurship. Foss & Klein (2020) introduced the term entrepreneur to mean someone who assumes certain risk in return for profit. They made the term popular thereafter pushing for its wider usage but it was gradually moving out from economics literature by the end of 19<sup>th</sup> century (Casson,2002). Foss& Klein (2020) say that Knight adopted Mises view that "every actor is an entrepreneur and the human action is what is called as discovery ultimately" (Foss & Klein,2020). This led him to propose the entrepreneurial discovery or alertness whereby he diverts from Schumpeterian view (Croitoru,2012) in saying that an entrepreneur is someone who discovers a previously unnoticed opportunity and acts on it.

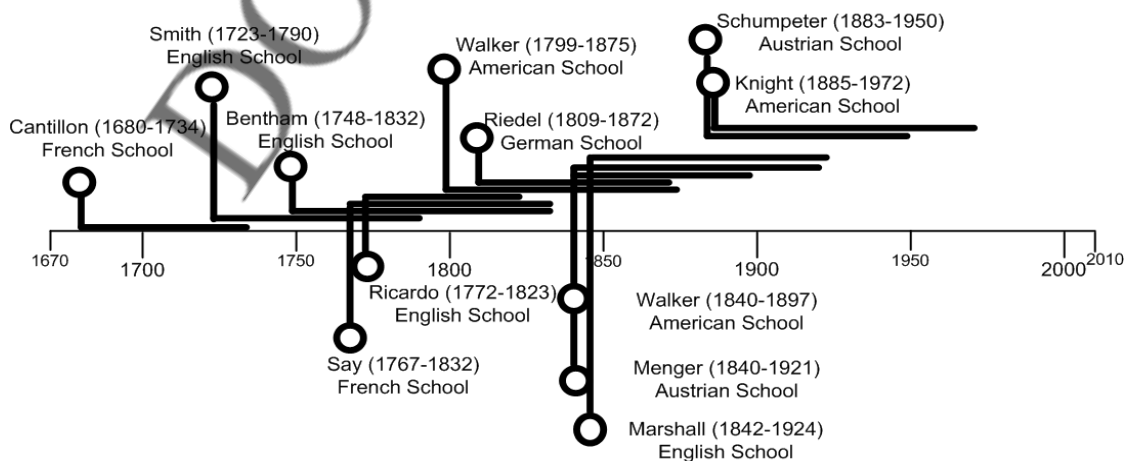
Moreover, entrepreneurship is a value-laden process and not value neutral. In value neutral process, we may consider entrepreneurs to be ethical and moral. However, in actual economic behaviour, individual entrepreneurial decisions made may have selfish reasons to cause unethical or not moral aspects of entrepreneurship (Khan et.al. 2007). But entrepreneurs must exhibit positive biases towards finding new opportunities of unmet market needs, and a tendency towards risk-taking to exploit business opportunities

This individualistic value laden perspective is also known as "functionalistic approach" to entrepreneurship and differentiates from the entrepreneurial process that engages in the interaction between context an agency (Welter 2011). This approach is also referred to as the contextual approach to entrepreneurship. While entrepreneurship is often associated with small, new, for-profit start-ups, entrepreneurial behaviour can be studied in context to for-profit and

not-for-profit organizations (Dees,1998). Further research in the 2000s, expanded the usage of the term "entrepreneurship" to include a particular mindset resulting in entrepreneurial initiatives such as political entrepreneurship, social entrepreneurship and knowledge entrepreneurship (Welter 2011, Belitski et al 2019).

More recently impact of technological variables and disruptive technologies have become an essential component to entrepreneurship, how people or organizations might use technological opportunities to develop new products or services, and create wealth (Belitski et al 2019). Research by Bailetti (2012) to identify the themes that dominate the technology entrepreneurship provides us with a focus on external environmental factors (Kreiser et.al,2019) that influence the formation of technology firms such as business incubators, spinoff firms (Berchicci et.al,2011) and technology transfer mechanism. Bailetti's (2012) work puts forward other themes where studies are based on how the technology entrepreneurship affects regional socio-economic development (Audretsch,2015) and researches that focus on interdependence between technological initiatives which are carried out by small-firms (Stuart and Sorenson,2003). Thus, corporate entrepreneurship emerged as a theme in Bailetti's (2012) research. But it was intriguing to note that technological entrepreneurship emerging from corporate entrepreneurship, dealing with mid and large size firms had lower technological research in its realm despite having greater resources at its disposal than the smaller firms or start-ups. The following illustration shows the timeline contribution of some of the most influential entrepreneurship and the schools of thought (Swanson,2020).

**Figure1-** Historical and Evolutionary Development of Entrepreneurial Thought Timeline



## **Method**

The process of study to be employed in entrepreneurial research majorly would be inductive process as theories are used to explain “reality” and used to interpret observations (Pittaway,2005). Though there can be a fair mix of inductive and deductive process involved as well. According to Schumpeter, “it is only through an intimate collaboration between facts and theory that it would be possible to make substantial advances in the study of entrepreneurship” (Ogbor, 2000, p. 623).

Lot of limitations came up due to determinism and the overuse of simplistic assumptions when researchers tried to showcase entrepreneurship as being part of economics for the desperate need of validation and recognition, which overlooked the social reality (Bögenhold et.al,2014). Therefore, it is suggested that the subject of “entrepreneurship” could gain significantly if the meta-theoretical and philosophical base of study is widened (Grant and Perren, 2002). Philosophy of science allows agnostic view and mindset that helps to answer even the most intricate and complex questions leading to further development research and growth in the area. Further inquiry into the technologically influential factors in start-ups and corporate entrepreneurship would be required to explain the same.

## **Recommendation**

Knowledge production within the field of modern entrepreneurship research is accelerating while at the same time it remains fragmented and interdisciplinary. Concept of entrepreneurship is multidimensional that draws from several disciplines including economic theories, growth models, industrial and management theories, psychology and moral values for reason and explanations (Lindgren and Packendorff, 2009). There is uncertainty in the entrepreneurial process because opportunities can only be identified after they have been exploited (Ramoglou and Tsang 2016). A literature review of modern research would help to identify research questions for further investigation.

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