Case Analysis: Fabricare, Inc.

There are several methods that we used in arriving at a range of price options for the purchase of Fabricare, Inc. from Roy Tyson's perspective:

1. *Cash Flow Valuation*: Present value of future stream of cash flows from the point of view of Fabricare's current management [1]
2. *Cash Flow Valuation*: Present value of future stream of cash flows if management of Fabricare is acquired by Roy Tyson [2]
3. *Earnings Valuation*: Using Price-to-Earnings multiple of 8x for publicly-traded building maintenance firms [3]
4. *Revenues Valuation*: Using Price-to-Earnings Ratio of 65% for publicly traded maintenance firms [4]

In negotiating for the price of Fabricare, we recommend that Roy Tyson start with a bid which represents the opportunity cost of managing Fabricare from the point-of-view of the current owners. We therefore ask, "How much is the business (Fabricare) worth to its current owners?" with the objective of matching the said opportunity cost with an offer. One might inquire, why not start the bid with $154,000 which represents the book value of the assets of Fabricare, since this would present a lower cost for Roy Tyson? Although book value can be considered as the base price for valuation, we recommend Roy Tyson to use the same just as a guide for valuation, but not to make an initial offer using the same. Book value represents the accounting value of Fabricare's assets, but does not represent the intrinsic value of the firm. It includes real assets, but excludes the intangible assets offered by Fabricare (as compared with a start-up company) the more significant of which would be Fabricare's existing client base and Fabricare's experienced employees.

We thus valued the initial offer at $214,578[1]. We used a growth rate of 5%, as this represents the *maximum growth* of Fabricare had it been run by its current owners. We decided to make the initial offer based on the highest growth rate since we want Roy Tyson to present a win-win situation to the selling party. It is a win for Fabricare's owners, because it already represents a cash flow stream with maximum growth of 5%. When this offer price is compared with the book value of assets totaling $154,000, the difference of approximately $60,000 can be made to represent Fabricare's goodwill, i.e., the price of the business' intangible assets. Offering $214,578 is likewise a win situation for Roy Tyson, because the said offer price is still lower than the present value of Fabricare's stream of cash flows had Roy Tyson assumed management [2]

If Fabricare's current owners do not agree to the initial offer of $214,578, we propose that Roy Tyson offer a second price of $245,232[3] for the assets of Fabricare. This *earnings valuation* is based on the current Price-to-Earnings ratio of publicly listed building maintenance firms. This price basically underlies the premise that generally, the price of any share of a building maintenance company should be 8x its income. Using a multiple of 8x for Fabricare's case is actually a generous price already because the said multiple takes into account the efficiency of the publicly listed firms (clearly Fabricare does not enjoy the same "efficiencies", thus its P/E could actually be lower than industry, assuming its growth prospects are not too attractive).

If Fabricare's owners do not agree to the second price offer, we propose that Roy Tyson offer $249,850[4] as his last offer to Fabricare's owners. This price is based on market value as a percentage of sales for publicly listed building maintenance firms (Price-to-sales ratio). Similar to the second price, this price is already a generous price already since no adjustment was made to the ratio of 65%, which could have been the case given that Fabricare is not as efficient as the publicly listed building maintenance firms are.

Lastly, we can likewise derive the present value of Fabricare's cash flows assuming its market share grows to 40% as projected by Roy Tyson. This value of $338,380[2] represents his cash inflow (i.e., the amount he is supposed to receive from the acquisition of Fabricare). Comparing it with the three prices mentioned above (i.e., treating the three prices as his cash outflow), each price alternative would result in a positive NPV for Roy Tyson[5]. We therefore recommend that Roy Tyson offer to buy the assets of Fabricare up to a bid of $249,850.

Notes:
(All computation use a rate of return of 20%)

1. Value of Fabricare (V) = CF /(r-g), where

   CF = Cash flow at year 1 ($30,654 x 1.05)
   r = Roy Tyson's required rate of return (20%)
   g = Fabricare's maximum growth rate if run by current management (5%)

   Value of Fabricare (initial offer) = $214,578

2. Value of Fabricare (V) = summation of present value of all cash flows, using Roy Tyson's assumptions on revenue, operating income, additional working and permanent capital investments.

	AFTER tax CF	**Less: WC and Permanent Capital Investment**	**Net Cash Flow**	**t**	**Discount rate* $(1+20\%)^t$**	**Present Value**
1993	42,800	33,450	9,350	1	1.200	7,792
1994	67,700	63,800	3,900	2	1.440	2,708
1995	105,050	90,700	14,350	3	1.728	8,304
1996	158,400	110,700	47,700	4	2.074	23,003
1997	211,750	110,700	101,050	5	2.488	40,610
1998	221,200	86,900	134,300	6	2.986	44,977
1999 onwards	221,200	70,000	151,200	7	3.583	756,000
PV of perpetuity (cashflow from 1999 onwards)					3.583	210,986
Sum of Present Value of Cashflows						**333,380**

* using a discount factor of 20%

3. P/E of publicly listed building maintenance firms: 8
   Free cashflows of Fabricare (1991) x $ 30,654
   Value of Fabricare (second offer) $ 245,232

4. Market value as percentage of sales for publicly
   listed building maintenance firms 65%
   Sales of Fabricare, 1991 x $ 384,385
   Value of Fabricare (final offer) $ 249,850

5.

PV of Cash Outflow	PV of Cash Inflows	NPV
214,578	338,380	123,802
245,232	338,380	93,148
249,850	338,380	88,530