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Printicomm's Earnout Strategy for Acquiring Digitech

Applied Valuation GRA 6538



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Executive Summary

Facing the challenge of structuring an acquisition deal, Risher, Printicomm's controller and vice president must structure the acquisition deal to bridge the significant valuation gap between Printicomm and Digitech, largely due to differing expectations of futures performance. Monte Carlo simulations on operating profit, influenced by sales growth and profit margin, indicate that Digitech's DCF value is close to \$37.3 million, including the value of the tax shield. Structure 1 appear more beneficial for retaining management longer, while still remaining cost effective for Printicomm. Introducing a 25% bonus cap on additional earnings, ensures financial predictability for Printicomm while motivating Digitech, with the earnout's total value estimated to be \$22.96 million. To hedge against risks, we recommend implementing equity rollover options and clauses to weather economic fluctuations.

Perception Gap in Earnout Valuation Between Buyer and Seller

At its core, the significant difference in the earnout value between the buyer (Printicomm) and the seller (Digitech) lies in their subjective opinions about future prospects. Risher, representing Printicomm, expects Digitech's sales growth to be at a minimum of 5% and a maximum of 15%, with the most likely scenario being 10%. Greene, representative for Digitech, anticipates a sales growth of at least 10%, up to 30%, with a most likely scenario of 20%, thus 10 percentage points higher than Risher's expectations. Risher believes that growth in sales and profit margins are the key value drivers for Digitech, suggesting that a disagreement of 10 percentage points could significantly impact the price difference between owner and buyer. Greene, also the company's founder, has an emotional attachment to the company as described. This can result in him having a private value that exceeds the common value. This, along with his active involvement in the company for a decade, may mean he possesses insights into Digitech's future that could cause his view of the earnout value to diverge from Risher's.

Assessing Digitech's DCF value

To calculate Digitech's Discounted Cash Flow (DCF) value, we began by outlining best-case, most likely-case, and worst-case scenarios. We started by defining a probable range for both sales growth and operating margin using the most likely case from each of the perspectives, ending up with an interval of 10% – 20% with a standard deviation of 5% and an average of 15% (exhibit 1). Employing the properties of the triangular- and cumulative distribution alongside Excel's RAND() function, we simulated the random draws for each case in each scenario (exhibit 2), ensuring concentration around the mode for both sales growth and operating profit margin. Then we used these measures to calculate the new projected operating profit in the forecasting period (exhibit 3). To perform the Monte Carlo simulation, we first determined the input variables, specifically the calculated operating profits for the projected years. Next, we defined the total number of simulations and prepared the data table, filling in trial numbers (1 through 1,000) in the first column and connecting outputs in the top row. We then used the data table function in Excel to populate the remaining 999 rows and making the average of the 1,000 simulations our new most likely estimate for operating profit (exhibit 4). The utilization of the Monte Carlo simulation over the operating profits resulted in an average DCF value for Digitech within the approximate range of \$36.2 to \$36.9 millions, depending on the discount rate of 10% and a more conservative terminal growth rate of 3% (GDP growth minus inflation rate in 1998). To pinpoint the value even further, we conducted another Monte Carlo simulation using 10,000 trials, attaining a more exact DCF value, making us more confident that the DCF value of Digitech is close to \$36.4 millions (exhibit 5), totaling at \$37.3 millions when including the tax shield (exhibit 6).

Strategic Earnout Plan for Sustained Growth

The advantage of earnout structure 1 is that it ensures the management team, which constitutes a significant portion of the company's value, remains for 5 years instead of 3. This extended commitment is highly valuable for Printicomm, as it ensures the retention of key personnel critical to the continued success and integration of the acquisition. According to Printicomm's forecasts, Structure 1 requires the lowest payment to Digitech (exhibit 7) at \$20.33 millions total, with a present value (PV) of the paid earnout of \$332 thousand, as opposed to Structure 2's total value of \$29.3 millions with a PV of earnout paid of \$1.29 millions. This arrangement also ensures a leadership tenure that is extended, with higher targets to aim for, potentially enhancing performance. While some may argue that higher targets could demotivate the leadership, we believe, based on what we have read about the management and a scheme for percentage-based bonus earnings above target, that this is something the management will handle well. Based on Digitech's own forecasts, we see a higher present value in Structure 1, although with a lower total value than in Structure 2 (exhibit 7). The total value is \$39.2 millions, with a PV of the paid earnout of \$19.2 millions, as opposed to structure 2's total value of \$39.3 millions with a PV of earnout paid of \$11.3 millions. However, the differences in total value are so marginal that we wouldn't dismiss the possibility of Digitech accepting the deal. Therefore, we think that Structure 1 is the best option for Risher, as it provides the most to Printicomm, and is also an arrangement we believe will satisfy Greene. Adding on top the possibility of the earnout being expensed and tax deductible, the present value of the tax shield is higher for Structure 1, when assuming a slight tilt towards best case scenario (exhibit 8). When valuing the different earnout structures using Monte Carlo simulations, we used the same approach as described in valuation section but tailored it to match Printicomm's and Digitech's operating profit, which depend on their individual forecasts for sales growth and operating profit margin (exhibit 9 & 10).

Strengthening Earnout Terms for Buyer Security

A bonus must be provided if Digitech achieves its targets, here we recommend incorporating a fixed bonus amount in the earnout structure similar to the prior values. To ensure that Digitech remains motivated to continue delivering strong results after potentially reaching the target, we would also like there to be a percentage-based bonus per dollar earned above target. By incorporating such a cap, we will ensure greater predictability for Printicomm, and, importantly, enhanced protection. We suggest that this bonus-based percentage cap could be fixed at 25% per dollar earned above the target. By incorporating a cap into the earnout strategies, we get a present value of the earnout paid and a total value for Structure 1 of respectively \$2.94 and \$22.94 millions. In Structure 2, it is respectively \$1.71 and \$29.71 millions (exhibit 11). We wish to include the possibility of an equity rollover, so that Digitech's owners can maintain their incentives to maximize Digitech's performance and leverage the strengths and opportunities identified in our SWOT analysis (exhibit 12). Agreement points that incorporating safeguards against macroeconomic and/or political events such as recessions and industry regulations like tax levels or new laws are also something we would like to suggest to Printicomm to mitigate risk factors. Finally, as much of Digitech's value resides in its highly skilled management team, we are committed to ensuring bonus schemes for key personnel who wish to continue in their roles. Additionally, we propose the incorporation of a clause stipulating that the current management will provide a training phase for the incoming leadership decreasing the only high probability and high impact risk identified by our risk heatmap (exhibit 13). These provisions should specifically address how Digitech's management will mentor the future leaders, which may include mentorship programs, lectures, and involving them in hands-on work and projects.

Exhibits:

Exhibit 1

	a	c	b		σ	
Sales growth projections	Worst case	Most likely	Best case	Average	Volatility	Total range
Printicomm's perspective	5%	10%	15%	10%	5%	10%
Digitech's perspective	10%	20%	30%	20%	10%	20%
Group 02's perspective	10%	15,0%	20%	15,0%	5,0%	10%
Operating profit margin projections	Worst case	Most likely	Best case	Average	Volatility	Total range
Printicomm's perspective	5%	10%	15%	10%	5%	10%
Digitech's perspective	15%	20%	25%	20%	5%	10%
Group 02's perspective	10%	15%	20%	15%	5%	10%

Exhibit 2

Sales growth reference	1998A	1999E	2000E	2001E	2002E	2003E
Printicomm's perspective		8%	10%	11%	7%	10%
Digitech's perspective		22%	22%	21%	16%	18%
Group 02's perspective		16%	16%	18%	17%	16%
Operating profit margin reference	1998A	1999E	2000E	2001E	2002E	2003E
Printicomm's perspective		12%	9%	8%	10%	12%
Digitech's perspective		24%	21%	16%	17%	23%
Group 02's perspective		16%	16%	12%	15%	18%

Exhibit 3

Projections Group 02	1998A	1999E	2000E	2001E	2002E	2003E
Sales	\$ 23 450	\$ 27 317	\$ 31 685	\$ 37 286	\$ 43 547	\$ 50 548
Nominal sales growth		16%	16%	18%	17%	16%
Operating profit margin		16%	16%	12%	15%	18%
Operating profit	\$ 4 470	\$ 5 030	\$ 4 335	\$ 6 465	\$ 8 982	

Exhibit 4

Group 02						Group 02					
1,000 trials						1,000 trials					
Average						Average					
Trials	1999E	2000E	2001E	2002E	2003E	Trials	1999E	2000E	2001E	2002E	2003E
1						1	3631,25215	4267,20748	4619,6403	4634,75017	7601,93212
2						2	4693,37544	4203,32856	5982,02515	5652,35244	7202,71054
3						3	4552,00949	5017,93232	5177,19622	5007,45847	7811,46215
4						4	3976,90482	4707,08847	5048,26929	6219,46735	8402,05723
5						5	4029,54158	4506,83961	5457,79137	4779,10736	7055,92855
6						...					
7						996	3745,709	5272,02841	5789,47457	7000,62067	7348,12566
8						997	4386,16519	5874,62035	4803,93585	5522,0125	7130,56174
9						998	3454,08711	4764,74278	4471,64324	6855,16891	6129,87114
10						999	4478,19326	4182,37985	5332,62702	5444,76261	6842,11756
...						1000	4018,75939	4747,95725	5864,94745	5723,10973	5078,50009

Exhibit 4 are illustrative and serve solely to demonstrate the methodology used for our Monte Carlo simulations.

Exhibit 5

Projections by group 02

Assumptions:

LTGR	3%
Discount rate	10,00%

	1992A	1993A	1994A	1995A	1996A	1997A	1998A	1999E	2000E	2001E	2002E	2003E	2004E	TV
\$000														
Sales	\$ 15 350	\$ 10 633	\$ 11 313	\$ 6 747	\$ 7 400	\$ 18 651	\$ 23 450	\$ 27 332	\$ 31 830	\$ 36 347	\$ 41 238	\$ 48 238		
Nominal sales growth		-31%	6%	-40%	10%	152%	26%	17%	16%	14%	13%	17%		
Cost of goods sold	9 655	8 700	8 890	5 096	3 850	14 800	16 850	\$ 19 768,88	\$ 22 867,15	\$ 26 836,48	\$ 30 828,39	\$ 34 931,03		
% of total expenses	79%	82%	82%	69%	61%	85%	86%	86%	86%	86%	86%	86%		
S, G & A	2 500	1 900	1 950	2 200	2 400	2 600	2 600	3 050	3 528	4 141	4 757	5 390		
% of total expenses	20%	18%	18%	30%	38%	15%	13%	13%	13%	13%	13%	13%		
Depreciation and Amortization	55	55	55	55	65	65	65	65	65	65	65	65		
% of total expenses	0,5%	0,5%	0,5%	0,7%	1,0%	0,4%	0,3%	0,3%	0,2%	0,2%	0,2%	0,2%		
Total expenses	12 210	10 655	10 895	7 351	6 315	17 465	19 515	\$ 22 896	\$ 26 484	\$ 31 081	\$ 35 704	\$ 40 456		
Operating profit	\$ 3 140	\$ -22	\$ 418	\$ -604	\$ 1 085	\$ 1 186	\$ 3 935	\$ 4 059	\$ 4 649	\$ 5 302	\$ 6 179	\$ 7 113		
Operating profit margin	20%	0%	4%	-9%	15%	6%	17%	16%	17%	14%	13%	16%		
Operating ratio	80%	100%	96%	109%	85%	94%	83%	84%	83%	86%	87%	84%		
Tax (40%)	-1 256	9	-167	242	-434	-474	-1 574	1 624	1 860	2 121	2 472	2 845		
Operating income after taxes	\$ 1 884	\$ -13	\$ 251	\$ -362	\$ 651	\$ 712	\$ 2 361	\$ 2 436	\$ 2 790	\$ 3 181	\$ 3 708	\$ 4 268		
Plus Depreciation and amortization	55	55	55	55	65	65	65	65	65	65	65	65		
Less CAPEX (% of this year's sale)	1%	-154	-106	-113	-67	-187	-235	-273	-318	-363	-412	-482		
Less additions to W k g. Cap. (% of this year's sale)	2%	-307	-213	-226	-135	-373	-469	-547	-637	-727	-825	-965		
Free Cash Flow	\$ 1 479	\$ -277	\$ -34	\$ -510	\$ 494	\$ 217	\$ 1 723	\$ 1 681	\$ 1 900	\$ 2 155	\$ 2 535	\$ 2 886		
Terminal Value													45 347	
Discount factor								0,91	0,83	0,75	0,68	0,62		
PV(FCF)								\$ 1 528	\$ 1 570	\$ 1 619	\$ 1 732	\$ 1 792	\$ 28 157	

DCF Valuation: Digttech's view	1,000 trials	10,000 trials
PV of total free cash flows	\$ 36 398	\$ 36 775

Exhibit 5 are illustrative and serve solely to demonstrate the methodology used for our DCF valuation. The numbers in exhibit 5 are not to be interpreted as they frequently updates.

Exhibit 6

Group 02' perspective												
		0		1		2		3		4		5
Structure 1		1998A		1999E		2000E		2001E		2002E		2003E
Earnout paid		\$		386	\$	411	\$	587	\$	660	\$	899
Tax rate				40%		40%		40%		40%		40%
Tax savings		\$		155	\$	164	\$	235	\$	264	\$	360
Discount Factor		0,91		0,83		0,75		0,68		0,62		
PV(TS)		\$		141	\$	136	\$	176	\$	180	\$	223
Sum PV(TS)		\$		856								

Exhibit 7

Earnout values	Printicomm		Digitech		Group 02	
PV(Structure 1)	\$	332	\$	19 206	\$	2 941
Payout	\$	20 000	\$	20 000	\$	20 000
Total	\$	20 332	\$	39 206	\$	22 941
PV(Structure 2)	\$	1 287	\$	11 283	\$	1 709
Payout	\$	28 000	\$	28 000	\$	28 000
Total	\$	29 287	\$	39 283	\$	29 709

Exhibit 8

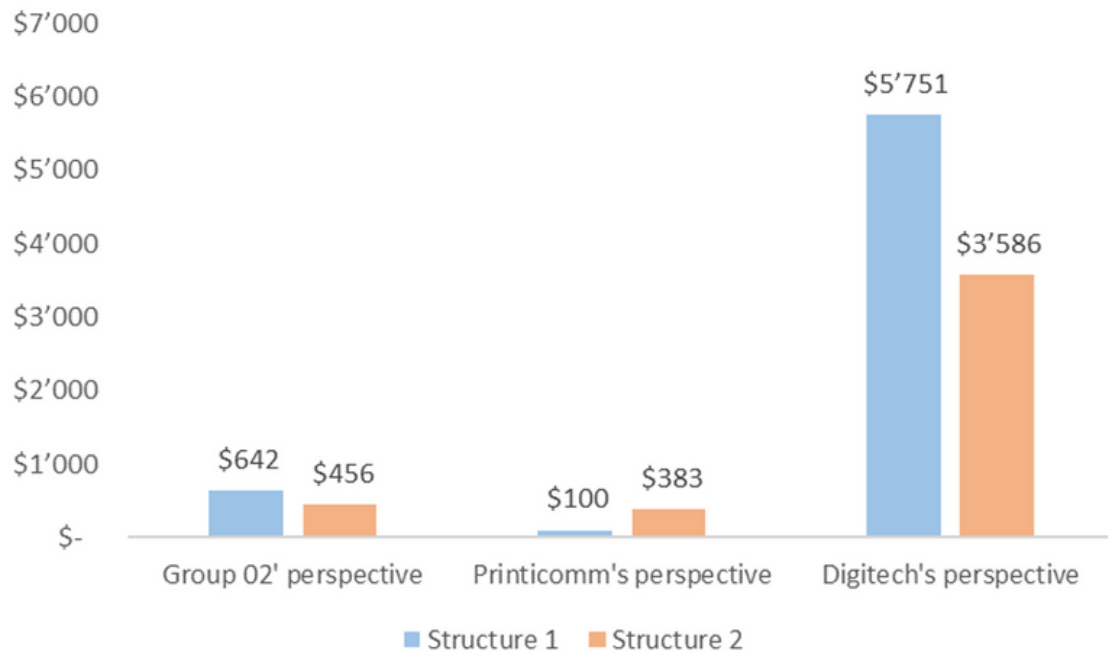


Exhibit 9

Printicomm's perspective						Worst case	
Earnout Valuation Printicomm	1998A	1999E	2000E	2001E	2002E	2003E	
Operating profit	\$	2 586	\$	2 857	\$	3 111	\$ 3 774
Structure 1							
Earnout target	\$	2 500	\$	3 000	\$	3 000	\$ 3 500
Earnout paid	\$	86	\$	-	\$	111	\$ 274
Fixed payout	\$	20 000					
Total CF earnout structure 1	\$	20 000	\$	-	\$	111	\$ - 274
Structure 2							
Earnout target	\$	2 000	\$	2 500	\$	2 500	
Earnout paid	\$	586	\$	357	\$	611	
Fixed payout	\$	28 000					
CF earnout structure 2	\$	28 000	\$	357	\$	611	
PV(Earnout 1)	\$	332					PV(Earnout 2) \$ 1 287
Payout	\$	20 000					Payout \$ 28 000
Total value	\$	20 332					Total value \$ 29 287

Exhibit 10

Digitech's perspective						Best case	
Earnout Valuation Digitech	1998A	1999E	2000E	2001E	2002E	2003E	
Operating profit	\$	5 612	\$	6 801	\$	8 137	\$ 9 764 11 709
Structure 1							
Earnout target	\$	2 500	\$	3 000	\$	3 000	\$ 3 500
Earnout paid	\$	3 112	\$	3 801	\$	5 138	\$ 6 264 8 209
Fixed payout	\$	20 000					
CF earnout structure 1	\$	20 000	\$	3 801	\$	5 138	\$ 6 264 8 209
Structure 2							
Earnout target	\$	2 000	\$	2 500	\$	2 500	
Earnout paid	\$	4 874	\$	4 714	\$	4 234	
Fixes payout	\$	28 000					
CF earnout structure 2	\$	28 000	\$	4 668	\$	5 742	
PV(Earnout 1)	\$	19 206					PV(Earnout 2) \$ 11 507
Payout	\$	20 000					Payout \$ 28 000
Total value	\$	39 206					Total value \$ 39 283

Exhibit 11

Group 02' perspective

Earnout Valuation Group 02	1998A	1999E	2000E	2001E	2002E	2003E				
Operating profit	\$	4 051	\$	4 642	\$	5 357	\$	6 143	\$	7 072

Structure 1

Earnout target		\$	2 500	\$	3 000	\$	3 000	\$	3 500	\$	3 500	
Earnout paid*		\$	388	\$	411	\$	589	\$	661	\$	893	
Fixed payout	\$	20 000										
CF earnout structure 1	\$	20 000	\$	388	\$	411	\$	589	\$	661	\$	893

Structure 2

Earnout target		\$	2 000	\$	2 500	\$	2 500	
Earnout paid*		\$	617	\$	632	\$	459	
Payout	\$	28 000						
CF earnout structure 2	\$	28 000	\$	617	\$	632	\$	459

PV(Earnout 1)	\$	2 941
Payout	\$	20 000
Total value	\$	22 941

PV(Earnout 2)	\$	1 709
Payout	\$	28 000
Total value	\$	29 709

*Fixed percentage payout of 25% of value above earnout target

Exhibit 12

Strengths

High product expertise

Innovative and market leading products
Rapid historic growth with further growth and expansion expectations
Use of cutting edge technology for the whole marketing process

Opportunities

Gain of new large corporate clients

Fast adaption of new developments through technological and product specific expertise
Attractive valuations in current market
Partnership with well-capitalized corporate
Geographical expansion

Weaknesses

Lack of marketing-channel development

Difficulties of management navigating such a fast growing company

Threats

Strong competition with well-capitalized large corporates

Consolidating market with high M&A activity (threat of being acquired as a last mover for a discount)
Change in management
Disruptive digitalization challenges

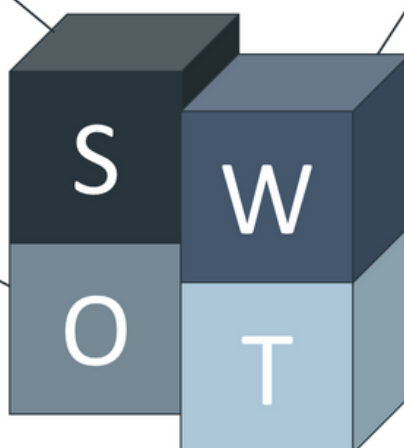


Exhibit 13

