

Stan Reid, Syracuse University
Ted Rozycki (student), York University

Abstract

Measuring firm goodwill in the private limited firm still remains a contentious issue in accounting. This paper proposes an alternative method of measuring goodwill based on the market share such firms are able to achieve through competitive marketing strategies. It gives explicit recognition to the role that marketing resources play on determining the value of a firm when considering acquisition or disposal.

Introduction

Determining acquisition or disposal values for private limited companies continued to occupy the attention of the accounting literature. While there is general agreement that business goodwill, the most problematic aspect of such valuation, can be measured by the present value of the firm's anticipated 'excess' earnings, observers continue to express uneasiness at existing methods of derivation.

The concern has been primarily centered on four issues associated with direct methods of valuation. First, the difficulty in determining a normal rate of return to the firm given the problem of finding representative firms, secondly, the difficulty in estimating the 'excess' earnings directly attributed to goodwill, thirdly, finding the appropriate discounting rate for these excess earnings (Paton 1936), and finally, identification of those items which have contributed to existing goodwill (Nelson 1953).

Because of these problems one finds that indirect methods of goodwill valuation are often used in preference to direct estimation. These approaches view goodwill as merely a residual or balancing item. Such methods are more likely to place emphasis on the "break-up" value of the firm rather than on its performance as a going concern (Weston and Brigham 1975). What appears then to be currently needed is a measure for goodwill which has the simplicity of appeal of the indirect approach and the precision that direct valuation methods purport to be striving for. This paper proposes an alternative way of estimating firm goodwill which has such advantages. It suggests that goodwill should be measured directly based on the existing market share the firm has.

While the value of the public company and associated goodwill can be directly assessed on the basis of existing share prices, there exists no comparative methodology for derivation of goodwill in the private firm. In the public enterprise the difference between the going concern value and the liquidating value can be said to represent the value of the organization or the accounting goodwill. On the other hand valuation of "the private limited company" is often confounded by lack of explicit recognition of the organization value, the major determinant of the firm's future success (Moon 1968).

However if the firm is perceived as a market actor with specific characteristics that are responsible for its competitive behavior there should exist a direct relationship between these factors, the

ability to earn superior earnings and its market performance. It is this relationship that this paper examines with the purpose of showing how it can be applied to measuring accounting goodwill. A number of examples are provided to demonstrate the reconstruction of goodwill from industry and firm data.

A Market Centered Approach

The view that goodwill is the consequence of the possession of certain economic advantages by the firm, evidencing itself in the form of superior earnings in an amount greater than can be expected for a typical firm in the industry, is generally accepted in the accounting literature (Edey, 1962).

These economic advantages may be customer lists, trademarks, trade names, brands, patents, copyrights, secret processes and formulas, licenses and favorable attitudes toward the enterprise by all of its relevant publics (Nelson, 1953). It is these competitive characteristics which determine the firm's success in the market place. Their strategic utilization is causally connected with the sales, and consequently, the earnings that the business unit derives from operating (Buzzell, Gale and Sultan, 1975).

It is this assumption that distinguishes the market centered approach from a more conservative accounting view which holds that "The mere existence of an established concern, and favorable attitudes on the part of customers, employers, and others associated therewith, does not demonstrate the existence of intangible property." (p. 4, Staub, 1945) Some accountants disagree and admit that favorable customer attitudes can and does give a push or "momentum" to goodwill, a much more enlightened perspective (Nelson, 1953).

On the basis of the above the following postulates are suggested:

- 1) Customer (or consumer) goodwill is a measure of favorable consumer attitudes to the firm's products and can be defined as their disposition to buy the company's products or services over a competitor's offerings.
- 2) Although customer goodwill is traditionally regarded as one component of the firm's goodwill (Nelson, 1953), it should be viewed as the single determinant of a firm's sales, a consequence of the resultant of the interaction of the strategic constituents of firm competitiveness (Kotler, 1980; Schoeffler, Buzzel and Heany, 1974).

Consumer Goodwill, Superior Sales and Market Share

A firm's sales (and consequently, earnings) are a reflection of consumer goodwill toward the firm and its products. In choosing between "equivalent" products, buyers select those which offer a greater amount of perceived benefits relevant to their needs. This link between sales and consumer goodwill is explicitly assumed and expressed in the firm's marketing strategy. As a consequence the presence of superior sales volume, and therefore superior earnings are indicative of a competitive advantage secured by the

strategic disposal of firm's resources (Farris and Buzzell, 1979).

The existence of a large market share or the ability to keep a market position does not simply "happen," rather it is a reflection of the presence of such factors as a superior product, a good location, effective pricing strategy, superior management, etc. These factors result in superior earnings for the firm. Therefore, a large market share and superior earnings are related because of the existence of the common prerequisite causal factors which simultaneously give rise to both features. The PIMS Studies provide some empirical evidence which demonstrates that market share and return on investment are highly correlated and lend empirical support to the above argument (Schoeffler, Buzzel and Heany, 1974; Fruhan, 1971).

Market shares can be used to measure consumer goodwill. Since market share is a measure of the consumers' disposition to buy the firm's product versus those of competitors, then by definition, market share is a relative measure of consumer goodwill toward the firm. Maintenance and growth in market shares are a result of consumer preferences for the firm's products (Farris and Buzzell, 1979). Goodwill on the part of the customers toward the firm will also manifest itself through increased superior sales and superior earnings. Consequently, a measure of customer goodwill such as market share is necessary in order to determine the firm's superior sales volume and superior earnings.

Two aspects of market share must however, be borne in mind. Firstly, the market share is a relative measure of goodwill (relative to others in the industry), since share is a relative figure. Secondly, market share is not a monetary estimate of goodwill, and therefore is not in a form which can be presented in a financial statement.

Theoretical Derivation of Goodwill

It is now necessary to proceed from a measure of goodwill in the form of market share to a monetary figure for goodwill. Consider the case of two or more established firms who have unmet production capacity.

There are three reasons for these restricting assumptions. In the case of a newly formed firm, no market share can be presumed to exist and consequently no goodwill. As sales increase, both market share and goodwill will increase as the firm's product and activities become known. More than one firm needs to exist in the industry, since a market share of 100% is a trivial case as this indicates a 'pure' monopoly situation. The consumer has no choice but to buy from a single supplier and market share can no longer be a meaningful measure of goodwill. Indeed in such cases the present value of superior earnings becomes a redundant measure, since the "normal" earnings and the actual earnings are equivalent. The final assumption is necessary in order that customers are not queued and that capacity does not come into play in limiting market shares. The existence of overcapacity allows for allocation of sales to indifferent buyers on a first-come - first-served basis.

The revenue of a firm is derived from purchases of repeat buyers and those who have no definite preference for the firm's products. It is repeat buying that is an indicator of consumer goodwill since such behavior is consistently influenced by specific benefits offered by the particular firm and its product. Those buyers represent a superior sales volume over and above the

sales expected from the stochastic behavior of indifferent buyers (Kotler, 1974; Howard, 1968).

The indifferent consumers can be said to exercise minimal specific preference for particular products. They are flexible in their requirements and buying patterns. They are equally likely to choose products of one firm as another, hence each firm would experience physical sales to the indifferent consumers in proportion to their sales capacity.

Mathematical Derivation of Firm Goodwill

In the discussion that follows, "P" represents the number of units sold to loyal buyers (who reflect consumer goodwill, by showing consistent preferences for one firm's product) and "I" represents the number of units sold to indifferent buyers, for the entire industry. Assume two firms, "A" and "B" exist in an industry, which sell only one product. Let "A" be the firm in question, and let "B" represent the sum of sales of all other firms in the industry. It is important that "I" and "P" refer to the industry, whereas "I_A" and "P_A" refer to firm "A".

A measure of consumer loyalty (or superior sales) for firm "A" is given by the ratio:

$$(1) \text{ Consumer goodwill} = \frac{P_A}{I_A + P_A}$$

This ratio will be defined as the goodwill multiplier. Here, I_A represents the firm sales to indifferent customers, and P_A represents the firm sales to loyal customers.

A small value for this ratio indicates that P_A is small with respect to I_A. Hence, most sales occur to indifferent buyers. A large value for this ratio indicates that I_A is small with respect to P_A. Most sales occur to loyal buyers, therefore consumer goodwill exists. This ratio is related to the market share of firm "A" (also an expression of consumer goodwill), in the following manner:

$$(2) \frac{P_A}{I_A + P_A} = \frac{P_A + I_A}{P_A + I_A + P_B + I_B} = k \times \text{Market Share}$$

Here, "k" is a factor of proportionality. Its value can be determined. It will be assumed that k = 1, for simplicity.

As the market share increases, the relative importance of the loyal buyers on sales will increase. This is reasonable. Another way of stating this is that for a given sales capacity, growth in the market share is a natural outcome of more customers actually preferring the firm's product.

For example, if

$$\frac{P_A}{I_A + P_A} = k \times \text{Market Share} = 0.5$$

Let I_A + P_A = 1, and therefore, I_A = P_A = 0.5. Now we let the market share increase to 0.51.

$$\frac{P_A}{I_A + P_A} = k \times \text{Market Share} = 0.51.$$

Let I_A + P_A = 1, and therefore, P_A = 0.51 and I_A = 0.49.

This assumption that growth in market share is accompanied by growth in consumer goodwill is embodied in equation (2).

The product of the ratio $\frac{P_A}{I_A + P_A} \times (\text{Sales} - \text{CGS})$ gives

the earnings figure resulting from the purchases by the firm's loyal buyers. This is the superior earnings, in dollars, which exists due to such favorable factors as location, good management, pricing, quality, employee productivity, etc.¹ represented for an accounting period. These factors attract and retain the loyal buyer's patronage. In order to calculate goodwill as the present value of future superior earnings, it is necessary to make a projection of future sales and future market shares, as well as costs.

Estimates for I and P are obtained from market research. If the firm sales capacity is not exceeded, then a new constraint must be introduced. This constraint is that the sales to indifferent customers is in proportion to the sales capacity of the firm.²

Some Numerical Examples

Example 1 Excess Capacity

A market survey shows 90% of the buying population showed strong preferences for certain brands of widgets. Firm "A" has 10% of the market share and 5% of the industry capacity. Industry sales were 1,000,000 widgets per year, and each firm has sufficient capacity to meet its demand. Calculate the firm's goodwill, if the contribution is 20%, and the sales price is \$1.00.

Using units, $S = I + P = 1,000$, and $I = 10\% \times 1,000,000$ or 100,000 units being sold to indifferent buyers.

$I_A = 5\% \times 100,000 = 5,000$ units sold by firm "A" to indifferent buyers.

$S_A = 10\% \times S = 10\% \times 1,000,000 = 100,000$ widgets.

$P_A = S_A - I_A = 95,000$ widgets. (P_A is treated as a residual, after the calculation of I_A)

Superior earnings = $\frac{P_A}{I_A + P_A} \times (\$ \text{Sales} - \$ \text{CGS})$

for the year = $\frac{95,000}{100,000} \times (100,000 - 80,000) = \$19,000$

Examples 2 and 3 present further applications of the method. Example 2 shows the effects of differences in capacity while Example 3 shows the individual effect of differences in costs of production.

¹It should be emphasized that the superior earnings figure is a reflection of the firm's sales strengths and cost controls. For example, such intangibles as good relations with material suppliers or highly productive employees will act to reduce the cost of goods sold and therefore increase sales or earnings. In reality, any factor which increases sales or decreases costs is necessarily reflected in superior earnings.

²The sales to preferential buyers is not necessarily in proportion to the firm's sales capacity.

Example 2 Calculating Goodwill with Differences in Firm Capacity

Let us assume three firms A, B and C with operating production capacity of 50%, 30% and 20% of the existing and market shares of 45%, 30% and 25% respectively. Furthermore 10% of industry sales of \$1,000,000 is accounted for by indifferent buyers. The selling and production costs of the widgets are \$1.00 and \$.80 respectively.

Sales to indifferent buyers = $10\% \times \$1,000,000 = \$100,000$

	Firm A	Firm B	Firm C
Indifferent buyers sales	\$ 50,000	\$ 30,000	\$ 20,000
Preferred buyers sales	\$400,000	\$270,000	\$230,000
Cost of goods sold	(320,000)	(216,000)	(184,000)
Superior Earnings	\$ 80,000	\$ 54,000	\$ 46,000

Example 3 Calculating Goodwill with Differences in Costs of Production

Let us assume that three widget producers A, B and C have similar production capacities, equal market shares and unit production costs of 80¢, 85¢ and 80¢ respectively. Again 10% of the industry sales of \$1,000,000 is to indifferent buyers. The selling price of a widget is \$1.00.

Sales to indifferent buyers = $10\% \times \$1,000,000 = \$100,000$.

	Firm A	Firm B	Firm C
Indifferent buyers sales	\$ 33,000	\$ 33,000	\$ 33,000
Preferred buyers sales	\$300,000	\$300,000	\$300,000
Cost of goods sold	(240,000)	(255,000)	(240,000)
Superior Earnings	\$ 60,000	\$ 45,000	\$60,000

It should be noted that although Firm B has the disadvantage of higher production costs, it has a positive goodwill and a market share (above that to be expected from having purely indifferent buyers).

If the production capacity of one firm in the industry is exceeded, then another firm may cater to the excess demand, and its market share increases. This also increases the goodwill of the larger firm, since it now has a capacity advantage over a competitor. This advantage is reflected in an increase in sales and therefore goodwill. This shift of buyers from one firm to another due to inadequate sales capacity is identical to its final effects to a shift of buyers due to the pricing, quality, or other changes in the components of goodwill. It is important to note that it is the indifferent buyers who are the first to shift due to temporary undercapacity. If the undercapacity is permanent, then loyal buyers may also shift their patronage. In this case, a new goodwill multiplier $\frac{P_A}{I_A + P_A}$, should be calculated.

Although we have considered only the single product firm, the methodology for deriving goodwill in a multi-product firm is similar. For this type of firm, one can calculate market share for each product to obtain a measure of the superior sales to loyal buyers for each product.

Implications for Valuation of Goodwill

We must point out that there are three main difficulties in applying this method. The market must first be surveyed, and then segmented into loyal and indifferent buyers using appropriate criteria (Frank, 1968). Market shares can then be derived and measures of sales allocation between the two types of purchasers obtained. Secondly, "equivalent" products must be defined. While this method can be used in markets composed of diverse competing products, it works best for homogeneous products where the market can be more easily measured. This ability is an important consideration in view of the problems associated with determination of the relevant market (Shocker and Srinivasan, 1979; Day, Shocker and Srivastava, 1979). The measure of goodwill could be materially affected by the definition of market which is chosen. What is important is that the definition must be useful for reporting and planning purposes.

Notwithstanding the above problems, there are a number of advantages in using our new approach to goodwill valuation. This method not only measures the internally and externally created goodwill that affects sales, and therefore market share, but it also makes no distinction between the sources of such goodwill. In contrast traditional methods only recognize purchased goodwill and disregard the contribution that intangibles such as advertising, sales policy and sourcing strategy make to increasing sales. As a result the superior earnings capability of the firm is often underestimated.

This valuation technique permits goodwill to remain as an unamortized asset until there is evidence of its decline through loss of market share or sales. In contrast, current methods of amortization of goodwill tend to be arbitrary and imposed ex ante. For the firm desirous of increasing its disposable value there is a motivation to increase sales and market share, an incentive not offered by the classical method. Our measurement of goodwill realistically puts the emphasis on performance features and competitive strength evidenced by a demonstrated potential for generation of new sales.

Although the determination of future income and performance has its own imprecision, adoption of this approach focuses attention on consideration of future market shares and earnings, which are the crucial elements to look at in firm acquisition or disposal decisions. The acquired business is worth more than the sum of its net assets because of the market share and earnings to be had. Such worth is determined by its relevant publics and competitive environment, in particular, consumers (through sales) and competitors (through market share changes). This emphasis on the external environment adds a new dimension to the meaning of goodwill.

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