

IARIW-ESCoE Conference

“Measuring Intangible Assets and Their Contribution to Growth”

The F words: why surveying businesses about intangibles is so hard

Josh Martin, UK Office for National Statistics, josh.martin@ons.gov.uk

The role of intangible assets in creating value in the modern economy is increasingly recognised, but measurement of their value and contribution are still in their infancy. Good measurement of intangible investment, especially at the firm-level, has been hampered by questionable survey design. The effectiveness of this design, in the context of such an unusual concept as intangibles, has not before been reviewed. In this paper we briefly outline the key lessons from the literature on business survey design and apply these to the concept of intangibles. From this, we characterise the challenges of collecting data from businesses on intangibles investment by four ‘F words’.

First, data on intangibles are difficult to collect from businesses, as business accounting poses high hurdles for these assets to be recorded – as a result, businesses rarely have the information available to respond to business surveys. Consequently, businesses often appear to give ‘inconsistent responses’ to survey questions. Businesses can be said to be forgetful when it comes to intangibles.

Second, definitions of different intangible assets vary from researcher to researcher and can often overlap or be unclear. While those assets included in the National Accounts have precise definitions, those measured outside the boundary do not. These terms, for businesses and researchers, are fuzzy.

Third, the way in which the questions are asked or worded may be important, since surveys about intangibles are often carried out under the auspices of a research project, or through surveys about ‘innovation’, rather than standard ‘official statistics’ surveys by NSIs. Indeed, the question wording, and even titles, of such surveys can be leading. This approach may prompt businesses to respond in an unusual way, and as such the framing of questions may be key to understanding responses.

Finally, unlike most investments, the creation of intangible assets can take a long time. Most tangible assets can be made and purchased reasonably quickly, and the purchase date is clear for the business. In the case of intangibles, especially own-account investment (which is especially common for intangibles) the production process can be gradual over many periods. Asking business to provide investments in any given period can thus cause problems. The frequency of surveys could therefore be key.

Most economic and financial data relating to businesses is collected through business surveys by the National Statistics Institutes (NSIs) of countries. Surveys collect data relating to turnover

(sales), intermediate consumption (expenses), wages and salaries, employment, taxes and subsidies, often through the use of probability sampling of businesses on a business register. Capital expenditure (investment in capital assets) is also collected, although such data is conceptually more challenging than other measures given the complex definitions and asset groupings used, and the distribution of investment across businesses. That said, data collected on tangible investment (in buildings, machinery, transport equipment, etc.) is generally thought to be reasonably reliable, and the concepts are fairly well understood by respondents and collectors alike.

This is not true for intangibles. We test for, and provide evidence of, inconsistent respondent behaviour in relation to questions on intangible investments across a range of business surveys in the UK. We do this both on a binary basis (the confirmation of investment in a given asset in one survey, and not in another survey, for the same business in the same time period), and the correlation of the value of these investments. Comparing quarterly with annual surveys, we also test the effect of the frequency of the survey on the response. We compare these findings against the same for tangible assets, which are generally reported more consistently.

We use data from a range of UK surveys that include questions on intangible investment. The data employed include the two Investment in Intangible Asset (IIA) surveys run by ONS in 2008/09 and 2011, the Annual Business Survey (ABS), the UK Innovation Survey (UKIS), the Quarterly acquisitions and disposals of Capital Assets Survey (QCAS) and its predecessor, and the Business Expenditure on Research and Development survey (BERD).

We propose an improved schema for the collection of data on intangible investment, drawing on the UK experience and the relevant literature. There is relatively little literature on the best way to collect data from businesses through business surveys. The most authoritative work by far is that of Snijkers et al (2013) which describes in great detail the business survey process. They outline the business perspective to surveys, the cognitive steps that respondents go through, the likely validity of information collected depending on the respondent approach, and some rules of thumb for business survey design.

Drawing on this literature, we can reflect on the ways in which surveys have asked about intangible investment in the past, and their shortcomings. We then consider some improved approaches to collect similar data in future collections. For instance, Snijkers et al emphasise the importance of considering the availability, and location, of the requested information inside the respondent business. As such, surveys about intangible assets should be carefully tailored to the data landscape in businesses; where the requested data is unlikely to exist, an alternative approach (based on staff costs for instance) should be considered. Questions requiring information from particular parts of the business (for example, the finance department, or the HR department) should be written, grouped, and collected accordingly.

Overall this paper offers novel insights into the best way to collect data on intangible investments from businesses through surveys. Existing efforts have been hampered by sub-optimal designs, leading results to conflict with ‘macro-based’ estimates. We believe that

improved design would allow a more accurate measure to be constructed. This would also facilitate much improved analysis of firm-level characteristics of intangible investment, and their link with productivity and growth.