The specialization myth

By Ricardo Hausmann
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Some ideas are intuitive. Others sound so obvious after they are expressed that it is hard to deny their truth. They are powerful, because they have many nonobvious implications. They put one in a different frame of mind when looking at the world and deciding how to act on it.

One such idea is the notion that cities, regions, and countries should specialize. Because they cannot be good at everything, they must concentrate on what they are best at – that is, on their comparative advantage. They should make a few things very well and exchange them for other goods that are made better elsewhere, thus exploiting the gains from trade.

But, while some ideas are intuitive or obvious, they can also be wrong and dangerous. As is often the case, it is not what you *don't* know, but what you mistakenly *think* you know, that hurts you. And the idea that cities and countries actually *do* specialize, and that therefore they *should* specialize, is one of those very wrong and dangerous ideas.

When an idea is both intuitively true and actually false, it is often because it is true on one level but not on the level at which it is being applied. Yes, people *do* specialize, and they *should* specialize, too. Everyone benefits from each of us becoming good at different things and exchanging our knowhow with others. It is not efficient for a dentist and a lawyer, for example, to be the same person.

But specialization at the individual level actually leads to diversification at a higher level. It is precisely because individuals and firms specialize that cities and countries diversify.

Consider a rural medical facility and a major city hospital. The former probably has a single general practitioner who is able to provide a limited suite of services. In the latter, doctors specialize in different areas (oncology, cardiology, neurology, and so on), which enables the hospital to offer a more diverse set of interventions. Specialization of doctors leads to diversification of hospital services.

The scale at which specialization of individuals leads to diversification is the city. Larger cities are more diversified than smaller cities. Among cities with similar populations – say, Salvador and Curitiba in Brazil, or Guadalajara and Monterrey in Mexico – more diversified cities are richer than less diversified cities. They tend to grow faster and become even more diversified, not only because they have a larger internal market, but also because they are more diversified in terms of what they can sell to other cities and countries.

What is true at the level of cities is even more applicable at the level of states and countries. The Netherlands, Chile, and Cameroon have a similar population size, but the Netherlands is twice as rich as Chile, which is 10 times richer than Cameroon. Looking at their exports shows that the Netherlands is three times more diversified than Chile, which is three times more diversified than Cameroon.

As my colleagues and I recently argued, one way to understand this is to think of industries as stitching together complementary bits of knowhow, just as words are made by putting together letters. With a greater diversity of letters, the variety of words that can be made increases, as does their length. Likewise, the more bits of knowhow that are available, the more industries can be supported and the greater their complexity can be.

Cities are the places where people that have specialized in different areas congregate, allowing industries to combine their knowhow. Rich cities are characterized by a more diverse set of skills that support a more diverse and complex set of industries – and thus provide more job opportunities to the different specialists.

In the process of development, cities, states, and countries do not specialize; they diversify. They evolve from supporting a few simple industries to sustaining an increasingly diverse set of more complex industries. Achieving this implies solving important coordination problems, because an industry that is new to a city will not find workers with industry experience or specialized suppliers. But policymakers can do a lot to solve these coordination problems.

This is why the idea that cities, states, or countries *should* specialize in their current areas of comparative advantage is so dangerous. Focusing on the limited activities at which they currently excel would merely reduce the variety of capabilities – or "letters" – that they have. The challenge is not to pick a few winners among the existing industries, but rather to facilitate the emergence of *more* winners by broadening the business ecosystem and enabling it to nurture *new* activities.

This is all the more important today, because the globalization of value chains is delocalizing supplier-customer relations. Cities and countries would be ill-advised to focus on a few "clusters" and consolidate the value chains in their location, as is so often recommended. Instead, they should worry about being a node in many different value chains, which requires finding other industries that can use their existing capabilities if they were somehow expanded and adjusted to new needs.

Competition inevitably tends to winnow out the less efficient firms and industries. It is not the policymakers' role to hasten their death. Their task is to identify productivity-enhancing interventions that can harness economies of agglomeration by adding new activities and productive capabilities, making the whole bigger than the sum of the parts.

Ricardo Hausmann, a former minister of planning of Venezuela and former Chief Economist of the Inter-American Development Bank, is a professor of economics at Harvard University, where he is also Director of the Center for International Development.