MERGERS & ACQUISITIONS CASE STUDY

THE ACQUISITION OF WHITEWAVE BY DANONE

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CONTENT

ABSTRACT

This case is an analysis of the acquisition of WhiteWave by Danone, two US publicly-traded players of the food and beverage industry. In 2016, France Danone made a cash acquisition of WhiteWave at a price of $56.25 per share. The acquisition valued WhiteWave at a value of $10.4 billion, plus WhiteWave's debt of $2.1 billion. The total price of the deal is $12.5 million.

Firstly, We conducted some pre-merger investigations, including Acquisition Background, Reasons for the Acquisition, and The Analysis of Potential Acquirer -PepsiCo etc. Secondly, we analyzed whitewave using three valuation methods: the DCF-WACC, the APV and the market multiples approach. Using these three methods, we concluded that WhiteWave has an enterprise value between $9,135 and $10,945 million. Thirdly, we calculated the value of the synergies by analyzing the impact of the acquisition on the target's costs and growth opportunities and used its cost of capital as the discount rate. The total value of synergies is between $1,426 million and $4,289 million. Finally, we briefly summarized the impact of this deal.

1. Company Introduction

The acquirer – Danone is is a global restaurant company operating a highly focused portfolio of health and wellness products. The business scope of the company includes: biscuits and beverages, condiments and sauces, mineral water and so on.

The acquired party – WhiteWave was the largest plant-based food and beverage company in North America in 2015, its business scope includes high-end organic dairy products, non-GMO foods, plant protein foods and beverages, fresh foods and coffee companion products.

2. Acquisition Background

The food industry is highly affected by changes on consumers' preferences which includes taste, lifestyle and social trends. Consumers are increasingly health conscious and place greater importance on environmental sustainability, mostly in developed countries "but more and more in emerging markets". There is **an increased demand for "healthier, functional and certified food** that are guaranteed to meet a certain level of safety and environmental or corporate social responsibility". Consumers are more informed about what they buy and are increasingly interested in natural foods. Moreover, a high number of **government regulations increases** compliance costs and challenges firms to maintain their profitability margins.

3. Reasons for Acquisition

3.1 The challenge and weakness that WhiteWave faced at 2016

(1) WhiteWave's main **weakness** is obvious. It operates in a highly competitive industry along with larger firms that have substantial financial and marketing resources. The largest competitors may be able to introduce innovative products more quickly or to market their products more successfully than WhiteWave. This disadvantage can have a negative impact in the growth rate of certain categories, volume growth and market share.

(2) One **challenge** facing WhiteWave is to maintain sufficient internal production capacity by expanding the production facilities or by entering into co-packing agreements because the firm's manufacturing plants are operating at high rates of utilization.

3.2 WhiteWave's advantages and Danone's weakness

(1) WhiteWave's main competitive **advantage** is its ability to quickly identify and meet consumers' changing needs and preferences. The product categories that distinguish WhiteWave within the industry – plant-based foods and beverages; coffee creamers and beverages and so on.

(2) One of Danone's **weaknesses** is that consumption trends change but Danone had no mature product to overcome the tread. There are increasing desires for nutritious, flavorful, convenient, and responsibly-produced products. In addition, lactose intolerance is on the rise. About 75 percent of adults lose the ability to digest lactose. Prevalence is around 50% in South America, Africa and Asia.

(3) Another **weakness** of Danone is its low market share in other countries. Danone is primarily a European company, the acquisition of WhiteWave, a US company, will allow Danone to expand and diversify its business.

4.The Analysis of Potential Acquirer -PepsiCo

PepsiCo is a global food and beverage company. The Company manufactures, markets, distributes and sells a variety of beverages, foods and snacks, in every continent, over 200 countries.

The reasons that PepsiCo also want to acquire WhiteWave including:

(1) PepsiCo's sales have been declining over the past years as a result of an increasing appeal for the products that WhiteWave commercializes.

(2) WhiteWave is a market leader both in the US and in Europe, with its brands of plant-based food and drinks.

(3) To clear PepsiCo's image and regain consumers' loyalty. The current trends in consumers' preferences presented earlier, so it is clear that the organic segment represents an opportunity for large producers of processed food and drinks.

The reason for why WhiteWave choose Danone, but not PepsiCo including:

(1) Similarity between the two companies' missions was of great importance. WhiteWave is in line with Danone's mission, which includes "superior experiences, healthier choices, and community relevance". WhiteWave is also in line with Danone's commitment to sustainable development, including "zero net carbon, trusted sources and sustainable agriculture."

(2) WhiteWave can leverage other benefits from Danone's ownership. Danone has "category captains" that share category level data with stores in return for local level data, as well as the possibility of influencing shelf space and product placement, a huge informational and competitive advantage over smaller players.

5. The goal of Acquisition

(1) Driving an Alimentation revolution for the more sustainable, healthier food and beverage, drinking and eating habits for our consumers.

(2) Towards strong sustainable and profitable growth by 2020.

6. Firms' Valuation of WhiteWave

6.1 Financial Projections

(1) Revenue : Based on an analysis of the organic plant food and drink industry, WhiteWave's sales growth is expected to have an annual growth rate of around 8% between 2016 and 2018. And as industry demand gradually reaches saturation, we believe that the company's sales growth rate will be even lower and more stable after 2019. The annual growth rate is calculated as

$$g = Annual\ GDP + \pi + ROIC \times Reinvestment\ Rate$$

(2) EBIT: Based on WhiteWave's historical data, we expect the company's gross margin to be approximately 36% of revenue. Moreover, total operating expenses is equal to approximately 26% of revenue and company hasn't non-operating expenses, resulting in an EBIT of approximately 10% of revenue.

$$EBIT = Revenue - COGS - Total\ operating\ expense$$

(3) Depreciation & Amortization: For existing PPE and intangible assets, we based our 2016 depreciation and amortization levels at approximately \$150 million and forecast the company has an annual increase of \$19.0 million.

(4) CAPEX: For CAPEX, WhiteWave generated 5 percent of sales in 2013 and increased to 9 per cent in 2014, as it was operating at full capacity in its manufacturing and warehouse infrastructure, and will have to bear significant capital expenditures to accommodate these changes in view of the expected expansion of its operations. And by 2015, the level of capital expenditure of the company has fallen and became stable. We therefore assume that the company's capital level will remain stable over the life of the plan at about 6% of sales.

(5) Investment in Working Capital: For the working capital projections, we used the ratios of the previous period as we didn't expect significant changes to occur regarding the days of payables and receivables. We assumed that the working capital will reach 2% of sales during the planning period, which is consistent with the previous low levels of working capital needs.

6.2 DCF – WACC

6.2.1 Cost of Capital

Cost of Debt: The cost of debt will be the risk-free rate plus the default premium[1] based on the ratings of the outstanding bonds. We obtained a cost of debt of 5.8%.

Cost of Equity: We used the CAPM approach to determine the cost of equity and obtained a value of 8.3%, which is consistent with the levels in the industry. Although the most common length for the beta is a 5-year period of monthly observations, since WhiteWave has been a stand-alone firm only since 2012, we chose the firm's 3-year weekly-levered beta. We used a market risk premium of 5.8% based on the value used by firms in the US in 2017. Considering the relevant size, geographic area and performance of WhiteWave, we consider that a 5. 8% premium is high enough to account for the risk of the firm. Lastly, for the risk-free rate we used the yield of the 10-year US T-bills, which reflects the return of a long-term investment.

Target Capital Structure: We estimate the capital structure over the life of the plan based on WhiteWave's current and historical market net debt levels, corporate values, and peer averages. WhiteWave's net debt-to-business value ratio tended to be 18 percent between 2014 and 2016. We believe that the current structure is optimal for the firm because the level of leverage is consistent

[1] The default spreads were obtained from Damodaran (2016)

with the historical level of the firm and the level used by similar firms, so we apply the level to the capital structure over the life of the plan.

Finally, **we obtain 7.8% of the target company's cost of capital.**

Table1 - Cost of Capital

WACC	
CAPM	
Beta (L) *	1.1
MRP	5.80%
Rf	2.30%
Cost of Equity	8.70%
Debt	
Cost of debt	5.80%
Marginal tax rate	35%
After Tax Cost of Debt	3.80%
Target financing structure	
Equity	82%
Debt	18%
WACC	**7.80%**

6.2.2 FCF Projections

The following table summarizes the Free Cash Flow (FCF) forecast using EBITDA, depreciation and amortization, capital expenditure, and the changes in working capital described earlier in this section.

Table2 - FCF Projections

FCF
Earnings before interest and taxes (EBIT)
less: Income taxes on EBIT
Net operating profit after taxes (NOPAT)
plus: Depreciation expense (Depr)
less: Capital expenditures (CAPEX)
less: Change in operating net working capital (ChgONWC)
Free Cash Flow (FCF)

6.2.3 Terminal Value

We use **the perpetuity growth model** to calculate the company's terminal value, and we assume that the fiscal impact of the depreciations in the steady state would equal the CAPEX. The following equation presents the terminal value (TV) using the perpetuity approach. Based on the forecast FCF in 2021, which is approximately \$579 million, we use the formula to calculate the company's terminal value.

$$TV = \frac{FCF\ TV \times (1+g)}{WACC - g}$$

We used a permanent growth rate of 4.8%, which is the average of expected GDP and inflation in the United States and Europe, weighted by the volume of business in each region. We obtained a terminal value of \$13,110 million.

6.2.4 Firm Value

Using the DCF-WACC approach, we obtained an enterprise value of $10,945 million. Considering the results of the sensitivity analysis, **WhiteWave has a value between $9,514 and $12,895 million.**

6.3 APV

6.3.1 Base Case Scenario

In order to use the APV method, we unlevered the beta of WhiteWave and obtained an unlevered cost of capital of 7.9%.

Table3 - APV Assumptions

APV Assumptions	
Corporate Tax	35%
Cost of Debt	5.5%
Debt discount rate	6.0%
Beta (u)	1.02
MRP	5.5%
Rf	2.3%
k (unlevered)	7.9%
k(wacc)	7.5%

We calculate the free cash flow using a method similar to the DCF model. Firstly, we estimate the present value of the planning period equity free cash flows. Secondly, we estimate firm's terminal value.

6.3.2 Interest Tax Shields

We used a discount rate of 6% for the interest tax shield, which is slightly higher than the cost of debt (+0.5%), and obtained a value of interest tax shields of $1,699 milllions.

Table4 - PV of Interest Tax Shields

Interest Tax Shield	2016	2017	2018	2019	2020
Interest Tax Shield	24	36	36	29	31
Terminal Value of Tax Shields					2,100
Discount factor	1.00	0.93	0.87	0.81	0.75
PV of Tax Shields	23	30	26	19	1,601
PV of Tax Shields	1,699				

6.3.3 Firm Value

The APV approach estimates enterprise value as the sum of the present value of future unlevered equity free cash flows and the present value of interest tax savings.

$$Enterprise\ Value = (Value\ of\ the\ unlevered\ FCF) + (Value\ of\ interest\ tax\ savings)$$

Using the APV method and considering the results of the sensitivity analysis, the enterprise value is between $8,165 and $10,433 million, of which approximately 9135 is the result of leverage.

6.4 Comparable Companies' Analysis

6.4.1 Peer Group

We analyzed WhiteWave's main competitors and similar firms operating in the same industry and then filtered the most similar in terms of geographic area, size, capital structure and product line. We obtained the peer group and respective multiples represented, and obtain the average of the multiples.

6.4.2 Multiples and Firm Value

First, we use the average of the peer's multiples and WhiteWave's financial data to estimate the firm value is between $9,779 and $10,873 million.

Table5 - Multiples' Valuation

Multiples' Valution			
	EV/Sales	**EV/EBITDA**	**EV/EBIT**
Enterprise Value	10873	10008	9779

We will focus on the EBITDA multiple since it is an important measure of profitability and it can be used as a proxy for operating cash flow. Moreover, the EBITDA multiple is useful to compare companies in the same sector regardless of their capital structure, depreciation level and tax expenditures. By performing a sensitivity analysis to the enterprise value using the EBITDA multiple, we obtained a firm value between $9,033 and $11,034 million.

Table6 - EBITDA Multiple Sensitivity Analysis

Sensitivity Analysis						
	EBITDA*(Δ5%)					
		16.4	17.2	18.1	19.0	20.0
EBITDA(Δ5%)	498	8152	8581	9033	9484	9958
	524	8581	9033	9508	9983	10482
	552	9033	9508	10008	10509	11034
	580	9484	9983	10509	11034	11586
	609	9958	10482	11034	11586	12165

6.5 Valuation Conclusion

Using the three methods described earlier, the target firm has an enterprise value between $9,135 million and $10,945 millions.

Table7 - WhiteWave's Value Range

Firm Value Range	Value	Min	Max
DCF-WACC	10945	9414	12895
APV	9135	8165	10433
Comparables	10008	9033	10873
Market Enterprise Value	9975		

Considering the impact of changes in the key valuation inputs, the value of WhiteWave is between $8,165 and $12,895 million. The market enterprise value ($9,975) is within the estimated range.

7. Post-Acquisition Analysis

Traditionally, synergies from M&A have been divided into two categories, the first being operational synergies, which, broadly speaking, have two further sources: first, increased revenue, and second, reduced costs.

7.1 Cost synergies

The main way to reduce costs through M&A is to achieve economies of scale and economies of scope. Thus, once Bai Bo is acquired by Danone, it will benefit from increased economies of scale, which will allow the company to negotiate better with third parties and thus reduce its costs.

We assume that, starting in 2016, the target company will be able to reduce its COGS level by 0.5%, instead of 0.4%. Even so, COGS levels will still be higher than Danone's because, even with increased economies of scale, raw materials used to produce WhiteWave products are more expensive than those used for most of Danone's products. In addition, it is assumed that SGA levels will gradually decline at a rate of 0.5% per year starting in 2016.

Table8 – Total value of cost synergies

	Value of Combined Firm	Value of combined firm with synergies	Value of growth synergies
exit multiple model			
Equity Value	**11,515**	**12,684**	**1,168**
Perpetuity method			
Equity Value	**10,190**	**11,502**	**1,312**

Valuation calculations for statements using the above variables put the total value of cost synergies at between **$1,168 million and $1,312 millions.**

7.2 Growth synergies

The combined Danone and WhiteWave company will benefit from an innovative portfolio of food brands in key categories ranging from tasty snacks to organic dairy products. Post-merger, WhiteWave will increase its R&D and manufacturing capabilities, resulting in a higher ROIC.

We assume that starting in 2019, WhiteWave will be able to improve its ability to generate higher returns on investment with an ROIC of 18%.

The following equation represents the projected annual growth rate for the past two years.

$$g = GDP + \pi + ROIC \text{ (Danone) x } GDP\ Rate$$

The combined company will generate an additional $242 million to $629 million from increased revenues through attractive investments, new product launches and improved financial efficiency.

Table9 – Total value of growth synergies

	Value of Combined Firm	Value of combined firm with synergies	Value of growth synergies
exit multiple model			
Equity Value	**7,281**	**7,909**	**629**
Perpetuity method			
Equity Value	**10,190**	**10,432**	**242**

7.3 Total value of synergies

By combining these two effects in the same forecast, we obtain a new equity value for WhiteWave between $1,426 million and $4,289 million.

8. Impact of Acquisitions

Creating a leader strongly aligned with consumer trends for healthier and sustainable eating and drinking options: In joining Danone, WhiteWave had the opportunity to continue its industry-leading growth as part of a larger global company with substantial financial, geographic and operational resources. Upon closing the transaction, Danone had one of the most extensive portfolios of brands and products in fresh dairy, organic foods and beverages and plant-based alternatives to milk & yogurt.

Building a stronger North America platform: This transaction further diversifies Danone's portfolio and broadens its presence in North America. The transaction create a leading U.S. refrigerated dairy player. Danone's North America footprint increased from 12% to 22% of Danone' total portfolio.

Driving strong value and delivering attractive financial benefits. By acquiring WhiteWave and combining the company with its own operational and R&D capabilities and investments, Danone could transition or expand more of its existing brands into the premium, organic, and plant-based markets and then open up their supply chains to each other, offering a wealth of opportunities for product development and reformulation, and the cost-effective scaling of smaller brands. And actually it reach significant run-rate EBIT synergies of $300 millions by 2020, representing 8% of WhiteWave 2015 sales and 80% of WhiteWave 2015 EBIT.