Journal of Hospitality Financial Management

The Professional Refereed Journal of the International Association of Hospitality Financial Management Educators

Volume 29 | Issue 2 Article 2

2021

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Recommended Citation
Zuniga-Jara, Sergio and Soria-Barreto, Karla (2021) "Cost of Capital for Small Size Tourism Industry in Developing Countries: The Case of Lodging Sector in Chile," *Journal of Hospitality Financial Management*: Vol. 29 : Iss. 2 , Article 2.
DOI: https://doi.org/10.7275/tt9e-kj06
Available at: https://scholarworks.umass.edu/jhfm/vol29/iss2/2

THE JOURNAL OF HOSPITALITY FINANCIAL MANAGEMENT
2021, VOL. 29, NO. 2, 46–56
https://doi.org/10.7275/tt9e-kj06

Cost of Capital for Small Size Tourism Industry in Developing Countries

The Case of Lodging Sector in Chile

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ABSTRACT
This paper provides a simplified approach toward estimating the cost of capital for a small company of the tourism sector. This is accomplished by dividing the hurdle rate into the return of the specific industry in a specific country, and a specific risk premium dependent on the size and age of the company/projects. We illustrate our proposal with investment estimations in lodging accommodations along the northern coast of Chile where tourism represents an important source of income and jobs. The estimations were validated through a survey carried out among entrepreneurs of the sector. The results suggest that our method is realistic and practical, and could be adapted to economic sectors other than tourism and to other countries.

Keywords: hurdle rate, cost of capital, return on equity, Chile, investments, lodging house

Introduction

The cost of capital (capitalization or "cap" rate) is the rate of return required to persuade the investor to make a given investment. This is the cost of equity, which essentially is the amount that a business must spend in order to keep its investors satisfied and invested. The cost of equity is one of the components of the weighted average cost of capital (WACC), of which an estimation is required for a correct computation of the Net Present Value (NPV), the main tool in investment decision making (Tisdell, 2013).

The estimation methods of this rate, as suggested in the standard literature, can be applied (in a direct manner) to big corporations that trade their shares of stock in the stock market. The usual scheme for estimating the cost of capital is based on the Capital Assets Pricing Model (CAPM, by Sharpe, 1964). This model assumes that the realized (historical) returns in the stock market are an unbiased proxy of the returns demanded by investors. These traditional methods of estimating the capitalization rate do not seem to be directly applicable to small and medium-sized enterprises or businesses (SMEs or SMBs). Small businesses are under no obligation to make their financial statements (balance sheets) public, and thus there exist substantive limitations to access this information. This circumstance seems to a large extent to prevent the development of proposals to support well-informed investment decisions regarding SMEs.

Despite its importance, the body of studies in this area is very limited. It has special interest in developing countries, where currently tourism is both an engine of economic growth and an instrument for eliminating poverty and unemployment (Legrand et al., 2012). As a result, two main objectives emerge in this study. First, to offer a simplified methodological guide for estimating the cost of capital for new projects in the tourism sector, be it for SMEs in their initial stages (startups), or those already in operation. This would allow nonspecialists to obtain preliminary estimates in a simple and inexpensive way. The second objective is to validate the results of the model through a survey in order to estimate the discount rates used by microentrepreneurs of lodging

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houses in Chile. The study is organized as follows. In the following section, a review of the relevant literature is presented. The methodology is presented in the next section. The results are presented in the next section. And finally, the main conclusions of the study are presented.

Literature Review

Several of the difficulties faced by SMEs in estimating their cost of capital have been described by various authors, including Gompers and Lerner (1997), Denis (2004), Schlegel et al. (2012), and Schlegel (2015). The most prominent among the main problems is the scant public information available. In what follows, we concentrate on the solutions that have been suggested, focusing first on a review of the main approaches put forth for the empirical estimation of the hurdle rate. Although in many cases the organization of these techniques is difficult, in Figure 1 we propose a methodology that classifies them as traditional techniques with quasi-complete information, and techniques based on incomplete information.

Traditional Methods

When public information is available, the generally recommended approach is the standard Capital Asset Pricing Model (CAPM) (Lee & Upneja, 2008). This model has been subjected to numerous validity tests, with mixed results. These results notwithstanding, it serves as the starting point in the aforementioned estimations (Bloom, 2009; Madanoglu et al., 2012; Das, 2015). Simply put, the CAPM is made up of a simple equation expressing a positive relationship between return and risk: the expected return on a risky security (investment), R_s, can be thought of as the risk-free rate, R_f, plus a premium for risk: $R_s = R_f$ + risk premium. The risk-free rate is the return on a riskless investment, such as a T-bill. The risk premium is given by $(R_m–R_f)*\beta$, where R_m is the expected return on the market, and β is the systematic risk, a measure of the way the

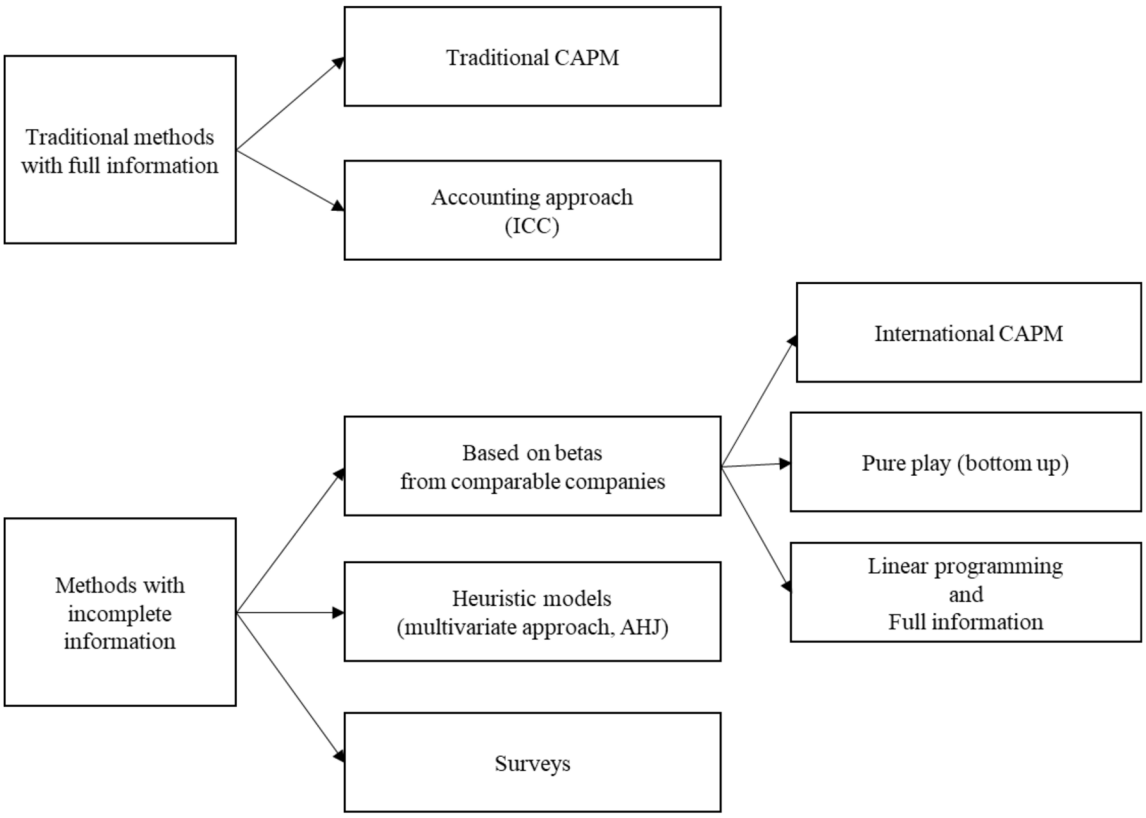

Figure 1. Main approaches in the literature for the empirical estimation of the cost of equity.

value of an investment moves with respect to the market.

An alternative approach to directly obtain the required rate of return, R_s, is the accounting approach, which proposes a relationship between measures of the balance-sheet risks and the systematic risk of a business (Hill & Stone, 1980). Some estimations by this approach can be found in Kulkarni et al. (1991), who use the accounting β of each division to calculate the rate of return for the divisions of a multi-product company. An extension of this method is the so-called Implicit Capital of Capital (ICC) approach, in which projections of specialists are incorporated to deduce the required returns, although it has not achieved wide acceptance either (Ohlson, 1995; Gebhardt et al., 2001).

Methods with Incomplete Information

This group includes several techniques, characterized by their employment of secondary sources to achieve an estimation of the required returns. In this case the primary source is not market data, since the business is likely too small or too new to have shares listed in the stock market.

Methods Based in Betas from Comparable Companies

One of these methods is based on the international CAPM, which focuses on methods to correct the CAPM and make it applicable to emerging markets, mainly the country risk (e.g., political, regulatory, institutional, and industry risks) (Harvey, 1995; Lessard, 1996; Godfrey & Espinosa, 1996). This approach is primarily oriented to support investment decisions in emerging countries of large international companies (usually from the United States), which generally trade on the stock market. Other variations of the previous method, based on the use of comparable companies, have been described by Smith et al. (2011).

Another approach seeks to estimate the pure operational risk (i.e., the unlevered beta, $\beta_{unlevered}$) of an open traded company that is the comparable company. This company belongs to an industry or sector comparable to that of the target company whose cost of capital is being estimated. Since they have similar operational risk, the greatest risk difference between them lies in their level of indebtedness (financial leverage). Hamada (1972) suggested that the risk β of the target company can be obtained from the $\beta_{unlevered}$ of the reference company using Equation 1:

$$\beta_{\text{target business}} = \beta_{\text{unlevered comparable}} * \left[1+(1-\text{tax})\left(\frac{\text{Debt}}{\text{Equity}}\right)\right] \quad (1)$$

This has become a rather popular approach. The assumption is that the fundamental difference between both companies is only the level of debt (financial risk). Subsequently, Rubinstein (1973) and others put forward a number of extensions of this equation, including the "Pure-play method" by Fuller and Kerr (1981), Fields and Kwansa (1993) and Damodaran (2012, chapters 23 and 24, using "Bottom-up methods"). Pure-play and Bottom-up are different forms of the approach just described, that is, calculating the unlevered β of the comparable firm (removing the financial risk element) and obtaining the β for the target firm.

Linear programming has also been used to obtain estimates of the risk parameter β for each industrial sector where a company operates (Boquist & Moore, 1983). It is implicitly assumed that a business is a project portfolio, and that the risk β of the company is a weighted β of those projects. More specifically, using the known corporate βs of several companies that operate in various industries or sectors, and also the market share of each company in each sector, a linear programming problem is formulated in which the sector βs are the unknowns. A solution can be found with an ordinary linear programming algorithm or through regression techniques, provided that the sum of deviations from the known information can be included in the equations and the minimization of these deviations is sought. An extension of this approach is known as Full-Information Approach, of Ehrhardt and Bhagwat (1991) and Basch and García-Huidobro (1997). Chua et al. (2006) found that the pure-play method estimations are better than the ones obtained with the full-information method. However, this method shares the limitation with the techniques based on estimating the β of comparable companies that it is generally difficult to assume that publicly traded companies can be compared

with small, closed-capital companies, or with new ventures.

Heuristic Models

Heuristics is about flexible approaches toward complex problems using methods that are simple and based on experience to generate sufficiently good, fast, and practical solutions, albeit not necessarily optimal. Heuristic models for the estimation of the cost of capital have been specifically designed for start-up companies, closed-end companies, and SMEs. The pioneering works in this area are those of Schilt (1982, 1991) and Gup and Norwood (1982). Schilt (1982, 1991) proposed discount rates in five categories, a risk premium that must be added for each category (see Table 1) on top of the estimated risk-free rate. As an example, category 1 describes "Established businesses with a strong trade position, well financed, with depth in management, whose past earnings have been stable and whose future is highly predictable" and assigns to them a Risk Premium of 6% to 10%. Category 5 describes "Small 'one person' businesses of a personal services nature, in which the transferability of the income stream is in question" and assigns a Risk Premium of 26% to 30%.

Gup and Norwood (1982) proposed a scheme based on 14 factors to estimate the cost of capital of Fuqua Industries, a large company with 22 divisions. Due to the diversity of commercial activities of the divisions, they considered differential discount rates, treating each division as a separate company. Every division received a score for each element, which then is converted into a final risk index to be compared with the β of companies that compete with the Fuqua divisions.

Table 1. Returns Demanded for Equity in Small Companies, in the United States

Authors	Cost of equity for SMEs
Wetzel (1981)	50%
Ruhnka & Young (1991)	54.8%
Plummer (1987)	40.6%–59.6%
Gompers and Lerner (1997)	30.5%
Guenther and Willenborg (1999)	29%
Bygrave et al. (1999)	50%
Kerins et al. (2004)	45.6%
Manigart et al. (2002)	46%–55% (cat. 6)
Conrick (2008), using the EBIT	49.9%

Note: Estimation reported is for the baseline scenario, most probable scenario or start-up phase.

Surveys (Experts)

One way of estimating the discount rate required by investors is to ask them directly, rather than trying to infer it from market information. This is "primary data," information obtained directly from the source. Using this approach, Conrick (2008) shows that the returns demanded by an entrepreneur are considerably higher than those required by investors in large companies. Roberts and Stevenson (1992) point out that in the case of venture capitals in the United States, target returns of 50% or 60% are not uncommon. Timmons and Spinelli (2007, p. 449) report annual rate of return for the seed and startup stages of 50–100% or more. Other authors have reported similar results. Table 1 contains some of them, and it can be seen that yields upward of 50% per year are required in the initial stages of some enterprises (Wetzel, 1981; Plummer, 1987; Ruhnka & Young, 1991; Bygrave et al., 1999). The information in Table 1 could be considered a good platform to generate more precise estimations. However, this information relates to developed countries, whereas similar estimates for developing countries are either nonexistent or very limited.

Other methods generate information from surveys, be it among the very same entrepreneurs or from specialists, and the data is subjected to multivariate statistical analysis. Cotner and Fletcher (2000) and Matos and Moura (2003) use the Analytical Hierarchy Process (AHP) to estimate the cost of capital for privately held firms. This technique combines information from both quantitative and qualitative factors that may originate partially or totally from surveys, and each factor or variable is weighted according to an inferred relative importance. Bufka et al. (2004) and Ingram and Margetis (2010) combine AHP methods with cluster analysis in the estimation of the cost of capital for the divisions of a company.

Cost of Capital of SMEs: A Proposal

As pointed out previously, the main goal of this research is to propose a simplified methodological guide for estimating the cost of capital for SMEs new projects in the tourism sector. The proposal seeks to help each small business, especially those in developing countries, to estimate its own hurdle rate reasonably well without incurring the cost

of financial databases. The idea is to provide each microentrepreneur with an initial estimation based on publicly available information. By and large, we follow the approach of Lessard (1996, Fig. 1), which amounts to include a series of additive "risk premiums": global premiums such as the country-level "price risks," the industry/competitive risks, and the project level risk. After explaining the method, as a way of illustration we apply it to a project which in essence is the installation of a lodging house in the north of Chile. The results are validated by comparing the estimation with the results of a survey conducted among owners of lodging houses in the same region.

A Heuristic Method for Estimating the Cost of Capital of SMEs

We take as established that the return demanded by an SME in any country (for instance, in Chile, $R_{SME\ Chile}$), can be written as the sum of two terms (Equation 2):

$$R_{SME\ Chile} = R_{industry\ Chile} + RP_{business} \quad (2)$$

where

$R_{Industry\ Chile}$ is the global return of the industry (market) of the country where the SME is located (where the investment will be made, for example, in Chile). This rate includes the country risk and the risks of the specific industrial sector of the project. Lessard (1996) shows that R_m estimates are higher in countries with higher country-risk levels, so that in developing countries investors demand greater returns as compensation for greater risks.

$RP_{business} = (R_{business} - R_m)$ is the premium associated to specific features related to the business (project) size and its development stage or age. This premium is the difference between the return demanded by the investor ($R_{business}$) and the market return of the country where the project is developed, R_m. We assume in the calculation of this premium that by subtracting the R_m of each country the resulting quantity would roughly be a constant. And this is the case, as will be seen below.

Industry Risk

To estimate $R_{Industry\ Chile}$ we use the CAPM and find that the expected return of an industry is equal to the risk-free return ($R_{f\ Chile}$), plus a risk premium equal to the difference between the market return of the specific country ($R_{m\ Chile}$) and the risk-free rate, multiplied by the β coefficient of that industry in the United States ($\beta_{industry\ USA}$) (Equation 3). In this equation it is assumed that the β coefficients of the different U.S. industries (computed generally using the S&P500 as a proxy of the R_m) are approximately the same as the industrial βs that would result in other countries if the R_m of each country were to be used in the calculation. This is so because obtaining estimates of the industrial βs in developing countries may be nearly impossible when there are not publicly traded companies. Or the estimate may turn out too unreliable if the number of companies in the industry is too low. This is the reason why we use as proxies the β estimates as obtained from data of stock exchanges with enough liquidity and international integration as the Americans.

$$R_{industry\ Chile} = R_{f\ Chile} + (R_{m\ Chile} - R_{f\ Chile}) * \beta_{industry\ USA} \quad (3)$$

Next, we will explain how we estimate the three main parameters of Equation 3.

a) The risk-free rate. A common approximation for the United States is the returns of the U.S. Treasury ten-year bond, that is, $R_{f\ USA}$ = 4.1%. This information is freely available at the Federal Reserve of St. Louis (FRED) and in Damodaran (2020a). For the R_f of other countries (Chile, for instance) we use the U.S. risk-free rate plus the Country Default Spread of each country (based on credit rating) (Equation 4).

$$R_{f\ Chile} = R_{f\ US\ 10\_year\ T\text{-}Bond} + \text{Country Default Spread} \quad (4)$$

In order to estimate the Country Default Spread, we consider the sovereign risk premiums (credit rating) from the Emerging Markets Bond Index (EMBI) as given by J.P. Morgan Chase. Another free alternative are the long-term foreign currency credit ratings for sovereign bonds (as reported

by Standard & Poor's, Fitch, and Moody's), which can be consulted in Country Economy (2020). Damodaran (2020c) provides tables summarizing the latest bond ratings and appropriate default spreads for different countries, which can be used as rough estimates of country-risk premiums. Some country data are shown in Table 2.

b) **Market return.** For the United States: Siegel (1998, Table 1–1) estimates it to be 7% real compound annual rate for the period 1802–1997, and 12.2% nominal for the postwar period 1946–1997. Harvey (1995, Table 1) calculates 13% as a geometric mean for the period 1976–1992. From this information we believe that a reasonable rate for our own calculations could be $R_{m\,USA} = 12\%$. For other countries, Qin and Pattanaik (2000) suggest that it is possible to obtain a reasonable estimation of a country's R_m by using the Country Credit Rating model (CCR Model). Erb et al. (1996, Exhibit 4) empirically tested the relationship between the CCR and the stock returns of 135 countries and arrived at Equation 5. This equation may be used in a predictive role, in the sense that with an estimation of the CCR it is possible to obtain the R_m of a specific country. An advantage of this approach is that the CCR data for a great number of countries is freely available in Institutional Investor (2020). For example, the CCR for Germany is about 94.7, and for Switzerland is about 95.2. Note that the negative slope in Equation 5 indicates that countries with a larger CCR (less credit risk) exhibit smaller returns.

$$R_{m\,Chile} = 53.71 - 10.47 \ln(CCR_{Chile}) \quad (5)$$

c) **Systematic risk coefficient, beta.** Estimates of industrial βs in the United States were obtained by Fama and French (1997). Nowadays, Damodaran (2020b) provides free estimates of industrial βs in the United States (Table 3). It can be seen in Table 3 that since the global risk corresponds roughly to β = 1, the specific risks of industries related to tourism are not very different from 1, whereas the utilities industry (general) and transportation exhibit fairly extreme β coefficients. D/E is the mean debt-to-equity ratio, a measure of financial leverage (financial risk). Unlevered β is the β of a firm without considering the debt, that is, the pure business risk.

When a company appears to operate in two or more different industries, the company's beta can be estimated as the weighted average of the betas of the industries in which it participates, weighted by the relative importance of each activity in the company's income.

Risk-Premium of a Business

Let us see more specifically how to estimate the specific risk-premium of a business that operates in some industry abroad, ($RP_{business}$). Regarding the rate of return demanded by investors to invest in businesses ($R_{business}$), Ruhnka and Young (1991) provide estimates for the five stages in the life of a typical firm operating in the United States: 70% for the first stage (seed), 52% for start-up (second stage); 41% for the third stage; 35% for the fourth stage (Venture Capital) and finally, 32% in the exit stage (sale or going public). Using the American R_m of 12%, the implicit risk premiums for each stage are 58%, 40%, 29%, 23% and 20%, respectively. In Table 4 we use

Table 2. Country Default Spreads from Moody's (January 2020)

Country	Moody's rating	Rating-based Default Spread
Argentina	Caa2	7.53%
Brazil	Ba2	2.51%
Bulgaria	Baa2	1.59%
Chile	A1	0.59%
China	A1	0.59%
Colombia	Baa2	1.59%

Source: Data from Damodaran (2020c).

Table 3. Betas by Sector (U.S.) Estimates as of December 2019

Industry name	Number of firms	β	D/E ratio	Unlevered β
Hotel/gaming	70	1.01	63.9%	0.68
Recreation	72	0.98	36.3%	0.77
Transportation	19	1.14	42.5%	0.87
Transportation (railroads)	10	2.47	26.9%	2.05
Utility (general)	18	0.27	71.4%	0.17

Source: Data from Damodaran (2020b).

these estimates and organize them in phases that are linked to size and development stage from seed to share companies in accordance with Schilt's scheme (1982, 1991). We implicitly assume that in any country the ratio of premiums for the various life stages is conserved. Thus, the rate of return demanded from any business ($R_{business}$) can be estimated by identifying its stage from the table and adding an estimate of R_m of the country where the company or project under analysis is located.

Illustration of the Method in the Case of a Lodging House in Northern Chile

Next, we apply our proposal to the estimation of the hurdle rate of an investment project on a lodging house in northern Chile, although it can be easily adapted similarly for other developing countries. The hospitality industry is a broad category of fields within the service industry that includes lodging, event planning, theme parks, transportation, cruise line, traveling and additional fields within the tourism industry. The hospitality industry is a multibillion-dollar industry that depends on the availability of leisure time and disposable income. A hospitality unit such as a restaurant, hotel, or an amusement park consists of multiple groups such as facility maintenance and direct operations (servers, housekeepers, porters, kitchen workers, bartenders, management, marketing, and human resources, etc.).

Let us start with an estimation of the R_f and R_m for Chile.

For the Chilean risk-free rate, from Table 2, the recent sovereign rating is A1, equivalent to a CDS of 0.59%. Therefore, from Equation 4, the estimate for the risk-free rate for Chile turns out to be 3.7% + 0.59 = 4.3%.

For the Chilean market return, named $R_{m\ Chile}$, we have an estimate of the CCR of Chile is 57.4 (Erb et al., op cit., Exhibit 6) and then, based on Equation 5, we obtain for Chile an $R_{m\ Chile}$ of 53.71 − 10.47 * ln(57.4) = 11.31% semiannual, i.e. 22.61% annual rate.

For the return of the tourism industry in Chile (abroad), Table 3 provides an estimate of $\beta = 1.01$.

From this, an estimate of the cost of capital for the tourism industry in Chile (for public companies in Chile) is $R_{industry\ Chile} = 4.3\% + (22.61\% - 4.3\%) * 1.01 = 22.8\%$.

For the premium for business-specific risk (considering only age and size), the typical business of this kind in the Coquimbo Region (northern Chile) belongs to category 3 of Table 4, that is, it is a small business. They employ between 11 and 49 workers, and often are family businesses. For this category, in the United States the investors demand, on average, total returns of 41%, and since $R_{m\ USA} = 12\%$, the premium for this category is $RP_{business} = 29\%$.

Table 4. Heuristic Method for Estimating Cost of Capital

Category or stage	Life stage—Size of company that would implement project under evaluation	$RP_{business}$
1. Seed	Microenterprises of 1 or 2 people and less than 2 years in operation. In the United States, investors typically demand mean returns of around 70%.	58%
2.	Start-up. Microenterprises that depend upon the special skills of one or two people. With less than 10 workers and may be managed by a single professional. In the United States, investors typically demand mean returns of around 52%.	40%
3.	Small business. They employ between 11 and 49 workers, and often are family businesses. In the United States, investors typically demand mean returns of around 41%.	29%
4.	Venture Capital. Mean-sized companies with between 50 and 250 professionals. In the United States, investors typically demand mean returns of around 35%.	23%
5.	Exit stage. Mean-sized companies with conditions to become public. Have stable past earnings and fairly predictable future. In the United States, investors typically demand mean returns of around 32%.	20%
6. Share company	Public company. They are big companies (over 250 employees). Part of their financing is public, and their finances are open to the public. The total return of these companies in a given country represents roughly the Market-Return (R_m). Established businesses with a strong trade position, well financed, with depth in management, whose past earnings have been stable and whose future is highly predictable. In the United States, investors typically demand mean returns of around 12%.	0%

Source: Based on Ruhnka & Young (1991) and Schilt (1982, 1991).

To summarize, our estimate for $R_{SME\ Chile}$ is $R_{Industry\ Chile} + RP_{business} = 22.8\% + 29\% = 51.8\%$. Figure 2 illustrates this by comparing the relative weight of the two main components in the final result.

Validation: Empirical Study

In order to compare the estimates from the previous method, we designed and applied a survey to 80 microentrepreneurs from the tourist accommodation sector. The survey was applied on November 2016 in the conurbation of the cities of Coquimbo-La Serena, in the Coquimbo Region, Chile. Tourism has a great economic importance in both cities. This survey was applied to the owners of micro and small hotels, hostels, residences, cabins, apart-hotels, and lodgings. This is a relatively homogeneous sector, in which companies share many characteristics, both in basic infrastructure and in the services they offer.

The survey consists of three sections. In the first, the company and the owner are identified, and it is verified that the person responding to the survey is the business owner. The second section characterizes the services being offered. In the last section, the employer was asked about the minimum annual profitability required for his investment (equity). As a proxy of minimum annual profitability, we use the Return on Equity (ROE), that is:

$$ROE = \frac{\text{yearly net income for the equity holder}}{\text{average business owner's investment}}.$$

For this, the microentrepreneur was asked to indicate the amount of money he would be willing to invest in a new project in his lodging house (for example, an expansion). Then he was asked how much money would be the minimum that he should get annually in compensation for that investment. Based on this estimate, an estimate of the return on equity demanded by the microentrepreneur was deduced. The majority of those surveyed were female (60%) with a mean age close to fifty-six years. On average, the lodging houses are thirteen years old, have fourteen bedrooms and employ slightly over three workers. The buildings on average barely exceed 600 square meters, and the average annual sales were USD 60,561 (1USD = $677 Chilean pesos).

Regarding the cost of capital, on average, the entrepreneurs indicated that they would be willing to invest USD 50,655, demanding an average return on equity (ROE) of 54.6%. When asked directly about a minimum return, the mean response was 52.4%. Both estimations serve, therefore, as proxies for the cost of equity capital of these SMEs. This can be compared with the 51.8% estimated in the previous section using the heuristic model. As we can clearly see, the values are not that different.

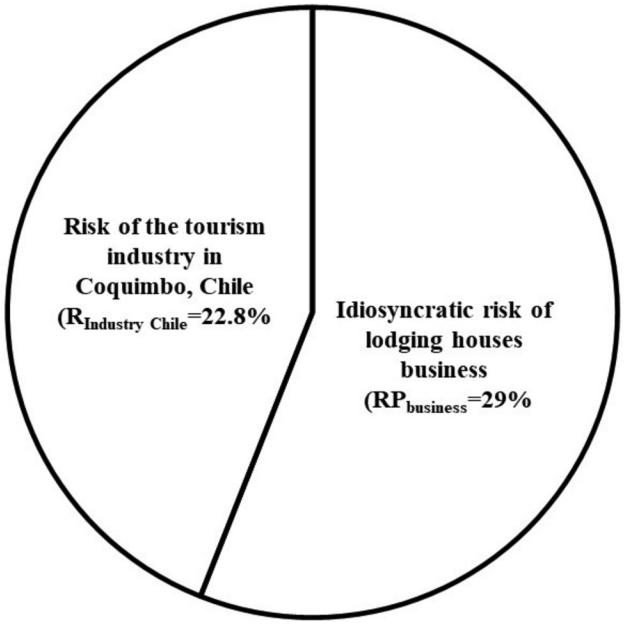

Figure 2. The two main components of the return demanded from investments on small lodging houses in Coquimbo, Chile.

Conclusions

No venture can see the light of day unless the investor sees the merits in terms of the capacity to create value. One of the big problems of management is to figure out how the small-business investors select the projects in which to invest. Although the entrepreneur's capabilities to estimate the perceived value is a critical factor, it is nonetheless desirable to develop more formal and analytic methods as guides for the calculations. At present there are not many suggestions for the estimation of the SMEs' hurdle rates on investments in developing countries. Worse yet, in practice this rate is postulated, or estimated by methods that are more appropriate for big corporations but are not so for SMEs. In fact, most of the recent research in the cost of capital has been

focused on obtaining more precise estimates for large companies in developed countries, either for their divisions or when analyzing their investments in emerging countries.

In this paper we review the existing literature on the most widely used valuation methodologies for estimating the return rate on SMEs and analyze the difficulties in implementing each one of them. Next, we make a methodological proposal and explain it step by step. In summary, we submit that the return demanded by a SME has two main components: the return of the industry, located in a specific country (abroad), plus a risk premium that captures, as it were, the effects derived from the business size and its development stage.

We follow up with real applications of our method in the hotel-tourism sector. Our estimates show a demanded return on equity of 51.8%. This rate seems to be relatively high, if compared to a rate of 10% or 15% generally used by default without any basis in fact. However, the literature review made clear that even in America, SME investors may demand return rates as high as 70%. It is only logical that there should be a gap in returns and risks between consolidated public companies and the SMEs. In the United States, 33% of new companies leave the market in the first year and 56% do so within four years (Headd et al., 2010). Dunne et al. (1988) reported that 61.5% of companies in the United States manufacturing sector left the business in the first five years, and that 79.6% did so in ten years. This reveals the inherent risk of new ventures, and justifies the demand for higher compensatory returns for those cases. In addition, companies that publicly trade can generally be seen as diversified portfolios, facing significantly lower risks than those faced by the typical entrepreneur. Ruhnka and Young (1991) estimated that U.S. investors demand a prize in profitability that increases according to the life stage of the companies. This prize goes up to 70% − 12% = 58% above the market performance of the United States (S&P-500) for the case of companies in the seed stage.

Implications

The results of our study suggest that our method is indeed realistic and practical. In particular, it could reduce the risk of low-quality investments among investors. In this sense, this study seeks to contribute to reduce the gap between theory and practice in the area of project evaluation. Furthermore, our methodology can easily and without modifications be adapted to economic sectors other than tourism and to other countries.

We compared our estimates with those stemming from the results of the survey applied to a sample of microentrepreneurs in the tourist accommodation sector of Coquimbo-La Serena (Chile). According to the survey, the return on equity (ROE) demanded is on average 54.6%. This result is not too far from our own estimate of 51.8% which was obtained by a simple application of the proposed methodology, which is the core of this work. The closeness of the results validates in great measure our proposal.

Then, by using freely available information, investors would be able to make better informed investment decisions in small businesses of developing countries. Needless to say, some adjustments will be required as appropriate.

Limitations and Recommendations for Future Research

We consider one of the main limitations of our proposal is the use of an extremely simplified model of a reality, which is complex. Our simplified estimation approach is subject to criticism and revision. A more precise model could be developed, incorporating more factors following an approach that generalizes our current proposal. A second group of limitations refers to the fact that we use publicly available and free information, and there are no sufficiently disaggregated estimates of risk for specific industries. On the other hand, two parameters of special importance in our model are the risk-free rate and the market rate, and currently there is no consensus on which are the most plausible estimates for either, developed or developing economies.

As recommendations for future research, we consider that the information included in Table 4, Heuristic Method for Estimating Cost of Capital, can be refined much more. New studies proposing methodological approaches that allow expanding the number of categories or stages for developing countries, and in various industrial sectors, would be valuable.

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