

## Ithaca 2018 Abstract Submission

### Title

Understanding Innovations and the Diffusion of Knowledge in New World Wines: Conceptual and Experimental Innovations in Argentina

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Conference Presentation

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### Keywords

Innovation, Conceptual innovation, Experimental innovation, New World Wines, Argentina

### Research Question

How this process of applying knowledge to the economy works? What is inside of the black box of innovation? Can the process be stylized and characterized?

### Methods

The economic approach to creativity developed by Galenson (2007) provides a good framework to answer these questions by distinguishing between two types of innovations: conceptual and experimental.

### Results

The development of quality wines in Argentina began in the early 80s and 90s was a slow process of both conceptual and experimental innovation that took many years.

### Abstract

Understanding Innovations and the Diffusion of Knowledge in New World Wines: Conceptual and Experimental Innovations in Argentina

What is the knowledge economy and its relationship with business? In discussing the Industrial Revolution of the 1840's, Becker (2005) called the "Knowledge Revolution" the process of systematic application of science to the economy. This led to a huge burst in productivity, driven by advances in scientific and other knowledge relevant to economies.

The increase in scientific knowledge led to accumulations of education and other human capital, and the interactions between different forms of knowledge led to the "modern economy" that is heavily dependent on the implementation of existing knowledge, its transference to future generations, and the development of additional knowledge.

How this process of applying knowledge to the economy works? What is inside of the black box of innovation? Can the process be stylized and characterized?

The economic approach to creativity developed by Galenson (2007) provides a good framework to answer these questions by distinguishing between two types of innovations: conceptual and experimental.

Conceptual innovations tend to be dramatic, in most cases they consist of something completely different, that break the conventional rules of a discipline or activity. Generally, conceptual innovators have precise goals, what allows them to plan their work and execute it decisively. Their most radical new ideas, and consequently their greatest innovations, tend to occur early in their careers.

Very different in nature from conceptual innovations, experimental innovations develop gradually, by a process of trial and error. Experimental innovators proceed tentatively, building their skills gradually and tend to make their greatest contributions late in their careers.

In contrast with conceptual innovations, where their breakthrough ideas are easy to communicate among people in the same field, experimental innovations are difficult to spread because they are hard to communicate (Artopoulos, Friel and Hallak, 2013 call them tacit knowledge). Experimental innovations have to be experienced to understand and incorporate.

The development of quality wines in Argentina began in the early 80s and 90s was a slow process of both conceptual and experimental innovation that took many years.

We analyze three innovators and successful winemakers: Catena, Etchart and Michel Rolland. Arnaldo Etchart was the bodeguero (winegrower) who discovered Michel Roland to Argentina and has the vision in 80s, like Nicolas Catena, to see that it was possible to produce Quality Wine for the International Market in Argentina by combining the appropriate knowledge and human capital with the local resources. This was one of Michel Roland first advice work outside of France. Currently, Michel Rolland has hundreds of clients across 13 countries. Nicolas Catena Zapata is one of the most important innovators in the international wine industry. Armed with his experimental approach, Catena developed an entire new industry of quality wine in Argentina and resurrected the Malbec wine during the 90s.

In 1988, Arnaldo Etchart brought Michel Rolland, currently one of the best winemakers in the world, to develop the red wines of the Etchart winery. It is important to notice that this was one of Michel Roland first advice outside of France. Currently, Michel Rolland has hundreds of clients across 13 countries. In 1990, Arnaldo Etchart and Michel Rolland bring to market one of the first premium wines of Argentina: Arnaldo B. Etchart Harvest 1989. In 1995, the first wines of San Pedro de Yacochuya go out to the domestic market. In 2001, the San Pedro de Yacochuya winery exports its first premium wine (Yacochuya M. Rolland 1999 harvest). San Pedro de Yacochuya is more than 2000 meters above sea level, and is one of the highest vineyards in the world. The winery with processing capacity for 90 thousand liters, is equipped with the newest and most modern technology.

Nicolas Catena Zapata is one of the most important innovators in the international wine industry. Armed with his experimental approach, Catena developed an entire new industry of quality wine in Argentina and resurrected the Malbec wine during the 90s. According to Larry Stone of the James Beard Foundation, "Nicolas Catena Zapata is a figure in Argentina of the stature of Robert Mondavi in Napa and Angelo Gaja in Piedmont. He inspired an entire region to strive for a higher level of quality by his successful exploration of high-altitude vineyards and rigorous clonal selection." The main innovations (or revolutions) introduced by Catena are three: the use of the Californian-French vinification style to produce quality wines in Argentina; the discovery and development of high-altitude Malbec wine; and the discovery that the soils from Mendoza are not homogenous within very short distances, resulting in vineyard lots with unique characteristics. This last discovery is still in development and prompted the Catena family to drill down even deeper into the theory of terroir.

In this paper, we characterize their process of innovations using Galenson's approach to innovation and try to derive lessons with managerial and public policy implications.

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## **Understanding Innovations and the Diffusion of Knowledge in New World Wines: Conceptual and Experimental Innovations in Argentina**

By Julio Elías<sup>1</sup> and Gustavo Ferro<sup>2</sup>

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