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**Assignment Marketing
Barco Case**

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1. Brief diagnosis and definition of the main problem

Based on Barco's commitment to Product leadership as a competitive edge, Barco has chosen a niche market of technically superior projectors. This allows Barco, as a performance and product leader, to charge higher prices than the competition. Sony's surprise introduction of the 1270 is a clear outpacing attack⁽¹⁾ on Barco's niche market. The 1270 from Sony is considered technically superior and lower priced, compared to Barco's planned projectors.

Traditionally, Barco has segmented the market for its products on the basis of the scan rate of projectors into three main segments: video, data and graphics. Sony is trying to overcome this segmentation by addressing the data and graphics with one superior product (1270).

Barco now has to deal with the following issue:

Sony will launch a superior product, forcing Barco out of its technical leadership, and at a lower price, supported with a cost advantage due to mass production. Barco will have to decide on lowering its prices for current products and/or react with the introduction of an even better product.

2. Analysis of the main problem

Barco does not sell its projectors, market-driven but technology driven: marketing strategy and product development follows engineering.

Product development is based on engineering solutions to problems that arise rather than on a specific development plan or vision. ⁽²⁾

Despite being technology-driven, this is already the third time that Barco engineers are caught of guard by Sony in the tube domain ⁽²⁾:

- In 1985, Sony's 1020 projector, although slower than Barco's projectors at the time, had a sharper focus, indicating a better quality tube.
- In 1987, Sony introduced a video projector using a new tube. Barco eventually incorporated this tube into its BD600 product.
- In February 1989, Sony Components contacted Barco to inform them of a new 8" tube. Barco engineers decided not to incorporate the tube into the BD700 as it would require a redesign and sourcing of a new lens. Surprisingly for BPS, the 8" tube now turns out to be the key component responsible for the technical superiority of the 1270.

If Barco wants to maintain a competitive edge, they have no choice but to continuously adopt innovative technologies. Failing to do so resulted in Barco being a follower rather than a technology leader.

One might wonder whether Barco's Engineering Department is somewhat complacent. Although they want to be an innovative player they seem to lack the flexibility and the eagerness to adopt new front-edge technologies.

There are 3 components to the threat from Sony's 1270:

1. Product competition: a better product at a cheaper price from your competitor is going to damage Barco's sales.
2. Market segmentation: to gain economies of scale, Sony consolidated the Data and Graphic segments in one large market, served by just one product.
3. Company Image: Barco's image as technology leader within its target market is under attack by Sony.

Sony can lever the availability of the 8" tube to take a product & company image leadership position via the introduction of the 1270, thereby rejecting Barco's vision of the market.

Finally, the above also illustrates that Barco has an unresolved sourcing problem⁽²⁾: Sony is Barco's sole supplier of tubes; other suppliers do not seem to be able to match Sony's tube quality.

3. Recommendations & justifications

a) Product development plans

With the impending launch of Sony's 1270, Barco has 3 options⁽²⁾:

- 1) Stick to the current plan with the completion of the BD700, which will be inferior to the 1270 but can be completed in 27 man-months (85% completed).

In case the 1270 is priced at the higher end (20.000 \$) the price per scan rate indicates that the BD700 will be a viable product (Exhibit1).

In case the price of the 1270 is at the lower end (16.000 \$ or less) the BD700 would be priced higher but with inferior performance.

We consider this scenario unviable in the long term: Barco will be completely dependent on Sony's pricing strategy. Overall, Sony's leverage to charge lower prices is greater than Barco's (due to economies of scale).

Barco will lose on all three mentioned components of the threat (Analysis of the main problem, paragraph 2): worse product, loss of brand image and it will have to adapt to the new market segmentation forced by Sony.

- 2) Developing the digital projector BG700, will allow matching the 1270's scanning frequency but will still result in a product that is overall inferior as it cannot match the 1270's optical quality.

Also in this scenario, Barco will be dependent on Sony's price policy. Barco still loses its product leadership. They also lose on the three other components of the threat (Exhibit 1).

- 3) Reinforce Barco's position as product leader by investing in the development of the BG800, a superior product with a scan-rate of at least 90Khz.

We would recommend that Barco sticks to its strategy of being a product leader, postpones the developments on the BD700 indefinitely and fully commits to developing the BG800. This is the sole strategy that allows addressing all three components of the threat: Barco will have a superior product, it will be able to sell the product higher priced in the graphics market and, for sure, Barco's brand image as technology innovator will be maintained.

Whilst option 3 is the most risky (40 % chance to make it in time for Infocomm) and expensive (80 man-months) (Exhibit 2), it is the only way that Barco can maintain product leadership. The 60% risk of being too late for Infocomm has to be managed and other promotion channels have to be evaluated. Certainly, if Infocomm is missed with the product, Barco will have to set up a well-targeted promotion campaign for the BG800, which can be released in a well-defined time after Infocomm. As such, Barco's dealers, partners and customers are made well aware that a superior product from Barco will be available soon.

b) Pricing of current products

How should Barco respond to the price erosion that can be expected by the introduction of the Sony 1270?

We distinguish two extremes: pricing of the 1270 at a higher end of \$20,000 and a lower end of \$15,000.

1) *The 1270 is launched with a price of \$20,000*

The margin contribution of the BG400 is 29%, indicating that the cost to produce is \$17,040. These margins do allow for a certain, albeit limited price reduction.

In case the price of the BG400 is maintained (resulting in an estimated market share loss of 30%), the total profit will still be higher compared to a reduction in price of the BG 400 to \$21,000 (Exhibit 2).

2) *The 1270 is launched with a price of \$15,000*

If the price of the BG400 is maintained, leading to an estimated market share loss of 60%, the total profit will still be higher compared to a reduction in price of the BG 400 to \$18,000 (Exhibit 2). Obviously, in case Barco sells the BG400 at a cost (\$17,040), there will be no profit.

We conclude that Barco in any case would optimise profit by maintaining current price levels of the BG400, even taking into account that this could reduce market share by up to 60%.

c) Pricing strategy in light of a BG800 product launch

If Barco introduces the BG800 at a scan rate of 90 kHz or higher, it can charge a premium price for the product.

In that case, the price level of the BG400 will have to be adjusted so it stays below that of the BG800. If BG400 and BG800 have a similar cost structure, Barco could even consider dropping the BG400 product line for the graphic segment.

In any case, the price level of the 1270 will determine what the future pricing in the market will look like.

As the Market segmentation between the BG and BD series is becoming less strong with the introduction of the 1270 it is also recommended to reduce the price of the BD400 and the BD600 as their price to value ratio is out of balance compared with the BG800.

d) Summary

The following immediate actions are recommended to the board:

- **To stop development of BD700 and give full priority to the BG800**
- **To set the price of BG800 above the 1270 price**
- **To retain current BG400 price until launch of the BG800**
- **To reduce the prices of BG400, BD600 & BD400 relative to 1270 and BG800 as soon as BG800 is launched.**

In addition, but less urgent, the following strategic measures should be considered to avoid similar problems in the future:

- Continuous & systematic scouting for new technological developments with the aim of incorporating such innovation in Barco's end products (e.g. a second source of tube-supplier is strongly advised).
- Re-evaluate the need for and sustainability of the current vision of a data – graphics segmented market.

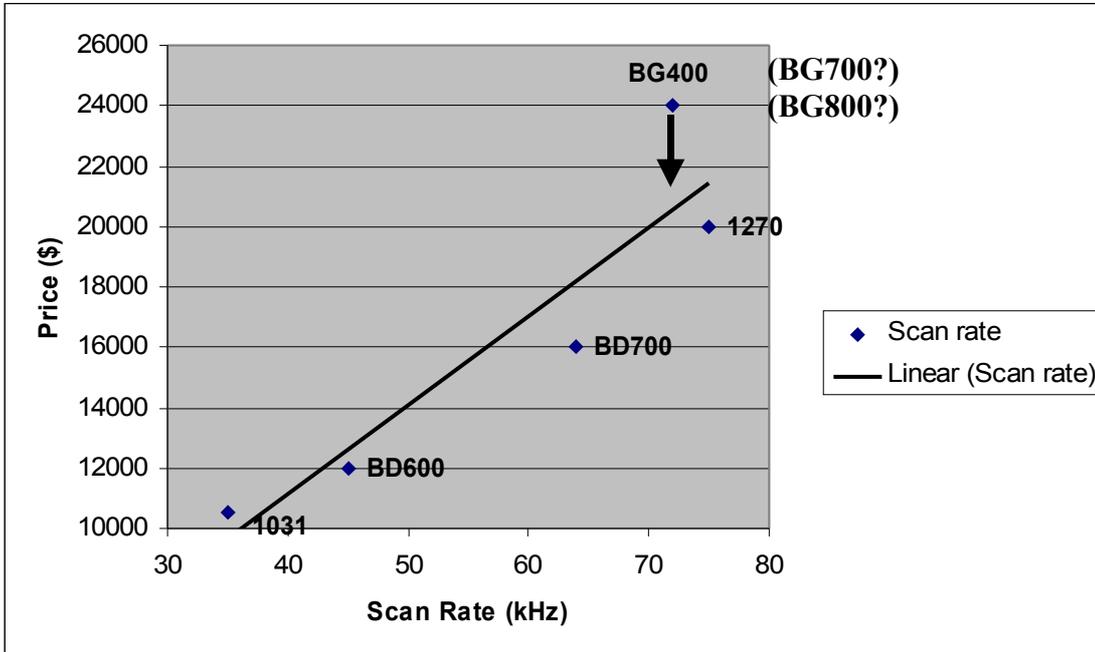
4. References

- (1) Slides Course Marketing PT-IMBAG 2007-2008, Prof. Dr. ir. Marion Debruyne
- (2) Case Barco Projection systems(A): Worldwide Niche Marketing Harvard Business School, 2002, Rowland T. Moriarty

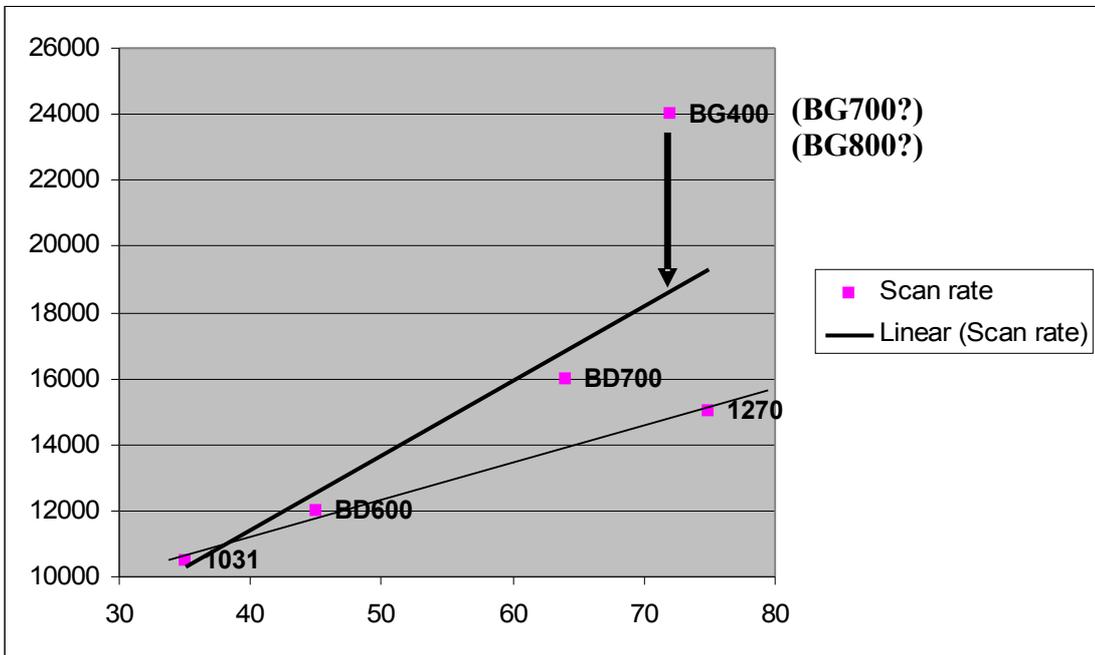
5. Exhibit 1

Price per scan rate for marketed projectors at the end of 1989.

High end price for 1270 .



Low end price for 1270



1. EXHIBIT 2

Projected sales, turnover and margin contribution according to different scenarios.

	1988	1989	1990	1991	1992	1993	1994
Units sold	528	660	825	1031	1288	1610	2012
Turnover	12672000	15840000	19800000	24744000	30912000	38640000	48288000
Margin contribution in \$ (29% of turnover); assuming no 1270	3674880	4593600	5742000	7175760	8964480	11205600	14003520
No price change; 1270 at 20000; loss of 30% market share	3674880	3215520	4019400	5023032	6275136	7843920	9802464
No price change; 1270 at 15000; loss of 60% market share	3674880	1837440	2296800	2870304	3585792	4482240	5601408
1270 at 20.000; BG400 at 21.000	3674880	2613600	3267000	4082760	5100480	6375600	7967520
1270 at 15.000; BG400 at 18.000	3674880	633600	792000	989760	1236480	1545600	1931520

Comparison of the product characteristics.

	BG400	BD700	BG700	BG800	1270
Cost	17.040 \$	7940 \$ *	Unknown	Unknown	Unknown (Max 15.000 \$)
Price	24.000 \$	16.000 \$	TBD	TBD	15.000-20.000 \$
Timing to launch	On the market	October, 1989	December, 1989	January, 1990	November, 1989
Frequency	72	64	75	90	75
Development cost**	0	\$270.000,00	Unknown	\$800.000,00	Not relevant
*= estimated at 51 % margin		(2.700.000 \$ including past)			
** 1 Man month = 10.000 \$					