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# Cruise Industry: Size Matters

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Abstract

This study investigates the relationships between several measures of market share and specific levels of financial performance.  The study focuses directly on the cruise line industry and pairs two significant firms to test the hypothesis. The two firms are Carnival Corporation and Royal Caribbean Cruises, Ltd. When correlating higher market share with the return on assets, operating margin and book-to-market aspect of performance it was discovered that higher market share produces higher productivity and efficiency.

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**BACKGROUND**

The cruise industry is a distinctive industry in the services sector of the market. The mobile resorts offer consumers high quality vacations. The industry is dominated by two companies, Carnival Corporation and Royal Caribbean Cruises Ltd., who hold over 70% of the market share. It differs from other companies in the resorts and casinos industry because it is mobile. The mobility of the cruise industry enables it to resist many of the regulations and laws that other companies face. The industry also has the Cruise Line Industry Association (CLIA), which serves as a lobbying and marketing arm that represents all the major companies in the industry, to help them maintain their influence.

The cruise industry was selected for this study because it is an industry experiencing unique competitive and legal stresses.  My interest centers on the strategies companies implement to deal with competitive and legal stresses as well as how market share has impacted financial performance.  Currently the industry faces pressure from customers, interest groups and most importantly the government that has created many problems for the industry. Recent mishaps have also made headlining news, shaking consumer confidence in the biggest firms in the industry and threatening the financial performance of the entire industry. Rising concerns over passenger safety have prompted government officials to pay more attention to the industry. The US government has threatened to reduce long-standing favorable tax laws for the cruise industry, which would have a sizable impact on the entire industry’s bottom line. Interest group concerns about the affect the industry has on marine life and air pollution has also provoked government action against the industry.

The two companies chosen for this study, Royal Caribbean and Carnival, have similar corporate board structures. This will reduce the affect of management strategy on the study. The two cruise companies have also been allowed to grow without any government intervention. This will also reduce the affect of outside factors, such as monopoly laws, on the study.

Recent tragedies for the biggest firms, Carnival Corporation and Royal Caribbean, collective with the general economic downturn have combined to amplify the pressure on industry decision-makers and exacerbate the process of generating financial returns for shareholders. Going forward the industry will need to repair its image, which will prove to be challenging because of the increasing government scrutiny and recent negative media attention on the industry. The reduction in consumer's disposable income also has reduced the demand for cruises.

My overriding research question has two components. First, what strategies have these two different firms selected and how are they different from each other? Second, what are the financial implications of the strategies? Specifically, with the independent variable being the firm's strategy and the dependent variable being the firm's financial performance – which company selected the most effective strategy for strengthening financial performance.

## LITERATURE REVIEW

There have been many studies that link financial performance to market share. Those studies have yielded inconsistent results with some concluding that it has no impact (Jacobson & Acker, 1985; Bain 1951; Rumelt & Wensley, 1981) and others concluding that it does make a difference on several measures of financial performance (Miller, 1969; Miller, 1967; Capon, Farley & Hoenig, 1990; Schoeffler, Buzzell & Heany, 1974; Gale & Branch, 1982).

A number of studies have concluded that market share does not drive financial performance. In other words, larger companies will not necessarily experience a stronger financial performance simply because they are larger (Jacobson & Acker, 1985, Rumelt & Wensley, 1981). The actual force behind both an increasing financial performance and increasing market share is management strategy (Jacobson & Acker, 1985).

Other scholars agree that market share does not drive financial performance, but they acknowledge the existence of several exceptions (Prescott, Kohli & Venkatraman 1986; Sheth & Sisodia 2002; Szymanski, Bharadwaj & Varadarajan 1993; Gale, 1972). The exceptions are firm and industry specific. For example, in industries with high advertising spending market share has an insignificant effect on profitability (Bass, Cattin & Wittink, 1978). It is also suggested that in an industry dominated by three firms, only the largest three firms will experience increasing financial performance with increases in market share (Sheth & Sisodia, 2002)

Many who have found that there is a positive relationship between performance and market share have used the Performance Impact of Marketing Strategy (PIMS) database. These studies have found evidence that market share is positively related to financial performance (Buzzell & Gale, 1987). The most prevalent measure used to estimate profit has been return on investment. Using the PIMS database many studies have concluded that the return on investment and market share are highly positively correlated.

The cruise industry is highly competitive. It follows the rule of three, which states that in unregulated industries there will be three big companies and several niche marketers (Uslay, Altintig & Windsor, 2010; Sheth & Sisodia, 2002). The rule implies that for only the largest three firms and for specialists there is a positive correlation for market share and financial performance. Consistent with the rule Carnival Corporation, Royal Caribbean and Norwegian Cruise Lines have approximately 75% of the market share and there are several small operators that have less than a five percent market share each.

The rule of three also suggests that the benefits of market share decreases at a certain point, some have suggested over 40% market share (Sheth & Sisodia, 2002) others have placed the crossover point at 25% (Kwoka, 1979). The reason for this is the increased attention they receive from regulators. Sheth and Sisodia, 2002, have also contributed the change to "diseconomies of scale", simply because they become too big.

Researchers that agree there is a positive relationship between market share and financial performance have proposed several reasons for the phenomenon. Among the reasons is market efficiency, economies of scale and market power.

Increased market efficiency has been proposed by Gale and Branch, 1982. They believe oligopolies, especially those with three dominant firms, are a very efficient market structure. Allowing companies to grow gives them the ability to become experts in their market and increase economies of scale. Thus they feel oligopolies should be allowed to exist.

Researchers suggest economies of scale as a leading cause for the relationship between market share and profitability (Gale & Branch, 1982; Buzzell & Gale, 1987; Schoeffler, et al., 1974; Buzzell, Gale & Sulten, 1974). Research suggests as firms become bigger they are able to cut down many costs. They are able to cut down costs related to marketing, promotion and some other things because of their increased size. Having more market share than their competitor gives companies more efficient operations (Sheth & Sisodia, 2002).

Market power, the ability to sizably impact supply and demand in an industry, has also been listed as a reason for the market share and profitability relationship (Buzzell, et al., 1974). By reducing demand or taking steps to increase supply companies with large market share have the ability to determine prices in their industry.

## METHOD

To determine the market share for the companies selected data was taken from the cruise market watch. The cruise market watch data combines information from various cruise lines worldwide, including small and specialty cruise lines. Business databases, such as Mergent Online, and the Cruise Line Industry Association use the information provided by the cruise market watch. To ensure accuracy and consistency in measurement the numbers were then compared to the numbers presented in the Carnival Corporation, Royal Caribbean and Norwegian Cruise Line annual reports.

Using cruise market watch provided data on smaller cruise lines, which are not publicly traded. The market share statistics given for 2011 and 2012 were measured by revenue and number of passengers carried. For this study the market share was measured using the number of passengers carried. The number of passengers carried was selected because it would reduce the effect of differences in pricing on the share. For example the market share for specialty lines would not be exaggerated by the higher prices they charge.

Financial performance was measured using both accounting and market metrics. The metrics were return on assets, operating margin, book-to-market ratio and the price earnings ratio. The numbers were sourced from the most recent annual reports for Carnival Corporation and Royal Caribbean.

The accounting metrics relied solely on the numbers reported in the 2012 annual reports for the two companies. Return on assets was determined by dividing reported net income by the total assets reported. Return on assets (ROA) was used because the cruise industry is asset intensive. It is also a very popular measure for determining return on investment and the productivity of a firm. It shows the amount of profit the company turned for every dollar in assets on the balance sheet.

The other accounting metric used was operating margin. Operating margin was calculated by dividing operating income by revenue. The operating margin is a measure of efficiency. It provides insight on how well a company manages operating costs. A low operating margin means that a company has kept variable costs down relative to revenue.

The market ratios used for this study were book-to-market and price to earnings. The book-to-market ratio was calculated by placing the book value per share over the adjusted close share price on the close of the company's fiscal year. The book value per share was evaluated by dividing common shares outstanding into stockholders' equity. An increase in the book-to market ratio signifies lower risk for investors, because there are more assets to support the share price. However a smaller book-to-market signifies increasing faith in the company.

Price to earnings was measured using the adjusted close price on the date closest to the end of the company's fiscal year and reported earnings per share. The price-to-earnings ratio illustrates the market's expectations of future growth. Under similar circumstances a company with a higher price-to-earnings is expected to grow faster. Yet a high price-to-earnings makes a stock more risky.

Since the ratios common-sized the numbers they were directly compared with each other. Increases in return on assets and operating margin were considered to be positive. Contrarily, a decreasing book to market was considered desirable. Price to earnings was interpreted in the context of the ratios produced. Graphs were also produced on all of the metrics for comparison purposes.

**MARKET SHARE AND STRATEGY**

Carnival Corporation: In 2011 Carnival Corporation & plc carried 9.5 billion passengers. This accounted for 49% of the passengers in the cruise industry that year. The percentage declined by 1% in 2012. During their fiscal year Carnival carried 9.8 bullion passengers, which amounted to a 48% market share in 2012.

I believe Carnival's decline in market share resulted from the negative headlines the company faced in 2012. The Board of Directors and Top Management Team did not do enough to address the public and reduce the negative headlines surrounding the event. This caused consumers to choose other cruise lines that they considered to be safer.

I believe Carnival's management strategy is built around being the biggest in the industry. Since the company is so big and will likely dominate the industry for the foreseeable future they will have to deal with increasing government scrutiny. Carnival Corporation differs from other firms in the industry because the Top Management Team and Board of Directors focus on increasing its market share through mergers and acquisitions.

Based on the market share that Carnival Corporation has I believe they will perform better on the accounting measures. I also think they will perform better on the market measures because of their size. The markets price should reflect the value of having a high market share.

Royal Caribbean: Royal Caribbean Cruises Ltd. had a 25% market share in 2011. The company carried over 4.8 billion passengers during the year. They suffered a 2% decline in passenger percentage in 2012. They carried over 4.8 billion passengers but it only amounted to around 24% of the total cruise passengers for the year.

In my opinion, Royal Caribbean is more innovative than the other firms in the industry. They focus on increasing market share by having high customer satisfaction and offering unique amenities. Though I think this is a better strategy than growing through mergers and acquisitions, because eventually Carnival will run out of companies to buy, it has not been as successful as Carnival's strategy.

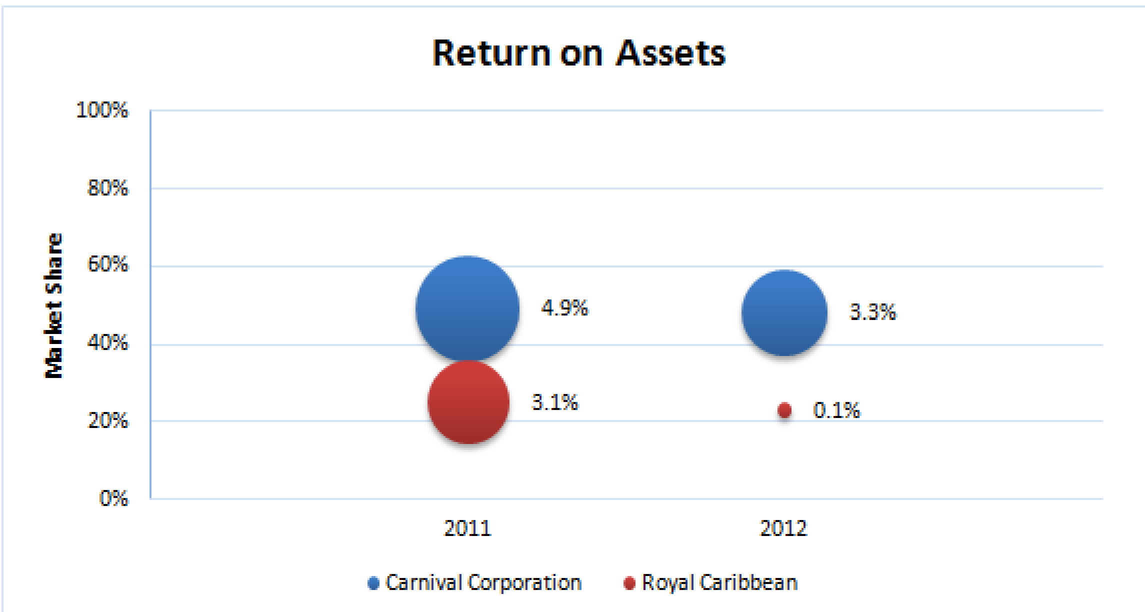
Royal Caribbean also suffered the consequences of Carnival's tragedy in 2012. Though the company followed the same strategy as Carnival, they lost more market share than Carnival. Since their strategy did not appear to be as effective, Royal Caribbean will likely perform worse than Carnival Corporation.

**RESULTS: Market Share to Performance**

Carnival Corporation, which had double the market share of Royal Caribbean Cruises Ltd., performed better in the return on assets (ROA) metric. The ROA for Carnival was higher than that of Royal Caribbean in both of the years assessed. In 2011 Carnival had a 4.9% return on assets while Royal Caribbean had a 3.1% in return on assets. In 2012 as share of the passengers carried declined for both companies so did their return on assets. Carnival Corporation's market share declined by 1% and their return on assets fell 1.6%. At Royal Caribbean return on assets fell 3% to just .1%.

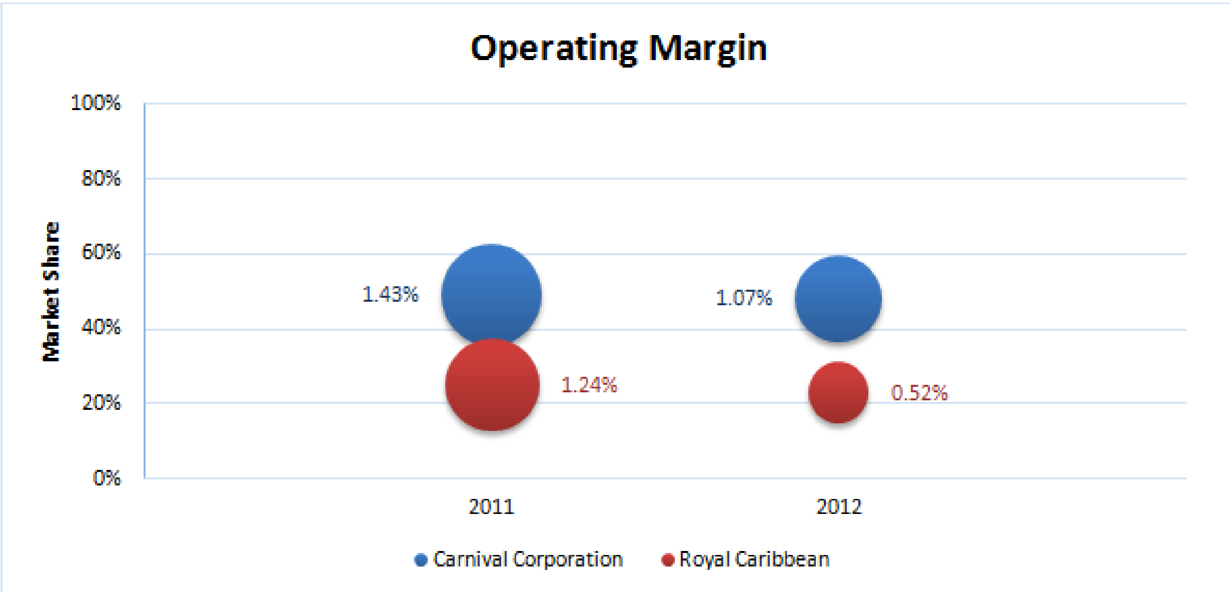
In my point of view, Carnival Corporation was more productive because they had a bigger market share. Having a bigger market share to begin with, made Carnival Corporation less susceptible to industry and economic downturns. Though they were less productive in 2012 than 2011, the firm did not have a big drop in productivity.

Royal Caribbean was not able to use its assets as productively as Carnival Corporation. Having a smaller market share may have been a leading cause for the difference in productivity during both years. I also believe the loss of market share at Royal Caribbean put further downward pressure on the company's productivity in 2012.




In operating margin Carnival performed better. As a percentage of revenue the operating income was lower for Royal Caribbean. Having the higher market share allowed Carnival to be more efficient with operating expenses and pricing strategies. For the 2011 and 2012 fiscal years while both companies experienced a deteriorating market share, they also had a decrease in operating efficiency.

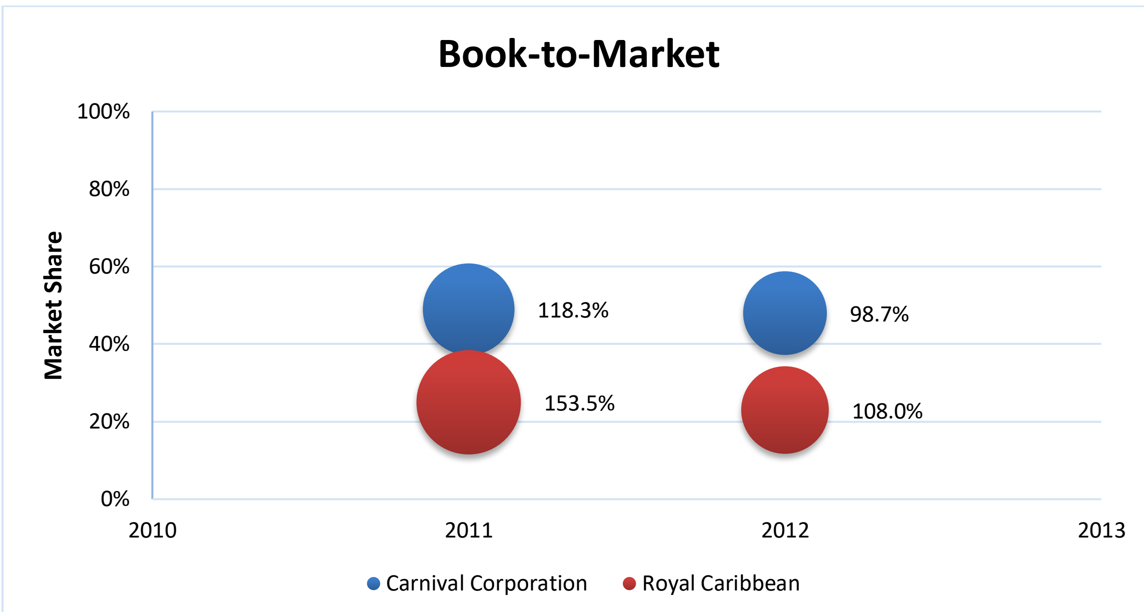
In agreement with Sheth and Sisodia, 2002 I think size does make a company more efficient. Carnival Corporation having more efficiency was a result of its market share. Having more companies also allowed Carnival Corporation to achieve higher economies of scale. In the cruise industry bigger companies can cut down variable costs and achieve other synergies that will make them more efficient.




Royal Caribbean had a book-to-market ratio of 153% in 2011. As their market share slid in 2012 so did the book-to-market ratio. Nevertheless the ratio stayed above 1 for Royal Caribbean. Carnival Corporation also experienced a decline in book to market ratio. The decline for Carnival was only half the fall Royal Caribbean experienced. The book-to-market ratio fell below 1 to 98.7% in 2012 for Carnival Corporation. The down turn in book-to-market ratio was 50% at Royal Caribbean and 20% at Carnival Corporation.

Based on the book-to-market ratio, Carnival Corporation is a riskier investment. The book-to-market ratio being below 1 means the company does not have the assets to support the stock price. It could also imply that part of the stock price is based on intangible value. The intangible value that I feel makes up for the difference is the value of being in the cruise industry and the added value of having almost half of the market share.

The higher book-to-market ratio at Royal Caribbean means the market does not have as much faith in the firm as they do in Carnival. Royal Caribbean's stock price was worth more than the book value of the assets for both years.




The price to earnings ratio for Carnival Corporation was 12.8 in 2011 and 22.4 in 2012. For Royal Caribbean in 2011 the price-earnings ratio was 8.6 and it rose to 419.6 in 2012. The price to earnings measures the faith the market has in a company. Based on the price-to-earnings it appears the market has greater faith in Royal Caribbean. As the market share slipped the stock price at both companies was higher in comparison to earnings.

Royal Caribbean's stock price was very high relative to their earnings, which was $.08 in 2012. The price to earnings of over 400 made Royal Caribbean a very risky investment. Royal Caribbean has also had very unstable earnings and financial performance over the past five years. This adds to Royal Caribbean being more risky than Carnival Corporation. Based on its 2012 price to earnings ratio Royal Caribbean was overpriced.

Carnival became more risky compared to itself but the company has been more stable than Royal Caribbean. When Royal Caribbean's price-earnings ratio was reasonable it was lower than Carnival's. This suggests that the market had more faith in Carnival Corporation than it did in Royal Caribbean. The company has a beta just above 1 compared to Royal Caribbean's 2.5. A higher market share could have been a contributor to Carnival's stability and the increased faith the market had for the company in 2011. This means that Royal Caribbean is a riskier investment and contributes to volatility that Royal Caribbean has had in earnings.

**DISCUSSION**

In the cruise industry companies with bigger market share tend to perform better financially. The market share at Carnival Corporation was almost twice as high as Royal Caribbean's for both 2011 and 2012. Carnival Corporation also performed better on the metrics chosen.

Based on my research companies with a higher market share are more productive and efficient than companies with lower market share. This can be a result of the increasing economies of scale as firm's become bigger. In the cruise industry being bigger can make a company more productive and more efficient at controlling prices.

The stock markets also appear to place a higher value on firms with a bigger market share. Carnival Corporation had a book to market ratio below 1 in 2012. This suggests that the stock price has intangible value built into it. In my opinion, the biggest intangible value built into the stock price is the market share the company holds.

Having a higher market share also made Carnival Corporation less vulnerable to economic changes. Both companies performed worse, relative to themselves, in 2012 than they did in 2011. However Carnival Corporation had only half of the downturn that Royal Caribbean experienced in the operating margin, book-to-market and return on assets.

Each company chosen, Royal Caribbean and Carnival, experienced a decline in market share between the 2011 and 2012 period. With a decrease in market share companies also experienced a fall in efficiency and profitability, respectively measured by operating margin and return on assets.

The results suggest that in the cruise industry companies perform worse as their market share declines. Decreases in market share are followed by decreases in profitability and efficiency. Having a lower market share also means that the decrease will be higher.

The study also implies that companies that are bigger, as measured by market share, are less sensitive to downturns. Though both companies experienced an overall downturn Carnival Corporation did not have as high a decrease in efficiency and profitability. Carnival Corporation's fall was only half of the fall experienced at Royal Caribbean.

## STUDY LIMITATIONS AND RECOMMENDATION FOR FUTURE RESEARCH

This study had several limitations. The first limitation is the use of only two companies and one industry. The use of only one industry limits the study because it looks at very specific circumstances. The results cannot be generalized across industries because the cruise industry is very unique. The industry is not sensitive to monopoly laws or other government regulations. The industry has several very small operators that do not publicly publish financial data.

The use of two companies also limits the study. The two companies chosen, Royal Caribbean Cruises Ltd. and Carnival Corporation, are the biggest in the industry by almost all measures. This limits the study further because most industries are not dominated by so few companies. Even in industries with dominant companies, firms usually do not have such a big market share.

Future research on the effect of market share on financial performance should include more industries. This would help generalize the study. It would also see if the relationship holds under different circumstances.

In the future research should also include more companies. Incorporating more companies would also help generalize the study. Especially, adding companies that are not at the top of their industry. This would allow future researchers to see if the relationship holds at all levels of market share.

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