



Scandic journal of Advanced Research and Reviews

The Effect of Innovation on Hotel Firm Value

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1. INTRODUCTION

This “study analyses the effect of innovation on the firm value of hotels. Innovation is a critical element in today’s tourism companies (Sundbo et al., 2007; Martínez-Ros and Orfila-Sintes, 2009). It certainly helps firms reach and keep higher competitiveness standards (Aldebert et al., 2011; Hjalager, 2002; Kumar et al., 2008; Pulido et al., 2011; Rodgers, 2007; Zach et al., 2010) as well as growth (Love et al., 2011). In the context of hotel management, Chen (2011) points out that innovation appears to be the only means for an organization to convert change into opportunities and thus succeed. In a recent article, Hjalager (2010) describes innovation research in tourism as a young phenomenon, suggesting several research gaps that should be tackled in order to get further insights that contribute to consolidating the theoretical underpinnings of tourism innovation. Specifically, this author, among others, points out a research gap in tourism innovation that should attract more analysis: the relationship between innovation actions and their economic performance. This author explicitly raises the question of examining what types of innovation produce what level of results. In an attempt to add to the

extant body of knowledge on the topic, this study analyses the effect of different types of innovations on the hotel industry's market" value.

1.1 PROBLEM STATEMENT

There are very few studies available in the field of tourism innovation explaining the effect of innovation on the firm value in context of Pakistan. So this study will fill this gaps and will thoroughly examine the effect of innovation on the firm value in case of hotel industry in Pakistan.

1.2 RESEARCH OBJECTIVES

The main objectives of this study are:

- a) To find the relationship between innovation and hotel market value.
- b) To find out the innovation types difference over firm value.

1.3 RESEARCH QUESTIONS

- 1) What is the relationship between innovation and firm value?
- 2) Does the type of innovation make a difference?
- 3) In what ways innovation effects firm value?

With this "objective, the subsequent sections of the article are arranged as follows: Section 2 presents the literature review of innovation in the hotel industry and justifies the hypotheses; Section 3 outlines the methodology and data employed; Section 4 describes the results; and Section 5 presents the" conclusions.

CHAPTER 2 - LITREATURE REVIEW

2. THEORITICAL BACKGROUND OF THE STUDY

2.1 INNOVATION IN THE HOTEL INDUSTRY

According to Hjalager (2010), “the analysis of innovation in tourism helps us to understand its economic dynamics and, in this regard, several authors have studied different facets of hotel innovation: Jacob et al. (2010) examine environmental innovation as a competitive factor, Pulido et al. (2011) identify the critical external factors that influence innovation, González and León (2001) describe the determinant factors of environmental innovations, Hashim et al. (2010) explore the relationship between hotel characteristics and Internet adoption, Orfila-Sintes et al. (2005) show the characteristics that lead hotels to innovation, and Chang et al. (2011), Chen and Cheng (2012), Davidson et al. (2006) and Martínez-Ros and Orfila-Sintes (2012) analyse innovation through human resource management” practices.

In overall terms, “four problems affect innovation management and its current practice (Van de Ven, 1986): the human problem of managing attention, the process problem of managing ideas into good currency, the structural problem of managing part–whole relationships, and the strategic problem of institutional leadership. Interestingly, these problems are still to be disentangled today; in a more recent publication, Van de Ven and Engleman (2004) still consider them to be core aspects in managing corporate entrepreneurship and innovation. These issues can be summed up as follows: (1) the human problem of managing attention. People are so focused on their daily activities in the company that they do not pay great attention to the development of new ideas. The question here is that, unless there is leadership intervention, organizational members focus their attention on routine, rather than innovative activities. (2) The process problem of managing ideas into good currency. While conception of innovative ideas may be an individual activity, innovation (implementing new ideas) is a collective effort

of pushing those ideas into good and wider acceptance. (3) The structural problem of managing part–whole relationships. Ideas can come from different areas of the firm, and multiple functions and resources are needed to transform an innovative idea into reality, so the question is how to put together all the parts to form a whole. (4) The strategic problem of institutional leadership. There is general agreement that institutional leadership is needed for organization innovation, particularly when a firm has to consider alternative ways of doing” things.

“Underlying all these issues is the relationship between innovation and performance: how can managers measure the effectiveness of the solutions to the above issues”?

Innovation “has been proven to be one of the most important determinants of organizational performance. Certainly, innovation activities are carried out to achieve, among others, production and marketing goals such as enhancement in product quality, production cost control, market share reinforcement, reaching new markets, production flexibility or improvement in management performance (Quadros et al., 2001; Walker et al., 2011), but innovative actions also foster an organizational learning climate with an enhancement-oriented approach with ongoing efforts aimed at reaching improvements, renewals, and even learning from unsuccessful strategies (Gunday et al., 2011); note that the integration of technical and/or administrative changes into the organizational structure permits, first, adaptation to a competitive environment in which the only thing guaranteed is that change is a constant (Gunday et al., 2011), and second, improvement of the level of goal achievement (Damanpour and Evan, 1984). Not for nothing, Han et al. (1998) show that innovative activities lead to organizational growth and profitability, as they allow the firms to get synergies from the combination of technical and administrative” innovations.

The central point is, “therefore, how to measure the innovation–performance relationship. Critical decisions made by hotel managers, such as innovation investments, are obviously

aimed at increasing the value of the company and, as a final objective, the creation of profits for investors. Consequently, a value-creating decision-maker must choose value-creating investments. When it comes to the analysis of the effect of innovation on tourism performance, research is limited” (Hjalager, 2010).

The “assessment of innovation on firm performance has been generally carried out through accounting measures, which rely on the figures that appear in the company’s balance sheet and income statement. Even though these measures provide a historical record of the past and present situation of the firm, they can be insufficient because (Myers, 1972): (i) they do not incorporate investor expectations of future profits; (ii) they could lead to confusion due to the deficiencies inherent in their dependence on different conventions (e.g., rate of depreciation), which make comparisons difficult; (iii) they do not reflect all the opportunity costs supported by the firm; and (iv) they do not allow the adjustment of differences in performance for differences in the risk supported by” companies.

With a different approach, “this study relies on market value. Market value has the advantage that it is based on growth prospects: assuming that shareholders behave rationally, share prices should reflect the present value of future cash flows and, therefore, it constitutes a good indicator to measure the impact of innovation activities on firm performance. Market value is defined as the product of the number of shares by the share price, which is considered to be the best unbiased estimate of the value of any investment. Market value analyses, such as the event study method, are founded, in the portfolio theory of financial economics, on the premises that stock markets are efficient and that a company’s share price reflects its strategy (e.g., innovation). In an efficient stock market, share prices reflect all the available information on a company. In fact, any information received by the market (e.g., on innovation activities) will be instantly incorporated into the share” price.

Likewise, “any change to a company’s share price will reflect, without bias, alterations to its future cash flows. Therefore, the introduction of new information on innovation allows an examination of share price behaviour to explicitly analyse the underlying change to unbiased market predictions on future returns on the said innovation activity. This allows separation of returns derived from innovation activity by isolating them from the impact of other events. Accordingly, the use of market value facilitates the analysis of the effect of innovation on performance by estimating unbiased market predictions on future profits. As outlined later, market value is a forward-looking firm performance indicator that overcomes all the difficulties of the traditionally used backward-looking firm profitability” (such as accounting measures).

Moreover, “when measuring innovation effects, it is important to consider innovation variety. Martínez-Ros and Orfila-Sintes’ (2009) emphasize the strong heterogeneity and wide array of complex and highly innovative activities conducted in services. Certainly, the distinction of innovation types is not a straightforward task, especially because some of them might be intertwined, resulting in a more complex combination of effects (Hjalager, 2010; Oslo Manual, 2005). The two most used classifications by far are incremental vs. radical innovations (Dewar and Dutton, 1986), and the Schumpeterian taxonomy” (Schumpeter, 1934; Oslo Manual, 2005).

Hjalager “(2010) also indicates that distribution innovations and institutional innovations are attempts to incorporate specificities of innovation in tourism. Following this trend, this article focuses on the OECD’s four categories, which are described next and exemplified with cases obtained from the sample” used.

Product Innovation is the “introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics. Product innovations can utilize new

knowledge or technologies, or can be based on new uses or combinations of existing knowledge or technologies (Oslo Manual, 2005). Note that the notion product encompasses goods as well as services, and in either case, it implies a complex process influenced by technology development, shifts in customer needs and wants, length of product life cycles and degree of global competition” (Gunday et al., 2011).

Process innovation “is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. Process innovations can be intended to decrease unit costs of production or delivery, to increase quality, or to produce or deliver new or significantly improved products (Oslo Manual, 2005). Note that, according to Gunday et al. (2011), process innovations are linked to technological developments. Here, special mention should be made of the role of ICT as a prevalent element in hotels process innovation, which is considered a critical investment in today’s tourism system. As before, all these innovations come with a cost that is expected to be subsequently paid-off. In fact, note that the emphasis in process innovation is on its cost-cutting nature (Fagerberg et al., 2004); that is, a basic objective of process innovation is to reduce costs irrespectively of the expected demand” (e.g., Sol Meliá once announced that was going to take part in Endesa’s Energy Program to learn how to efficiently use energy in their hotels).

Organizational innovation is “the implementation of a new organizational method in the firm’s business practices, workplace organization or external relations. Organizational innovations can be intended to increase a firm’s performance by reducing administrative costs or transaction costs, improving workplace satisfaction (and thus labour productivity), gaining access to non-tradable assets (such as non-codified external knowledge) or reducing costs of supplies (Oslo Manual, 2005). In other words, the introduction of new organizational methods within the firm to improve its operational practices, which are related with administrative efforts aimed at

renewing the organizational routines, procedures, mechanisms or systems and promoting teamwork, information sharing, coordination, cooperation, collaboration, learning and innovativeness (Gunday et al., 2011). This type of innovation activity is not only important for the firm's day-to-day operations but it is also especially relevant for tourism companies, which need to keep their best personnel from being lured away by competitors; or simply make their engagement with the company stronger (Ottenbacher and Gnoth, 2005; Hall and Williams, 2008). As examples, both NH and Sol Meliá have established variable monthly salaries for their staff depending on the share price or on the objectives" accomplished.

Marketing innovation is "the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing. Marketing innovations are aimed at better addressing customer needs, opening up new markets, or newly positioning a firm's product on the market, with the objective of increasing the firm's sales (Oslo Manual, 2005). It entails actions such as detecting new segments, redesigning promotional messages or introducing new alternative pricing methods (Ladany, 1996). A constant activity within this category is exemplified by loyalty programs" (Hjalager, 2010).

2.2 HYPOTHESES DEVELOPMENT

According to the previous literature review, two hypotheses are stated concerning the innovation–performance relationship.

Hypothesis 1. "The development of the first hypothesis justifies the relationship. In general terms, there is agreement on the positive relationship between innovation and performance (Orfila-Sintes and Mattsson, 2009), on account of the higher probability of survival (Hall and Williams, 2008), higher competitive edge gained (Victorino et al., 2005), the differentiation reached (Walsh et al., 2008) and cost reductions attained (Chan et al., 1998). As Quadros et al. (2001) and Walker et al. (2011) indicate, innovation allows companies to achieve improvement

in different facets such as quality, costs, market share or production, among others; all of these advantages leading to improved organizational growth and profitability (Han et al., 1998). Therefore, according to the literature review in the previous section and the above research showing a positive relationship between innovation-related activities and performance, Hypothesis H1” states that:

H1 “Innovation has a positive effect on hotel market value”

Hypothesis 2. “The second hypothesis considers innovation diversity and performance. Within the analysis of the effect of innovation on performance, Hjalager (2010) stresses the need to examine what types of innovation produce what type of results. At this point, it is important to emphasize the fact that not all innovations are equal or have the same implications (Amable and Palombarini, 1998; Tether et al., 2001; Zach and Fesenmaier, 2009), which is why Hjalager (2010) claims that more research is needed to evaluate the potentially differentiated effect of innovation types on performance. Certainly, on account of the different innovation types, the key question is which one is expected to have a greater impact on firm market value. No universal statement can be established, since there are differences both between and within innovation” types.

A prior, “no ranking among product, process, organization and marketing innovations can be set as it all depends on the amount of costs and sales expected. So far, abstract affirmations have been stated such as, process innovations are more influential than product innovations (Hjalager, 2002; Weidenfeld et al., 2010), hotels introducing new technological systems of delivery experience cost reductions (Chan et al., 1998), process, delivery and organizational changes are the usual innovations in hotels (Jacob et al., 2003), or increases in demand, and therefore net profits, are expected when implementing new energy systems (González and León, 2001). As stated, it is not straightforward to make general assertions on the issue. On the

one hand, an innovation is introduced with the expectation of generating higher demand: one could argue that an improvement might increase the loyalty of customers and increase chances of gaining new ones, in line with Deming (1986), which, subsequently, is translated into a larger market share. On the other hand, the high cost that might be implied by the new investment has a strong effect, especially on industries with huge fixed costs, like the hotel sector, this fact makes hotels strongly revenue-dependent (Graham and Harris, 1999). Consequently, on account of the different nature of each innovation type and their effects on costs and sales, Hypothesis H2” states that:

H2 “Different innovation types undertaken by hotel companies have different effects on their market” value.

CHAPTER 3 - RESEARCH METHODOLOGY

The “methodology is built on the following steps, estimation of abnormal returns, in which several sub-steps are followed; and second, detection of differences in innovation” types.

The “abnormal returns on a sample of innovations are estimated through an event study, which implies the identification of the date of the first announcement. Event studies base their formulation on the idea that a particular event, such as an innovation announcement, affects the value” of a firm.

3.1 PURPOSE OF THE RESEARCH

The “objective is to observe the variation in hotel market value as a consequence of an innovation announcement on the day” of the release.

3.2 SAMPLES AND POPULATION

In “first step detects the innovation activities carried out by the only two hotel companies trading in the Pakistan Stock Market between 2011 and 2020, Marriott and PC Hotels. The

company website data and other online sources will be used, which provides information on headlines and news items published in different newspapers of international and national coverage, as well as those of general and/or specialized content. To this end, a combination of key words is used, such as the company name, innovation, innovate, novelty, new product, new service, new process, new procedure, new system and new technology among others. The event day is defined as the first day in which the news is divulged in any of the publications used for the database. The search detects a sample of 24” innovations.

3.3 SOURCES OF DATA

In “the second step uses a 11-day event window to test for any abnormal behaviour in company share returns; i.e., the five days before and after (-5, +5) the announcement date. The reason for using an event window rather than just a single day is that, although it is expected that the majority of innovation information is quickly incorporated into share prices, it occasionally either leaks out before formal publication or is held” back.

Next, “we will look for possible confounding news published in the event window, such as takeover bids, profit announcement, dividend declarations, split announcements, complaints, claims, government contracts, court cases, or labour disputes, etc. Fortunately, no such news items are found in the event window. Although this sample size could a priori seem somewhat small, the usual empirical applications of the event study technique show that it is large enough to detect reactions in share prices (see for example, Gómez (2001)). Also, it is important to stress the fact that the data collection process guarantees that these are all the news items released during the study” period.

3.4 RESEARCH MODEL

The “study estimates the market model after collecting data on market measures of performance, i.e., returns on the share price. Different frequencies (daily, weekly, monthly,

annually, etc.) might lead to distinct measures, but the daily news collection procedure employed requires the use of daily returns. Market measures provide information on the value of the firm. Such data are not themselves free of problems, given that some markets may present inefficiencies or volatility on specific occasions (Ramírez and Espitia, 2001). But, they permit consideration of opportunity costs, risk supported by the firm, and capitalized value (expectations) of the profits of innovation activities, as well as minimizing the distortions resulting from tax laws and accounting” standards.

The “raw data are the daily returns on the shares of the two firms which made the 24 innovation announcements during the period July 2, 2011 to 31 December, 2020, a temporal period defined by the availability of daily stock market information. These daily returns are adjusted for dividends, subscription rights and splits. The returns on the share price of a company i on day t (R_{it})” are stated as:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (1)$$

where “ R_{mt} , returns on the market portfolio on day t (this study uses the KSE-100, a representative index of the Pakistan Stock Market; the information is obtained from the Stock Exchange Society); α_i = returns on the shares of company i independent of those of the market; β_i = sensitivity of returns on share i to variations in market returns; and ε_{it} = error term that follows an autoregressive conditional heteroscedasticity model, GARCH(1,1), so that $\varepsilon_{it} = \sqrt{h_{it}} \cdot \eta_{it}$, $\eta_{it} \sim N(0, 1)$, it is identically and independently distributed with $E(\eta_{it}) = 0$ and $E(\eta_{it}^2) = 1$, and $h_{it} = \omega + \alpha_1 \varepsilon_{it-1}^2 + \beta_1 h_{it-1}$, with ω, α_1 and β_1 being parameters to be estimated. The estimation of Eq. (1) calculates daily abnormal returns (AR)” for a company i announcement:

$$AR_{it} = R_{it} - (a_i + b_i R_{mt}) \quad (2)$$

“where α_i and b_i are the estimations of the regressions (1) for a period T ” before the event.

3.5 DATA COLLECTION TOOLS

To “analyse the effect of a company’s innovation announcements on its share price, this article tests the significance of the average abnormal returns for its innovation announcements in the event window $(-5, +5)$ using Brown and Warner’s (1980) and Jaffe’s (1974)” tests.

Brown and “Warner’s test is the basic test, and therefore, the starting point to potentially detect abnormal returns. This test is defined” as

$$t_1 = \frac{\sum_{i=1}^N AR_i}{\sqrt{\sum_{i=1}^N \sigma_{\varepsilon_i}^2}}$$

where “ N is the number of news releases, AR_i is the abnormal returns on the event date, and $\sigma_{\varepsilon_i}^2$ is the variance of share i obtained from the estimation” period.

Jaffe’s “(1974) test is also used in this analysis. The choice of this test is justified because of the potential presence of contemporary correlation problems in the sample selected, which may be derived, on the one hand, from the existence of overlapped periods for some of the news releases on different stocks and, on the other hand, from the fact that the companies included in the analysis belong to the same industry. Remember that, as the empirical analysis in this study is focused on the hotel sector, the firms used in the analysis belong to the same industry.

These problems may well cause a biased estimate as Collins and Dent (1984) and Bernard (1987) have demonstrated, and can be avoided by using the Jaffe test, which is defined” as:

$$t_2 = \frac{\sum_{i=1}^N AR_i}{\sqrt{\sum_{t=1}^N \sigma_{\varepsilon_i}^2 + \sum_{i=1}^N \sum_{\substack{j=1 \\ i \neq j}}^N \sigma_{\varepsilon_i \varepsilon_j}}}$$

where “N, AR_i and $\sigma_{\varepsilon_i}^2$ are as described before, and is the covariance of shares i and j obtained from the estimation” period.

3.6 DATA ANALYSIS

Once the “abnormal returns have been estimated and tested, a regression analysis is used to detect differences in the effects of each innovation type (product, process, organizational and marketing together with distribution innovations) using Microsoft Excel” 2016.

“Table 1 Abnormal returns tests”

Window	Abnormal returns (%)	Brown and Warner’s test	Jaffe’s test
(-5,+5)	0.831	0.698	0.730
(-5,-1)	-0.044	-0.054	-0.057
(-5,0)	0.413	0.474	0.496
(-3,0)	0.243	0.339	0.355
(-1,0)	0.287	0.566	0.592
(+1,+5)	0.414	0.515	0.539
(0,+1)	0.641	1.261	1.321
(0,+3)	1.539	2.144 ^a	2.244 ^a
(0,+5)	0.875	0.995	1.041

^a “Prob < 5%”

a

^a CHAPTER 4 – RESULTS

Table 1 “shows the estimation of the average abnormal returns of the 24 announcements in several event windows. The results obtained demonstrate that, on average, innovation announcements are associated with positive excess returns on the post-event days; in particular, both tests. Brown and Warner, and Jaffe present significant values in the window (+0, +3). This means that, on average, firms announcing innovation activities undergo a minimum gain of 1.53% on the days after the announcement. This delay seems plausible as innovation announcements can motivate investors to re-examine a company’s product positioning and strategy. It seems that they make a positive valuation of the innovations once they are re-evaluated and react accordingly. This result supports Hypothesis H1 that innovation has a positive effect on a hotel’s market value, which is in line with the positive relationship between innovation and performance found by Hall and Williams (2008), Victorino et al. (2005), Walsh et al. (2008), Chan et al. (1998) and Orfila-Sintes and Mattsson” (2009).

Once the “abnormal returns are estimated and tested, the analysis of whether the distinct innovation types have differentiated effects on these abnormal returns is performed. Table 2 shows the results of the regressions conducted. Two equations are estimated: one with the traditional classification for innovations (product, process, organization and marketing) and another in which distribution innovations are extracted from marketing innovations so that they can be treated separately as a different category, in line with Hjalager (2010). Organization innovations are used as the base reference for the parameter estimation. Both equations have a global level of significance of 1%, their adjusted R2 measures explain 41.7% and 44.9% respectively and the two equations show robust results: the significant parameters show consistent signs in both equations and their significance levels” are the same.

As for the separate constraints, “process and marketing innovations are found to be significantly greater than both product/service innovations and the reference category organization innovations. These greater returns are confirmed in the two equations. Also, chi-square tests find that there are no significant differences between process and marketing innovations in Eq. (1), and among process, marketing and distribution innovations in Eq. (2). These specific sizes of innovation impacts confirm Hypothesis H2 that different innovation types undertaken by hotel companies have different effects on their market value; however, note that what is actually found is that product/service innovations (0.033) are not dissimilar from organization innovations (0.000), which are different from process innovations (0.104) and marketing innovations (0.079) with and without distribution innovations (0.060), which in turn are similar. That is, in this particular application process and marketing innovations exert a higher impact on market value than product/service and organization innovations: product innovations like the new nhube restaurants (e.g., PC Hotels, March 3, 2013) and organization innovation such as variable salaries subject to share price variations (e.g., PC Hotels, April 4, 2017 and Marriott, June 6, 2014) might entail extra costs that might be regarded by investors as high. Certainly, loyalty programs such as the issue of loyalty cards with advantages for the clients like getting in earlier or staying later than normal guests, or allowing them to speed up the check-in process (e.g., PC Hotels, October 10, 2014) within marketing innovations do not require (in relative terms, of course) such high investment, while an increase in sales is” expected.

Note, “however, that a company’s energy commitments (e.g., Marriott, May 6, 2013 and April 7, 2018) within process innovations should parallel product and organization innovations in terms of costs; that is, high costs should be expected and therefore not-so-high returns should be obtained. Nevertheless, it is important to remember that the potential increment in sales should also be taken into account, especially for the specific news items observed that are related to environmental issues. Note that there is a green trend today (Chou et al., 2012; Han

et al., 2011; Han and Kim, 2010; Kang et al., 2012; Pizam, 2009; Rahman et al., 2012) and an environmentally friendly wind blowing all over the business realm in the framework of social corporate responsibility that might lead investors to perceive this investment as less risky; in fact, consumers tend to favour socially responsible firms (Bhattacharya and Sen, 2003) and, when it comes to pro-environmental actions, positive relationships have been found between these green investments and hotel performance (García and Armas, 2007). In this regard, for these particular news types, the prospect of future sales might compensate the high costs implied, in line with the net benefit derived from implementing new energy systems evidenced by González and León (2001). In any case, the important result from this posterior analysis revolves around the fact that not all innovations are equal, and neither are their implications. Each innovation should be considered individually by managers, both between and within” categories.

“Table 2 Innovation type and Performance”

	Product/service innovations	Process innovations	Marketing innovations	Distribution innovations	Constant	R ²	Adjusted R ²	F-stat
Eq.(1)	0.033 (0.019)	0.104 ^a (0.032)	0.079 ^a (0.020)		-0.033 ^c (0.017)	0.49 3	0.417	6.50 5 ^a
Eq. (2)	0.024 (0.019)	0.098 ^a (0.031)	0.108 ^a (0.028)	0.060 ^b (0.024)	-0.026 (0.017)	0.54 5	0.449	5.69 4 ^a

a Prob < 1%.

b Prob < 5%.

c Prob < 10%.

CONCLUSIONS

This “study analyses the effect of innovation on hotel market value. The results show that innovations are perceived to have a positive impact on the future sales of the company (note that market value is a future-oriented measure of cash-flow). Specifically, in a four-day period (from day 0 to day +3), there is an increase in returns of 1.53%; what is more, 1.53% in four

days is equivalent to annual returns of 300% (this annual measure would be compared with other investments' internal rate of return or discounted cash-flow, which are usually presented through annualized figures to use equivalent" measures).

Also, "in an attempt to further explain these returns derived from innovations, the news items are categorized into the four traditional types: product, process, organization and marketing (plus distribution). Process and marketing (and distribution) innovations have a higher positive effect on the market value than product and organization innovations. This shows that each innovation needs to be treated differently and individually, not only between but within categories, on account of cost differences among" innovations.

5.1 LIMITATION

Even "though the process followed to collect the innovation news announcements in the hotel industry guarantees that, a priori, all of them must have been detected, the resulting sample size is a clear limitation; not so much because it affects its ability to capture potential reactions in share prices, but because it does not allow the inclusion of a larger number of potential explanatory variables that could shed further light on the innovation-related determinants of hotel market" value

5.2 IMPLICATIONS

Beyond "the specific results of the empirical application, the study has important implications, both academic and managerial. Regarding academic implications, the finding that a hotel's market value varies when the prospect of innovation activities is announced indicates that this measure can be regarded as appropriate to analyse this type of investment. This fact, along with the outcome that these variations in hotel market value are contingent upon the type of innovation, suggests that, when a comprehensive examination is pursued by the analyst, different types of innovation and distinct kinds of measurements should be employed. While

different innovation types are expected to lead to different results, the use of several performance measures might allow the researcher to find hidden effects that, otherwise, would not be easy to” uncover.

Note, “that using distinct performance measures implies looking at the company from different perspectives; perspectives that represent facets that might be worth looking into. As for managerial implications, the use of market value facilitates the analysis of the effect of innovation on performance by estimating unbiased market predictions on future profits. This technique employs a forward-looking firm performance measure that over-comes all the difficulties of the traditionally used backward-looking firm profitability, i.e., accounting” measures.

Specifically, “once the innovation is announced, managers can observe the evolution of share prices to determine how valuable the news is perceived to be by the shareholders. If the shareholders’ perceptions of it are not as good as the managers would have expected, they may want to see whether this is due to a lack of information (or even to misinformation). If this were the case, a new flow of information should be released, in order to clarify the hotel’s innovation. Also, finding that innovation has a positive impact on firm market value means that the market considers that an innovative company is a healthy one. Therefore, any tourism company introducing innovations, no matter whether they are internal or external, should show that it is innovating all the time, by releasing news through well-executed public relations” system.

5.3 FUTURE RESEARCH

For further research, “several lines can be followed in order to provide a more comprehensive view of the relationship between innovation and market value in the hotel” industry

- 1) The study uses the “Schumpeterian classification to identify differentiated effects in innovation types; nevertheless, the use of other taxonomies would offer a broader view in terms of academic perspectives (as it would permit the identification of the best explanatory classification) as well as in terms of management perspectives (as it would show decision-makers the best innovation types according to the taxonomy” used).
- 2) A “larger sample would permit the use of factors related to a hotel’s characteristics; for example, the same innovation might have different effects on hotel performance depending on its category” (e.g., number of stars).
- 3) The “analysis of the effect of innovation on distinct tourism-related industries would show whether the same type of innovation has a differentiated influence” (hotels, travel agencies, airlines, etc.).
- 4) The use of “specific information on each innovation, especially in terms of costs incurred in the investment could shed more light on the specificities of every initiative; that is, knowing the cost invested in an innovation could determine how costly (per unit) the variations in market value” are.
- 5) There is a “social trend today that favours corporate social responsibility (CSR) actions, so it would be interesting to see whether innovation oriented to enhance a hotel’s CSR exerts an incremental effect on performance. That is, as the CSR literature shows that these activities have a positive impact on market value and this article has shown that innovations also have a positive effect on market value, it would be worthwhile to analyse whether a greater effect exists when both activities CSR and innovation are linked together (e.g., the announcement of an innovation that allows a more efficient use of solar panels” in hotels).

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