VALUE OF LISTED COMPANIES; ABNORMAL EARNINGS AND
INNOVATIVENESS

Philipson, Sarah

University of Gävle, Sweden and Linnaeus University, Sweden.

ABSTRACT

This is a conceptual paper concerning the relation between innovativeness and monopoly rent/abnormal earnings. It discusses how these concepts can be measured and proposes that abnormal earnings are the result of differentiation, by innovativeness (monopoly rent) or branding, by under- or overvalued assets, or by imperfect market information (value irrelevance). Specifically, innovativeness as a driver of monopoly rent/abnormal earnings is discussed.

Keywords: Innovativeness; monopoly rent, abnormal earnings.

ABNORMAL EARNINGS/MONOPOLY RENT

Goodwill has become an increasingly more important part of the valuation of companies. In a study of 528 companies on the London Stock Exchange (LSE), AbuGhazaleh, Al-Hares & Haddad (2012) found that the average share price was £5.21, while the average book value per share before goodwill was £0.79, and the average goodwill per share was £0.82 before goodwill impairment. Hence, if the goodwill is questioned, they would all be bankrupt!

Goodwill has

“...four components: (1) the write-up of the target firm's assets to fair market value (WRITEUP), calculated as the difference between the fair market value of the target firm's assets and their preacquisition book value; (2) the value of the target as a going-concern, or stand-alone entity (GC), calculated as the difference between the target's pre-acquisition market value measured six days prior to the acquisition and the target's fair market value of assets; (3) the market's valuation of the synergistic value created by the acquisition (SYNERGY), calculated as the combined cumulative abnormal returns to the target and the acquirer for the 11 days centered on the acquisition announcement; and (4) any overvaluation of consideration and/or overpayment for the target (RESID), calculated as the purchase price less the sum of the preacquisition book value of the target's assets, WRITEUP, GC, and SYNERGY Cur-rent GAAP records as purchased goodwill on the acquirer's books only the aggregate of GC, SYNERGY, and RESID, if their total is positive.” (Henning, Lewis & Shaw, 2000:375-376).

It can be argued that points 2)-4) are the valuation of potential abnormal profits, and that the
expectation of normal profits entails no market value above book value.

"The internally generated goodwill corresponds to the overall value of not recorded intangible assets available to an enterprise. This can be measured through the capitalization of expected flows of abnormal earnings", Zanoni (2009:xi, cited after Paugam, 2011:351).

In accounting literature this is normally measured by the neo-classical Ohlson model (Ohlson, 1995; Lundholm, 1995; Bernard, 1995; Feltham & Ohlson, 1995; Lo & Lys, 2000; AbuGhazaleh, Al-Hares, & Haddad, 2012, among others), which calculates the value of the company as the net present value of future abnormal earnings. The Ohlson model updated the Gordon model (Gordon & Shapiro, 1956, after Lo & Lys, 2000) with the Miller & Modigliani model (Miller & Modigliani, 1961).

"Abnormal earnings bear on the difference between market and book values, that is, they bear on a firm’s goodwill." Ohlson (1995:662)

However, the very fact that the model recognizes abnormal earnings, is a fundamental conflict within neo-classical theory, as they must abstract from its fundamental assumption of perfect markets. The Ohlson model is one of the most cited and respected models in the accounting literature, but it has one major flaw. Although the Ohlson model is an empirically well-validated prediction model, it fails to explain why these abnormal earnings exist. Classical economy gives such a fundamental explanation:

If the market recognizes that a company has a higher value than its book value it can have several different explanations. The company can be differentiated from other companies in the same industry by innovativeness or branding, making abnormal earnings as a result of such differentiation likely during the temporal monopoly because of such differentiation. Other reasons might be the undervaluation of assets or overvaluation of liabilities. Finally, information asymmetries might be a reason for value-irrelevance.

Here we are specifically interested in when such abnormal earnings are the result of innovativeness. Empirical validation of innovativeness as a driver of abnormal earnings would validate the theory of monopoly rent.

**INNOVATIVENESS**

Innovation makes it possible to reach abnormal earnings, AE, during the time that the innovation has not been imitated by competitors. This temporary monopoly gives monopoly rent (Malthus, 1798/1970; Ricardo, 1817/1971; Marx, 1894/1981; Schumpeter, 1907; 1942; von Hippel, 1988).

"Schumpeter argued that those who succeed at innovating are rewarded by having temporary monopoly control over what they have created. This control, in turn, is the lever that allows innovators to gain an enhanced position in the market and related temporary profits or "economic rents" from their innovations." (von Hippel, 1988:43)
“Innovators capture temporary rents from their successful innovations by first establishing some type of monopoly control over their innovation and then using this control to increase their economic return.” (von Hippel, 1988:58).

Monopoly rent is what in accounting literature is called abnormal earnings. The Ohlson model assumes that normal earnings are capitalized in the equity of the firm. However, the theory of monopoly rent shows that there are no such things as normal earnings in a market, where a firm can reap abnormal earnings. The monopoly rent situation arrives by the re-distribution of profit in the market place, so that other actors get no or subnormal earnings. The following image shows how in 2007 Nokia held the lions share (60%) of the profits in mobile phone market and in 2011 Apple has taken over the position (with 75% of the profits), with Nokia’s profit reduced to zero. Three years later Nokia was no longer in the market.

![Figure 1. Profits in the mobile telephone terminal market, Asymco (2013-06-28).](image)

This is one of the market dynamics that lead Marx (1894/1981) to suggest that the concentration of capital is is an inherent tendency in capitalism. Glattfelder (2010). has given a modern validation of this, showing that 50 companies control 40% of global business. Fichtner, Heemskerk & Bernardo (2017) showed that three US companies controls 40% of the US capital.
CONSTRUCTS

Market Value and book value

The market value of a company is rather straight-forwardly operationalized, as the average share price the 31 December each year, multiplied by the number of outstanding shares. The book value is the corresponding net value of the company.

“The increasing gap between firms’ market and book value has drawn wide research attention to exploring the invisible value omitted from financial statements (e.g. Lev and Zarowin, 1999; Lev, 2001; Lev and Radhakrishnan, 2003). Lev (2001, p. 9) documented that, over the period of 1977-2001, the market-to-book value ratios of US Standard and Poors (S&P) 500 corporations increased from slightly above 1 to over 5, implying that about 80 per cent of corporate market value has not been reflected in financial reporting.” (Chen, Cheng & Hwang, 2005:159)

Innovativeness

Innovation includes products innovation, service innovation, experience innovation, marketing innovation, organizational innovations, and business model innovation. Innovativeness is a very complex construct that has been extensively studied (Midgley & Dowling, 1978; Olson, Walker Jr & Ruekert, 1995; Hurley & Hult, 1998; Mairesse & Mohnen, 2002; Hult, Hurley & Knight, 2004; Tuominen, Rajala & Möller, 2004; Salavou, 2004; Hurley, Hult & Knight, 2005; Laforet & Tann, 2006; Santos-Vijande & Álvarez-González, 2007). Hult et al. (2004:430) hold that “Innovativeness is defined here as the capacity to introduce of some new process, product, or idea in the organization...”

The ‘ideal’ construct for innovativeness are the risk-taking in the share of fixed production costs of total costs (Marx, 1867/1970, 1894/1981). These are the costs that the firm has to take before it can sell any item of the product or service. When Apple designed the iPhone, it had to take all the design costs on an ‘architectural’ level and for strategic components, like the development of the glass together with Corning, the development of the operative system and some key applications that would run on that system. (Isacsson, 2011). A large part of the marketing costs are also taken upfront, as the lifecycle of each product is so short. but to measure these its only possible with access to internal accounting data.

Typical measures of innovativeness are diverse; patents (Acs. & Audretsch, 1989; Acs, Anselin & Varga, 2002), Intellectual capital (Bontis, 1998; Bollen, Vergauwen & Schnieders, 2005), consumer innovativeness (Goldsmith & Hofacker, 1991), and innovation performance (Tangen, 2004).

“R&D expenditure and advertising expenses, according to conservative accounting standards, are expensed as incurred, and thus are subtracted from the calculation of value added, which is the measure for firms’ total output in the VAIC calculation. However, both R&D and advertising expenditures play an increasingly important role in business nowadays. R&D expenditure is generally considered the
drive for technological advancements and firms’ growth, and advertising expenditure is usually aimed at promoting the brand value of products and firms. Therefore, both expenditures, though expensed in financial reporting, should be viewed as asset-like investments.” (Chen, Cheng & Hwang, 2005:162)

Research of innovativeness has measured innovativeness by necessary antecedents, as research and development or patents and other intellectual property rights.

“Research has approached innovation performance measurement from two perspectives: the measurement of R&D (Alegre et al., 2006; Chiesa and Frattini, 2009; Chiesa et al., 2009; Lazzarotti et al., 2011; Cruz-Cázares et al., 2013) and the measurement of technological innovation capability (cf. Capaldo et al., 2003). In addition, conceptual models have discussed the essential elements of innovation that should be measured (cf. Muller et al., 2005; Adams et al., 2006; Saunila and Ukko, 2012).” (Saunila, 2017).

Measures like patents and R&D expenditure are problematic, as patents does not guarantee an ability to exploit these, as was the case with Xerox’ shown inability or even interest to exploit them (Gassmann, Enkel & Chesbrough, 2010:214), as with today’s frequent patent trolls (Magliocca, 2007). Hall, Jaffe & Trajtenberg (2005:33) show that

“...the presumed link between self-citations and market value may weaken with the size of the patent portfolio.”

Hult et al. (2004) recognizes these limits with R&D costs and intellectual property rights as a measure of innovativeness and operationalizes instead innovativeness as a self-evaluation of three variables, Market orientation (referring to Narver & Slater, 1990; Day, 1994), Learning orientation (referring to Argyris & Schon, 1978; Fiol, 1985; Cohen & Sproull, 1996; Crossan; Lane, & White, 1999), and Entrepreneurial orientation (referring to Slater & Narver, 1993, 1995; Lumpkin & Dess, 1996). These variables influence on innovativeness is hypothesized to be modified by market turbulence (referring to Han et al., 1998; Hurley et al., 1998; Miller, 1983; Miller & Friesen, 1978; Zaltman et al., 1973), reflecting

“...rapidly changing buyer preferences, wide-ranging needs and wants, ongoing buyer entry and exit from the marketplace, and constant emphasis on offering new products.” (Hult et al., 2004:432).

Even though Hult et al. (2004) recognize the modifying influence of turbulent markets, the destructive innovations of Schumpeter are difficult to identify:

“...it can always be understood ex post; but it can practically never be understood ex ante...”, Schumpeter (1947:150).

It is therefore highly unlikely that radical innovation is anticipated by the present market leaders. If the Nokia personnel had been interviewed a few years running up to Apple’s introduction of the iPhone in mid-2007, they had hardly anticipated the change.
As Leonard-Barton (1992) states the

“…at the same time that they [the core capabilities] enable innovation, they hinder it. Therefore, in their interaction with the development process, they cannot be managed as a single good (or bad) entity. They are not easy to change because they include a pervasive dimension of values, and as Weick (1979: 151) points out, ‘managers unwittingly collude’ to avoid actions that challenge accepted modes of behavior.”

Thus, the complexity of the concept is such that it is highly unlikely that it can be given any simple objective operationalization. I therefore suggest that it must be operationalized using expert panels’ opinions as proxy. Hence, first experts must be identified and then their opinions must be “measured” by a set of items encapsulating the concept.

CONCLUSIONS

To study the role of innovation as a driver of abnormal earnings, hence validating the monopoly rent of Schumpeter and earlier writers, the market and book value are straightforward concepts, while innovativeness is a highly complex concept, which is not available to “direct inspection”. We propose that the only way this concept can really by operationalized is by using qualitative judgments by expert panels.

REFERENCES


