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Strategic Performance Measurement and Value Drivers: Evidence from International Tourist Hotels in an Emerging Economy

HAO-CHEN HUANG, WENYI CHU and WEI-KANG WANG

In recent years, since the hospitality industry and the number of international tourist hotels have grown rapidly in China, the issue of how to assess the service quality and performance of hotels became more important than ever. This study developed an integrated theoretical model to investigate the influence of the balanced scorecard (BSC) on the hospitality industry in China, and to examine the relationships among the performance perspectives. Structural equation modelling (SEM) was used to empirically examine the model. In the first stage, the LISREL model was employed to investigate the causality and associations among the performance measures of the balanced scorecard. In the second stage, a number of tourist development strategies and the strategy map of BSC were introduced. Current balanced scorecard literature suggests that there should be a linkage between non-financial performance perspectives and financial performance measures. This paper examined the descriptive validity of the balanced scorecard as a causal model of measures of non-financial and financial performance.

INTRODUCTION

In the developing countries, the hospitality industry is among the fastest growing. Particularly in recent years, the Chinese government sees the tourism industry as an engine for economic growth, and has taken various measures to support its development. The hospitality industry and the number of international hotels have grown rapidly in China. Unfortunately, during recent years, a series of natural disasters and outbreaks of SARS have negatively affected the hospitality industry in China.

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International hotel owners and operators in China are desperately looking for a new set of operating strategies to increase the competitive advantage as well as profitability of the industry in the future. Given the increasing challenges and competition from the local and international environments, the issue of how to assess the service quality and performance of hotels becomes more and more important in China. Thus, this paper aims to analyse the strategic performance of international tourist hotels in China, to answer the following research questions: How do non-financial measurements link to financial performance? How do the learning/growth, internal/business process, and customer perspectives drive the financial perspectives in international tourist hotels? How do international tourist hotels improve their performance and productivity? What suggestions can this study give to international tourist hotels to help improve their performance through the strategy map?

In recent years, a growing amount of research on the international tourist hotels in China, Taiwan and other emerging economies has been published [e.g. Chu and Choi, 2000; Hwang and Chang, 2003; Zhang and Chow, 2004; Chen and Tseng, 2005; Qu *et al.*, 2005]. Although these studies have provided some implications for the management of international hotels, research on the application of the balanced scorecard massers to replace the traditional performance evaluation of international hotels in emerging economies is still limited. The balanced scorecard developed by Kaplan and Norton [1992] suggests a sequence of four perspectives that reflects the value-creating activities of the company. The sequence begins with the learning and growth perspective, followed by the internal/business process; the customer perspective serves as the third perspective, with the financial perspective as the final one. Core outcome (performance) measures within each perspective are assumed to be the leading indicators of the core outcome measures in the next perspective. In addition to the associations between the four balanced scorecard perspectives, Kaplan and Norton argue that a secondary set of associations exists [Kaplan and Norton, 1993, 1996a, b, c, 2001a, b, c, d, 2004a, b, c]. Within each of the four perspectives of the balanced scorecard, performance drivers (performance measures) exist that are presumed to be the leading indicators of core outcome measures.

Since being developed by Kaplan and Norton, the BSC concept has been widely adopted by manufacturing and service companies, non-profit organisations, and government entities around the world. A considerable number of studies have employed the BSC concept to examine the performance of hotels and the strategy of tourism [e.g. Struebing, 1996; Denton and White, 2000; Feng *et al.*, 2003; Phillips, 2004]. For instance, by using the hotel portfolio managed by White Lodging Services Corporation as the research sample, Denton and White [2000] utilised the balanced scorecard to align owners' and managers' goals to overcome problems in managing hotel operations. Given all these, this paper aims to analyse the associations among different performance measures of the balanced scorecard for the international tourist hotels in China.

Kaplan and Norton [2003] also created a powerful new tool, the 'strategy map', that enables companies to describe the links between intangible assets and value creation with a level of clarity and precision that has never before been possible. By combining the four perspectives (that is, the financial, customer, internal

process, and learning/growth perspectives), the balanced scorecard helps managers understand the interrelationships and causal effects among the various aspects. This understanding further enables managers to remove the functional barriers and ultimately improves their capabilities in decision making and problem solving [Frigo, 2004]. For instance, Phillips [2004] used the strategy map to demonstrate how a customer-oriented hotel with an aesthetics approach can enhance shareholders' value.

Therefore, in addition to the BSC approach, the concept of a strategy map was also incorporated into this paper. This research was thus divided into two phases. In the first stage, the authors focus on a study which used the structural equation model (SEM) to investigate the causal effects and the associations among the performance measures of the balanced scorecard. In the second stage the tourist development strategies and the strategy map of BSC were constructed.

The rest of the paper is organised as follows. Section two presents a brief review of the BSC literature. Section three describes the methodology, research frame, samples, variables, as well as the analytical models. Section four reports the results of the empirical analysis, including correlation analysis, SEM analysis, and a strategy map of BSC. The final section offers concluding remarks.

LITERATURE REVIEW OF THE BALANCED SCORECARD

The Balanced Scorecard

Introduced into the literature by Kaplan and Norton in 1992, the balanced scorecard is composed of four perspectives: the learning and growth perspective, internal process perspective, customer perspective, and financial perspective. It is a strategic approach and performance management system that enables organisations to translate its vision and strategy into implementation. The scorecard introduces four new management processes that, separately and in combination, contribute to linking long-term strategic objectives with short-term actions [Kaplan and Norton, 1996a]. Many companies and industries have adopted the scorecard, and it appears to meet several management needs. The BSC is more than a collection of financial and non-financial measurements. It is a translation of the business unit's strategy into a linked set of measures that define both the long-term strategic objective and the mechanisms for achieving and obtaining feedback on those objectives [Kaplan and Norton, 1996a]. Kaplan and Norton [2003] have created a powerful new tool, the 'strategy map', that enables companies to describe the links between intangible assets and value creation with a clarity and precision never before possible. The strategy map can be used to link processes to desired outcomes; to evaluate, measure, and improve the processes most critical to success; and to target investments in human, informational, and organisational capital [Kaplan and Norton, 2003, 2004a].

The BSC model identifies four related perspectives of activities that may be critical to nearly all organisations and all levels within organisations: 1) investing in learning and growth capabilities; 2) improving efficiency of internal processes; 3) providing customer value; 4) increasing financial success [Kaplan and Norton, 1992, 1993, 1996a, b, c, 2001a, 2004a].

1. *The learning and growth perspective.* Kaplan and Norton [1992] base their BSC model on activities that develop the learning and growth perspective. This perspective captures the ability of employees, information systems, and organisational alignment to manage the business and adapt to change. Processes will only succeed if adequately skilled and motivated employees, supplied with accurate and timely information, are driving them.
2. *The internal process perspective.* A causal model of the BSC assumes that employee capability drives internal process improvement. Kaplan and Norton divide a company's generic value chain into four high level process areas: innovation, customer management, operations, and regulatory and environmental. Each of these areas can include major processes, as well as sub-processes. The organisational pie can be sliced in a variety of ways [Beiman and Sun, 2003].
3. *The customer perspective.* The customer perspective also identifies the intended outcomes from delivering a differentiated value proposition. These would include market share in targeted customer segments, account share with targeted customers, acquisition and retention of customers in the targeted segments, and customer profitability. Some studies have found a significant association between customer satisfaction and performance [e.g., Heskett *et al.*, 1994; Itner and Larcker, 1998; Banker *et al.*, 2000].
4. *The financial perspective.* Financial performance measures indicate whether the strategy, implementation, and execution of a company are contributing to bottom-line improvement. The financial perspective includes three measures that are of importance to shareholders. Return on capital employed and cash flow reflect preferences for short-term results, and forecast reliability signals the corporate parent's desire to reduce the historical uncertainty caused by unexpected variations in performance. Project profitability focuses on the project as the basic unit for planning and control, while sales backlog helps reduce uncertainty of performance [Kaplan and Norton, 1993].

Summary of BSC Associations

In recent years, a growing number of conceptual and empirical studies on the BSC have been published. The BSC model begins with the learning and growth perspective, followed by the internal/business process, customer, and financial perspectives. Core outcome (performance) measures within each perspective are assumed to be the leading indicators of core outcome measures in the next perspective. Firms are increasingly implementing the new performance measurement systems to track non-financial metrics [Parry *et al.*, 1994; Andrews, 1996; Banker *et al.*, 2000; Frigo, 2002; Said *et al.*, 2003]. Current strategic management literature on the balanced scorecard suggests that there should be a strong linkage between strategic plans and performance measures [Kloot and Martin, 2000]. Most empirical studies report that these relations do exist [e.g. Kaplan and Norton, 1992, 1993, 1996a, b, c, 2001a, b, c, d, 2004a, b, c; Evert, 1998; Lipe and Salterio, 2002; Nørreklit, 2000; Michael, 2003; Banker *et al.*, 2004], but few studies have attempted to

document the linkages, associations and drivers among the performance measures of the BSC [Malina and Selto, 2001]. To examine the descriptive validity of the balanced scorecard as a causal model of leading and lagging indicators of non-financial and financial performance, Malina [2001] used SEM to empirically test the causal relations among the chosen BSC measures of 31 North American distributors. Inspired by these studies, the authors used the same methodology to investigate the causal relations, linkages, drivers and effects among different performance perspectives of the balanced scorecard strategy map, by using the international tourist hotels in China as the research sample.

METHODOLOGY

Research Framework

The BSC claims two major improvements over traditional performance measurement systems. First, it identifies four areas that are vital for competitiveness in nearly all organisations. Second, it makes explicit the links among leading and lagging measures of financial and non-financial performance [Malina, 2001]. The objective of this paper is to evaluate the performance and to analyse the associations among performance measures of the international tourist hotels in China. Two stages of research were designed. In the first stage, the SEM was used to investigate the causal effects as well as the associations among performance measures of the balanced scorecard. In the second stage, the strategic maps of the balanced scorecard were developed. The research framework is shown in Figure 1.

Development of Hypotheses

According to Kaplan and Norton [1992], a strategy is a set of hypotheses about cause and effect. Therefore, three issues should be considered [Kaplan and Norton, 1992, 1996]: 1) cause-and-effect relationships; 2) result measurements and performance-driven factors; and 3) combination with finance.

1. Cause-and-effect relationships. An identifiable causal relation is an important aspect of the balanced scorecard when choosing the appropriate indicators because it enables the translation of a financial aim. By evaluating the relevant factors in each segment of the balanced scorecard that may have an impact on a financial target, the appropriate measures can be identified and the alignment of actions to the strategic goals can be facilitated.

2. Result measurements and performance-driven factors. During the design of the BSC, the combination of leading indicators as performance-driven factors and lagging indicators as result measurements is used for monitoring the short-term operations and long-term growth of companies.

3. Combination with finance. The cause-and-effect relationships of the BSC indicators should be clearly linked to the financial target of companies.

FIGURE 1
RESEARCH FRAMEWORK

Based on the research framework shown in Figure 1, three hypotheses are thus developed. These hypotheses are testable when appropriate lagging (outcome) measures and leading measures are developed.

- H1: There exists a positive relationship between the learning-growth perspective and the internal process perspective.*
- H2: There exists a positive relationship between the internal process perspective and the customer perspective.*
- H3: There exists a positive relationship between the customer perspective and the financial perspective.*

Measurement of Variables

The BSC model includes four perspectives: learning and growth perspective, internal process perspective, customer perspective, and financial perspective. With respect to the operationalisation and measures of these perspectives, this paper incorporated some measurements that have been widely used in the existing literature. In total, seven variables were developed in this research. First, with regard to the learning and growth perspective, two variables were employed: labour productivity (X_1), and room rate (X_2). For the internal process perspective, one variable was used:

number of rooms (Y_1). As to the customer perspective, two variables were utilised: number of international tourists (Y_2), and the ratio of customers/rooms (Y_3). Finally, sales revenue for rooms (Y_4) and sales revenue for commodities (Y_5) represented the financial perspective. Measurements of these variables were explained as follows.

1. Learning-growth perspective. Labour productivity (net profit/per employee): average labour productivity of employees in 2004. Room rate (%): average rate of rooms of international tourist hotels in 2004.

2. Internal process perspective. Number of rooms: total number of available rooms of international tourist hotels of 2004.

3. Customer perspective. Number of international tourists (10,000): number of tourists served by the international tourist hotels in 2004. Customer/room: total customers per available room in international tourist hotels in 2004.

4. Financial perspective. Sales revenue for room (million RMB): total sales revenue generated from rooms of international tourist hotels in 2004. Sales revenue for commodity (million RMB): total sales revenue generated from the commodities of international tourist hotels in 2004.

Data Collection and Sample

To ensure a certain level of homogeneity among research samples, only the three-star, four-star and five-star international tourist hotels located in the 31 provinces of China were used for the research. Mainland China has in total 31 provinces, including autonomous regions and municipalities. A systematic random sample was drawn from a public directory of hotels in China published in 2005. A questionnaire survey with closed structured questions was used as the main method of data collection. A telephone survey was used as a supplementary tool to boost the response rate. Among the 600 questionnaires that were distributed, 195 questionnaires were returned. Of these, 186 were usable, with a 31 per cent response rate out of the original sample of 600 hotels. The data was collected in 2005, with a process lasting about two months. The sample for this paper is comprised of 186 observations, therefore providing a valid sample size for the subsequent statistical analysis to be carried out.

Analytical Models

The LISREL (Linear Structural Relations) model was used as the analytical tool. The model consists of two parts, the measurement model and the structural equation model. The measurement model specifies how latent variables or hypothetical constructs depend upon or are indicated by the observed variables. It describes the measurement properties (reliabilities and validities) of the observed variables. The structural equation model specifies the causal relationships among the latent variables, describes the causal effects, and assigns the explained and unexplained

variances [Jöreskog and Sörbom, 1996a, b]. The full LISREL model for single samples is defined, for deviations about the means, by the following three equations. The structural equation model:

$$\eta = \beta\eta + \Gamma\xi + \zeta \quad (1)$$

$$\eta_1 = \gamma_{11}\xi_1 + \xi_1 \quad (1.1)$$

$$\eta_2 = \beta_{21}\xi_1 + \xi_2 \quad (1.2)$$

$$\eta_3 = \beta_{32}\eta_2 + \xi_3 \quad (1.3)$$

The measurement model for y:

$$Y = \Lambda_Y\eta + \epsilon \quad (2)$$

$$Y_1 = \lambda_{11}\eta_1 + \epsilon_1 \quad (2.1)$$

$$Y_2 = \lambda_{22}\eta_2 + \epsilon_2 \quad (2.2)$$

$$Y_3 = \lambda_{32}\eta_2 + \epsilon_3 \quad (2.3)$$

$$Y_4 = \lambda_{43}\eta_3 + \epsilon_4 \quad (2.4)$$

$$Y_5 = \lambda_{53}\eta_3 + \epsilon_5 \quad (2.5)$$

The measurement model for x:

$$X = \Lambda_X\xi + \delta \quad (3)$$

$$X_1 = \lambda_{11}\xi_1 + \delta_1 \quad (3.1)$$

$$X_2 = \lambda_{21}\xi_1 + \delta_2 \quad (3.2)$$

Where ϵ is uncorrelated with η ,

δ is uncorrelated with ξ ,

ζ is uncorrelated with ξ .

The LISREL model is particularly designed to handle models with latent variables, measurement errors and reciprocal causation. It is designed to estimate and test the structural equation models. SEMs are statistical models of linear relationships among latent (unobserved) variables and manifest (observed) variables. Figure 2 depicts the hypothetical model adopted for this study. This study selects the model components and the structural relationships between these components based on the hypotheses developed above.

EMPIRICAL RESULTS

Descriptive Statistics and Correlation Analysis

Table 1 shows the summary statistics of the independent and dependent variables that were used to construct the BSC model. Table 1 also shows the Pearson correlation coefficients of these variables. The learning-growth measures (i.e. labour productivity and room rate) are positively correlated to the internal process measures (i.e., number of rooms). The internal process measures (i.e., number of rooms) are also positively correlated to the customer measures (i.e., number of customers, and customers/room). Similarly, the customer measures (i.e. number of passengers, and reception passengers/each room) are positively correlated to the financial measures (i.e. sales revenue for room, and sales revenue for commodity). These positive correlations clearly indicate a strong relationship between performance measures.

SEM Analysis

The maximum likelihood (ML) model was used for the estimation of the structural equation model. As shown in Figure 2, the full model comprises of the structural model (which is comprised of four latent variables and seven manifest variables) and the measurement model (which specifies the relationships between latent variables and manifest variables). The results of parameter estimates are reported in Figure 3.

1. *Model test.* The proposed structural model was tested using the chi-square (χ^2) statistics to indicate acceptable model fit. Results show that the chi-square statistic

FIGURE 2
THE PROPOSED THEORETICAL MODEL

TABLE 1
DESCRIPTIVE STATISTICS AND PEARSON CORRELATION ANALYSIS (N = 186)

	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Labour productivity	6.10	2.62	1						
(2) Room rate	57.21	6.36	0.53*	1					
(3) Number of rooms	297	206	0.58*	0.67*	1				
(4) Number of customers	63.03	39.36	0.43*	0.43*	0.67*	1			
(5) customers/room	211	69	0.18	0.49*	0.29	0.43*	1		
(6) Sales revenue for room	5.13	2.00	0.75**	0.71**	0.95**	0.95**	0.32	1	
(7) Sales revenue for commodity	3.53	1.98	0.75**	0.72**	0.81**	0.81**	0.24	0.87**	1

* p < 0.1; ** p < 0.05; *** p < 0.01.

was significant ($\chi^2 = 18.67$ with $df = 11$, p -value = 0.067). The null hypothesis (H_0 : the proposed structural model and the data are suitable) was thus accepted. In other words, the model presented in the paper is a good fit with the data; the proposed structural model and the data are thus suitable.

2. *Goodness-of-fit test.* According to Bagozzi and Yi [1988], several criteria can be used for the common test of the overall model: 1) a ratio of χ^2 model-fit statistics by degree of freedom, that should not exceed 2.5; and 2) goodness-of-fit indices, including particularly (a) the goodness-of-fit index (GFI), (b) the normed fit index (NFI), (c) the comparative fit index (CFI), (d) the non-normed fit index (NNFI); all these indices have to exceed a threshold value of 0.9 if a model is to be classified as fitting well. As Table 2 shows, testing criteria for this model are either well below the highest recommended value or above the minimum suggested values. This means that the overall model in Figure 2 can be considered as fitting the data well.

3. *Hypothesis test.* In order to empirically test the three hypotheses, the proposed theoretical model was examined by using LISREL in which the three proposed paths between different BSC perspectives (that is, the path between the learning-growth perspective and the internal process perspective, the path between the internal process perspective and the customer perspective, and the path between the customer perspective and the financial perspective) were estimated. Our empirical results show that the internal process perspective had a significantly positive influence ($P < .01$) on the learning-growth perspective ($\gamma = 0.251$, t -value = 4.33). Hypothesis 1 was thus supported. With regard to Hypothesis 2, it was found that the customer

FIGURE 3
RESULTS OF THE THEORETICAL MODEL

TABLE 2
GOODNESS-OF FIT MEASURES OF THE SEM

Model types	χ^2	Df	(χ^2/df)	GFI	NFI	NNFI	CFI
Theoretical model	18.67	11	1.69	0.87	0.89	0.90	0.95
Modified model (I)	15.74	11	1.43	0.89	0.91	0.94	0.97
Modified model (II)	24.66	10	2.46	0.81	0.79	0.68	0.85
Modified model (III)	51.32	12	4.27	0.72	0.71	0.56	0.75

perspective had a significantly positive influence ($P < .01$) on the internal process perspective ($\beta = 1.175$, t-value = 4.96). Hypothesis 2 was also supported. As to Hypothesis 3, again, the financial perspective was found to be positively associated with the customer perspective ($\beta = 1.205$, t-value = 5.03, $P < .01$). We took this as evidence that supported Hypothesis 3. Results of the parameter estimates are summarised in Table 3.

TABLE 3
PARAMETER ESTIMATES FOR STRUCTURAL EQUATIONS

Theoretical model $IPP = \gamma_{11}LGP + \zeta_1$ $CP = \beta_{21}IPP + \zeta_2$ $FP = \beta_{32}CP + \zeta_3$			
where: IPP = internal process perspective, LGP = learning-growth perspective, FP = financial perspective			
Path	Parameter estimates	Standard Error	T- value
Panel A: Theoretical model			
$H1$: learning-growth perspective $\rightarrow$ internal process perspective (γ_{11})	0.251***	0.058	4.33
$H2$: internal process perspective $\rightarrow$ customer perspective (β_{21})	1.175***	0.237	4.96
$H3$: customer perspective $\rightarrow$ financial perspective (β_{32})	1.205***	0.239	5.03
Panel B: Modified model I			
learning-growth perspective $\rightarrow$ internal process perspective (γ_{11})	0.249***	0.058	4.31
internal process perspective $\rightarrow$ customer perspective (β_{21})	1.173***	0.238	4.93
internal process perspective $\rightarrow$ financial perspective (β_{31})	1.423***	0.100	14.23
Panel C: Modified model II			
learning-growth perspective $\rightarrow$ internal process perspective (γ_{11})	0.041***	0.021	2.001
internal process perspective $\rightarrow$ customer perspective (β_{21})	5.919	3.453	1.714
internal process perspective $\rightarrow$ financial perspective (β_{31})	7.723***	3.691	2.092
customer perspective $\rightarrow$ financial perspective (β_{32})	0.156	0.152	1.022
Panel D: Modified model III			
learning-growth perspective $\rightarrow$ financial perspective (γ_{11})	0.062***	0.027	2.315
internal process perspective $\rightarrow$ financial perspective (γ_{12})	0.434***	0.115	3.762
customer perspective $\rightarrow$ financial perspective (γ_{13})	0.039	0.006	1.497

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

4. *Modified BSC model I.* The modified model I was tested by using χ^2 statistics to indicate acceptable model fit; it was found that the chi-square statistic was significant ($\chi^2 = 15.74$ with $df = 11$, $p\text{-value} = 0.151$). As Table 2 shows, the four quality criteria for this model are either well below the highest recommended value or above the minimum suggested values, suggesting that the overall model in Figure 4 fit the data well.

The statistics show that the internal process perspective had a significantly positive influence ($P < .01$) on the learning-growth perspective ($\gamma = 0.249$, $t\text{-value} = 4.31$). Next, the customer perspective had a significantly positive influence ($P < .01$) on the internal process perspective ($\beta = 1.173$, $t\text{-value} = 4.93$), while the financial perspective was positively associated with the internal process perspective ($\beta = 1.423$ $t\text{-value} = 14.23$, $P < .01$). Results of parameter estimates of the modified model (I) are reported in Table 3.

5. *Modified BSC model II.* Again, the modified model II was tested by using χ^2 statistics to indicate the acceptable model fit. The chi-square statistic was significant ($\chi^2 = 24.66$, with $df = 0$), with criteria falling well between the suggested maximum and minimum values (see Table 2). This means that the overall model in Figure 5 can be identified as fitting the data well.

With respect to the associations among the three perspectives, it was found that the internal process perspective yielded a significantly positive influence ($P < .01$) on the learning-growth perspective ($\gamma = 0.041$, $t\text{-value} = 2.001$). Moreover, the financial perspective was positively associated with the internal process perspective ($\beta = 7.723$, $t\text{-value} = 2.092$, $P < .01$). However, differing from our predictions, the association between the financial perspective and the customer perspective was not significant ($\beta = 0.156$, $t\text{-value} = 1.022$); while the customer perspective was not significantly associated with the internal process perspective either ($\beta = 5.919$, $t\text{-value} = 1.714$). Results of parameter estimates are reported in Table 3.

FIGURE 4
RESULTS OF MODIFIED MODEL I

FIGURE 5
RESULTS OF MODIFIED MODEL II

6. *Modified BSC model III.* Similarly, the χ^2 statistics were used to test the model fit of the modified structural model. It was found that the chi-square statistic was significant ($\chi^2 = 51.32$, with $df = 12$), so this modified model can be constructed. However, the quality criteria of this model did not pass the tests (see Table 2), implying that the overall model in Figure 6 did not fit the data well.

By further examining the associations among the three perspectives, this paper found that the internal process perspective showed a significantly positive influence ($P < .01$) on the learning-growth perspective ($\gamma = 0.062$, $t\text{-value} = 2.315$). Also, the customer perspective had a significantly positive influence ($P < .01$) on the internal process perspective ($\beta = 0.434$, $t\text{-value} = 3.762$). However, the financial

FIGURE 6
RESULTS OF MODIFIED MODEL III

perspective was not associated with the customer perspective ($\beta = 0.006$, $t\text{-value} = 1.497$). Results of the parameter estimates are reported in Table 3.

Strategy Map Analysis

A central reason for a company to utilise the BSC is to explicitly describe its strategy in terms of the senior management team's hypotheses about how to achieve their important objectives. Therefore, these hypotheses identify the important objectives and the linkages among them across different perspectives. The hypotheses can be stated in the form of multiple 'if, then' statements about the causal relationships among the critically important variables [Beiman and Sun, 2003]. In other words, the BSC includes a set of tools for senior management to define their strategy for success. Kaplan and Norton [2003] call this diagram a strategy map. It is a diagram of the key elements of strategies for companies and industries. A strategy map can include objectives, targets, learning-growth perspective, internal process perspective, customer perspective, financial perspective, key competencies and more.

The results for the strategy map of international hotels are shown in Figure 7. According to the LISREL analysis reported in the earlier sections, the modified model fits the data well. Therefore, this model is able to construct the strategy map

FIGURE 7
THE BALANCED SCORECARD STRATEGY MAP OF INTERNATIONAL HOTELS IN CHINA

of international tourist hotels and tourism development strategies in an emerging market economy like China.

In this proposed strategy map, this model uses the labour productivity and room rate (that is, the items for measuring the learning and growth perspective) as performance measures; while recruiting and training excellent employees as well as high-productivity associates are utilised as strategies. Furthermore, the number of rooms (that is, the item for measuring the internal process perspective) is utilised as a performance measure, and excellent service quality is considered as a strategy measure. In addition, this model uses the number of international tourists and customers/room (that is, the items for measuring the customer perspective) as performance measures, and strategies are measured as increasing numbers of international tourists and customer satisfaction. Finally, sales revenue for rooms and sales revenue for commodities (that is, the items for measuring the financial perspective) are employed as the performance measures, and increasing sales and increasing foreign earnings as strategies.

With all these constructed, this paper creates a balanced scorecard strategy map for international tourist hotels in emerging economies to implement strategies and to pursue efficiency. This map also enables the senior management of international tourist hotels to explicitly clarify their hypotheses about the critical causal relationships in their strategies or missions.

CONCLUSIONS AND FUTURE RESEARCH

This study empirically tests the descriptive validity of the balanced scorecard as a causal model of measures of non-financial and financial performance. An integrated theoretical model was built to investigate the impact of the balanced scorecard on the hospitality industry in China, and to examine the relationships among different perspectives of the balanced scorecard. The main findings of this paper are summarised as follows.

This paper developed three hypotheses that identify the important objectives and the linkages among different perspectives of the balanced scorecard. Results of the statistical analysis provide strong support to the hypotheses. The empirical results of the theoretical model show that non-financial performance measures (i.e., the learning and growth perspective, internal process perspective, and customer perspective) not only directly influence the financial performance measures, but also indirectly affect performance through the cause-and-effect relationships among different perspectives. This study further compares various types of modified models by testing the goodness-of-fit and the paths of those modified models. Based on the results of the SEM analysis, the modified model can be classified as fitting the data well, with empirical results showing that the learning and growth perspective positively affects the internal process perspective; while the internal process perspective, in turn, positively affects both the customer perspective and the financial perspective.

The BSC methodology and framework includes tools for top management to define their strategy for success. The balanced scorecard strategy map of international hotels in China proposed by this paper provides a systematic structure that enables top management to define: 1) mission and vision (efficient international hotels) for the success of hotels; 2) strategies (learning-growth perspective/internal process perspective/customer perspective/financial perspective) for achieving that success; 3) key outcome measures (lagging indicators) that are the most appropriate for success; and 4) hypotheses about what will drive successful performance on those outcome measures (leading indicators). The strategy map of international hotels highlights the following cause-and-effect relationships across different perspectives that are eventually selected: 1) attracting and retaining high-productivity associates or employees for hotels; 2) execution of best practices; 3) increasing customer satisfaction; 4) achieving financial success for international tourist hotels in China. Furthermore, based on the modified cause-and-effect model and the strategy map of China's international hotels, relevant balanced scorecard performance perspectives can be identified to effectively enhance management performance of international tourist hotels in China.

The approach outlined in this study can be replicated in other nations, industries and companies. Therefore, future studies may focus on validating the proposed BSC model and associated strategic objectives and performance measures, as well as on implementing the BSC to the other industries or companies to test the effectiveness of this BSC strategic management approach. Finally, there exists a limitation of the current research that warrants discussion. In this study, only a small number of international tourist hotels was examined, which may restrict the level of quantitative analysis and limit the generalisability of the findings. On the other hand, this limitation may provide an opportunity for future research on the strategic performance measurement and value drivers in emerging markets. Future research could use a larger sample to enable a test for value drivers and cause-and-effect relationships in emerging economies.

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