CASE OF FINANCIAL RATIO ANALYSIS: DEPARTMENT STORES INDUSTRY IN MEXICO (2012 – 2016)

(LIVERPOOL – PALACIO DE HIERRO)

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CONCLUSIONS

a) It is important for every manager or business owner to periodically do financial analysis of its business. One of these analysis can be a financial ratio analysis, to review both the performance of the company as well as its profitability.

b) A financial ratio analysis, as seen here, has certain advantages (and some disadvantages, too). It is possible to compare companies with different size. It is possible to compare companies from different countries. Changes in time because of size of the company or inflation can be minimized with a financial ratio analysis.

c) Both companies analyzed in this report have a ROCE above zero, but only one is above the average (2012-2016) ROCE ratio for the Mexican market: 8.3%. This could mean a good performance and therefore a good profitability for El Puerto de Liverpool (Liverpool): 9.9%. Grupo Palacio de Hierro (GPH) has had an average ROCE in the last five years of 4.6%. The areas to improve are very likely not the same for each of these two companies. Trends should be analyzed in detail for each case.

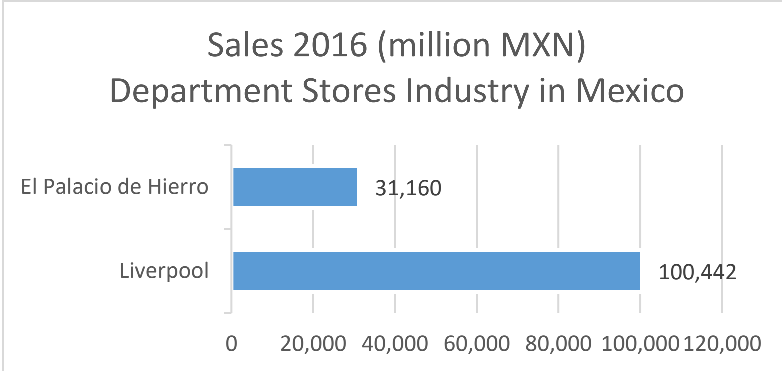
WHAT WE DO FOR THIS ANALYSIS

a) This is a more or less common analysis that we do at Acus Consulting Ltd.

b) Specifically for this analysis we selected the two public companies in the department stores industry in Mexico. Both of them are listed in the Mexican Stock Exchange (BMV).

c) The two companies analyzed are El Puerto de Liverpool (Liverpool) and Grupo Palacio de Hierro (GPH).

d) Their relative size is quite different. The largest in sales is Liverpool. If we set the annual sales of Liverpool as an index of 100, then sales index for GPH is 31. Sales of Liverpool were $100.4 billion MXN in 2016 and $31.2 billion MXN for GPH. (Average exchange rate in 2016 was 18.66 MXN for one USD and 14.15 MXN for one CAD. MXN Mexican Pesos, USD US Dollars and CAD Canadian Dollars).



e) We based our analysis in the financial statements that each company reported for the last five years in their annual reports. We gathered all the financial information in our computer in a standardized format. Then we did some calculations needed for the analysis (like EBIT, EBITDA, NOPAT and capital employed). After this we calculated financial ratios for each company and for each year. We synthesized the ratios in some summarized tables and we prepared some graphs. We included information from the Mexican market as a reference. At last, the analysis based on this information, our knowledge and experience took place.

f) For practical reasons, we work with the figures of the balance sheet at the end of the year. It is definitively better to work with the average figures of the year (average of the 4 quarters or average of the 12 months). Doing the calculation of the ratios this way may imply certain imperfection in the process, although working with averages is not a perfect process neither.

RETURN ON CAPITAL EMPLOYED (ROCE)

a) In Table I we are presenting the Return on Capital Employed (ROCE) for the last five years for each of these two companies. This is probably the most important measurement in financial ratios. At the end, profitability is the reason why we have a business running. ROCE is defined as NOPAT over capital employed. NOPAT (net operating profit after taxes) is EBIT minus adjusted taxes. EBIT is close to operating income. Capital employed is the total assets minus liabilities with non-financial cost minus cash and cash equivalents. ROCE gives us a measurement of wealth creation based on invested resources in the company. The larger this figure the better. The central idea behind this ratio is that we should intend to create wealth with the least invested resources. If we invest more in a company (or business unit) a larger profit should be expected to justify the additional investment.

Table I: Return on Capital Employed = NOPAT / Capital Employed

	2012	2013	2014	2015	2016	*Average*
Liverpool	10.1%	9.6%	9.7%	10.5%	9.8%	*9.9%*
Palacio de Hierro (GPH)	5.6%	6.3%	2.9%	3.7%	4.4%	*4.6%*
Mexican market	N/A	N/A	9.0%	8.2%	7.8%	*8.3%*

b) As we can see in Table I, in average for the last 5 years, Liverpool has the largest ROCE with 9.9%. GPH has an average ROCE for the 5 years of 4.6%, this is, a little bit less than half that of Liverpool. The two companies have positive ROCE, but only Liverpool is above the average of the Mexican market.

c) How important is 1.0 percentage point for Liverpool? Well, it is a matter of size. The capital employed of Liverpool in 2016 is around $100.5 billion MXN. Therefore, 1.0 percentage point will mean close to $1.0 billion MXN a year of additional profit. In the case of GPH, its capital employed in 2016 is around $26.0 billion MXN. Therefore an extra 1.0 percentage point will mean close to $260 million MXN a year of additional profit. Not bad at all. Very likely, performance bonuses of the executive team should be based in these accomplishments.

d) It calls our attention the trend. Trend for Liverpool is quite stable (between 9.6% and 10.5% per year). GPH has a significant decrease in 2014 and has not recovered to the levels of 2012 and 2013.

e) At this point, we are analyzing ROCE ratio but not economic value creation or EVA®. Economic value creation or EVA® is a dollar amount measurement and has to do with profitability but also with the size of the invested capital (or capital employed). We will analyze this measurement in a coming article.

RETURN ON EQUITY (ROE)

a) In Table II we are presenting the Return on Equity (ROE) for the last five years for each of these two companies. This financial ratio is important for shareholders. But, in spite of this, ROCE is still more important since there cannot be ROE in the medium and long range if the company previously does not have a ROCE. Shareholders are looking for a return to their investment. The largest the better. ROE is defined as net income (from continuous operations) over shareholders equity. Shareholders should analyze this ratio, among several other things, when deciding about investing more in a company.

Table II: Return on Equity = Net Income / Shareholders Equity

	2012	**2013**	**2014**	**2015**	**2016**	***Average***
Liverpool	14.5%	14.0%	12.4%	12.8%	12.5%	*13.3%*
El Palacio de Hierro (GPH)	8.4%	8.6%	3.1%	4.5%	5.1%	*6.0%*
Mexican market	N/A	N/A	8.5%	7.0%	8.6%	*8.0%*

b) As we can see in Table II, in average for the last five years, Liverpool has the largest ROE with 13.3%. GPH has had an average ROE in the last five years of 6.0%. Both companies have positive ROE, but only Liverpool is above the average of the Mexican market.

c) Once again, the trend for Liverpool is quite stable (between 12.4% and 14.5% per year). GPH has a significant decrease in 2014 and has not recovered to the levels of 2012 and 2013.

d) Neither of the two companies have done better in the last three years than the average of the last five years. This is, in both cases 2012 and 2013 had a better performance than that for 2014, 2015 and 2016.

THE DUPONT MODEL

a) The Dupont Model is a conceptual framework that Return on Capital Employed (ROCE), and profitability in general, can be explained and analyzed with two variable: NOPAT Sales Margin and Capital Employed Turnover. The first one is the margin that we get of NOPAT for every dollar of sales. The turnover is the sales over the capital employed. It will give us a measurement of efficiency in the use of resources invested. For example, a fancy restaurant has a low turnover (huge investment for every dollar of sales), but the margin is high (exotic prices for an exotic meal). On the contrary, a fast food has low margins but also a high turnover since investment is low and sales are relatively large for each dollar invested.

b) Usually this pattern is similar for companies in the same industry. In this case, average NOPAT Sales Margin is 10.3% for Liverpool and its average Capital Employed Turnover is 0.97. For GPH average NOPAT Sales Margin is 4.3% but its average Capital Employed Turnover is 1.05. Both of these companies probably have to work in improving margin and in improving turnover (just making sure they are not underinvesting in renewal of assets).

c) We use the framework of the Dupont Model to define strategies for a company, aimed to increase profitability.

FINANCIAL LEVERAGE

a) How is each company funding itself? In Table III we are presenting the Financial Leverage (usually known simply as "leverage") for the last five years for each of these two companies. This financial ratio is telling us how much of external sources are being used for the funding of the company. Financial leverage is defined as total liabilities over shareholders' equity. It is usually good to use external sources for funding the operation, but too much can increase the risks of not being able to pay financing on time. Cash inflows are usually seasonal and more unpredictable; payments to banks are fixed and monthly.

Table III: Financial Leverage = Total Liabilities / Shareholders Equity

	2012	**2013**	**2014**	**2015**	**2016**	***Average***
Liverpool	0.7	0.7	0.7	0.6	0.8	0.7
El Palacio de Hierro (GPH)	1.0	1.1	0.9	0.9	0.9	1.0
Mexican market	N/A	N/A	1.6	1.6	1.5	1.6

b) As we can see in Table III, in average for the last 5 years, GPH has a larger financial leverage with 1.0, while Liverpool has an average financial leverage of 0.7. But in both cases, they are less leveraged that the average in the Mexican market that is 1.6.

SOME OTHER RATIOS AND SOME GRAPHS

We do calculate around 20 financial ratios per company per year. Here below are some tables with some financial ratios for each company as well as some graphs. We hope you can better understand more of the financial analysis with financial ratios for these companies:

Table IV: Relevant Figures for 2016 (in million MXN)

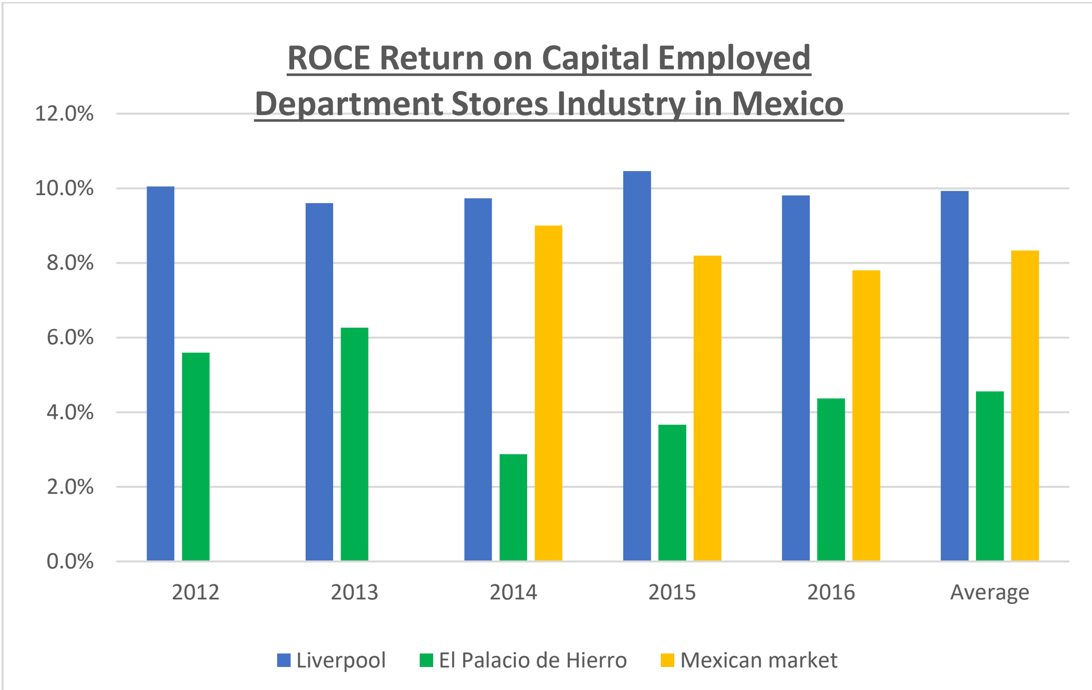
	Sales	NOPAT	Capital employed
Liverpool	100,442	9,854	100,488
El Palacio de Hierro	31,160	1,138	26,039

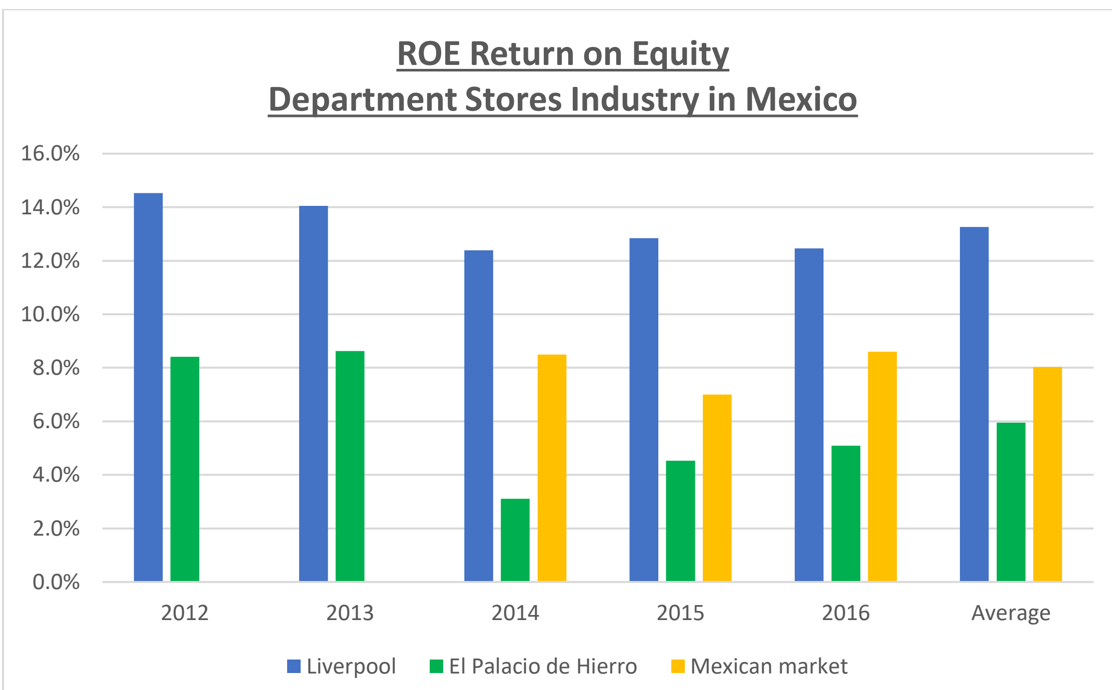
Table V: Some Financial Ratios for El Puerto de Liverpool

	2012 Dec 2012	2013 Dec 2013	2014 Dec 2014	2015 Dec 2015	2016 Dec 2016
ROI Return on investment	11.7%	11.1%	10.6%	10.9%	9.0%
ROCE Return on capital employed	10.1%	9.6%	9.7%	10.5%	9.8%
ROE Return on equity from continuing operations	14.5%	14.0%	12.4%	12.8%	12.5%
EBIT / Sales	15.0%	14.3%	13.5%	13.9%	13.3%
EBITDA / Sales	17.2%	16.6%	15.8%	16.3%	16.0%
NOPAT / Sales	10.9%	10.6%	9.9%	10.2%	9.8%
Sales / Total assets	0.78	0.78	0.78	0.79	0.68
Sales / Capital employed	0.92	0.91	0.98	1.02	1.00
Sales / Net PPE	1.71	1.71	1.76	1.89	1.89
Cash / Total assets	3.4%	1.7%	5.7%	7.4%	17.2%
Current assets / current liabilities	1.91	1.47	1.73	2.12	2.31
Total liabilities / equity	0.7	0.7	0.7	0.6	0.8
Depreciation / sales	2.2%	2.3%	2.4%	2.4%	2.6%
Days sales	95	104	94	90	84
Days inventory	96	93	88	92	97
Days payable	94	93	97	114	127
Accounts receivable / Accounts payable	1.71	1.87	1.63	1.32	1.11

Table VI: Some Financial Ratios for Grupo Palacio de Hierro

	2012 Dec 2012	2013 Dec 2013	2014 Dec 2014	2015 Dec 2015	2016 Dec 2016
ROI Return on investment	6.6%	4.9%	4.0%	4.3%	4.6%
ROCE Return on capital employed	5.6%	6.3%	2.9%	3.7%	4.4%
ROE Return on equity from continuing operations	8.4%	8.6%	3.1%	4.5%	5.1%
EBIT / Sales	7.9%	6.1%	5.0%	5.3%	5.1%
EBITDA / Sales	10.7%	9.1%	8.1%	8.5%	8.6%
NOPAT / Sales	5.4%	6.1%	2.9%	3.7%	3.7%
Sales / Total assets	0.83	0.80	0.80	0.81	0.91
Sales / Capital employed	1.04	1.03	0.98	1.00	1.20
Sales / Net PPE	1.84	1.79	1.65	1.74	2.10
Cash / Total assets	4.7%	5.8%	5.1%	4.6%	8.1%
Current assets / current liabilities	1.45	1.49	1.43	0.95	1.37
Total liabilities / equity	1.0	1.1	0.9	0.9	0.9
Depreciation / sales	2.7%	3.0%	3.1%	3.2%	3.5%
Days sales	78	80	74	46	43
Days inventory	89	99	97	91	74
Days payable	99	104	83	92	79
Account receivables / Account payables	1.28	1.23	1.41	0.79	0.84


ROCE Return on Capital Employed
Department Stores Industry in Mexico
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2012
2013
2014
2015
2016
Average
Liverpool
El Palacio de Hierro
Mexican market


ROE Return on Equity
Department Stores Industry in Mexico
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2012
2013
2014
2015
2016
Average
Liverpool
El Palacio de Hierro
Mexican market

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About Alberto Calva. His expertise field is finance and economy. He has been a business consultant for more than 20 years. He has given seminars and workshops in 8 different countries having trained with this around 10,000 executives and entrepreneurs from 20 different countries. He has a unique mix of academic, practical, entrepreneurial, hands on experience and board member background. He holds a Bachelor degree of Industrial Engineering, a Master degree of Economics and an MBA with a major of Finance.

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