The Ripple Effect

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Abstract

Successful entrepreneurs are built up by adding value to individuals in society. In economics, the impact of an entrepreneur is commonly analyzed from a shortsighted perspective, focusing the analysis on measurable variables like employment generation, contribution to GDP and tax payments. I argue that there are other numerous effects generally ignored that are paramount to economic growth. The path that economic sciences have taken pushes the analysis toward numbers and models, not taking into account individuals and their actions. This chapter will analyze the definition of entrepreneurship that different economists have put forward, and the differences between them. This is important as a base line to facilitate the understanding of entrepreneurship, how it is connected with a human in action and the impact it creates.

Through an expanded qualitative research that includes a significant amount of different types of entrepreneurs, it was possible to identify and register the specific type of contributions that have been made by entrepreneurs. The chapter's map show people who have been affected by entrepreneurship and who are able to tell the positive and negative effects. With this information, it was possible to build up a diagram of the Ripple Effect of Entrepreneurship and the waves of that Ripple Effect. I conclude that our understanding of entrepreneurship and economic growth will be enriched if we move from a perspective of trickle down effects to a perspective of Ripple Effects.

"The nature of the market process is set in motion
by entrepreneurial decisions."
Israel Kirzner (2008)
The Ripple Effect

1. Introduction

The market is moved by decisions made by individuals. Entrepreneurial actions of each of these individuals are crucial for the economy of a country, putting the entrepreneur at the center of the production process. If we look back at the development of ideas and concepts about the market process, we see a clear connection between Adam Smith's thoughts (Smith 1776) on the entrepreneur and the views of Menger, Bohm-Bawerk (1884), Mises[1] (1922), and Kirzner (1973). The entrepreneur, the market process, and entrepreneurial actions are the cause of economic growth. The thinkers mentioned above offer good definitions of the entrepreneur and the entrepreneurial process. According to Mises, the entrepreneur is "the engine of growth, the driving force in the whole market system" (Mises 1949, 249). This is what motivates this research, to explore the impact of entrepreneurial action in the real world.

The Austrian framework shows that the key element in economic growth is the action of the entrepreneur that constantly discovers new opportunities and develops them.[2] For example, Hayek states that economic growth results in decentralization because specific knowledge in time and place is possessed by an individual, so that when he discovers new opportunities the environment with its economy allows him to take advantage of his knowledge, therefore becoming an entrepreneur (Hayek 1937, 1945). On the other hand, human capital and physical capital are inputs in the production function, but by themselves they do not create economic growth. It is constantly pointed out that the process of development and growth is a knowledge spillover; helpful in the entrepreneurial process, but again it is a factor that by itself, in absence of the entrepreneur, cannot generate growth (Romer 1986, 1990). Several proponents of the Austrian school of economics offer thorough explanations and definitions of entrepreneurial action. The value or the relevance of entrepreneurial action is clear. In this

[1] Mises also refers to entrepreneurs as those who are especially eager to profit from adjusting production to expected changes in conditions, those who have more initiative, more *venturesomeness*, and a quicker eye than the crowd; the pushing and promoting pioneers of economic improvement (Mises 1949, 255).

[2] In the literature one finds that there are different points of view regarding opportunities. Opportunities seem to grow or multiply as a consequence of previous entrepreneurial action, constantly changing and moving. Once an entrepreneur acts on an opportunity, he identifies the opportunity itself, changes and generates new opportunities as a consequence of his intervention in the process. Opportunities are not there, in the environment, waiting for some "awakened" entrepreneur to discover them (Holcombe, 1997).

paper, the research points out the connection between such action and the creation of wealth, by examining the impact of entrepreneurial action.

The Ripple Effect

In the last few years, the term "entrepreneurship"[3] has been regularly seen in magazine headlines and has become an important topic in academic publications.

Many of these studies have tried to understand the motivation that makes a person begin to act entrepreneurially. The purpose of this research is focused on other perspective: understanding not why someone would want to start a business, but once they have, what are the consequences (intended and unintended) that are triggered by the entrepreneur's vision and actions.

In a 2011 article, Alvarez and Urbano use Gnyawali and Fogel's (1994) research, to generate a taxonomy of literature about entrepreneurship. They examine the distribution of topics in the literature and classify it by types. They found that the majority of literature analyzes the conditions that surround the entrepreneur (79 percent), and it is almost evenly divided in the descriptions of social (43 percent) and economic conditions (36 percent). Other topics include government policies and procedures related to entrepreneurial activity (12 percent), descriptions of financial and other types of assistance for entrepreneurs (9 percent), and knowledge needed by entrepreneurs and their personal traits (5 percent). According to the model they use in this taxonomy, the literature focuses on opportunities, capacity and propensity to act entrepreneurially, probability of becoming an entrepreneur, and entrepreneurial activity.

There is not much literature that looks at what happens after entrepreneurial activity starts. It assumes that it is important and positive, but not much research has been published on the consequences of entrepreneurial activity, which is the focus of this paper.

The literature find about entrepreneurship is focused on these topics: analysis of the capacity to be an entrepreneur (knowledge and traits), the propensity to be an entrepreneur (how the

[3] Tracking the word back through history, we find that it was first used by Richard Cantillon (1730),

environment promotes entrepreneurship), and the probability of becoming an entrepreneur (how often this occurs). The literature goes as far as entrepreneurial activity, but according to Alvarez and Urbano (2011) there is little about the impact of entrepreneurship, which validates the relevance of this research.

It is evident that entrepreneurial activity produces employment, but there are other consequences that are not visible that are important to identify and analyze.

Entrepreneurship doesn't mean the same thing to everyone. Mainstream economists consider entrepreneurs to be important because they represent a factor of production. But that is all they are—a factor of production.

There is a big difference in Austrian economics.[4] In Austrian economic theory, Mises, Hayek, and Kirzner stand out for their ideas on this subject. They developed a theory and talked about the entrepreneur as the center of the market process. The difference is crucial: entrepreneurs are not just one factor of production with a bundle of characteristics, they are essential for the existence of the market process in a society. According to Austrian economists, without entrepreneurs there is no market process, and the market process is the center of the entire economic model of a society. Kirzner (1960) explains how economics evolved from a science of wealth to a science of action. Kirzner's most important contribution is his understanding of the market as "a competitive process of discovery and mutual learning, at the forefront of which stands the alert entrepreneur" (1997). The entrepreneur is directly associated with human action with a maximizing behavior. That is why Austrian economists are interested in understanding "the entrepreneur."

Russell Sobel (2003) describes how entrepreneurship is directly connected with value creation and how important it is to the Austrian economic tradition.

As Peter Boettke (2012) explains, "what distinguishes Austrian economists is the elaborate understanding of the role of the entrepreneurial function and how it gives rise to the market process."

[4] Menger, 1871; Hayek, 1948; Mises, 1949; Lachmann, 1956; Böhm-Bawerk, 1959; Rothbard, 1962; Kirzner, 1973.

1. Definition of entrepreneur:

Many economists have been interested in entrepreneurs as a market phenomenon, and have defined them in different ways. Richard Cantillon (1730), who defines an entrepreneur as a person who is willing to invest his money. Smith (1776) and the classical economists saw the entrepreneur as an optimizer, an equilibrator. John Stuart Mill (1848) defines an entrepreneur as a person who assumes risks and manages a business. Jean Baptist Say (1800) defines him as a person who moves economic resources to areas of higher productivity. Also Davenport (1914) mentions that the market economy has a force in the function and performing role done by the entrepreneur. Karl Marx did not have a clear idea about the role of entrepreneurs; he believed equilibrium was the result of changes in property and power relationships. Kirzner (1960) explains how economics is a process led by the entrepreneur, and Boettke (2003) says that when individuals determine prices, they act as entrepreneurs.

Much more recently, Jesús Huerta de Soto (1992) in his book "Socialismo, Cálculo Económico y Función Empresarial" defines an entrepreneur as someone who perceives, observes, and identifies other people's ends and means and discovers new ends and means in an active and creative way.

1.1 Comparing definitions of entrepreneur

1.1.1. The Schumpeterian entrepreneur

This is the innovative type of entrepreneur, a "destabilizer"; he creates the opportunity according to his observations, knowledge, and experience. The opportunity arises due to exogenous factors. New techniques, products, and organizations arise as a consequence of entrepreneurial action. Discovery has an important role. It is related to innovation or creative destruction. The entrepreneur is a "man of action" (1911). Schumpeter believes an entrepreneur "does not respond to demand, he forces his products onto the market." As Bustaph (2013) says: he is the ""[c]ause of economic development because he creates change". In *The Theory of Economic Development* (1926), Schumpeter writes that entrepreneurship is not a profession or a temporary condition, "[t]he entrepreneur is just the middleman between the productive services and consumers." (Schumpeter 1928).

In this perspective, it is seen as a creative person that generates change with the things he creates, but that is not interested in fulfilling market needs, instead he wants to force the market to buy his creations. Schumpeter explains that market fluctuations have no prime mover, and that demand (and consumer tastes) are constant because they are created by producers (production is constant too). According to him, a capitalist society evolves because of new products, new processes, and innovation, as a creative phenomenon, but he forgets that the entrepreneur is the one who creates and acts to make things happen. This view is completely different from Kirzner's.

1.1.2. The Kirznerian Entrepreneur

Kirzner tells us that he is not interested in analyzing the entrepreneur or understanding why is he more or less efficient or successful. He is interested in the entrepreneur and his role in the market process as an "equilibrator" or "market clearer" (Kirzner 1960).

Richard Ebeling (2001) explains the relevance of alertness in the entrepreneurial process. The entrepreneur's awareness of others' needs is what opens his mind and allows him to generate new ways to satisfy these needs and act entrepreneurially. That is how the entrepreneur becomes an engine of society.

What guides entrepreneurs in this task is the anticipation of profits—revenues in excess of the expenses to bring goods to market—and the avoidance of losses. But one of the insights that Kirzner has highlighted is that while entrepreneurship is crucial to the workings of the market, it cannot be bought and sold like other goods or resources for a certain price. The reason is that the essence of entrepreneurial activity is "alertness," an attention to scanning the market horizon for opportunities and innovations that can result in making better goods, or new goods, or bringing less-expensively manufactured goods to the market place.

A central task of the entrepreneur, Kirzner has argued, is to be alert to these shifts in market conditions and indeed to anticipate them as best he can.

Earning profits is desirable because it pragmatically acts as the incentive mechanism and because it is a discovery process in which individuals perceive opportunities and possibilities in things and situations that others have not, the successful earning of profits should be considered to be "just" under the simple notion of finders-keepers. The profits are from the discoverer.

According to Kirzner, the most important aspect of entrepreneurship is that "the nature of the market process is set in motion by entrepreneurial decisions."

Entrepreneurship means discovery and implies alertness[5] to identify profit opportunities. It seems that Kirzner believes opportunities are there, waiting to be discovered. He maintains that opportunities are objective[6] and arise due to endogenous factors: his own previous actions or those of other entrepreneurs. The mere existence of price competition generates new opportunities. Entrepreneurial action is what clears the market. It is the equilibrating force. It would seem that according to Kirzner's approach, the entrepreneur can only be successful; he faces no uncertainty and risks no capital.

Kirzner connects the entrepreneur with action as discovery, as opposed to action as optimizing. He distinguishes the entrepreneur from the Robbinsian economizer (1973, 41). The Robbinsian economizers are price-takers in contrast with entrepreneurs who are continuously alert to identify opportunities (Kirzner 1967, 796–797).

In the Kirznerian type, alertness is a key trait of the entrepreneur. It is the essence of purposeful human action. Kirzner is not as interested in what alertness is, but what alertness does. That capacity to be alert means to observe, identify, "smell," and be sensitive and empathetic. That alertness will motivate learning new knowledge and produce costless discovery. Learning is spontaneous; the entrepreneur doesn't plan for learning to occur. Kirzner also states that the entrepreneur is not aware of his entrepreneurial vision (the future he sees). If he is aware[7] of it, then it is not an entrepreneurial vision anymore, it is another

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[5] According to Kirzner, *alertness* is "the state of mind that enables spontaneous learning to occur."

[6] Peter Klein: "Kirzner mentions that he has been misunderstood with that definition, he thinks that opportunities are in a way objective and need to be discovered, but he understands it is subjective talking about their value. He has this great quote in an interview: "Ex post we have to recognize that when an innovator has discovered something new, that something was metaphorically waiting to be discovered."
http://organizationsandmarkets.com/2008/10/24/kirzners-tapestry/
Blog name: Organizations and Markets. "Kirzner's Tapestry". October 24, 2008.

[7] Kirzner explains about the entrepreneurial process as conscious meaning spontaneous, a process that the entrepreneur is not even aware of. When he is aware of it, and is concrete and elaborated as specific information to share with others, it is no longer an entrepreneurial vision, according to Kirzner, it is already information, a key resource in his entrepreneurial process.

resource that is taken into account in decision making (1979, 168–169). Entrepreneurs are aware of opportunities regarding sources of profit, lack of coordination, or the misallocation of resources. According to Kirzner, alertness is the capacity to imagine the future and then actually create it.

There are more than just rhetorical differences between the Schumpeterian type and the Kirznerian type. The actions and consequently the types of knowledge and skills the entrepreneur may need are different according to each definition. On one hand, the Schumpeterian entrepreneur needs the ability to be creative, the capacity to develop new ideas, to prototype, and to sell those new ideas. On the other hand, Gunning (2004) mentions that these abilities are completely different from the ones required by the Kirznerian entrepreneur.

To begin with, both types of entrepreneurs need knowledge and the right personality. They must be perseverant, used to trial and error, have the capacity to change and adapt quickly, be analytical, know how and where to find relevant information, and have the courage to make decisions and act without having all the knowledge needed to be 100 percent sure of the consequences.

Other authors comment on these characteristics and they view it from different perspectives. For example, Lachmann (1999) defines an entrepreneur as a person who uses a new combination of production factors and generally needs external sources of funds to set up and develop his company. Ludwig Lachmann (1978) relates entrepreneurial action to capital. He explains that capital goods are part of the plan that an entrepreneur uses to act and develop results. Baron (1999) says that entrepreneurs are forward looking and have a great capacity to perceive the future more than being counterfactual.

Denrell, Fang and Winter (2003) focus more on the difference between discovery and alertness, explaining that alertness is included in the discovery process. Gaglio (2004) points out that entrepreneurs are more sensitive to the unusual or unexpected and have the ability to simulate results and be counterfactual. Moreno (2007) expands on alertness, exploring more thoroughly the personal traits related to it and how the environment, knowledge, and experiences of the individual affect them, especially in the development of the entrepreneur's openness and sensitivity to business opportunities. Similarly, Cardozo (1996) believes that awareness is a characteristic of entrepreneurs. He defines entrepreneurship as the propensity to notice and be sensitive, especially to unmet needs.

Clearly, there are many different angles from which one can "get closer" to the definition of entrepreneur. An entire study could be done just to compare the implications of each perspective and what is relevant in each definition.

Now that we have seen the differences in defining entrepreneurship, we will focus on the Austrian economic perspective and go deeper into the analysis and connect it to the main purpose of this study.

1.2. Perspectives of the entrepreneur based on Austrian Economic principles:

Continuing the analysis based on Austrian economic principles, we will now look at the different approaches that researchers can take about the entrepreneur.

1.2.1. Opportunity Discovery Approach

This approach is based on Kirzner's definition of the entrepreneur, which is explained above. It separates entrepreneurship from resource ownership and property. It neglects subjectivity and the endogenous creation of opportunities (Alvarez and Barney 2007). Opportunities may be defined as "situations in which new goods, services, raw materials, and organizing can be introduced and sold at greater than their cost of production. It is a situation in which a person can create a new means-ends framework" (Shane and Venkataraman 2000).

Shane and Venkataraman discuss subjectively created opportunities.[8]

The entrepreneur is a "maximizer" rather than a "satisfier."[9]

Entrepreneurs are distinguished by their propensity to recognize opportunities (Gartner, 1990).

[8] "Entrepreneurs respond to objective information about opportunities," Shane (2003, 42). This is a citation made by Klein and Bylun (2013).

[9] Robbins (1972) defines the man as a maximizer. Jesús Huerta de Soto (1992) makes the observation that Robbins's definition of a man that seems he has a passive attitude where the only way to be entrepreneurial is being a maximizer that looks for assigning better the given media to the known ends. De Soto also observes that "Mises will say that human beings are more than homo sapiens, homo agents, or homo economicus that act" (83).

Opportunity is objective, not subjective. It arises through endogenous circumstances and actions within the market process.

Only gains or equilibrium can be achieved, not losses.[10]

Klein and Bylun (2013) develop an important analysis of Kirzner's influence in economics and business literature. The opportunity discovery approach is discussed extensively in recent economic and business literature. There are more than 4,500 citations by authors including David J. Teece (2009), Oliver E. Williamson (1985), Ronald S. Burck (1995), Robert Nozick (1978), Snehota and Hakansson (1995), Mark Casson (1982), Scott Shane (2003). It is also mentioned by the following authors in journal articles: Shane and Venkataraman, *Academy of Management Review* (2000); Shane, *Organization Science*, 2000; Evans and Jovanovic, *Journal of Political Economy* (1989); Kirzner, *Journal of Economic Literature* (1997), Maskell and Malmberg, Cambridge, *Journal of Economics* (1999); Blanchflower and Oswald, *Journal of Labor Economics* (1999), Teece, *Journal of Economic Behavior and Organization* (1982), and others.

This paper clearly recognizes the great influence that Kirzner has had in the research on entrepreneurship, and how his ideas have become a point of contact between Austrian economics and the fields of business and management.

1.2.2. Judgment and Action Based Approaches

According to Klein and Foss, judgement is ""[t]he cognitive faculty that you use to make a decision where it is not predefined how to decide." The judgement based approach is based on Cantillon (1755), Knight, and Mises who recognize entrepreneurship as judgmental[11] decision making about the use of heterogeneous resources under uncertainty[12] (Knight 1921;

[10] This is because losses are generated only if action and allocation of resources in uncertain conditions is considered, otherwise an entrepreneur can only have erroneous discoveries and that does not explain clearly the possibility of losses. Kirzner (1997, 72) expands on this idea.

[11] Judgment, according to Klein and Bylund (2013), can be defined as the combination of heterogeneous capital resources, with subjectively perceived attributes, in the course of production. What Austrian economists call the intertemporal structure of production is the result of entrepreneurial conjectures about how capital resources can most effectively be deployed to satisfy future consumer wants.

[12] In the paper: Risk, Uncertainty and Economic Organization (Klein, 2009), he mentions the difference between uncertainty and risk: "Risk refers to situations in which the outcome of an event is unknown, but the decision maker knows the range of possible outcomes and the probabilities of each, such that anyone with the same

Casson 1982; Klein 2008a; Foss and Klein 2012, 2013[13]; Holmes et. al 2013, Klein & Bylund, 2014). They point out the relevance of institutions in the society to reduce uncertainty.

In this approach, the entrepreneur is defined as someone who sees a "different future."[14] He acts in uncertainty based on his vision of the future, which is constantly evolving. For Klein and Foss, entrepreneurship is action under uncertainty. This approach abandons the construction of the opportunity per se, because it sees the opportunity as something subjective. The main element is the action, and deciding means investing. This approach focuses on beliefs, results, actions, and adjustments (Klein 2008a; Klein and Foss 2012; Davidson 2012; Westgren and Ariew 2013). It is defined as an acquired combination and deployment of heterogeneous resources under uncertainty (Knight 1921; Cason 1982; Klein and Foss 2012). This approach recognizes the possibility of losses and implies control over resources. The opportunity is not created, what entrepreneurs create are enterprises, products, or investments.

The judgment and action based approaches according to Gunning (2004) ""[g]ive relevance to time, uncertainty, and capital heterogeneity," but each one shows us a different interpretation of the entrepreneurial dynamic. In this case, resource ownership and property are relevant and not separate from the entrepreneur.

We need to pause here to talk about Mises's action approach. Mises offers different definitions of entrepreneurs, but all are related to action. The simplest one focuses on human action. In relationship to entrepreneurship, he explains that a person changes his future with his actions in the present. Another perspective associates the entrepreneur with, what Hayek defines as, a speculator. Speculation as being a way to call every actor in the market that

information and beliefs would make the same prediction. Uncertainty, by contrast, characterizes situations in which the range of possible outcomes, let alone the relevant probabilities, is unknown. In this case the decision maker cannot follow a formal decision rule but must rely on an intuitive understanding of the situation — what Knight calls "judgment" — to anticipate what may occur. Risk, in this sense, refers to "a quantity susceptible of measurement," and not a "true" uncertainty that cannot be quantified. [4] The essential function of the entrepreneur, in Knight's system, is to exercise judgment, particularly in the context of purchasing factors of production". Mises Daily, October 22, 2009. https://mises.org/library/risk-uncertainty-and-economic-organization

[13] There is a reference in this paper clarifying that this concept builds up on Kirzner's theory of capital (1966) not on his point of view about the entrepreneur.

14 Mises (1949) mentions that ""[a]n entrepreneur judges the future in a different way."

provides goods or services in an uncertain future. Man acts in regard to changes he anticipates about the future. This is the definition he offers when he talks about economic calculation of future profits, or anticipating the demand of consumers. In this case, he sees the entrepreneur as the driving force in the market. The most complex of his definitions describes entrepreneurs as those who have a quicker eye, those who are pioneers in economic improvement.[15] He identifies the entrepreneur as the one who develops a specific order according to market signals like prices.

So the majority of definitions of entrepreneurship are connected to action. The ideas come from the people who finally make them happen. It is an interesting point of view. Each of them require crucial elements like entrepreneurial action and capital.

In her paper "A Kirznerian Economic History of the Modern World," McCloskey writes, "what explains the economic growth developed since 1800, measured by real income per head, in a factor of 100 was explained by: creativity by the non-economist's world; innovation by Samuelson; or discovery by the Austrian world. I had realized that most of growth is about innovation, not investment."

2. The Ripple Effect

The concept of the ripple effect is applied in this analysis to what entrepreneurship generates. Any action generates a reaction; any action in the market generates consequences.[16] After an action is completed nothing remains the same.

Entrepreneurial action is not an exception to this rule. When entrepreneurs begin to act, their actions change everything around them, including the market and society.[17] Bustaph (2014) explains that Kirzner views entrepreneurship as a human action that begins in one market of

[15] According to Mises, economics studies the structure of acting, without paying attention to the means and the ends of each individual.

[16] We have already mentioned that Kirzner believed opportunities evolve due to endogenous causes. They evolve because of the previous actions of the entrepreneur or the previous actions of other entrepreneurs.

[17] Society is a spontaneous, complex process in which millions of participants, with a variety of goals, preferences, values, and knowledge, interact and move forward through their entrepreneurial spirit. They are constantly creating, discovering, and transmitting information and adjusting and coordinating in a competitive way to simplify life for others.

a market exchange economy with its effects eventually spreading throughout the entire economy. Entrepreneurship enables participants to achieve their separate goals.

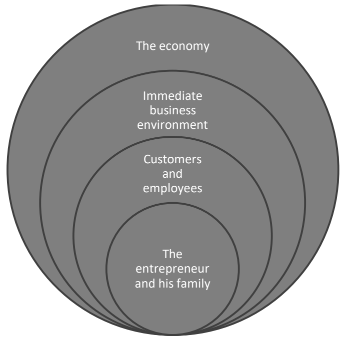
For example, when many people point to entrepreneurs like Bill Gates, they may think in terms of the consequences of his actions; in other words, his impact. Some people may think that what he does through the Bill & Melinda Gates Foundation has had the greatest impact. But we could argue that what is even more relevant is what has happened since the beginning of his entrepreneurial activities and around Microsoft, the company he created. Not just jobs, taxes that the company paid, new investments, but also things like new knowledge was created, and the enormous impact he generated through his products that help increase productivity for people and companies around the world. As Kreft and Russell (2003) wrote in an article about entrepreneurship, “Microsoft’s Office and Windows operating software now run on about 90 percent of the world’s computers. By making software that increases human productivity, Gates expanded our ability to generate output (and income), resulting in a higher standard of living for all.” For the world, that is one of the most important consequences of his entrepreneurial action.

To understand entrepreneurship better, I develop the concept called the ripple effect, which will be explained in detail. Qualitative research and specific case studies will be used to show how the ripple effect illustrates what is really happening. This concept is useful to identify the consequences of entrepreneurial action. The research process began with structured interviews with entrepreneurs and was followed by researching secondary sources about entrepreneurs. After analyzing all the information and data, a new concept was developed: the ripple effect of entrepreneurship.

2.1.1. The Concept of the Ripple Effect

It has been said that the prosperity of businesses is only positive for the owners of the businesses. Even in political forums, the concept of the trickle-down effect as defined by Leef (2006), has been used ironically to describe the same idea. Nothing is more “false” than that concept of the trickle-down effect[18], which is used to communicate the idea that the new income or wealth of wealthy people trickles down as small and tiny little drops on poor people. There is only one way for a company to succeed: serve its customers. Profits will be produced if, and only if, the company has sales (and of course a good cost and expenses structure). Sales, in a free market economy, can be generated if individuals in the market choose freely among other existing options to buy and become customers of a particular company. Kirzner maintains that from the actions of an entrepreneur, new opportunities arise for the entrepreneur and for others in the market. This relevant effect of an entrepreneur is not even mentioned in economic literature. Another one is the learning and knowledge that comes from entrepreneurial action, which benefits not just the entrepreneur, but society as a whole. It is related to the concept of "knowledge spillover". The knowledge effect is wider than knowledge spillover. In order to evolve the product or service, the entrepreneur learns from his interaction with society, new knowledge is produced, learning happens necessarily. That learning process affects the entrepreneurial actions that follow, improving continuously. This has not caused spillover yet. After learning happens, in order to implement it in the company, it has to be taught to others that will help the entrepreneur to execute. That is knowledge spillover. Within the area of operation of the entrepreneur, there is also a direct impact on the region. This is called geographical spillover and is connected with the definition of "clusters." But this research is not focused on how the environment influenced the entrepreneurial action, but how the entrepreneurial action generates changes beyond the entrepreneur and/or his company. Entrepreneurial action has different circles of impact, summarized in *Figure 2: The waves of the Ripple Effect.*

[18] It was originaly used in 1980 by democrats, as a way to critizice tax cut policy of President Reagan, sending the message that just trickle-down effects will be produced for por people.



3. The Ripple Effect Model

The ripple effect model shows the results, consequences, and effects of entrepreneurial action. It helps to see the entrepreneur as a source of prosperity and as an individual with a creative capacity to create wealth. The ripple effect model was developed as a result of the inductive qualitative research described before. The variables typically measured to identify the impact generated by entrepreneurs are the three on the right: social investment and capital[19]return.

[19] FLEE is a forum that has developed research and discussions based on qualitative analysis of capital investments that produce positive changes that cannot be measured easily.

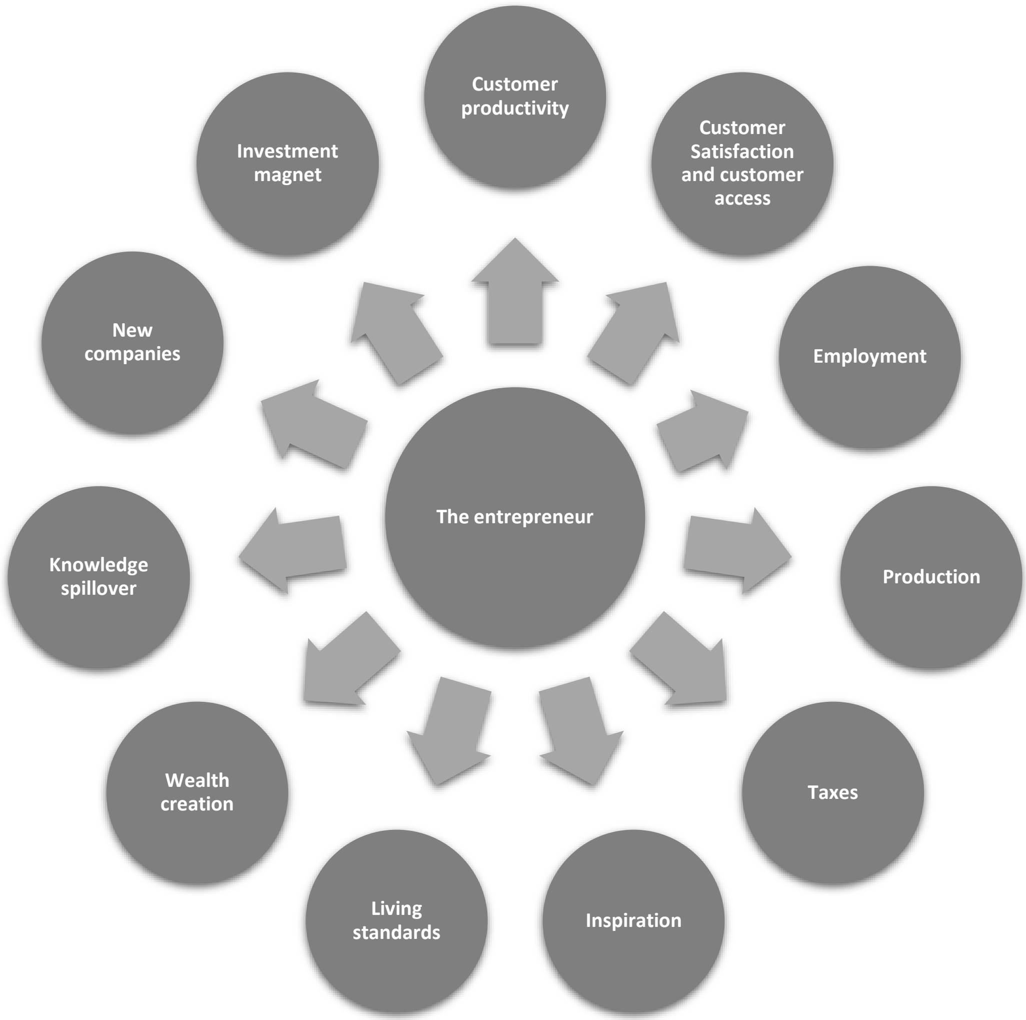


Figure 4: The Ripple Effect Model.

4. Conclusions

The entrepreneur has been identified as a force that pushes economic activity. The role of the entrepreneur in a society is not clear for every school of economic thought. For some schools, the entrepreneur is just generating benefit for himself, questioning the need of more entrepreneurs in a society. Austrian economists believe entrepreneurs are at the center of the market process. The entrepreneur is not just a production factor; it is the one who moves the economy by his actions. Cantillon, Smith, Menger, Hayek, Mises, Lachmann, Böhm-

Bawerk, Rothbard, Kirzner and many others, emphasized the relevance of the entrepreneur in the market, without him the market is inexistent; the entrepreneur is the engine of growth. There is a gap in the literature regarding the analysis of the consequences and effects of entrepreneurial action. Literature is merely focused in the economic conditions of the environment, institutions in society that facilitate or constrain entrepreneurial activity; traits, knowledge and abilities of successful entrepreneurs; and access to financial resources.

The concept of “Ripple Effect and its waves” makes visible the impact of entrepreneurship. There is a *Ripple Effect* of every entrepreneurial action. Some effects of entrepreneurship are easy to measure: production, employment, and tax payments, typically used to analyze entrepreneurial action. The *Ripple Effect* concept helps to point out the unseen impact of entrepreneurial action. Through an inductive qualitative research process, consequences generated with the entrepreneur were identified: customer productivity, access and satisfaction, investment magnet, new companies. And other effects difficult to measure: knowledge spillover, wealth creation, improved standards of living for the entrepreneurs and his family, and inspiration. The *Ripple Effect* concept includes the waves of impact of the entrepreneur, showing how far is the entrepreneur producing impact in others. Every entrepreneur starts generating impact in himself and his family, customers and employees, but his actions generate also changes in the immediate business environment and the whole economy. The market serves individuals because the entrepreneur uses his abilities and knowledge to create destructively as Schumpeter mentions, when through his alertness, he sees an opportunity as Kirzner describes; moving fast to action, as Mises highlights. The *Ripple Effect* model helps to see the unseen, have a wider point of view of the impact generated by entrepreneurs in society, not narrowing the analysis to typical variables that are easy to measure.

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