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Financial Performance of Top 20 Airlines

Suat TEKER[a*], Dilek TEKER[b], Ayşegül GÜNER[c]

[a]Işık University, Istanbul, 34363, Turkey
[b]Işık UNiversity, Istanbul, 34363, Turkey
[c]Işık University, Istanbul, 34363, Turkey

Abstract

This emprical research article intends to analyse the financial performance of the top 20 airlines in the Word for the period of year 2011 and 2014. In order to measure the financial performance of the airlines on a uniqie base,an hormonic index is propesed by considering performance areas of profitability, operating, efficiency and liquidity. Next, each performance area is defined by using a various of performance ratios. Finally, all airlines companies examined are listed by their harmonic index scores. The total assets of the 20 biggest airlines are amounted over $457 billion in 2014 and Delta Airlines with an assest size of $54 billion is the biggest ailines. On the other hand, the highest revenue generated by Luftansa in 2011, 2012 and 2013 over $40 billion per year The emprical results show that the worst scores of harmonic index refer American Airlines in 2011, Soutwest in 2012, China Eastern Airlines in 2013 and Quantas Airways in 2014, while the best scores of harmonic index point Delta in 2011, Hainan Airlines in 2012 and EasyJet in 2013 and 2014. This analysis supports that the measurement of financial performance based upon total revenuue or profitability is somehow weak and may be extented by including other indicators.

Keywords: Financial performance; airlines; performance indices; harmonic index

1. Introduction

This emprical research intends to analyse and rank the financial performance of the top 20 airlines in the Word for the period of year 2011 and 2014. Over the last two decades, the troubled airlines were oftenly on news delebrating financial difficulties, layouts and distrupted sceduled flights. Many well-known airlines needed financial rescue and either received government fundings or seeked consolidation or a partnership. The previous literature are also interested in the financial performance of airlines and almost all agreed that the finacial performance of airlines needs to capture more extensive measures than solely total revenues and net income. Hence, this paper concentrates on a comprehensive performance measurement for the biggest 20 ailine company in the Word. In order to measure the

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* Corresponding author. Tel. + 90-535-980-0484

Email address: suat.teker@isikun.edu.tr

performance of the airlines a harmonic index is constructed considering the performance areas of profitability, operating, efficiency and liquidity. Based upon the key ratios representing each performance area an index value is produced for each company and for each year. The emprical findings support that the financial performance ranking by total income or net income may lead companies to follow different strategic decisions than otherwise stated by the harmonic index.

The paper is organized as follows. The next section covers the previous related literature. The section three explains the data employed and the model constructed. The later section presents the empirical results. The final section discusses the concluding remarks.

2.Literature Review

The financial performance of airlines influences short and long term decisions as well as shapes strategic planning. Literature usually indicates about the ongoing of operational performance metrics such as available seat kilometres, revenue per kilometre and load factor. In recent years however, financial performance for airlines doubted an interest of financial indicators and comparisons among firms. Feng and Wang (2000) indicates to analyse the financial performance of airlines by using metrics related to profitability, liquidity and solvency. Feng and Wang (2000) produced a performance indicator set.

There are several literature highlights the key financial performance indicators for the industry. Doganiz (1985) indicates that the profitability of an airline depends on the interplay of unit costs, unit revenues and load factors. He underlines that airlines should adjust costs and fares to generate more profitable pairs. Doganiz (1985) underlines that if the seats remain unsold, these seats flown or seat kilometers produced will be lost.

Altough financial ratios derived from financial statements used in stock market evaluations are so many, main are identified on similar patterns. To avoid modelling financial ratios repeatedly, the ratios are suggested to be clustered in some basic categories. (Deogun et al., 1997, Dubes and Jains, 1988, Eom, 1999). Wang (2008) highlights to divide ratios for airlines into four categories according to their related patterns. Wang review financial ratios of domestic airlines in Taiwan in subcategories such as financial structure, solvency, turnover and profitability. Feng and Wang (2000) develops a performance evaluation model for airlines in Taiwan that includes the consideration of financial ratios. They group the total performance of an airline in three categories as production, marketing, and execution. They indicate that any one of the three types of indicators can be replaced by another or can stand independent of another. This result reveals that transportation indicators or financial ratios cannot alone measure all performance aspects of an airline. To evaluate financial performance of a firm, there are various indicators to include in modelling. Leverage, liquidity, operational efficiency, profitability, company size, growth and systematic risk are the main tools to certainly examine. Financial leverage is the extent to which a company relies on debt. A leveraged company is the company with some debt in its capital structure (Ross, Westerfield, Jaffe and Jordan, 2011). Modigliani and Miller (1958) show in their theory (the MM theory) that the company with higher financial leverage involves higher risk for stock investors thus they require a higher return on the stock.

Liquidity or accounting liquidity refers to the ease and quickness with which assets can be converted to cash (Ross, Westerfield, Jaffe and Jordan, 2011). Liquidity is an important indicator of the company because it represents the company's ability to meet its short-term liability. The more liquid a company's assets, the less likely the company is to experience problems meeting short-term obligations. Kettler and Scholes (1970) find that company systematic risk is negatively related with the liquidity.

Operational efficiency illustrates how efficiently the company generates outputs by inputs, which is how efficiently the company is managing its assets. The company which has a high efficiency may be facing a small probability of loss or actual failure due to excellent management and therefore the company exhibits low risk (Borde, 1998). However, high efficiency may be because of implementing aggressive business strategy (Borde, 1998), for example, the company pursues fast sales growth without paying much attention to controlling the cost. In this situation, the company is facing a higher risk (Gu and Gao, 2000). Profitability shows the company's ability of covering all costs and providing some returns relative to sales or investments (Gu, 2002). The logic behind profitability is that the higher the profitability the lower the probability of company failure (Logue and Merville, 1972).

One another aspect is to analyse the relation between risk and financial performance. There have been many papers studying the relationship between company systematic risk and size which usually figured out a negative relationship. These studies state that the large company is too large to fail. Firstly, the large company tends to diversify its business more efficiently because of strong financial ability. Secondly, diversification can lower the risk since the violation of one business section can be diversified by other sections. Thirdly, large company can achieve economies of scale,