Investment In Lodging REIT Through The Lens Of Asset Qualities

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By

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BIOGRAPHICAL SKETCH

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ABSTRACT

Purpose – This research aims to explore the underlying factors that affect investors' investment decision on hotel REITs. Through this experiment, we will have a better understanding on what matters to hotel REITs investors when making investment decision.

Research method – Due to the lack of primary data, we designed a survey to collect first hand responses from investors. We received a total of 74 responses from investors, including but not limited to students, industry professionals and fund managers, etc. Among all, there are 27 responses recorded through online survey and 47 responses are recorded through paper survey.

Findings – Investors have two objectives when investing in lodging REITs – seeking for high return or reducing risk profile via diversification. This research reveals that the each investor has idiosyncratic investment preference. When investing in a lodging REIT, investor will not solely look at the performance at the REITs' firm level but also examine the characteristics at property level. For investors who seek high return, they are keen on hotel average daily rate (ADR) and occupancy rate. For investors who seek for risk diversification, they take consideration of other factors such as location, brand and operating cost, etc. Although these factors are part of REITs' firm investment criteria, they do not appear to have significant impact on investors' decision.

Keywords – behavioral investing, real estate, investment sentiment, lodging REIT

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LITERATURE REVIEW

As REITs became popular in capital market, investors rush into this new investment option to diversify their portfolio risk or to increase investment return. Most common way to group REITs is by property type such as industrial, retail, health care, hotels, etc. In choosing the right REIT to invest, investors have to understand not only the fundamentals of the firm from the property level but also comprehend the firm's structure at macro economy perspective. Across various industries, lodging REITs has generated highly expected interests from investors.

However, Jackson, L. A. (2009) found that there is little research given into lodging REITs due to its volatility and cyclicality. For investors who are interested in investing lodging REITs, we can categorize them into two groups based on two objectives– improving absolute investment return or seeking risk diversification. (Howton, 2012) If an investor is prudent enough, he or she would recognize the importance of understanding lodging assets as crucial means to assess investment opportunities in lodging REITs. Investors have heterogeneous criteria in relative to the kinds of hotel asset investments. Based on different expected return and risk tolerance, REITs investors make decisions in accordance to the asset characteristics rather than directly depend solely on the REITs stock price movement.

No.	Variables	Description
1.	High returns	Maximum returns expected in future from an investment.
2.	Diversification needs	Need to reduce overall investments risks

For investors with high expected returns, Geltner (1998) provided a theoretical framework on why investors focus on high return look for strong ADR and occupancy in hotel assets. The changes in the cash flow attribute is driven by property level ADR and occupancy. The strong cash flow would enhance overall net asset value across the REITs portfolio. Thus, a hotel's ADR gives a clue to the investors about how much a hotel guest is willing to pay at a particular time. Investors use this metric to forecast future revenue growth and to determine the terminal value of sales. Another metric is occupancy. Occupancy is the percentage of the available rooms occupied for a specific period. It's calculated as total paid rooms occupied divided by total available rooms. In many cases, investors do want to have a high occupancy than a low occupancy. However, it's not always true if the manager drops the ADR to boost its occupancy rate. High return investors

Giannotti (2001) conducted a research on whether geographic and sector diversification would reduce risk exposure for investors. The results demonstrated that by having diverse asset locations would lower the negative impact on performance. His research survey shows that among hotel investors have demonstrated that investment in diversified areas achieve more stable performance, which exactly fits into the goals of risk-averse investors. According to Booth and Fama (1992), investment with high expected return and high risks do not necessarily provide high return to the portfolio than investment with low return and low risks. The theory states that an asset investment with a low expected return but a low covariance may be more desirable than an asset with a high expected return but a high covariance. His research results further validated our survey outcomes – investors who values risk diversification are keen on location dispersion than operational results.

This paper will continue to explore investing behaviors in lodging REITs through the lens of property characteristics. The goal of this research aims to identify the level of significance of independent variables (ADR, brand, location, RevPar, occupancy and operating cost) to investors toward lodging REITs. By understanding the importance of these factors to investors can help lodging REITs to better position their investment strategies.

RESEARCH METHOD

Since there is no measurement or any available public data on this topic, we designed a survey to collect data from investors, industry professionals. The questionnaire is constructed on a scale base in which participants will be asked how they view each factor when considering their objectives in investing lodging REITs

The survey received 27 responses of online questionnaires and 47 paper questionnaires in total. Within these 74 samples, invalid data was deleted based the following rules: 1. if the survey is not finished; 2. if the respondent gave higher level of importance for High Return than Diversification, but ranked Diversification ahead of High Return, vice versa. After the selection, here are in total 61 valid samples.

Defining the variables and quantitative measures of responses.

1. Dependent Variables

(1) The Level of Importance of High Return

In the survey, respondents were asked to given their opinion about the level of importance for high return in real estate investment. The choices include: 1) "Not at all important", 2) "slightly important", 3) "moderately important", 4) "very important", 5) "extremely important". By reviewing the answer, most people give "moderately important" and "very important", while few people selected the first two choices. Therefore, "moderately important" is set as baseline (0), and accordingly assign -2,-1,1,2 respectively to the answer "Not at all important", "slightly important", "very important" and "extremely important". In this way, I define the variable HighRet and the value can be -2, -1, 0, 1, 2.

(2) The Level of Importance of Diversification

The importance of diversification in real estate investment is also divided into five levels, the same as that of High Return. The five levels of importance were translated into five numbers (-2 to 2) as the level of importance is ascending. In this way, the variable Divers and the value can be -2, -1, 0, 1, 2.

(3) The Relative Importance of High Return against Diversification

The respondents were also asked to rank High Return against Diversification. In most time, their ranking is in accordance with their answer of level of importance for High Return and Diversification. In cases that they give the same level of importance for the two factors, the ranking order further reveals respondents' preference. The variable is defined as RankHiRet. The value of RankHiRet is 1 if the respondent ranks High Return in front of Diversification while the value is -1 if the respondent ranks Diversification in front of High Return.

2. Independent Variables

(1) Average Daily Rate

(2) Brand

(3) Location

(4) Revenue per Available Room

(5) Occupancy

(6) Operating Cost

Category	Name	Variable	Definition
Dependent Variables	The Level of Importance of High Return	HighRet	The Respondents' choice of how they think high return is important in their investment.
	The Level of Importance of Diversification	Divers	The Respondents' choice of how they think diversification is important in their investment.
	The Relative Importance of High Return against Diversification	RankHiRet	The Respondents' rank of high return and diversification - which they think is more important in their investment.
Independent Variables	Average Daily Rate	ADR	The respondent chooses Average Daily Rate as the most important trait when valuing a hotel
	Brand	Brand	The respondent chooses Brand as the most important trait when valuing a hotel
	Location	Location	The respondent chooses Location as the most important trait when valuing a hotel
	Revenue per Available Room	RevPAR	The respondent chooses Revenue per Available Room as the most important trait when valuing a hotel
	Occupancy	Occp	The respondent chooses Occupancy as the most important trait when valuing a hotel
	Operating Cost	OC	The respondent chooses Operating Cost as the most important trait when valuing a hotel

Table 1 - Variable Table

MODEL DESIGN

In this research, we examined specific factors related to the real estate that will influence investors' investment preferences.

Firstly, we want to understand the six factors' explanatory power to each kind of investment preference. Through this model we can understand what concerned will lead to investors' perception of importance of High Return and the importance of Diversification need in their real estate investment, respectively. The model can be shown as below:

$$HighRet = a + \beta 1 * ADR + \beta 2 * Brand + \beta 3 * Location + \beta 4 * RevPar + \beta 5 * Occ + \beta 6 * OC \ (1)$$

$$Drivers = +\beta 1 * ADR + \beta 2 * Brand + \beta 3 * Location + \beta 4 * RevPar + \beta 5 * Occ + \beta 6 * OC \ (2)$$

Then, I further test what factors will lead investor to rank High Return as more important than Diversification. If the factor contributes to the preference of High Return, its coefficient will be significantly positive. If the factor contributes to the preference of Diversification, its coefficient will be significantly negative. The model can be shown as:

$$RankHiRet = +\beta 1 * ADR + \beta 2 * Brand + \beta 3 * Location + \beta 4 * RevPar + \beta 5 * Occ + \beta 6 * OC \ (3)$$

Empirical Analysis

1. Descriptive Analysis

	ADR	Brand	Location	RevPAR	Occupancy	OC
Extremely Important	7	2	1	1	6	0
Very Important	8	4	6	6	4	0
Moderately Important	1	5	7	1	1	1
Slightly Important	0	0	0	0	0	0
Not at all Important	0	0	0	0	0	0

Table 2- Frequency Table of Importance of High Return vs. Preferred Traits

From the Table 2, we can see that investors chose ADR and Occupancy seemed to be more likely to think High Return as extremely important. For those chose ADR as important trait, 15 out of 16 thought High Return was at least very important. For those chose Occupancy as important trait, 10 out of 11 thought High Return was at least very important. For those who chose RevPAR as important trait, 6 out of 7 thought High Return was at least very important. For those who chose Brand and Location as important traits, High Return was more likely to be of moderate importance. Only one respondent thought operating cost was important consideration of real estate investment.

	ADR	Brand	Location	RevPAR	Occupancy	OC
Extremely Important	0	6	7	1	0	0
Very Important	7	5	6	4	5	1
Moderately Important	8	0	1	3	6	0
Slightly Important	1	0	0	0	0	0
Not at all Important	0	0	0	0	0	0

Table 3 - Frequency Table of Importance of Diversification vs. Preferred Traits

Similarly, investors who are keen on diversification would much likely to have their focus on brand and location. A good brand has an intangible value that would improve hotel values and bring in benefits such as loyalty program, revenue management system and market information. 15 out of 16 people selected brand and location as extremely important factor in considering diversifying their investment risk.

	ADR	Brand	Location	RevPAR	Occupancy	OC	Total
High Return	15	2	1	5	10	0	33
Diversification	1	9	13	3	1	1	28
Total	16	11	14	8	11	1	61

Table 4 - Frequency Table of Relative Importance vs. Preferred Traits

In general, research in our samples showed that respondent preferred High Return to Diversification. Intrigued by its intrinsic relationship, we conducted a correlation analysis and regression analysis to further study the factors that affect investors' decision.

	HighRet	*Divers*	*RankHiRet*	*RankDiv*	*ADR*	*Brand*	*Location*	*RevPAR*	*Occp*
HighRet	1								
Divers	-0.1727	1							
RankHiRet	0.7363	-0.6802	1						
RankDiv	-0.7363	0.6802	-1.0000	1					
ADR	0.2908	-0.4122	0.4745	-0.4745	1				
Brand	-0.1844	0.3963	-0.3381	0.3381	-0.2797	1			
Location	-0.3303	0.3775	-0.5143	0.5143	-0.3254	-0.2560	1		
RevPAR	-0.0087	-0.0773	0.0655	-0.0655	-0.2317	-0.1822	-0.2120	1	
Occp	0.2795	-0.2752	0.3465	-0.3465	-0.2797	-0.2200	-0.2560	-0.1822	1

Table 5 - Correlation Matrix

*Operating Cost was excluded due to it's an non-zero value which has high collinearity with constant term

Findings: High importance of ADR shows positive relationship with high return. Both ADR and occupancy are important factor to risk diversification but does not show enough significance.

2. Regression Result and Analysis

	(1)	(2)	(3)
VARIABLES	Highret	Divers	Rankhiret
ADR	1.375**	-0.625	1.875***
	(2.02)	(-1.00)	(2.69)
Brand	0.727	0.545	0.364
	(1.05)	(0.86)	(0.51)
Location	0.571	0.429	0.143
	(0.83)	(0.68)	(0.20)
Revpar	1.000	-0.250	1.250*
	(1.42)	(-0.39)	(1.74)
Occp	1.455**	-0.545	1.818**
	(2.10)	(-0.86)	(2.57)
Constant	-0.000	1.000	-1.000
	(-0.00)	(1.65)	(-1.48)
Adj R^2	0.203	0.380	0.547
Observations	61	61	61

t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 6 - Regression Result

As we can see from the regression result of model (1), the coefficients of ADR and Occupancy is significantly positive. It suggests that those investors who think Average Daily Rate or Occupancy is important trait for their real estate investment decision, tend to place higher level importance of High Return. The coefficient of ADR 1.375 means that if an investor chooses ADR as his or her most important trait of real estate investment, that investor would probably consider High Return as lying between very important and extremely important. Similarly, the coefficient of Occupancy 1.455 also means that the investor choosing Occupancy tends to rate High Return between very important and extremely important. Besides, other traits such as Brand, Location and RevPAR are positive related to High Return choice but not significant.

For model (2), there is no specific traits that has significantly explain the choice of Diversification. However, from the sign of coefficients, we may say that those investors pick Brand and Location are more likely than others to give greater importance to Diversification.

In the the regression result of model (3), the coefficient of ADR is significant under 0.01 significant level, the coefficient of Occupancy is significant under 0.05 significant and the coefficient of RevPAR is significant under 0.1 significant level. This result suggests that investors who think ADR, Occupancy or RevPAR is important trait tend to rank High Return as of greater importance than Diversification.

DISCUSSION AND CONCLUSION

From the analysis, we can further conclude that investors who are keen on ADR and occupancy are more concerned with return expectation. The better hotel performance on the property level, the better the value creates for a lodging REIT. According to (Quan 2002), hotels drive their revenues mainly from room rate and food & beverage sales which changes based on daily demand pressure. The flexibility of changing price may suggests that lodging properties provides a greater return when compared to other assets. REIT properties may benefit from professional corporate management skills, which allows them to make less mistakes in financing, evaluating and managing the real estate.

Admittedly, the financial results on the property level have correlation with the performance of lodging RETIs, which ultimately can influence investors' investment decision. Investors with low risk tolerance would examine properties with hedging characters such as diverse locations and distinct hotel brand. Jackson, L. A. (2009) noted that the growth of lodging REITs sector has shown substantial performance improvement since its inception. Investors' decisions are motivated by catalytic events or unique geographic location because these characters contribute to the stabilization of portfolio cash flow.

Last but not the least, we want to highlight the essence of this study – different asset attributes can attract different investors based on their objectives. Hotel characteristics such as location, brand and asset management operator can all have an impact on the value of hotels, which ultimately impact the overall REITs portfolio.

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