

Is There A Correlation Between Competition Policy and Entrepreneurship?

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Abstract

What impact does competition policy have on entrepreneurship? An effective competition regime should theoretically facilitate an open, competitive environment in which new market entrants can flourish and give rise to high levels of entrepreneurial activity. But is this really the case? In this paper, we test this argument by investigating whether the presence of a large suite of competition laws, and/or a highly ranked national competition policy, is significantly correlated to high levels of entrepreneurship. Twenty-one countries were examined, using three existing indices – the Global Entrepreneurship Monitor, the Global Competition Review, and the Antitrust Index. Surprisingly, the results indicate that there is no discernible correlation between the level of entrepreneurship and highly ranked competition policy.

Keywords: Antitrust law index, competition policy, regulation, small business, entrepreneurship

¹ The views expressed in this paper are those of the authors only and do not necessarily reflect those of the Australian Competition & Consumer Commission (ACCC) itself.

Introduction

Competition is an essential ingredient in the entrepreneurial process. When firms come into existence for the purpose of offering a product or service, and attempt to make a profit in the process, then they have effectively entered into a contest with each other. Some elements of this struggle are obvious, such as the need to win over customers, to sell more products, or to expand into new markets. Other aspects of the competitive process may not be as evident, but are still important, because almost every aspect of the entrepreneurial process is open to challenge. This can include a contest for the best staff and external professional advisers, access to raw materials and suppliers, support from financiers and investors, or even just the ability to obtain the best-placed advertisement in tomorrow's newspaper.

Competition need not be confined simply to a contest between two firms operating in the same arena – it can also exist between firms competing in seemingly unrelated areas (such as a local movie cinema, who may try to win customers not only from other nearby movie houses, but also from restaurants or theatres), or between whole industries (think of the automobile versus public transportation).

Competition is, however, a relatively poorly understood and analysed phenomenon in entrepreneurship research. Whilst the activities of new venture creation, new product development, firm growth and innovation have been examined comprehensively, little is understood about the impact of the overall competitive environment and framework in which a firm must operate.

What impact does a pro-competitive environment have on entrepreneurship? Does it lead to more entrepreneurial activity, or not? Whilst the answer to such a question may seem *a priori* to be “yes,” it is important to test such assumptions and determine if such is actually the case.

In this paper, we examine this argument by investigating whether the presence of a large suite of competition laws, and/or a highly effective national competition policy, is significantly correlated to high levels of entrepreneurship. These issues are examined by correlating three existing indices – the Global Entrepreneurship Monitor, the Global Competition Review, and the Antitrust Index.

Background

The link between competition (or antitrust) policy and small entrepreneurial firms is one that has received only a small amount of attention in the research literature to date. More often than not, the linkage is implied rather than explicitly addressed.

One of the few studies in this field to date has been that of Choi and Phan (2006), for example, who examined the formation of new US firms over the time period 1968-1993. Whilst they found that a pro-competition policy regime did lead to greater entrepreneurial activity, they also noted that “... the empirical case for the impact of competition policy on firm formation is unclear” (2006: 496).

Overall, it is often suggested that competition policy regimes can affect entrepreneurial small firms in a number of different ways (Audretsch, Baumol & Burke 2001; Golodner 2001; Audretsch, van

Leeuwen, Menkveld & Thurik 2001; Kemp & Lutz 2006). This can occur through measures intended to:

- Prevent existing firms with established offerings from stifling new product or service innovations;
- Making it illegal for existing operators to collude to fix prices, customer access and/or market share;
- Ensuring that existing firms do not construct artificial barriers to entry which might exclude new market entrants;
- Preventing anticompetitive mergers that reduce the number of firms and/or products available to consumers; and
- Ensuring that supplier firms do not discriminate against small-scale enterprises in regards to such matters as the price of goods or equitable access to the same.

Golodner (2001) also argues that there is an additional, but somewhat more intangible way in which competition policy interacts with entrepreneurship. He argues that nations which have effective, strong competition policy and laws send a very clear signal to their citizens that they value and encourage individual initiative, enterprise and risk-taking. Conversely, countries who do not vigorously police anticompetitive behaviour promote a culture that can discourage change, competition and contestability in the marketplace.

Competition policy is also assumed to have an impact on national economic performance and the collective level of enterprise undertaken amongst a community. As Porter (1990) has suggested, a strong antitrust policy and the existence of strongly contested domestic markets are an important element in the growth of any national economy.

Not all nations implement competition policy in the same way. Some jurisdictions have passed extensive suites of laws and regulations, and have relied on the existence of “black-letter law” to provide a suitable competitive framework. For many of these countries, it is the breadth of regulations – that is to say, the number of “laws on the books” – which is taken to be the most important factor in promoting competition.

Nicholson (2004, 2008), for example, has devised an Antitrust Law Index (ALI) that measures the number of statutes in existence in a given jurisdiction. Using a simple dichotomous division, the Index is an additive summary of established laws. For example, countries that have laws regarding fines, prison terms and divestitures receive a point for each such remedy; thus a nation that has each such action on its statutes receives 3 points, whilst a nation that only allows for fines and prison terms (but not divestitures) receives 2 points, and so on. As the author admits, such a tool is effective in assessing the *number* of laws, but cannot meaningfully evaluate the *effectiveness* of such laws. Moreover, simply having laws on the books does not mean that a country has a pro-competitive administrative regime; the two concepts can be quite divorced from each other.

An alternate approach for many other nations is to focus on the quality of regulation, rather than merely the quantum. In this paradigm, the calibre of laws and enforcement actions is seen as paramount. The way in which competition policy is effectively policed, and the other steps competition

regulators take to educate, inform and promote fair markets, is judged to be just as (if not more) important than the number of formal rules.

The Global Competition Review (Clasper, Cavendish & Vascott 2006) is one dataset that ranks national performance in this way. It attempts to rate nations by a somewhat more subjective set of criteria than the Antitrust Law Index, and evaluates the performance of competition authorities across the world using qualitative input from key stakeholders. This method seeks to determine the perceived effectiveness of a nation's overall competition policies by obtaining feedback from a variety of respondents, including academics, economists and competition lawyers, amongst others. The GCR also ranks national competition agencies against the performance of the US Department of Justice and the European Commission's Directorate-General for Competition. Likewise, the World Economic Forum (Nicholson 2008) also uses a qualitative measure to assess competition effectiveness, although its respondent set is limited to businesspeople and excludes other key stakeholders.

There are thus at least two different ways to compare competition regimes between nations. One is to focus on quantity (such as the Antitrust Law Index); the other is to focus on perceived quality (as evaluated by the GCR). This leads to the following two testable propositions:

H₁: Nations with a more extensive range of competition laws have higher levels of entrepreneurship than other countries.

H₂: Nations with a higher level of effective competition policy have higher levels of entrepreneurship than other countries.

Measuring the comparative levels of entrepreneurship between nations is also somewhat difficult. Most countries actually display similar proportions of small firms in their overall business populations and, since nations use different definitions of what constitutes a "new business," "small business" or "growing firm", generalisable international statistical comparisons have been hard to make to date (Schaper 2006). There is a paucity of standardised international comparative data about counts of business, numbers of new start-up firms, and the ratio of business ventures to population.

One of the few attempts to overcome this gap in comparative international entrepreneurship studies has been the Global Entrepreneurship Monitor (GEM), a long-term longitudinal project that attempts to measure the level of new recently-formed business ventures, the ownership of established businesses, and current activities to create a new commercial enterprise amongst the adult population in a wide range of countries (Bosma & Harding 2007). Using a minimum sampling frame of 2,000 respondents in each nation, GEM attempts to measure prevalence rates using a common methodology and statistical procedures. This allows for the collection of comparable data between nations.

Method and Results

Data from three sources were used to test the two propositions: the 2006 Global Entrepreneurship Monitor, the 2006 Global Competition Review and the 2004 Antitrust Law Index.² A total of 21 nations were assessed in all three studies, and thus form the basis of the following results.

The proportion of adults engaged in early-start new business activity was selected as the GEM proxy measure of overall entrepreneurial levels in each nation. Whilst GEM actually measures three different sets of entrepreneurial activities within the population of each respondent nation (namely, the proportion of adults about to start a venture, the proportion who have just recently begun one, and the proportion established in a long-term venture), it was felt that the middle indicator is perhaps the most appropriate gauge of enterprising behaviour. Many nascent firms fail to launch, and many established firms are part of the established market place; in contrast, recently-begun ventures epitomise risk-taking and an attempt to competitively offer new products or other innovations into the market.

These data sets are ordinal and, as such, only a limited number of valid statistical tools exist to validly measure and test any relationships that may exist between them. For this reason, a Spearman correlation was used to test each hypothesis, as suggested by Collis & Hussey (2003).

H₁: Nations with a more extensive range of competition laws have higher levels of entrepreneurship than other countries.

This was tested by correlating the Antitrust Law Index (ALI) against GEM. The results ($r^2 = 0.023$, adjusted $r^2 = 0$, t-test $t = -0.67$, $p = 0.51$) indicate an extremely low correlation, to the extent that there is almost no detectable relationship between the two variables.

H₂: Nations with a higher level of effective competition policy have higher levels of entrepreneurship than other countries.

This was tested by correlating the Global Competition Review against GEM. Like the preceding test, these results ($r^2 = 0.0019$, adjusted $r^2 = 0.0$, t-test $t = 0.19$, $p = 0.085$) show no detectable relationship between the two variables.

These results can sometimes also be confused by the presence of “outlier” groups, such as (in this case) nations with quite profoundly different economic and political structures to the majority of respondents. To ensure that the results were not distorted by the possibly confounding presence of non-OECD nations (in this case, Argentina, Brazil, Mexico and South Africa), the above tests were also conducted after excluding such countries. Although not detailed here, the results were largely similar and still showed no statistically significant correlation in either case.

² The 2004 edition of the Antitrust Index was the most recently available dataset for this measure.

Discussion

At first glance, such results seem counter-intuitive. As was suggested at the beginning of this paper, it seems almost a given that countries with strong competition regimes should also foster higher rates of entrepreneurship amongst their adult population.

How can one explain the near-total absence of any correlation between the levels of entrepreneurship (as measured by GEM) and a broad range of antitrust laws (as measured by the Antitrust Index), nor with effective competition regimes (as determined by the Global Competition Review)?

One possible reason is that the data sets are a poor form of measuring the stated variables. As broad-based aggregations and rankings of many individual respondent inputs, they are perhaps too coarse to accurately evaluate the issues at hand.

Another possibility is that competition policy, *per se*, does not figure highly in the decision-making of entrepreneurs. The decision to commence, operate and grow a business is often fuelled by a complex mix of personal motivating factors, perceived customer demand in the marketplace, and ability to access the necessary resources (such as personnel, funding, and premises). Other external variables moderated by government, such as taxation rates, regulatory regimes and advisory assistance, may in fact only play a very secondary role in the new venture process.

One intriguing possibility raised by Capelleras, Mole, Greene, and Storey (2008) is that the level of entrepreneurship practiced in a given nation is relatively fixed, and that regulatory regimes will have only limited impact in changing the level of entrepreneurial activity. Different nations will exhibit different levels of adult participation in new small business startups; such rates are relatively immutable and the best that effective regulators can hope to achieve is to shift the focus of behaviour into particular desired outcomes.

Conclusion

There are still many aspects in the entrepreneurial process which are poorly understood. As was pointed out in the beginning of this paper, the relationship of macro-economic and regulatory variables to business formation and growth is one such area.

The results presented in this study have attempted to shed some initial exploratory light into part of this area of enquiry. They seemingly indicate that there is no discernible correlation between the level of entrepreneurship and highly ranked competition policy.

However, the apparent lack of a clear relationship between competition regimes and entrepreneurship does not mean that competition policy is irrelevant to the entrepreneurial process. Indeed, sound competition laws are highly desirable for many more reasons than simply their impact on entrepreneurs.

What the findings of this study do suggest, however, is that many other factors may well be more important in the process of new venture creation and firm growth. Our contemporary understanding of the entrepreneurial process, and of the dynamics of firm growth, is still limited, as is our ability to determine the impact of external factors on entrepreneurship. Results such as this indicate that we still have much more to learn.

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Table 1: Relative National Rankings

	Global Competition Review ³	Antitrust Law Index ⁴	GEM – Early stage entrepreneu- rial activity ⁵
Argentina	2	17	10.2
Australia	4	13	12.0
Belgium	2.5	18	2.7
Brazil	3	11	11.7
Canada	3.5	13	7.1
Czech Republic	3	14	7.9
Denmark	3.5	12	5.3
Finland	3.5	11	5.0
France	4	16	4.4
Germany	4	10	4.2
Ireland	3.5	16	7.4
Italy	3.5	15	3.5
Japan	3.5	9	2.9
Mexico	2.5	13	5.3
Netherlands	3.5	7	5.4
Norway	3	11	9.1
South Africa	2.5	17	5.3
Spain	3	13	7.3
Sweden	3	16	3.5
United Kingdom	5	9	5.8
United States	5	21	10.0

³ Ranked on a scale with a possible range from 2 to 5

⁴ Ranked on a scale with a theoretical range from 1 to 21

⁵ Percentile figure; proportion of adults in population