Chapter 2

Entrepreneurship, New Combinations of Resources, and the Profit-and-Loss System

> The carrying out of new combinations we call "enterprise"; the individuals whose function it is to carry them out we call "entrepreneurs".
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> Joseph A. Schumpeter (1934), *The Theory of Economic Development*: 74.

Would orange slices go well on top of a pizza? How about pineapple? Do they go equally well with ham and turkey as the meat on the pizza? Does turkey even taste good on a pizza? If you have ever been to one of those make-your-own pizza restaurants, you already know there are many possible topping combinations you could, in theory, put on a pizza. With some mathematical formulas, it is possible to figure out exactly how many possible *combinations* you could make out of a certain set of ingredients; and the numbers get large quickly. If there were twenty different toppings you could use for your pizza, and you were to choose only three of them, how many possible pizza combinations do you think could you make?

The answer might surprise you. There are a remarkable 1,140 three-topping pizzas you could make from those 20 different ingredients! With 50 toppings to pick from, the number of three-topping pizzas you could make is 19,600! One of these combinations—which uses tomato sauce, cheese, pineapple, and ham—is known as the Hawaiian pizza, and it is currently the most popular type of pizza in Australia! The creation of the Hawaiian pizza is often credited to Sam Panopoulos, who first cooked one at the Satellite Restaurant in Ontario, Canada in 1962.

Sam provides a good example of what Joseph Schumpeter considered entrepreneurship—the discovery and commercial application of a new combination of resources. Every day entrepreneurs hunt for profitable new possible combinations of productive resources. To Schumpeter, being an entrepreneur was *not* synonymous with just owning, running, or investing in a business. What he thought distinguished entrepreneurs from other actors in the economy is their testing and experimentation to discover new possible combinations of productive resources in the pursuit of profit and success.[3]

In Joseph Schumpeter's 1934 book, *The Theory of Economic Development* (TED), he writes:

> As it is the carrying out of new combinations that constitutes the entrepreneur, it is not necessary that he should be permanently connected with an individual firm … On the other hand, our concept is narrower than the traditional one in that it does not include all heads of firms or managers or industrialists who merely may operate an established business, but only those who actually perform that function.
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> But whatever the type, everyone is an entrepreneur only when he actually "carries out new combinations," and loses that character as soon as he has built up his business, when he settles down to running it as other people run their businesses. This is the rule, of course, and hence it is just as rare for anyone always to remain an entrepreneur throughout the decades of his active life as it is for a businessman never to have a moment in which he is an entrepreneur, to however modest a degree. (TED: 75, 78)

From the quotations above it is clear Schumpeter did not view a traditional business owner or manager as an entrepreneur. Going further, Schumpeter even removes the concept of bearing risk from his definition of entrepreneurship:

> The entrepreneur is never the risk bearer … even if the entrepreneur finances himself out of former profits, or if he contributes the means of

3. In addition to the pure pursuit of profit, Schumpeter also clearly thought that entrepreneurs were motivated by personal forces such as "the will to conquer: the impulse to fight, to prove oneself superior to others, to succeed for the sake, not of the fruits of success, but of success itself" and "the joy of creating, of getting things done, or simply of exercising one's energy and ingenuity" (TED: 93).

> production belonging to his "static" business, the risk falls on him as a capitalist or as possessor of goods, not as entrepreneur. Risk-taking is in no case an element of the entrepreneurial function. Even though he may risk his reputation, the direct economic responsibility of failure never falls on him. (TED: 137)

In his work, therefore, Schumpeter stressed the function of entrepreneurs as disruptive innovators that propel economic growth and prosperity though time. In doing so, he also provides a clear distinction between "invention" and "innovation" that is best illustrated in his book *Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process, Volume 1* (BC1): "the entrepreneur may, but need not, be the "inventor" of the good or process he introduces" (BC1: 103).

While *invention* is the creation or discovery of a new product or process, *innovation* is the successful introduction and adoption of a new product or process in the commercial marketplace. Innovation is basically the economic application of inventions. Let us consider some examples of this difference. The modern upright electric vacuum cleaner was *invented* in 1908 by James Spangler who was a department store janitor. But it was his cousin, William Hoover, who after seeing the idea bought the patent from Spangler and built the Hoover Company that then successfully *innovated* and commercially produced a worldwide brand and market for the product. Similarly, it was a milkshake-mixer salesman named Ray Kroc who is the innovator famous for commercially developing franchising and the worldwide McDonald's brand after seeing Richard and Maurice McDonald's restaurant in California. Finally, while Henry Ford did not invent the automobile, his innovation was the use of the assembly line and large-scale manufacturing that brought the price of the automobile within reach of the average family. In each of these cases, the innovator is different from the inventor, and it is the innovator's role with which Schumpeter is concerned.

Perhaps an even more important factor in distinguishing invention from innovation is that most inventions never turn into innovations—that is, not all inventions are profitable business ideas. If you discovered a new way to turn tree leaves into gasoline at a cost of $500 per gallon, it may be an invention but it would have a hard time competing in a marketplace where gasoline has a current price of under $10 a gallon! Returning to our original example of pizza combinations, not all new pizza combinations (inventions) are tasty—rotten egg, liver, and anchovy pizza, for example, would be one we would not much care for. And this turns our attention to the process by which we sort the good ideas from the bad ideas in the competitive marketplace.

How can we tell if we have stumbled onto a good new combination, such as Sam's Hawaiian pizza, or a bad one like the rotten egg, liver, and anchovy pizza? In a competitive market system, this sorting procedure is accomplished by the profit-and-loss system directed by consumers and resource owners. If the new idea is good enough that customers buy the product at prices sufficient to generate enough revenue to cover all costs of production, then the product is profitable—and production will continue into the future. On the other hand, if the new idea does not generate revenue sufficient to cover all costs of production, then losses, and going out of business are the result. I am sure that you have seen new restaurants in your town that are examples of both cases; those that open and succeed as well as new ones that open and fail.

The failures can be the result of either insufficient revenue, or costs that are too high. A business that might be profitable in a low-cost location, for example, may not be profitable if it locates in the area of town with the highest rental rates for space. Thus, which resources are brought to bear in the combination is of equal importance to the value of what is produced.

Profits and losses play an important role in an economy. As entrepreneurs sift through the many possible new combinations of resources, it is the profit-and-loss system that informs and guides this process of discovery. It is often a process of trial and error. Adding to the complexity of this process is that the target is an ever-changing one, with new opportunities arising and others disappearing with time. What was profitable yesterday may no longer be profitable today, and vice versa.

In fact, it is the potential for profit that provides the strong incentive for this type of trial and error by entrepreneurs to begin with. According to Schumpeter in his later, and perhaps most famous, book *Capitalism, Socialism, and Democracy* (CSD), "[i]n some cases, however, it is so successful as to yield profits far above what is necessary in order to induce the corresponding investment. These cases then provide the baits that lure capital on to untried trails" (CSD: 90). That is, the lure of profits is the incentive for entrepreneurial discovery and capital investment.

This is one reason that government policies that reduce the rewards from innovation can be harmful to economic growth and prosperity. When regulations or taxes reduce the potential profitability of future innovations, fewer attempts are made to discover them. As Schumpeter notes in his book *The Economics of Sociology and Capitalism* (ESC):

> Entrepreneurial profit proper ... arises in the capitalist economy wherever a new method of production, a new commercial combination, or a new form or organization is successfully introduced. It is the premium which capitalism attaches to innovation ... If this profit were taxed away, that element of the economic process would be lacking which at present is by far the most important individual motive for work toward industrial progress. Even if taxation merely reduced this profit substantially, industrial development would process considerably more slowly, as the fate of Austria plainly shows ... there is a limit to the taxation of entrepreneurial profit beyond which tax pressure cannot go without first damaging and then destroying the tax object. (ESC: 113–114)

While we shall return to Schumpeter's views of proper government policy in a later chapter, for now we simply point out that these policies can have large impacts on the rate of experimentation and discovery undertaken by entrepreneurs in the economy. To Schumpeter, this process was the key to economic growth and prosperity.

Entrepreneurship is important because it is the competitive behaviour of entrepreneurs in search of profits that drives this search for new possible combinations of resources that create more value. Some of these new combinations will be more valuable than existing combinations and some will not. In a market economy, it is the profit-and-loss system that is used to sort through these new resource combinations discovered by entrepreneurs, discarding bad ideas through losses and rewarding good ones through profits. A growing, vibrant economy depends not only on entrepreneurs discovering, evaluating, and exploiting opportunities to create new goods and services, but also on the speed at which ideas are labeled as successes or failures by the profit-and-loss system.

From an economic standpoint then, business failure has a positive side; it gets rid of bad combinations of resources, freeing up those resources to be used in other endeavours, and provides information and signals to other entrepreneurs about that losing combination. A vibrant economy will have both a large number of new business start-ups and a large number of business failures. In an economy where all entrepreneurs—even those with crazy ideas for new pizza combinations—can try them out in the marketplace, there will be a lot of mistakes.

However, Schumpeter points out that this process is not one of entrepreneurs simply chasing a target created by a given set of consumer wants. Entrepreneurs also play an important role in anticipating and driving those wants. As Schumpeter writes:

> Yet innovations in the economic system do not as a rule take place in such a way that first new wants arise spontaneously in consumers and then the productive apparatus swings round through their pressure. We do not deny the presence of this nexus. It is, however, the producer who as a rule initiates economic change, and consumers are educated by him if necessary; they are, as it were, taught to want new things, or things which differ in some respect or other from those which they have been in the habit of using. (TED: 65)

Thus, as innovators, entrepreneurs often must anticipate what consumers may want that they currently do not have. They envision a different future. Instead of making a current product better or cheaper, true Schumpeterian entrepreneurs make an entirely new good or service that consumers may not have even imagined and educate consumers about the new product and its advantages. Schumpeter continues:

> To produce means to combine material and forces within our reach ... To produce other things, or the same things by a different method, means to combine these materials and forces differently. In so far as the "new combination" may in time grow out of the old by continuous adjustment in small steps, there is certainly change, possibly growth, by neither a new phenomenon nor development in our sense. In so far as this is not the case, and the new combinations appear discontinuously, then the phenomenon characterizing development emerges. For reasons of expository convenience, henceforth, we shall only mean the latter case when we speak of new combinations of productive means. Development in our sense is then defined by the carrying out of new combinations. (TED: 65–66)

For Joseph Schumpeter, economic development is the result of innovation undertaken by entrepreneurs who discover new and more valuable combinations of resources. This search is both incentivized and guided by the profit-and-loss system. In addition to satisfying consumers' wants better and at lower cost, entrepreneurs also help consumers to discover new wants and preferences. But this process is disruptive. New goods and services enter markets and compete with existing ones, sometimes causing the old way of doing things to disappear.

Innovations such as the automobile and airplane were more than simply new combinations of resources satisfying existing consumer wants; they were leaps forward in economic progress. Such leaps are the key to economic development but they also threaten existing industries, as thousands of businesses and their workers in the horse-and-buggy industry soon discovered—and this process by which entrepreneurship threatens existing producers, and the consequences of that threat are the subject of our next chapter.