



ACE Research Vignette: Does the use of “bricolage” make start-ups more innovative?

This series of research vignettes is aimed at sharing current and interesting research findings from our team of international Entrepreneurship researchers. In this vignette, Professor Per Davidsson and Associate Professor Paul Steffens consider the links between entrepreneurial “bricolage” and innovation.

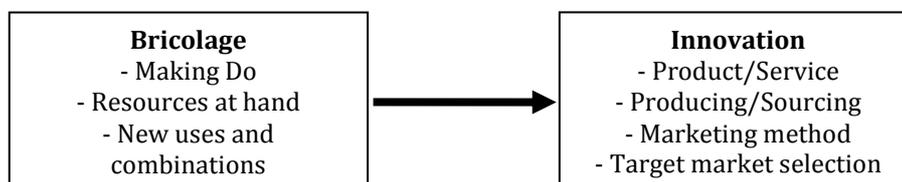
Background and Research Question

Out of perceived financial necessity as well as creative ability, business founders often apply improvised, makeshift solutions to make progress with their start-up. They may use whatever resources they already have rather than acquiring the new and “proper” inputs; borrow space or machinery from friends and neighbours; buy used rather than new; apply some retrofitting to make a lawnmower engine or a discarded AC unit run or cool (or heat) something else; ask whatever “free” consultants rather than paid professionals for advice, and assign dressed up friends and their own camera and photo skills to produce a catalogue or website portraying their merchandise. Researchers have recently applied the label ‘Entrepreneurial Bricolage’ for these frugal and creative ways in which entrepreneurs sometimes manage to achieve a lot with seemingly very limited resources.

According to the emerging theory of entrepreneurial bricolage, there are three aspects to this phenomenon. The first is “making do” which means a willingness to experiment and tinker to find ways to accomplish goals without worrying too much about whether they have what is normally considered to be the “right” tools, resources or skills at hand. Second, bricolage relies on “the resources at hand,” which includes both the firm’s (and their founders’) own resources and outside resources available cheaply or for free. Firms engaged in bricolage frequently find value in inputs that others view as worthless. Finally, bricolage involves “the combination of resources for new purposes.” That is, recombination of resources toward purposes for which they were not originally intended. But is this “good” or “bad” business practice?

Our research question is: *Does the use of bricolage make start-ups more or less innovative?*

Based on theory and prior, case-based research we propose two competing hypotheses. The first is that start-ups are inherently resource constrained – hence the creative playfulness and low cost resources that comes with bricolage would make firms more innovative; Hypothesis 1 essentially proposes that the more bricolage, the better. Alternatively, one would expect that while some bricolage is beneficial the excessive use of such unproven and perhaps “unprofessional” approaches may be detrimental to the successful development of innovative solutions. Hypothesis 2 suggests that a little bricolage is good, but too much is bad.



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How we investigated this

For this research we used data from 672 emerging ('nascent') and young firms included in the Comprehensive Australian Study of Entrepreneurial Emergence (CAUSEE). We then used a form of regression analysis to test whether bricolage explains some of the degree of novelty of these start-ups. The influence of 'bricolage' has not been quantitatively examined before in large-scale studies; hence we had to carefully develop a measure capturing the three aspects of bricolage. The overall measure assesses the respondents' degree of agreement with eight statements like "We deal with new challenges by applying a combination of our existing resources and other resources inexpensively available to us." Likewise, building on previous research we developed an expanded measure of Innovation (or Novelty). This measure consists of four subscales tapping the four types of innovation depicted in the above figure. Each subscale runs from "Imitative" (0) to "New to the World" (3), for an overall scale ranging from 0 to 12. In order to make a stronger case that bricolage influences innovation, and not the other way around, innovation was assessed 12 month after we obtained the measure of bricolage behaviour. In order not to exaggerate the estimated relationship the influence of bricolage was tested after controlling for a range of other factors.

What we found

Overall, the estimated relationship between bricolage and innovation is positive – consistent with our first hypothesis. The relationship is strong enough to be statistically significant in our sample. Further, this positive relationship holds up for the overall measure of innovation as well as in separate analyses of innovation in terms of the product or service; the method for producing or sourcing the product/service, and the marketing or distribution method applied. Only for novelty in terms of the markets or customers served did we find evidence for our second hypothesis, suggesting that effects of bricolage are positive up to a point but then flatten out and perhaps even turn negative. In all, we found the relationship between bricolage behaviour and innovation to be positive.

Business and Policy Advice

Our results suggest that founders use bricolage to a great extent, and that this is usually productive rather than harmful when it comes to producing innovative outcomes. Hence, rather than feeling cheap and unprofessional, founders have reason to feel smart and proud for "acting resourcefully". Similarly, consultants and policy makers do *not* have valid reasons to discourage bricolage behaviour based on current research evidence. However, we should caution that our results concern innovativeness and *not* survival or financial performance. The effects of bricolage on these outcomes currently remain largely untested. Further, we investigated the level of innovativeness; not the quality of the innovations. Finally, even though we only found limited support for detrimental effects of using "too much" bricolage, there are sound theoretical or logical reasons for suspecting that very excessive use of bricolage has negative consequences. Therefore, our recommendation is to apply bricolage with some caution rather than adopting it as an all-encompassing business (creation) strategy.

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