

Environmental Variables and Performance: Evidence from the Hotel Industry in Malaysia

KHAIRIL WAHIDIN AWANG^{a*}, NOR KHOMAR ISHAK^b,
SALLEH MOHD RADZI^c AND AZNI ZARINA TAHA^d

^a*Universiti Putra Malaysia*

^b*Universiti Tun Abdul Razak*

^c*Universiti Teknologi MARA*

^d*Universiti Malaya*

ABSTRACT

The growth and performance of the Malaysian hotel industry depend heavily on the growth and performance of the other Malaysian economic sectors, especially manufacturing and services. The recent 5 years saw the Malaysian hotel industry going through drastic changes, with regard to its external environment, largely due to the greater extent of volatility in the environment and the increasing level of uncertainties in the world's economy. Organizational internal processes, systems and strategies should be based upon assessment of the external environment. The level of environmental uncertainties caused by global environmental turbulence was represented by an erratic rate of economic growth. In parallel, the environment can be expected to affect organizational choices because the maintenance of organizations depends upon some degree of exchange with outside partners. An organization, which depends on the environment, is not in itself a problem, as long as the flow of required resources is stable and assured. Problems arise when the flow of resources becomes uncertain due to unpredictable changes in the environment. These changes are assumed to have an immediate impact on the hotel industry's rate of growth and performance. Logically then, there should be a relationship between the hotel industry's performance and growth rate, measured in sales volume, with the economic growth rate (the Gross National Product). This paper identifies the relationships between external environment volatility and industry performance among the 5, 4 and 3-star hotel categories during the same period.

Keywords: Environment, performance, hotel industry

*Corresponding author. Tel: 03-89467646/7647 Email: khairil@econ.upm.edu.my

INTRODUCTION

The services sector has been a major player in the growth of the Malaysian economy, contributing approximately 50 percent of the nation's real GDP. The hotel industry is one of the most promising industries in Malaysia, which requires a few key strategies to align it to meet the economic agenda of the nation. The contributions of the hotel sector to the national economy is numerous; the employment opportunities, provision of alternative and added income for the rural population, supporting the growth of secondary activities such as material and equipment suppliers, and it also complementing the expansion of both domestic and inbound tourism. However, the well-being of this industry is dependent on the performance of the industrial sector and other service sectors, especially the financial sector.

The performance of the hotel sector is also influenced by the volatility of changes in the external and international environment. An economic upswing or downturn will have an almost immediate impact on its performance. In recent years, the Malaysian hotel industry has seen drastic changes in its external environment, largely as a result of the greater extent of volatility in the environment and the increasing level of uncertainties in the world's economy. The hotel industry seems to possess characteristics that fit well into what Porter (1980) has defined as a fragmented industry. According to him, a fragmented industry is an industry in which no firm has a significant market share or can strongly influence the overall industry outcome, and essentially involves undifferentiated products. The hotel industry clearly possesses many of the characteristics that would classify it as a fragmented, low market share and hostile environment (Schaffer, 1986).

The environment can be expected to affect organizational choices because the maintenance of organizations depends upon some degree of exchange with outside partners (Child, 1972). An organization being dependent on the environment is not in itself a problem, as long as the flow of required resources is stable and assured. Problems arise when the flow of resources become uncertain. The environmental uncertainty has been defined as the extent to which the future state of the world cannot be anticipated and accurately predicted (Preffer and Salancik, 1978). The unpredictable rate of environmental change demands that an organization continuously monitors the external and global environment for competitive advantage.

On a macro level, the hotel industry in Malaysia is quite vulnerable to foreign and international competition. These international corporations usually have a better distribution channel network, substantial financial support and a more established control system. They generally use better technology for example, in their work procedures, the decision support systems such as pricing and costing, in yield management and room divisions communication checkout systems. The hotel industry is an extremely competitive industry with numerous competitors concentrated within a limited geographical range. The industry has been cyclically

affected by overbuilding and excess capacity. In times of economic growth, the industry surges with expansions and new entrants. The globalization process, where hotel corporations that are in a mature market will expand to less developed markets around the globe, also adds to the capacity build up. The international corporations that have their homebase in industrialized economics are being pulled into rapidly expanding foreign markets by growth opportunities that are triggered by conditions such as the emergence of new commercial and financial centers, host government incentives and growth of corporate travel that is influenced by brand loyalty. Some of the options for expansion include franchising, management contracts, joint ventures and strategic alliances especially joint reservation and marketing systems. Thus, this study enables the management of organizations to be more aware of the variables that have an impact on their overall organizational effectiveness, so that the internal processes can be managed and properly aligned with the appropriate selected strategy.

Study Approach

The approach of this study is based on the concept of alignment between industry performance and external environmental variables. The organizational internal processes, systems and strategies should be based upon its assessment of the external environment. The level of environmental uncertainties caused by global environmental turbulence was represented in the erratic rate of economic growth from year to year. These unpredictable changes are assumed to have an immediate impact on the industry's rate of growth and performance. Logically then, there should be a relationship between environmental factors and the industry's performance as measured by sales volume against the economic growth rate (Gross National Product).

The tourism industry growth rate is dependent on the growth rate of the overall national economy and the hotel industry growth rate, in turn, is dependent, to some extent, on the growth of the tourism industry. Past statistics have indicated that the hotel sales volume represents approximately 36% of the total receipts from tourism. This fact should hold true when the economy remains stable. However, hotel room supply is relatively fixed and cannot be easily altered to accommodate the changing demand trends caused by higher environmental volatility rates. This is mainly attributed to the change in proportion of international visitor arrivals to domestic tourists which will thus affect the average length of stay and average guest check. Therefore, as the rate of demand changes drastically, the percentage of hotel revenue from total tourism receipts is expected to decline.

The conceptual framework for the study is therefore depicted as follows:



Purpose of the Study

A central theme in strategy literature is the alignment of generic and specific strategies to the environmental context. The assumption of most studies is that a fit between environment, strategy and structure will lead to better performance and this hypothesis is supported by numerous empirical studies (e.g. Grinyer et al., 1980; Lenz, 1980; Habib & Victor, 1981; Hambrick, 1983a; Dess and Davis, 1984; Miller & Friesen, 1986; Prescott, 1986; Venkatraman & Ramanujam, 1986; Miller, 1988; Jennings & Lumpkin, 1992; Parker & Helms, 1992; Lamont et al., 1993; Chow et al., 1995; Lumpkin & Dess, 1995; Helms et al., 1997; and Slevin & Covin, 1997). The primary objective of this research study is to explore the relationship between environmental variables and the performance of the hotel industry. By doing so, it is hoped that a better understanding of the hotel industry in Malaysia would be gained since there is a dearth of empirical research and valid information on the industry. As noted by Tse and Olsen (1999) “there is a need for rigorous research studies and a more speculative approach” (p. 368). Limited number of research was conducted to explore the concept of strategy, environment and performance in the hotel industry at the international level. Hotel organizations from different countries vary in characteristic approaches, and findings from various research studies conducted in the USA may not easily be generalized to suit the Malaysian setting. Therefore there is a call for research studies to be conducted based on different cultural backgrounds.

LITERATURE REVIEW

The Environment

The most popular definition of the environment identifies it as everything outside an organization’s boundaries. The environment comprises all elements that exist outside the boundary of an organization and has the potential to affect all or part of its operations. In a study by Ansoff and McDonnell (1990) which focused on the relationship between a firm’s strategic behavior and the rate of environmental turbulence, they defined environmental turbulence as a combined measure of the changeability and predictability of the firm’s environment. This is composed of four characteristics, the first two being changeability factors while the other two are predictability factors: 1) complexity of the firm’s environment; 2) relative novelty of the successive challenges which the firm encounters in the environment;

3) rapidity of change which refers to the ratio of speed of change with which challenges evolve in the environment to the speed of the firm's response, and 4) visibility of the future which assesses the adequacy and timeliness of information about the future.

Environment Volatility Rate

Burns and Stalker (1961) were among the first to take a two-dimensional approach to environment states. It was implied that a mechanistic structure is more suitable to conditions of certainty where, under conditions of uncertainty, an organic structure would be more responsive to changes. The concepts of environment and environmental scanning were first introduced to the hospitality industry in the 1980s (Olsen, 1989). The environment focuses on the organization's external environment which is relevant or potentially relevant to the organization's goal setting and goal attainment (Dill, 1958). If the environment is defined in this way, there are then factors within the boundaries of the organization or specific decision making units that must be considered as part of the environment (Duncan, 1972).

Additionally, Emery and Trist (1965) have classified environment into four different types of environment: 1) placid-random environment in which activities are relatively stable but occur on a random basis; 2) placid-clustered environment in which activities are relatively stable but occur on a cyclical basis; 3) distributed-reactive environment which is more complex, and 4) turbulent field environment in which changes are frequent and dynamic but also random. The placid/random environment is the least uncertain and least changing while the turbulent field is the most dynamic and uncertain.

Slattery and Olsen (1984), based on their research, identified three states of the hospitality industry environment: 1) environment variability which is a function of the frequency of change in the relevant environmental activities, the degree of difference involved at each change, and the degree of irregularity in the overall pattern of change; 2) environmental complexity which refers to the number of variables likely to have an impact on the firm and is a function of the scope of the firm's operations, the more complex the organization, the more complex will be the environment; and 3) environmental illiberality which refer to the degree of threat to the industry competitors from sources outside the industry, for example the economy, regulations and substitutes. The business environment will be confronted with environmental change and complexities as well as internal resource constraints and limitations. A key management task is to scan the environment for opportunities and to adjust its resources and processes to meet future challenges presented by the environment.

Robbins (1990) proposed that the environment's effect on an organization is a function of dependence and that a dynamic environment has more influence on

structure than does a static one. His contention was that complexity and environmental uncertainty are directly related; that formalization and environmental uncertainty are inversely related; that the more complex the environment the greater the decentralization; and that extreme hostility in the environment can lead to temporary centralization. Olsen (1989) pointed out that for an organization to compete in a mature and competitive environment over the long term, it must be able to match these structural variables with activities and trends occurring in the environment. He further states that the existing complexity of the environment can be expected to increase, as will variability and uncertainty; therefore, the hospitality manager must be capable of knowing and understanding the events which occur in the business and general environment.

Studies by Olsen, Tse and West (1992) indicated that some of the variables creating uncertainty in the hospitality industry environment includes the degree of volatility in prices charged by suppliers, in pricing by competitors, the supply of labor, the demand curve, the cost of capital, financing opportunities, the influence of new technology and the degree of activity created by new competitors entering the market. Some of the variables that can create complexity are the level of geographic concentration/dispersion of suppliers, labors, industry sales, competitive units and customers in the market areas; the level of product/service differentiation and the level of socio-cultural diversity. Olsen, (1989) in his numerous studies of US hospitality firms, predicted that the existing complexity of the industry's environment is expected to increase, as will variability and uncertainty.

Performance

Van de Ven (1976) stated that performance is the ultimate criterion in the assessment of organizations and it is a complex construct that reflects the factors used by decision-makers to assess the functioning of an organization. He suggested three criteria or categories of performance: 1) productivity, 2) employee morale, and 3) effectiveness. He further stated that the performance levels achieved by an organization constitute an input of information to its managers, which is likely to stimulate them to make adjustments in policies and modes of operation. In other words, performance is not simply a dependent end product; it is a dynamic variable. Ford and Schellenberg (1982) in their review of performance measurement identify three perspectives that pervade organizational performance literature. The first perspective is the goal approach, which assumes that organizations pursue ultimate and identifiable goals. Under this perspective, performance is defined in terms of goal attainment. The second perspective is the systems resource approach, which stresses the relationship between the organization and its environment. Performance is defined in terms of the organization's ability to secure limited and valued resources. The third perspective is the process approach and performance is defined in terms of the behavior of the organization's participants.

Kaplan and Norton (1993) discussed performance measurement in their work on the “Balance Scorecard” which seems to be the most popular among managers. The balanced scorecard presents managers with four different perspectives on performance: 1) financial, 2) customer focused, 3) internal analytical, and 4) innovative. Financial perspectives identify the key financial drivers in creating shareholder wealth. A common analytical approach is to decompose return on equity, a common representation of return on capital, into its component ratios (Slater et al., 1997). The major component ratios are profit margin, asset turnover, leverage, cash flow and working capital. Customer focused encompasses measures of corporate or brand awareness and image, customer satisfaction, customer retention and customer profitability. Internal analytical is primarily concerned with the efficiency of the entire business system while Innovative is concerned with how effectively the business can adapt to changing conditions. The Balanced Scorecard model retains financial measures that confirm the results of past actions and decisions, but it also adds leading indicators for factors that will drive future financial and operating performance (Cobbold et al., 2004). This model has been widely embraced by business writers as a breakthrough in performance measurement and reporting (Goulian and Mersereau 2000).

Given an environment in which an organization operates, the choice of appropriate strategies and their effective implementation should intuitively lead to better performance than the alternative (Murthy 1994). Neely et al (1995) defined performance measurement as the process of quantifying the efficiency and effectiveness of action. According to Covin et al (1994) firm performance is a multidimensional construct that can be conceptualized and assessed in any number of ways. In their study of 364 non-diversified firms, a financially based measure of firm performance was adopted. Establishing common dimensions for performance measures will support their sustained use and applicability by business managers, aligning them with dimensions of their business activities (Capps and Hattery, 2000).

Net profit, operating performance and returns on assets (ROA) are often used in research (Hoskisson, 1987; Dimara et al., 2004), while growth measures are useful performance measures particularly when the sample includes small, privately held firms (Dess and Robinson 1984). Hofer and Schendel (1978) suggested sales growth as one reflection of how well an organization relates to its environment. Brigham (1985) stated that profitability measures such as return of assets (ROA), return on investment (ROI), return on equity (ROE), etc, are subject to the accounting techniques of individual firms. They are unable to differentiate between increases of profit margins on sales, inventory turnover rates, and use of leverage and therefore, they may not be the best measures for inter-firm comparison if used alone. Hence, sales volume was utilized to evaluate firm performance for this study. This measure evaluates the performance of the organization in terms of

usage of assets and the organizations' performance in competing with other establishments within the same market place.

METHODOLOGY

Several variables were identified to delimit the scope of environment-performance relationships and they are: 1) size, 2) location, and 3) star rating. According to Dev (1988) various measures are used in organizational research: number of employees, number of beds (for hospitals), number of students (for schools), sales volume (for business), and assets. For the hospitality industry, it is difficult to measure size based on number of employees. Most hotels have full-time employees for the normal season but the number of employees will increase in terms of part-time or casual employees during the peak season. This creates the problem of determining the actual number of employees and to ascertain the employee strength of the hotels. This study used the number of rooms as an alternative. The number of rooms was used as a measure of size and consequently as partial control for structure in this study.

For this study, location was used to identify environment, since the environment, in the case of the hotel industry, may be more specific to the location than the industry to which the property belongs. Previous studies of the hospitality industry used the following five segments of locations: city center, suburban, airport, highway and resort (Schaffer 1986; Dev 1989; Murthy 1994). These studies were based in the United States, where there are many hotels in each category. However, it was not appropriate to use the same classification in Malaysia, where the total number of hotels is smaller. It is reasonable to hypothesize that different segments within the hospitality industry are operating under different environmental conditions. As pointed out by Dev (1988), the environment in the case of the hospitality industry is more specific to the market than the industry to which the business belongs. Schaffer (1986) classified hotels into transient hotels, resort hotels, and motels with and without a restaurant. Crawford-Welch (1991) classified hotels into four segments: 1) budget, 2) mid-scale, 3) luxury, and 4) other. Murthy (1994) used a classification scheme of full-service, limited service, resort, all-suite and convention hotels. The present study, however, used a classification scheme based on star ratings. Hotels with star ratings of five, four and three stars were included in this study.

A quantitative research design was selected in order to 1) trace the rate of growth and performance; 2) examine the relationships among the economic growth rate, the external environment volatility rate, the hotel industry growth rate and hotel industry performance, and 3) compare the findings from the three major hotel categories. Data were collected over a six-year period extending from 1998 to 2003. During this period, the number of hotels solicited for participation ranged

from 148 hotels in 1998, 160 in 1999, 211 in 2000, 140 in 2001, 140 in 2002 and 138 in 2003. The decrease in the number of organizations solicited for participation was due to the elimination of hotels, in the list, that had not participated at least once in the previous periods of data collection. The sampling frame of this study consisted of Tourism Malaysia's Directory of Star Rated Hotels. The questionnaire and a request in the form of a cover letter was mailed to the Chief Executive Officer. The cover letter described the nature of the research and a request for cooperation. Each data collection period extended over a period of six weeks.

Instrument Development

Likert Scale of six points scaling was used as the measurement technique in this study. Responses to all items were made on a scale format ranging from (1) "Very Low" to (6) "Very High". The instruments needed were as follows:

1. Degree of Environment volatility rate was measured using 3 variables:
 - i. Rate of Growth which refers to the degree of growth opportunities in the market area.
 - ii. Degree of Uncertainty which refers to the extent of change (rate and velocity) in the business environment.
 - iii. Degree of Complexity which refers to the extent of complexity in the business environment.

2. Industry Performance

The real growth in GNP rate was used as the measure of economic growth rate and the data was extracted from the Economic Report. The hotel industry's performance was measured by the sales volume derived from a combination of the three hotel categories' sales. This was calculated by multiplying the total number of rooms in each hotel category by the estimated average room rates and the estimated average occupancy percentage, and then adding the sales volume from the three hotel categories to derive total sales.

Findings

Table 1 indicates the overall environment volatility from 1998 to 2003. The three variables used in the measurement of environmental volatility rate were: 1) rate of growth, 2) degree of uncertainty, and 3) degree of complexity. The rate of growth was slightly low from 1998 to 1999. It increased to slightly high in 2000 and 2001. It reverted back to slightly low and slightly high in 2002 and 2003 respectively. The degree of uncertainty was slightly low in 1998, and increased to slightly high in 1999 and 2000. It decreased to slightly low from 2001 onwards. Overall degree of uncertainty for the 6-year period was slightly low. The degree of complexity in

Table 1 Volatility Rate for 1998-2003

Year	Rate of Growth	Degree of Uncertainty	Degree of Complexity	Overall level of Environment Volatility
1998	Slightly Low	Slightly Low	Slightly Low	Slightly Stable
Mean	3.90	3.58	3.59	3.69
1999	Slightly Low	Slightly High	Slightly High	Slightly Stable
Mean	4.07	3.41	3.37	3.62
2000	Slightly High	Slightly High	Slightly Low	Slightly Dynamic
Mean	3.04	3.46	3.82	3.44
2001	Slightly High	Slightly Low	Slightly Low	Slightly Dynamic
Mean	3.02	3.50	3.81	3.44
2002	Slightly Low	Slightly Low	Slightly Low	Slightly Stable
Mean	3.55	3.74	3.94	3.74
2003	Slightly High	Slightly Low	Slightly Low	Slightly Stable
Mean	3.21	3.60	3.93	3.58
Overall	Slightly High	Slightly Low	Slightly Low	Slightly Stable
Mean	3.47	3.55	3.74	3.59

1998 was recorded as slightly low, and slightly high in 1999. From 2000 onwards, it was recorded as slightly low. As such, the overall degree of complexity was slightly low. The overall level of environment volatility was slightly stable in 1998 and 1999. It increased to slightly dynamic in 2000 and 2001. It reverted back to slightly stable in 2002 and 2003. The overall level of environment volatility was assessed to be slightly stable.

Hotel Industry Rate of Growth

The rate of growth refers to the degree of growth opportunities in the market area. The hotel industry rate of growth was measured on 5 dimensions: (1) Rate of growth in industry sales; (2) Rate of growth of new hotels; (3) Rate at which hotels were going out of business or closure; (4) Rate of growth among a similar group of hotels, and (5) Rate of growth in volume of customers.

As indicated in Table 2, the findings revealed that the overall growth rate is slightly high, as supported by the slightly high growth rate of new hotels and similar hotels group, and the volume of customers. The only dimension that indicated a slightly low growth rate was the volume of sales.

Table 2 Hotel Industry Growth Rate 1998-2003

Year	Sales Volume Growth Rate	New Hotels Growth Rate	Rate of Hotels Closure	Similar Hotels Growth Rate	Customer Volume Growth Rate	Overall Growth Rate
1998	Slightly High	Slightly Low	Moderately High	Slightly High	Moderately High	Slightly Low
Mean	2.79	3.71	2.61	3.41	2.50	3.90
1999	Slightly Low	Moderately High	Moderately High	Moderately High	Slightly High	Slightly Low
Mean	3.59	2.63	2.55	2.64	3.28	4.07
2000	Moderately High	Slightly Low	Moderately Low	Slightly Low	Slightly High	Slightly High
Mean	3.09	4.18	5.14	4.09	3.20	3.04
2001	Slightly High	Slightly High	Moderately High	Slightly High	Slightly High	Slightly High
Mean	3.45	2.72	2.52	2.94	3.40	3.02
2002	Slightly High	Slightly Low	Moderately High	Slightly Low	Slightly Low	Slightly Low
Mean	3.49	4.26	2.38	3.93	3.54	3.55
2003	Slightly Low	Slightly High	Moderately High	Slightly High	Slightly Low	Slightly High
Mean	3.82	3.10	2.30	3.03	3.80	3.21
Average	Slightly High	Slightly High	Slightly High	Slightly High	Slightly High	Slightly High
Mean	3.37	3.43	2.92	3.34	3.29	3.47

The 5 and 4-star hotel categories indicated an overall slightly high growth rate, in contrast with the 3-star hotel group which showed a slightly low rate. The 5 star hotel group experienced slightly high growth in sales volume, in rate of new hotels, and in volume of customers. A moderately high growth in similar class of hotels was experienced as well as a slightly low rate of hotel closure. The 4 star hotel group similarly experienced a slightly high growth rate of new and similar hotel class, as well as a slightly high growth rate in customer volume. However, it charted a slightly low growth rate in sales, while the rate of hotel closure was recorded as moderately low. The 3-star hotel group showed slightly low growth in sales volume and in industry sales. Similar to the other two hotel groups, it indicated slightly high growth rates of new hotels, and moderately low levels of hotels closure. Thus, the overall summary of findings supported a slightly high level of growth in the hotel industry.

Degree of Uncertainty

The degree of environmental uncertainty is defined as the extent of change, which includes the rate and velocity, in the business environment in the area. The level of environment uncertainty is tapped by combining the mean scores of 6 dimensions. The dimensions are the: (1) Changes in room rates; (2) Availability of labor supplies; (3) Demand for hotel rooms; (4) Changes in competitive tactics used by competitors; (5) Changes in regulatory activities, and (6) Changes in customers' tastes and preferences.

The rate of change in room rates was slightly high, continuously, from 1998 to 2003. The availability of labor was recorded as slightly low in 1998, slightly

Table 3 Hotel Industry Level of Environment Uncertainty 1998-2003

Year	1998	1999	2000	2001	2002	2003	Average
Changes in Room Rates	Slightly High	Slightly High	Slightly High	Slightly High	Slightly High	Slightly High	Slightly High
Mean	3.24	3.23	2.94	3.19	3.19	3.37	3.19
Availability in Labor Supplies	Slightly Low	Slightly High	Slightly High	Slightly High	Slightly High	Slightly Low	Slightly High
Mean	4.24	3.25	3.20	3.34	3.34	3.52	3.48
Demand in Hotel Rooms	Slightly Low	Slightly Low	Slightly High	Slightly High	Slightly High	Slightly Low	Slightly Low
Mean	3.79	3.83	3.48	3.40	3.40	3.67	3.60
Changes in Competitors' Competitive Tactics	Slightly High	Slightly High	Slightly Low	Slightly Low	Slightly Low	Slightly Low	Slightly Low
Mean	3.19	3.03	4.00	4.19	4.19	3.82	3.74
Changes in Regulatory Activities	Slightly Low	Slightly Low	Slightly High	Slightly High	Slightly High	Slightly High	Slightly High
Mean	3.78	3.88	3.19	3.13	3.13	3.31	3.40
Changes in Customer Tastes and Preferences	Slightly High	Slightly High	Slightly Low	Slightly Low	Slightly Low	Slightly Low	Slightly Low
Mean	3.19	3.30	4.01	3.74	3.74	4.08	3.68
Overall Level of Environment Uncertainty	Slightly Low	Slightly High	Slightly High	Slightly Low	Slightly Low	Slightly Low	Slightly Low
Mean	3.57	3.42	3.47	3.50	3.50	3.63	3.52

high from 1999 to 2002, and slightly low in 2003. The average was slightly high. Demand for hotel rooms was slightly low from 1998 and 1999. It increased to slightly high in 2000 and remained at that rate for the years 2001 and 2002. It fell back to slightly low in 2003. The average was slightly low. The change in competitors' competitive tactics was at slightly high in both 1998 and 1999. It decreased to slightly low from 2000 onwards. The average rate was recorded as slightly low. The rate of changes in regulatory activities was slightly low for both 1998 and 1999. It increased to slightly high in the year 2000 and thereafter. The average was assessed as slightly high. The changes in customer taste and preferences were recorded to be slightly high in 1998 and 1999. The rate decreased to slightly low in 2000 onwards so much so that the average stood at slightly low. The overall level of environment uncertainty was initially recorded as slightly low in 1998. It increased to slightly high in 1999 and remained at that rate in 2000. It decreased to slightly low in 2001 and remained at this rate until 2003. The average was slightly low.

Degree of Complexity

The degree of complexity is the extent of variability in the business environment. The degree environmental complexity of the hotel industry is measured on 6 dimensions: (1) Geographic concentration of competitors; (2) Geographic concentration of industry sales; (3) Geographic concentration of labor availability; (4) Level of products/services differentiation; (5) Geographic concentration of customers, and (6) Technological diversity used in the industry.

As illustrated in Table 4, the overall industry faced slightly low levels of environmental complexity. All the six dimensions indicated slightly low levels of concentration and differentiation. The 5-star hotel category also indicated a slightly low environmental complexity level. With the exception of the slightly low geographic concentration in industry sales, and the slightly low technological diversity level, all the other dimensions showed moderately low concentration and differentiation levels. In the 4 and 3-star hotel categories, all the six dimensions recorded slightly low levels of concentration and differentiation. Hence, the findings seem to indicate very strong overall support for slightly low environmental complexity levels for the hotel industry.

Hotel Industry Performance

Table 5 presents the comparative changes in room rates, occupancy percentage and sales volume in the three hotel categories for the period 1997 to 2003. In the 5-star hotel category (with total number of rooms of 25,125) the average room rate for 1997 was RM450.00, the average occupancy percentage was 35 percent and the total sales stood at RM1.4 billion. In the following year, there was a sharp drop

Table 4 Hotel Industry Level of Environment Complexity 1998-2003

Year	1998	1999	2000	2001	2002	2003	Average
Geographic Concentration of Competitors Mean	Moderately High	Slightly High	Slightly Low	Slightly Low	Slightly Low	Slightly Low	Slightly Low
	2.57	2.96	3.87	3.90	4.13	4.00	3.57
Geographic Concentration of Industry Sales Mean	Slightly High	Slightly High	Slightly Low	Slightly Low	Slightly Low	Slightly Low	Slightly Low
	3.22	2.88	3.79	3.84	3.98	4.17	3.65
Geographic Concentration of Labor Availability Mean	Slightly Low	Slightly Low	Slightly High	Slightly Low	Slightly Low	Slightly Low	Slightly Low
	3.89	3.89	3.38	3.71	3.89	3.70	3.74
Level of Products/Services Differentiation Mean	Slightly Low	Slightly High	Slightly Low	Slightly Low	Slightly Low	Slightly Low	Slightly Low
	3.84	3.38	3.81	4.04	3.92	3.99	3.83
Geographic Concentration of Customers Mean	Slightly Low	Slightly High	Slightly Low	Slightly Low	Slightly Low	Slightly Low	Slightly Low
	3.97	3.46	4.12	4.00	4.15	4.10	3.97
Technological Diversity used by Industry Mean	Slightly Low	Slightly Low	Slightly High	Slightly High	Slightly Low	Slightly Low	Slightly Low
	3.92	3.64	3.35	3.42	3.58	3.61	3.59
Overall Level of Environment Complexity Mean	Slightly Low	Slightly High	Slightly Low	Slightly Low	Slightly Low	Slightly Low	Slightly Low
	3.57	3.37	3.72	3.81	3.94	3.93	3.72

of 42.2 percent in average room rate, but this was compensated by an increase in occupancy rate of 52.9 percent. However, this increase was not enough to prevent a drop in sales level of 11.7%. The average room rate slid further by a slight margin of 3.8 percent in 1999. The occupancy rate percent however, increased slightly by 7.9%, accounting for the slight addition in sales volume which totaled to RM1.3 billion. In the year 2000, the average room rates increased by 6.4 percent to RM266 and the occupancy percent also increased by 5.9 percent to stand at 61.1 percent. The sales volume increased by 12.7 percent with RM1.4 billion in total. The year 2001 recorded an average room rate of RM241, which was a decrease of

Table 5 Comparison of Average Room Rates, Average Occupancy Rates and Sales Volumes Between the 3 Hotel Categories from 1997 to 2003

Hotel Category (Total Rooms)	Year	Average Room Rate	% Change in Rates	Average Occupancy %	% Change Occupancy	Sales Volume (RM mil)	% Change in Sales
5-star (25,125)	1997	450	-	35.0	-	1,444.4	-
	1998	260	-42.2	53.5	52.9	1,275.6	-11.7
	1999	250	-3.8	57.7	7.9	1,322.9	3.7
	2000	266	6.4	61.1	5.9	1,490.5	12.7
	2001	241	-9.4	52.8	-13.6	1,166.9	-21.7
	2002	189	-12.6	51.5	-2.6	892.6	-23.5
	2003	179	-5.4	52.9	2.7	868.4	-2.7
4-star (30,800)	1997	250	-	55.0	-	1,545.8	-
	1998	157	-37.2	42.6	-22.5	751.9	-51.4
	1999	144	-8.4	47.3	11.7	765.7	1.8
	2000	140	-2.8	47.8	1.0	752.3	-1.8
	2001	148	5.7	49.5	3.6	826.9	9.91
	2002	121	-18.2	50.0	2.8	692.4	-1.7
	2003	119	-1.7	50.0	-1.7	668.9	-3.4
3-star (19,180)	1997	120	-	65.0	-	546.1	-
	1998	126	5.0	51.7	-20.5	456.0	-16.5
	1999	119	-5.6	47.9	-7.4	399.1	-12.5
	2000	130	9.2	53.4	11.5	486.0	21.8
	2001	122	-6.2	48.3	-9.6	412.5	-15.1
	2002	102	-16.4	52.8	9.3	377.0	-8.6
	2003	96	-5.9	54.7	3.6	367.6	-2.5
Overall	1997	273	-	51.7	-	3,536.2	-
	1998	181	-3.37	49.3	-4.6	2,483.6	-29.8
	1999	171	-5.5	51.0	3.4	2,487.6	0.2
	2000	179	4.7	54.1	6.1	2,728.8	9.7
	2001	170	-5.0	50.2	-7.2	2,406.4	-11.8
	2002	137	-19.4	51.7	3.0	1,962.0	-18.5
	2003	131	-4.4	52.5	1.5	1,904.9	-2.9

9.4 percent. That, coupled with the decrease in occupancy rate percent of 13.6 percent, brought the sales volume total to RM1.17 billion. The average room rate for 2002 and 2003 was RM189 and RM179 respectively with the year 2003 recording an all time low in average room rate. In the 4-year duration of the study

before 2001, for each year, this hotel category experienced either a decrease in room rate or a decrease in occupancy rate. In terms of overall contribution to sales volume, the 5-star hotels' sales accounted for over 50 percent from 1998 to 2000.

For the 4-star hotel category (with a total room count of 30,800), the average room rate in 1997 was RM250, the occupancy rate percent was 55 percent and the sales volume totaled at RM1.55 billion. As in the 5-star hotel group, this class of hotels also experienced a sharp decrease (37.2 percent) in room rate in 1998. However, in contrast, occupancy rate dropped by 22.5 percent to 42.6 percent and total sales dropped by a significant margin of 51.4 percent to RM751.9 million. In the following year, the average rate dropped further by 8.3 percent while the occupancy percent increased by 11.7 percent, thus registering a slight increase in overall sales by 1.8 percent to RM766 million. In the year 2000, the average room rate dropped again only slightly by 2.8 percent, and the occupancy rate also indicated a very slight increase of 1 percent which accounted for the total sales of RM752.3 million. The year 2001 also saw a turnaround in average room rate with an increase of 5.7 percent and also an increase in the occupancy rate by 3.6 percent making the sales volume RM828.9 million, thus marking a first time increase in sales volume over the past four years. However, the average room rate for 2002 and 2003 recorded a decrease to RM121 and RM119 respectively. The sales volume for 2002 stood at RM 692.4 million and in 2003 at RM 668.9 million. The overall contribution to sales volume, by this category of hotels, registered a steady increase from 30 percent in 1998 to 34 percent in 2001. In 2003, this hotel category contributed 35 percent of total sales volume.

The 3-star hotel category had a total of 19,180 rooms. The average room rate stood at RM120 in 1997 and the occupancy rate was 65 percent, which was the highest occupancy rate compared with the other hotel categories. However, this group accounted for only 15 percent of total industry sales volume in 1997 which was RM546.1 million. In 1998, the average room rate increased slightly by 5 percent to RM126, while the occupancy rate dropped by 20.5 percent resulting in a decrease in sales volume by 16.5 percent to RM456 million. In 1999, both the average room rate and the occupancy rate dropped by 5.6 percent and 7.4 percent respectively. Hence, the sales volume stood at RM399.1 million with a decrease of 12.5 percent. In 2000, the 3-star hotel group, similar to the 5-star hotel group, indicated an increase in average room rate and occupancy rate percent. The percentage increase in sales volume was 21.8 percent with RM486 million. Again in the following year, similar to the 5-star hotels' performance although not as severe, the 3-star hotel category dropped in terms of both the average room rate (6.2 percent) and the occupancy rate percent (9.6 percent). The sales volume dropped by 15.1 percent to RM412.5 million. The average room rate for 2002 stood at RM 102 and the rate further slid to RM 96 in 2003. However, the occupancy rate increased slightly to 52.8 percent in 2002 and increased further to 54.7 percent in 2003. Due to the lower average room rate, total sales volume dropped to RM377

Table 6 Hotel Industry Performance 1997 - 2003

Year	1997	1998	1999	2000	2001	2002	2003	Average
Average Room Rate (RM)	273	181	171	179	170	137	131	177.4
Percentage Change in Room Rates	-	-33.7	-5.5	4.7	-5.0	-19.4	-4.4	-10.6
Average Occupancy Rates	51.7	49.3	51.0	54.1	50.2	51.7	52.5	51.5
Percent Change in Occupancy Rates	-	-4.6	3.4	6.1	-7.2	-3.0	1.6	-0.6
Sales Volume (RM mil)	3,536.2	2,483.6	2,487.6	2,728.8	2,406.4	1,962.0	1,904.9	2,501.4
Percent Change in Industry Sales	-	-29.8	0.2	9.7	-11.8	-18.5	-2.9	-8.9
		Very Low	Low	High	Very Low	Very Low	Low	Low

million in 2002 and the trend continued in 2003 with RM367.6 million in sales. The contribution of the 3-star hotel category to the overall industry sales volume ranged between 15 percent and 18 percent during the 7-year duration.

As indicated in Table 6, the overall industry performance indicated a downward trend, accounted for mainly by a substantial drop in average room rate in 1998, from which it was unable to recover till 2003. It either dropped further or increased slightly in the next three years. The occupancy percentage, on the other hand, indicated a slight swing in either direction during the period of study. The sales volume stood at RM 1.9 billion in 2003, which was still below the sales amount registered for 1997, which was RM 3.54 billion. This represented a decrease of 46.3 percent in industry sales since 1997.

CONCLUSIONS

Hotel performance was found to be closely associated with the environment volatility rate as can be observed by comparing the trends in both variables over the six-year period. The economic growth rate, in conditions of environmental stability, can be used to gauge the performance of the hotel industry. More useful information which could be used would be to relate and compare the rate of changes in the hotel industry performance with the changes occurring in the economic growth rate. Another point of interest would be to gauge the level of hotel industry growth rate in comparison to economic growth rates. Though it is as yet too early to make such assumptions, the pattern of industry growth might have a slightly

delayed effect when compared to economic growth rate. Other moderating variables that should be included in further investigations are the impact of the growth in smaller organizations, the growth in domestic tourists, and the effect of the average length of stay on industry growth rates.

REFERENCE

- Annual Tourism Statistical Report. (1996) Research Division, Malaysia Tourism Promotion Board, Ministry of Culture, Arts and Tourism: Omnipage Sdn. Bhd.
- Annual Tourism Statistical Report. (1997) Research Division, Malaysia Tourism Promotion Board, Ministry of Culture, Arts and Tourism: Omnipage Sdn. Bhd.
- Annual Tourism Statistical Report. (2000) Research Division, Malaysia Tourism Promotion Board, Ministry of Culture, Arts and Tourism: Omnipage Sdn. Bhd.
- Ansoff, I., and McDonnell, E. (1990) *Implanting Strategic Management*. 2nd ed. Prentice Hall International (U.K.) Ltd.
- Burns, T. and Stalker, G.M. (1961) *The Management of Innovation*. London: Tavistock.
- Capps, B.T. and Hattery, M.D. (2000) Performance Measurement: Time for an Overhaul? *Bank Accounting and Finance*, **13** (3).
- Child, J. (1972) Organization Structure, Environment and Performance: The Role Of Strategic Choice. *Sociology*, **6**, 194-206.
- Chow, G., Henriksson, L.E. and Heaver, T.D. (1995) Strategy, Structure and Performance: A Framework for Logistics Research, *The Logistics and Transportation Review*, **31**, 285-307.
- Cobbold, I., Lawrie, G. and Issa, K. (2004) Designing a Strategic Management System Using the Third-Generation Balance Scorecard, *International Journal of Productivity and Performance Management*, **53**, 624-633.
- Covin, J.G., Slevin, D.P. and Schultz, R.L. (1994) Implementing Strategic Missions: Effective Strategic, Structural and Tactical Choices, *Journal of Management Studies*, **31**, 480-505.
- Crawford-Welch, S. (1990) "An Empirical Examination of Mature Service Environments and High Performance Strategies within Those Environments: The Case of the Lodging and Restaurant Industries". *Unpublished Doctoral Dissertation*, Department of Management, Virginia Polytechnic and State University, Blacksburg, VA.
- Dess, G.G. and Davis, P.S. (1984) Porter's (1980) Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance, *Academy of Management Journal*, **27**, 467-488.
- Dess, G.C. and Robinson, R.B. Jr. (1984) Measuring Organizational Performance in the Absence of Objective Measures: The Case of the Privately Held Firm and Conglomerate Business Unit, *Strategic Management Journal*, **5**, 265-273.

- Dev, C.S. (1988) Environmental Uncertainty, Business Strategy and Financial Performance: A Study of the Lodging Industry, *Unpublished Doctoral Dissertation*, Virginia Polytechnic Institute and State University, Blacksburg, VA.
- Dill, W.R. (1958) Environment as an Influence on Managerial Autonomy, *Administrative Science Quarterly*, **2**, 409-443.
- Dimara, E., Skuras, D. and Tsekouras, K. (2004) Strategic Orientation and Financial Performance of Firms Implementing ISO 9000, *International Journal of Quality and Reliability Management*, **21**, 72-89.
- Duncan, R.B. (1972) Characteristics of Organizational Environment and Perceived Environment Uncertainty, *Administrative Science Quarterly*, **17**, 317-327.
- Emery, F.E. and Trist, E.L. (1965) The Causal Texture of Organizational Environments, *Human Relations*, **18**, 21-32.
- Ford, J.D. and Schellenberg, D.A. (1982) Conceptual Issues of Linkage in the Assessment of Organizational Performance, *Academy of Management Review*, **7**, 49-58.
- Goulian, C. and Mersereau, A. (2000) Performance Measurement: Implementing a Corporate Scorecard". *Ivey Business Journal*, **65**, 1-6.
- Grinyer, P.H., Yasai-Ardekani, M. and Al-Bazzaz, S. (1980) Strategy, Structure, the Environment, and Financial Performance in 48 United Kingdom Companies, *Academy of Management Journal*, **23**, 193-220.
- Habib, M.M. and Victor, B. (1991) Strategy, Structure, and Performance of US Manufacturing and Service MNCs: A Comparative Analysis, *Strategic Management Journal*, **12**, 589-606.
- Hambrick, D.C. (1983) Some Tests of the Effectiveness and Functional Attributes of the Miles and Snow's Strategic Types, *Academy of Management Journal*, **20**, 5-26.
- Helms, M.M., Dibrell, C. and Wright, P. (1997) Competitive Strategies and Business Performance: Evidence from the Adhesives and Sealants Industry, *Management Decision*, **35**, 689-703.
- Hofer, C.W. and Schendel, D. (1975) *Strategy Formulation: Analytical Concepts*. West Publishing Co., St Paul, Minnesota.
- Hoskisson, R.E. (1987) Multidivisional Structure and Performance: The Contingency of Diversification Strategy, *Academy of Management Journal*. **30**, 625-644.
- Jennings, D.F. and Lumpkin, J.R. (1992) Insights Between Environmental Scanning Activities and Porter's Generic Strategies: An Empirical Analysis, *Journal of Management*, **18**, 791-803.
- Kaplan, R. and Norton, D. (1993) Putting the Balance Scorecard to Work, *Harvard Business Review*, **September - October**, 134-147.
- Lamont, B.T., Marlin, D. and Hoffman, J.J. (1993) Porter's Generic Strategies, Discontinuous Environments, and Performance: A Longitudinal Study of Changing Strategies in the Hospital Industry, *Health Services Research*, **28**, 623-640.

- Lumpkin, G.T. and Dess, G.G. (1995) Simplicity as a Strategy-Making Process: The Effects of Stage of Organizational Development and Environment on Performance, *Academy of Management Journal*, **38**, 1386-1407.
- Miller, D. (1988) Relating Porter's Business Strategies to Environment and Structure: Analysis and Performance Implications, *Academy of Management Journal*, **31**, 280-308.
- Miller, D. and Friesen, P.H. (1986) Porter's (1980) Generic Strategies and Performance: An Empirical Examination with American Data, *Organization Studies*, **7**, 37-55.
- Murthy, Bvsan. (1994) Measurement of the Strategy Construct in the Lodging Industry, and the Strategy-Performance Relationship, *Unpublished Doctoral Dissertation*, Department of Management, Virginia Polytechnic Institute and State University, Blacksburg, VA.
- Neely, A., Gregory, M. and Platts, K. (1995) Performance Measurement System Design: A Literature Review and Research Agenda, *International Journal of Operations and Production Management*, **15**, 80-116.
- Olsen, M.D. (1989) Issues Facing Multi-Unit Hospitality Organizations in a Maturing Market, *International Journal of Contemporary Hospitality Management*, **1** (2).
- Olsen, M.D., Tse, E. and West, J. (1992) *Strategic Management in the Hospitality Industry*. New York: Van Nostrand Reinhold.
- Parker, B. and Helms, M.M (1992) Generic Strategies and Firm Performance in a Declining Industry, *Management International Review*, **32**, 23-39.
- Porter, M.E. (1980) *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: The Free Press.
- Preffer, J. and Salancik, G.R. (1978) *The External Control of Organizations: A Resource Dependence Perspective*. Harper & Row, London, 67.
- Prescott, J.E. (1986) Environments as Moderators of the Relationship between Strategy and Performance, *Academy of Management Journal*, **29**, 329-346.
- Robbins, S.P. (1990) *Organization Theory: Structure Designs and Applications* (third edition), New Jersey, Prentice-Hall Inc.
- Schaffer, J.D. (1986) *Competitive Strategy, Organization Structure and Performance in the Lodging Industry: An Empirical Assessment of Miles and Snow's (1978) Perspective of Organization*, *Unpublished Doctoral Dissertation*, Department of Management, Virginia Polytechnic Institute and State University, Blacksburg, VA.
- Slater, S.F., Olson, E.M. and Reddy, V.K. (1997) Strategy-Based Performance Measurement, *Business Horizon*, **40**, 37-44.
- Slattery, P. and Olsen, M.D. (1984) Hospitality Organizations and Their Environments, *Int. Journal of Hospitality Management*, **3**.
- Slevin, D.P. and Covin, J.G. (1997) Strategy Formation Patterns, Performance and the Significance of Context, *Journal of Management*, **23**, 189-209.

Tse, E.C.Y. and Olsen, M. (1999) Strategic Management, In *The Handbook of Contemporary Hospitality Management Research*, ed. Brotherton, B. John Wiley & Sons Ltd.

Venkatraman, N. and Ramanujam, V. (1986) Measurement of Business Performance in Strategy Research: A Comparison of Approaches, *Academy of Management Review*. **11**, 801-814.