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Has the 2008 financial crisis changed the factors determining the systematic risk of shares in the “European Hospitality Industry”?(2003–2013)

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ABSTRACT

The main objective of this work is to study the connection between the systematic equity risk of European Hospitality Industry and a set of information from inside of the company and the market. Analyse the influence of the financial crisis upon the factors determining risk.

Our research estimates the beta of the shares of the companies making up our sample, according to the CAPM, and asks which factors (empirical research is factor analysis), configured with accounting information, and what macroeconomic information determine this beta and, accordingly, a share's risk, which, in turn, determines the cost of capital.

The results show that the factors determining risk are different before and after 2008. The study of the 2003–2007 period does not show any significant results, whilst that of the 2008–2013 period points to the information explaining risk being growth, business productivity (measured in different ways), liquidity and the size of the business.

The results of the empirical analysis performed herein are of great utility for business management, as they provide information of use in assessing shares' risk.

1. Introduction

Business management clearly influences business results and, obviously, the market value of a company and its shares. Business management establishes the value created by the company for the shareholder. Therefore, research focusing on improving any aspect of business management is of great interest to everyone, practitioners and academics alike, as its results are both highly applicable and of great utility. Van Scotter and Culligan (2003) clearly point out the importance of research in improving business management, as it boosts senior management knowhow and skills. In the field of business management, there are financial decisions that, in most cases, are based on or call for a measure of the cost of capital or a minimum return required for making a rational decision. These include evaluating investment opportunity and the market value of a firm or its shares. Given that the cost of capital depends upon risk, amongst other factors, understanding the factors that determine this risk is to understand the factors impacting the cost of money and, accordingly, to have available information that is important in managing risk and more objectively and accurately estimating the cost of capital.

Although Park and Jang (2014) note that risk management is a common topic in the field of hospitality and Tsai, Pan and Lee (2011) show that the study of the determinants of systematic risk has been a popular research topic in the 1998–2009 period, review of literature in the field shows that the results are varied and that most studies focus on US market data. Jang and Park's study (2011) states that, of the sample studied, 67.3 per cent of hospitality finance papers used data on US firms. According to Law, Leung and Cheung's study (2012), 51 of the 133 papers used data on the US market. So, although it is true that research focusing on the tourism industry has grown considerably in recent years, there is a need to obtain more specific results and adapt them into line with each individual market and industry. One of the reasons for greater specificity is that systematic risk, the risk that determines the cost of capital of shares, is not uniform across all economies and, as Foster, Kasznik and Sidhu (2012) show, country and industry factors

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impact upon the results. Another reason is the need clearly shown by Jang and Park's research (2011), where they conclude that future hospitality finance studies should diversify their target industry and country, whilst Tsai et al. (2011) comment upon the need to include more geographic regions to improve understanding of financial management. This is why we have analysed a sample of European companies in the accommodation and food services industry, Park and Jang (2014) conclude there is a need to carry out interdisciplinary research. More specifically, they indicate that one form of this interdisciplinary research could be to aggregate risk management with finance/accounting studies.

The tourism industry is a sector with an important specific weight in European economic growth, and it is therefore an economically important industry in which any improvement in the decision-making process will have great economic impact. In 2010, the tourism industry represented more than 10% of the European Union's GDP and recorded a growth, within the same area, of 37% in the number of establishments, bedrooms and bed places between 2004 and 2013. What is more, the volume of international arrivals to Europe grew by 10% from 2010 to 2012 and Europe had a 42.2% share of the tourism market in 2014.[1]

Studying the tourism industry is important for a number of reasons: a) the industry's economic impact upon the European economy; b) because tourism industry companies need to take rational financial decisions, and the more aware they are of them, the better their business management; c) because the risk determining the cost of capital is not the same for all industries; d) because businesses are constantly changing to adapt to new scenarios and regulations; and e) because the tourism industry is capital intensive and there is a need to improve research into capital budgeting (Jang & Park, 2011), a decision which requires determination of the cost of capital.

Recent work, such as that of Schulte, Dechant and Schaefers (2011), Artmann, Finter, and Kempf (2012), Chen (2013) and Boz, Menéndez and Orgaz (2015) demonstrate the scientific community's continued interest in investigating the determinants of a share's risk. Understanding a risk's determinants means being able to establish a behaviour model that makes the decision more rational and helps, you know which variables to observe to make good estimates and anticipate future effects. Therefore, the main goal of this article is to understand which factors determine the risk of shares in the accommodation and food services industry and whether the outbreak of the current financial and economic crisis in 2008 led to any change in these factors.

Our research incorporates the suggestions of Jang and Park (2011), Tsai et al. (2011), Lee and Jang (2012) and Park and Jang (2014). So, we: a) use data on the European market; b) use data on the accommodation and food services industry; c) perform a factor analysis because of the advantages it represents in the interpretation of results; c) aggregate risk management with companies' accounting information; and d) analyse the influence of the financial crisis upon the factors determining risk.

We analyse the accommodation and food services industry because it has seen little research. In their study, Jang and Park (2011) reveal that only 5.3% of work focuses on restaurant, hotel and other sectors, whilst the majority, 63.7%, looks at the hospitality industry. Law et al. (2012) corroborate this information, since this is the sector that saw most research in all the years analysed. We utilise factor analysis because it is infrequently used as a statistical technique: Jang and Park's study (2011) did not employ it as a technique, whilst in Law, Leung and Cheung's et al. work (2012), it appears in sixth place. In fact, only nine of the 133 studies analysed used this technique. Jang and Park (2011) note the need for applying more rigorous and diverse statistical analysis methods.

Kosova and Enz (2012) and Singh, Dev and Mandelbaum (2014) reflect the financial community's interest in understanding the effects of the crisis on management variables. The former study analyses the US hotel industry, finding that the financial crisis has a more prolonged effect but less impact on demand for accommodation. The effects of the financial crisis became worse over time, with greater negative impact on results after the fall of Lehman Brothers. Singh, Dev and Mandelbaum's article (2014) analyses the behaviour of certain indicators of hotel operating performance before and during the great recession and concludes that there is a positive and significant relationship between top-line measures and bottom-line profitability. The crisis did not begin to affect the industry until the last quarter of 2008, and the lodging industry was worst hit by the recession in 2009. The precipitous decline in top-line measures, occupancy and room rates resulted in a dramatic decline in bottom-line profitability.

The CAPM (capital asset pricing model) establishes that, to measure a share's systematic risk, you have to estimate the share's beta. Although the beta has been the subject of widespread criticism, its continued validity is sufficiently proven by the fact that it is still a concept explained in leading business finance manuals (Damodaran, 2012) and used by recent research, such as that of Schulte et al. (2011), Chen (2013) and Boz et al. (2015). The first uses the beta as an independent variable explaining European real estate equity returns, whilst the second and third use the beta as a dependent variable.

Our research estimates the beta of the shares of the companies making up our sample, according to the CAPM, and asks which factors, configured with accounting information, and what macroeconomic information determine this beta and, accordingly, a share's risk, which, in turn, determines the cost of capital. The results show that the factors determining risk are different before and after 2008. The study of the 2003–2007 period does not show any significant results, whilst that of the 2008–2013 period points to the information explaining risk being growth, business productivity (measured in different ways), liquidity and the size of the business, the same information as that obtained for the 2003–2013 as a whole.

2. Background

Although the tourism industry is a sector with a long history of research, reflecting the interest in and concern for improving knowledge and skills, that into economic and financial management has a number of features that mean we need to carry out further work in this specific field. As Scotter and Culligan (2003) rightly point out, research adds value to the hospitality industry, as it helps senior management to take better decisions. Obviously, the subject matters and focus of research work carried out are wide-ranging and varied. Studies by Scotter and Culligan (2003), Jang and Park (2011), Tsai et al. (2011), Lee and Jang (2012) and Park and Jang (2014) show the development of research and the different subject matters and techniques applied. One aspect common to all of these works is their interest in research into the hospitality industry and, if we focus on the work of Jang and Park (2011), Tsai et al. (2011) and Park and Jang (2014), the interest in research into hospitality finance is a common feature.

Scotter and Culligan (2003) note the benefits of research for

[1] The first figure was obtained from the study *La actividad turística en la Unión Europea en un entorno de crisis económica y financiera global* (Tourist activity in the European Union in a context of global economic and financial crisis). The second figure comes from Eurostat statistics and the third and fourth from the World Tourism Organization, the former from the document *Working Together in Europe - A Shared Leadership* (2014) and the latter from the document *Tourism Highlights 2014*.