By Johan Fourie

SOCIO-ECONOMICS

How to incentivise creativity

Should people in creative jobs be subject to competitive markets forces? Popular belief says no. But research suggests that competition, in fact, increases creative output - up to a point.

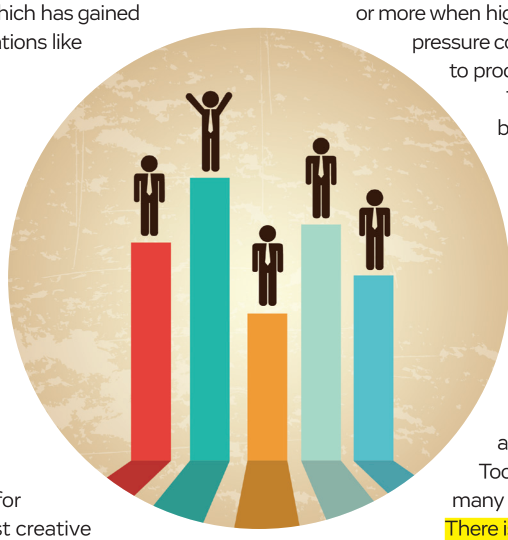
Your company wants a new logo. Do you: 1) ask the top brand management firm for a few suggestions, 2) get two or three companies to compete in a tournament setting, 3) launch a national competition to get as wide a selection of entrants as possible?

The option you choose depends on your belief about the creative process. Ask any management guru about the factors that drive creativity and they'll say something like: Creativity is an extraordinarily complex phenomenon almost entirely stimulated by intrinsic motivation instead of extrinsic pressure.

They might even argue that high-powered incentives may stifle creativity by crowding out intrinsic motivation. Creatives, they would say, should be left alone, free from competition, motivated by their own artistic commitments. Regardless of the number of contestants, the winner will always be the one with the most intrinsic motivation. You might as well go for the best firm (within your budget) from the start.

This is classic social psychology theory, which has gained wide traction in business schools and publications like the *Harvard Business Review*.

It is also not true.



Economists know that competition is the bedrock of a market economy, incentivising those who utilise their resources most efficiently. Those who cannot keep up with competitors are replaced by them. Yet the belief is widespread that creative enterprises – writing literature, performing an opera, designing a logo – shouldn't be subject to competitive market forces.

Creative people, it is argued, cannot be motivated by big rewards or incentives – if anything, it may prevent the creative juices from flowing. Competitions aimed at stimulating creativity in the workspace, for example, might actually crowd out the most creative people by those only interested in the financial rewards.

The belief persists because it has been almost impossible to test. For one, how does one measure creativity? We can often measure the inputs to the creative process (R&D spending) or its outputs (patents, for example), but we know very little about what happens in-between.

In a new National Bureau of Economic Research (NBER) working paper, Daniel Gross of Harvard Business School offers one possibility. He makes use of online logo design competitions to test whether competition leads to more original designs. Firms solicit custom designs from freelance designers who compete for a winner-take-all prize. The prizes are typically a few hundred dollars and attract on average 35 players and 100 designs. Firms provide real-time feedback to designers in the form of a one to five-star rating. Designers can also see the designs of, and feedback on, other contestants.

Gross uses image comparison algorithms to calculate similarity scores between pairs of images in a contest. He quantifies the originality of each design relative to prior submissions by the same player and competitors.

The firms' ratings of the logo designs are critical to the success of the competition. Gross directly estimates a designer's probability of winning, and show that the ratings are meaningful. A highest-rated design may not win, but a five-star design "increases a player's win probability as much as 10 four-star designs, 100 three-star designs, and nearly 2 000 one-star designs".

Because each designer can submit their logo multiple times, Gross can test the effect of more or less competition on the originality of logos. He finds that competition has major effects on the content of designers' submissions. "Absent competition, positive feedback causes players (designers) to cut back sharply on originality: players with the top rating produce designs more than twice as similar to their previous entries than those with only low ratings. The effect is strongest when a player receives her first five-star rating – her next design will be a near replica of the highly-rated design. [...] However, these effects are reversed by half or more when high-quality competition is present: competitive pressure counteracts this positive feedback, inducing players to produce more original designs."

Therefore, when two designers compete, and both receive five stars, they are far more likely to come up with a more creative and original design in the second round than if they were the only one to receive a five-star rating. Competition induces creativity.

But – too much competition can be bad. Gross finds that heavy competition discourages further investment. "Empirically, high performers' tendency to produce original work is greatest when facing roughly 50-50 odds of winning – in other words, when neck-and-neck against one similar-quality competitor."

Too many five-star ratings will limit creativity, because many designers will simply exit the competition.

There is thus a delicate 'Goldilocks'-level of competition: too little competition equals no creativity; too much, and creativity is stifled by designers (often the good ones) exiting the game.

The key lesson, says Gross, is that competition can motivate creativity in professional settings, provided it is balanced. "In designing contracts for creative workers, managers ought to thus consider incentives for high-quality work relative to that of peers or colleagues, in addition to the more traditional strategy of establishing a work environment with intrinsic motivators such as freedom, flexibility, and challenge."

The applications are pervasive: Need an engagement ring to stand out from the crowd? Need a dramatic music score for your advert? Need a new plan for those unfinished bridges in Cape Town? Need a new logo? If we believe Gross, then option 2 – using two or three companies to compete in a tournament setting – seems like the best bet if you want the most creative solution. ■

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