

Skillful Use of Enterprise Risk Management in Hotels

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Abstract

Due to the complexity and abstract nature of enterprise risk management (ERM), its concept and implementation procedures are not easily comprehended by both the management and the operations teams. As a result, the rate of adoption in the industry remains relatively low. The continuing escalation of unpredictable natural and manmade disasters, such as the Covid-19, has made ERM ever more important. This study obtained 215 valid samples from the hotels located in Uttaradit and Phitsanulok, Thailand, to demonstrate how one can easily comprehend ERM by linking to more familiar concepts such as balanced scorecard (BSC) and business strategy. In this regard this study aims to lay a groundwork for the ERM application as a necessary part of strategic and operations management. Besides the theoretical contributions, this research makes use of statistical comparative analyses of many demographic variables (i.e., position, type of job, number of hotel rooms, service types, HR and hotel operations) to offer a rich spectrum of practical implications.

Keywords: Balanced Scorecard; Enterprise risk management; Hotel Performance; Strategy

Introduction

Business in the 21st century is more complicated, unstable and uncertain than in the past. Risk and uncertainty are inseparable business conditions and attributes today (Protiviti, 2006) alongside with strategies, which must be deliberated as a part of the strategic and performance management systems of the organizations (Peattie, Philip & Peattie, 2005). In particular, a concept involving enterprise risk management (ERM) evolves to be essential, as it is holistic and embraces company-wide participation, and when coordinated well, ERM has proven to effectively support the implementation of strategies and improve the chance of success (Gordon, Martin & Tseng, 2009). Enterprise risk management (ERM) has been reported to evolve from low-level or process-driven risk management to higher-level, that is at the enterprise-level. ERM provides numerous important functions, for example to help the firm to establish, evaluate and report on their internal controls (Lawson, Muriel, Sanders, 2017), and thus, helps organization manages risk in effective way.

There is a high competition among tourism and hospitality sector. Hotel sector is significantly important to the overall economy in Thailand. In 2016, the total number of hotel rooms has increased to 25.7% which causes higher-level market of room supply, and thus

intensifies the competition and raises urgent need to reduce uncertainty and risk in strategy formulation and implementation. Moreover, expansion of investment in hotel business is affected by the increasing of tourists' number and spending as well (GSB Research, 2017). "Thailand's international visitors were up by 7.54% over 2017, and the estimated 2.007 trillion Baht in tourism revenue was up by 9.63%. Tourists to Thailand are expected to increase from 38.27 million to 41 million" (Bangkok Post, 2019). Along with the increase of foreign tourists, the accommodation occupancy rate (AOR) would also get the benefits, but is subjected to the ability of Thai hotels to differentiate their strategies and manage risk – a thematic focus of this research. AOR, according to Bank of Thailand, and reported by (CEIC, 2019), fluctuates above 60%.

Phitsanulok and Uttaradit are attractive areas to explore. Phitsanulok is located in the lower northern part of Thailand. Neighboring provinces is Uttaradit, which is located in the upper north of Thailand. These two provinces have many interesting tourist attractions, especially they have rich natural, historical and cultural resources that the tourism and hotel sectors can make use of. Fig. 1 presents the locations of the two provinces targeted in this research.

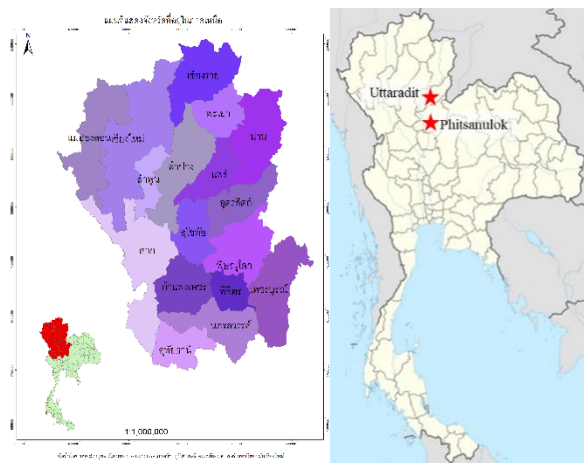


Fig. 1: Northern part and Uttaradit, Phitsanulok Map. (Source: Wikimedia)

Phitsanulok and Uttaradit are among the routes to northern Thailand and, in fact, can be reckoned as a main transportation hub linking the central provinces to the north of the country. Many travelers pass through these two provinces. The Ministry of Tourism and Sport (2018) reported that Phitsanulok and Uttaradit currently have more than 4 million tourists, consisting of domestic tourists, international tourists and excursionist, who also use the services of hotels, guesthouses and other type of accommodations; meanwhile, hotel number is on the rise.

There are many reasons that influence the competition in hotel market. Present economic changes, preferences of customers, prices and industrial situations, and externally caused risk factors can collectively impact on hotel's demands and performances. The steadily increasing oversupply of accommodation to the market, especially in the most important tourist areas, and the spread of online booking systems, may increase competition on price (Lunkam, 2017). Customers have many choices to select, such as traditional hotel establishment, a more contemporary version like Airbnb, hostels, or guesthouses. Due to wide variation of players in the accommodation sector, the traditional hotel establishments

are under the pressure to improve their offers. Oliver (2016) noted that “the fierce competition, the bargaining power of clients, the dependence on suppliers, the constant demand for innovation, changes in the regulatory environment, the new expectations of society” (p. 66) have made the operating environment of organizations, such as hotels, to be more complex. Nevertheless, how these environmental conditions influence on the mission clarity and a need for stronger corporate governance is not obvious, particular in the context of enterprise risk management. Complexities involve, for instance, the risks and the nature of relationships with the agents of businesses (Oliver, 2016), and if they are dealt with systematically, such as by means of ERM, they could deter the efforts of the organizations towards success (Soltanizadeh, Abdul Rasid, Mottaghi, & Wan Ismail, 2016).

To help organizations chart towards the right course in more robust manner, enterprise risk management (ERM) comes to assistance, albeit at a significant investment effort by firms. Nevertheless, as it was stated above, and “regardless of the increased number of studies on risk management in various firms, limited studies have strived to reveal the components driving and obstructing ERM” (Callahan & Jared, 2017). In particular, a systems-thinking framework is lacked in ERM context (O'Donnell, 2005), in simple implementable manner. The current COSO framework of ERM is rather detailed as it follows a step-wise process (Committee of Sponsoring Organizations of the Treadway Commission and World Business Council for Sustainable Development, 2019).

To be precise, through enterprise risk management measures, hotels can mitigate risk and plan to deal with impacts that cause from uncertain events, which is the essential motive for this research. The latest version of COSO ERM framework is adopted, and is integrated with the Balanced Scorecard (BSC) concept, as way for structuralizing the perspectives of hotel performances. Towards this end, the following research objective is aimed:

The purpose of this study is to conceptualize a model that establishes a strategic linkage between the environments of hotels and efforts in enterprise risk management (ERM), and further studies how these environmental considerations and EMR will impact on strategy success and organizational performances. Specifically, the external environment would consider the number of competitors, technological changes, pricing competition and government regulation, as manifestations of the forces exerted on the hotel organizations. On the internal environmental domain, corporate governance and culture, and mission clarity are incorporated. The performance of organization will take a more holistic view by means of Balanced Scorecard (BSC) concept.

Literature Review

Characteristics of Enterprise Risk Management

Enterprise risk management (ERM) is defined by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) as “a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives” (Fraser & Simkins, 2010). From the definition just stated, ERM demonstrates numerous important characteristics, which can be categorized in terms of:

Why – ERM is primarily motivated by the potential possibility of the executed and formulated strategies to deviate from the expectation or corporate objective
How – ERM is a process, and is a holistic approach, targeted at the enterprise-level to risk management. Reference (Dickinson, 2001) recognizes ERM as a formal part of the decision-making process. From ethical viewpoints (Tan, 2016), ERM can be reckoned as a rule-based or principle-based framework (Lawson, Leah & Sanders, 2017).

What – Risks are broad-based, i.e. insurable risk, financial risks, operational risks. Insurable risk stresses the nature of risks transferred to insurance companies, and such risks are generally related to “natural catastrophes, human error, or fraud, but as the scope of insurance markets expanded, some types of commercial risks could also be transferred such as credit risks” (Dickinson, 2001). Risk is also an inherent property of an organization, particularly associated with strategy formulation and execution. In other words, ERM is an integral part of a company’s strategy, whether at corporate level, business level, global level, or operational level (Tan, 2018).

Factors Potentially Affecting ERM

A range of internal and external factors can cause the outcomes of a company’s strategies to depart from the deliberated version (Dickinson, 2001). Putting in another words, risks could emanate from the market, or from firm-specific or non-markets ((Lawson, Leah & Sanders, 2017), such as due to insufficient strategy-focused culture (Kaplan, Davenport, Norton, 2001) and clarity and commitment in company mission. When the external risk-pressures are higher, such as due to the number of competitors, changes in technologies, and government regulations, the more pressing is the need for organizations to establish good corporate governance system and commitment (Krenn, 2016), culture and make clarity of company mission. In other words, organizations view the firm’s external context as a source of isomorphism (DiMaggio & Powell, 1983). These arguments support the following hypothesis:

H1: There is a positive relevancy in between the external environment and internal environment consisting of 1) corporate governance and culture, and 2) mission clarity.

Rationales to the Approaches of ERM

As argued in Calandro and Lane (2006: 32), “getting the right assumptions” to approach ERM is very important, but is not straightforward, and to reduce this impact, they introduce the Balanced Scorecard (BSC) concept as a way to help organizations proving of their assumptions in terms of cause-and-effect linkages of the factors or risk-reduction measures. BSC is first introduced by Kaplan and Norton (1996), and is extended using the concept of strategy mapping (Kaplan & Norton, 2004), strategic alignment (Kaplan & Norton, 2006) and strategy-focused corporate culture (Kaplan, Davenport & Norton, 2001).

Defined by risk as the possibility of loss caused by unsuccessful strategy implementation, whether for either intentional (due to ethical misconduct) (Tan, 2016), or unintentional reasons (due to error made unknowingly) (Calandro & Lane, 2006), ERM should be deliberated to improve strategy success, by appropriately considering external

environment, and by making clear of mission and establishing culture and rule- and principle-based corporate governance.

Organizational culture has the ability to influence at enterprise-wide level, due to its inherent nature as mental programming, and thus can influence the leadership, execution, rituals, and values of the organizations, and fundamentally, has the stability function – that is, to stabilize the organization. Along similar argument in Hofstede, Hofstede and Minkov (2010), Liker and Hoseus (2008) define culture as “the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems”.

In short, the following hypotheses are therefore raised, which establish the causal impact of both internal and external factors on ERM and strategy success:

H2: External environment has significant influence on ERM.

H3: External environment has significant influence on strategy success.

H4: Internal environment, which consists of corporate governance and culture, and mission clarity, can significantly explain the variance of ERM.

H5: Internal environment, which consists of corporate governance and culture, and mission clarity, can significantly explain the variance of strategy success.

“Facing complexity and being able to focus in the face of it rather than retreat from it and pretend that it does not exist,” as argued in (Wells, 1998), is the heart of good strategic thinking, which is reflected in the hypothetical relationship linking both internal and external environments to strategy success. Furthermore, judging from the previously stated definition of risk, referred as the possibility of the strategy execution will not be successful (Calandro & Lane, 2006), we can establish, therefore, that ERM can directly contribute to improve strategy success, leading to the next hypothesis connoting a characteristic of strategy, as both emergent and complex, and deliberating (Tuomela, 2005), in which ERM can serve as a management control system (Tsamenyi, Sahadev & Qiao, 2011):

H6: ERM can positively and significantly influence strategy success.

A logical extension of H1-H6, in the aforementioned, is the linkage of both strategy success and ERM to contribute to organizational performances, which are operationalized, in more integrative and holistic manner, via the four BSC perspectives. In other words, the purpose of ERM is aimed to minimize or reduce the possibility of loss, or increase the possibility of success, which in turn, lead to organizational performances as represented by the four performance perspectives, namely learning and growth, internal business processes, customer and financial performances (Sainaghi, Phillips & Valentina, 2013). ERM practices are not only necessary for improving the performance of an organization, but also contribute to reduce different types of risk exposure (Florio & Giulia, 2017). Successful ERM strategies enable businesses to maximize their profitability and efficiently manage risk (Lechner & Gatzert, 2018). Specifically, by constantly monitoring the total performance of the enterprise,

steadily watching “the efficiency, profitability, cash flow and exposure of each of the enterprise’s important clients,” and putting in place “a system of warning signals for all activities and act decisively if an out-of-control condition is detected,” as manifested and regulated in ERM, the four BSC performances can potentially be realized. Thus, the following hypothesis is raised:

H7: Both ERM and strategy success lead to the four BSC performances.

Besides, as shown in Kaplan and Norton’s (2004) strategy mapping concept, the four BSC performances are interrelated, and in particular, of the logic that learning and growth drives internal business processes, which in turn, drives performance manifested by customers accepting the value proposition and its services, leading to financial achievement (Tan & Sitikarn, 2019). In other words, there is a causal relationship of the four BSC performance perspective, as articulated in the following hypothesis:

H8: There is a causal relationship of the four BSC performance perspective.

As a conclusion of the literature review, the following theoretical framework is derived and the next section would discuss the methodological design to provide the empirical evidences to the framework shown in **Fig. 2**.

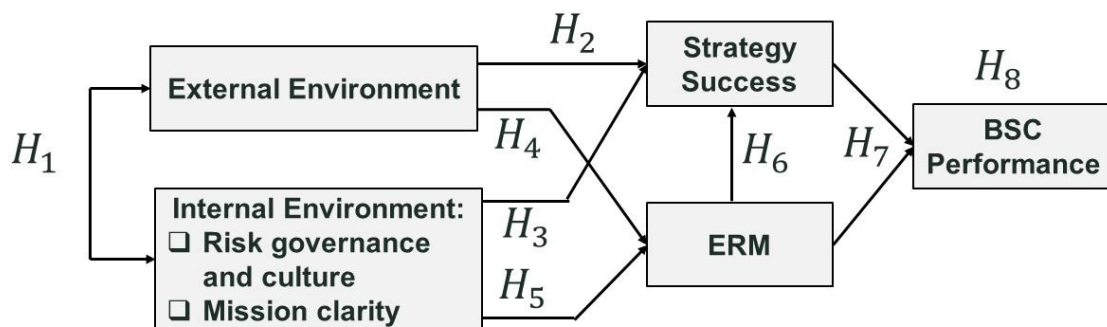


Fig. 2: The Conceptual Framework of the Research

Method

Sampling and Data Collection

The population of this study is hotel owners and employees (manager and non-manager positions) working in the hotels located in Muang district, Uttaradit and Muang district, Phitsanulok, Thailand. Based on the information from the Department of Provincial Administration of Thailand, there are 155 hotels registered in these areas. According to the Ministerial Regulation B.E. 2551 (2008), hotels are classified into 4 types, based room number and the provided services, as shown in Table 1.

Cochran (1977) states that in case of unknown population, a sample size of 385 is suggested with 95% confidence level. Researcher contacted the HR department of each hotel and required minimum respondent’s criteria of each position, which is one owner, one manager and three non-managers. After agreement was obtained, a total of 450 questionnaires

sets were distributed to 32 hotels in these two provinces from August 2019 to September 2019, as shown in Table 1. Data were collected directly by paper-based questionnaires. Eventually, there are 215 valid questionnaires returned and have been used for result analysis, which is around 48% response rate and matches the typical response rate in business and management research: between 30% and 80% (Goudy, 1976).

Table 1: Targeted Population and Sampling

Targeted population									
Targeted areas	Hotel type								Total
	Type 1		Type 2		Type 3		Type 4		
Phitsanulok (PHS)	55		21		12		12		100
Uttaradit (UTT)	43		9		0		3		55
									155
Sampling/ participated									
Hotel type	Type 1		Type 2		Type 3		Type 4		Total
Targeted areas	PHS	UTT	PHS	UTT	PHS	UTT	PHS	UTT	
Number of hotels participated	11	2	12	2	1	0	3	1	32
Distributed questionnaires	110	20	180	40	20	0	60	20	450
Valid questionnaires collected	54	11	82	26	12	0	20	10	215

Note:

PHS refers to Phitsanulok and UTT refers to Uttaradit.

Type 1: Hotels provide accommodation only and the number of rooms do not exceed 40 rooms.

Type 2: Hotels provide accommodation and catering or restaurant services, the number of rooms do not exceed 80 rooms.

Type 3: Hotels provide accommodation, catering or restaurant services and conference rooms or entertainment venues.

Type 4: Hotels provide accommodation, catering or restaurant services, conference rooms and entertainment venues.

Measurement Instrument

For the testing of model constructs and the validity of the interaction structure, the questionnaire design was selected as the quantitative method. Validity and reliability of the constructs are defined by aligning the constructs with the scope of the concepts, i.e., strategy, hotel performance, ERM and BSC, along with their definitions. In the pilot-testing process, we approach three subject experts: Two with sufficient knowledge of strategy and ERM, and another on research methodology. The reliability measures include the use of statements in language and in ways that can easily be understood instantly, reflecting easy recall or routine perceptions of the hostel employees.

The questionnaire instrument is arranged into two sections. Section one describes the respondent's and hotel's demographics. In section two, the constructs are measured by using five-rating scale items targeting on level of agreement (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). There are five parts in section two, namely internal environment, external environment, enterprise risk management (ERM), strategy success and hotel performance, with a total of thirty-five measurement items.

The statement details of the measurement items are given and discussed in the next section "Result and Discussion", along with the validity and reliability assessments of the constructs.

Data Analysis

In this study, the data were analyzed using AMOS-based structural equation modeling (SME) and IBM SPSS package, involving also T-test, ANOVA tests, factor analysis, correlations and multiple regression. SEM provides the stringent base for hypotheses testing as well as examining for additional insights such as the mediating role of ERM for leveraging the ability of both internal and external considerations to deliver strategy success. Both incremental and absolute fit are examined in SEM. Cronbach's alpha coefficient is used to evaluate the internal consistency of the measurement items describing the construct, evidenced with the coefficient exceeding 0.70. Exploratory factor analysis was undertaken as a part to contribute to the validity assessments of the instrument and the results obtained, describing the total variance explained (TVE) and factor loadings, and the unitary dimensional nature of the constructs shown in the next section.

Result and Discussion

Descriptive profile

A valid 215 responses set is used for the statistical analysis. The respondents hold position as owner, manager and non-manager, and among them, female at 70.7%. Back office accounted for 57.8%, and 42.3 % have less than 3 years of working experience and 79.3% of them also have less than 3 years working experience in hotel. The local residents occupy 75.8% and non-local residents at 24.2%. Among them, 50.7% have Bachelor degree. More than 70% are shown associated with 3-star hotels and majority of hotels have less than 40 rooms (44.7%), and less than 25 employees (43.7%). Additional to that, 47.4 % of hotels' year operation is between 6 -10 years. The responses are associated with: commercial hotel (75.8%), resort hotel (13%) and boutique hotel (11.2%). 76.3 of these hotels are independent type.

Result of Validity and Reliability Assessment

Tables 2 and 3 present the measurement statements of the constructs studied, evidencing that the reliability, convergent and divergent validity thresholds and requirements are met. With factor loading exceeding 0.70, TVE well above the 0.5 threshold, and reliability index exceeding 0.70 minimum threshold on Cronbach's Alpha, the convergent validity is well established.

Table 2: Measurement Instrument

Constructs	Items	Alpha	Factor Loading	Mean	Standard Deviation
Internal Environment					
Mission Clarity:					
Vision, mission and core value	Vision, mission and core value are clearly defined.	0.899	0.92	3.63	0.84
	Vision, mission and core value are communicated to us.		0.94	3.65	0.82
	We know our job contributed to vision, mission and core value.		0.87	3.92	0.85
Objectives	Objectives are set according to hotel strategy.	0.901	0.90	3.70	0.82
	Objectives are set for all job function.		0.92	3.84	0.92
	Objectives are set to get to our vision.		0.92	3.84	0.83
Risk Governance and Culture	We have to a work system (i.e., procedures, process, guidelines) to aim to minimize uncertainties that may lead us to fail.	0.903	0.88	3.69	0.85
	Overall, we work together to meet our objectives.		0.88	3.87	0.82
	Our organization monitors and controls to meet our objectives.		0.90	3.83	0.89
	Our organization provides constant review of our work performance.		0.87	3.84	0.89
External Environment	Number of competitors	0.786	0.75	2.74	0.50
	Technology change		0.84	2.62	0.52
	Hotel price competition in the market		0.82	2.70	0.49
	Government regulation		0.72	2.48	0.59
Enterprise Risk Management					
Strategy development risk management	We consider and take actions on anything that can make us not able to implement strategy.	0.828	0.83	3.64	0.76
	We invest necessarily (i.e. training, system) to enable us to implement strategy.		0.87	3.63	0.90
	We think through and discuss most factors that may influence the success of our strategy design and implementation.		0.89	3.74	0.78
Performance risk management	Anything that may cause us to deviate from target will be targeted and solved.	0.863	0.88	3.65	0.72
	We take necessary corrective actions if anything arises to prevent us to deliver our performance.		0.91	3.82	0.81
	We take necessary preventive action if anything arises to prevent us to deliver our performance.		0.88	3.77	0.80
Information, communication and reporting risk management	Our company shares information in right form to help us implement strategy and meet objectives.	0.866	0.87	3.72	0.75
	We report our progress and also areas of challenges to prevent us from winning.		0.90	3.76	0.77
	We communicate our progress and areas of challenges so, together, we can solve problems.		0.90	3.79	0.81
Strategy Success	Our strategy attracts more customers to stay at our hotel.	0.904	0.92	3.82	0.84
	Our strategy is capable to make us achieve our objectives.		0.92	3.80	0.86
	Our strategy is clearly able to give us clear direction for everyone to do perfect job.		0.91	3.80	0.91
Performance					

Constructs	Items	Alpha	Factor Loading	Mean	Standard Deviation
Financial	Our hotel has been able to meet our revenue target.	0.893	0.95	3.68	0.86
	Our hotel has been able to meet our cost and budget control.		0.95	3.71	0.90
Customer	Our hotel quite well-received by the market.	0.814	0.92	3.87	0.85
	We hardly have bad/severe customer complaint.		0.92	3.68	0.94
Internal business process	To my knowledge, our hotel is operated to desired quality standard.	0.908	0.96	3.81	0.90
	To my knowledge, our hotel's operation is managed to expectation.		0.96	3.80	0.92
Learning and growth	In general, our hotel's stuffs are well trained to execute hotel strategy.	0.893	0.89	3.64	0.94
	In general, our hotel has good working environment.		0.94	3.78	0.89
	In general, our hotel has up-to-date information to guild our continuous improvement.		0.89	3.77	0.93

Beside the aforementioned indicators i.e., reliability and TVE, Table 3 further supports the divergent validity, with the square-root of TVE exceeding the cross correlations coefficients.

Table 3: Mean, Convergent and Divergent Validity and Reliability.

	The Constructs															
	Mean	α	KMO	TVE	VMC	OBJ	RGC	EE	SDRM	PRM	ICRRM	SS	FIN	CUS	IBP	LG
V1	3.73	.90	.71	.83	.91											
V2	3.79	.90	.75	.84	.68**	.91										
V3	3.81	.90	.84	.78	.67**	.773**	.88									
V4	2.64	.79	.76	.62	.17*	.27**	.26**	.78								
V5	3.67	.83	.71	.75	.52**	.58**	.61**	.26**	.86							
V6	3.74	.86	.73	.79	.55**	.57**	.62**	.25**	.69**	.89						
V7	3.75	.87	.73	.79	.51**	.62**	.64**	.27**	.68**	.70**	.89					
V8	3.81	.90	.76	.84	.50**	.60**	.59**	.25**	.61**	.69**	.70**	.92				
V9	3.69	.89	.50	.90	.50**	.629**	.59**	.19**	.58**	.59**	.72**	.70**	.95			
V10	3.77	.81	.50	.84	.51**	.548**	.56**	.18**	.62**	.66**	.65**	.71**	.66**	.92		
V11	3.81	.91	.50	.92	.49**	.602**	.54**	.19**	.65**	.66**	.69**	.73**	.67**	.75*	0.96	
V12	3.73	.89	.71	.83	.48**	.57**	.59**	.21**	.61**	.68**	.67**	.71**	.67**	.73*	0.76**	0.91

Factor loading: all >0.70
Correlation Coefficients are significant at the 0.01 and 0.05 level (2 tailed** and 1 tailed*)
The diagonal = Square root of TVE
Criterion for divergent: The diagonal must be higher than the cross-correlations coefficients.

Note: VMV (V1) stands for vision, mission and core value, OBJ (V2) objectives, RGC (V3) risk governance and culture, EE (V4) external environment, SDRM (V5) strategy development risk management, PRM (V6) performance risk management, ICRRM (V7) information, communication and reporting risk management, SS (V8) strategy success, FIN (V9) financial, CUS (V10) customer, IBP (V11) internal business process, and LG (V12) learning and growth.

Comparative Study

Table 4 provides a comprehensive detail of the construct profile and the cross-group comparisons, based on ANOVA or T-Tests.

Table 4: General Data Profile, Descriptive and Cross-Comparative analysis

		Frequency	Percentage	Internal Environment			External Environment	Enterprise Risk Management			Strategy Success	Performance			
				Mission Clarity		Risk Governance and Culture		Strategy Development Risk Management	Performance Risk Management	Information Communication and Reporting Risk Management		Financial	Customer	Internal Business Process	Learning and Growth
				Vision, mission and core value	Objectives										
Gender	Male	60	27.9	3.78	3.77	3.80	2.68	3.70	3.88	3.87	3.91	3.83	3.93	3.94	3.80
	Female	152	70.7	3.71	3.80	3.81	2.62	3.66	3.69	3.71	3.77	3.64	3.72	3.76	3.71
	Other	3	1.4	3.67	3.78	3.83	2.67	3.44	3.67	3.78	3.89	3.50	3.67	3.67	3.56
Position	Owner	6	2.8	3.61	3.67	3.50	2.63	3.72	3.67	3.67	4.00	3.75	3.92	4.17	3.72
	Manager	14	6.5	4.48	4.26	4.29	2.59	3.91	4.17	4.22	4.21	4.18	3.89	4.29	4.14
	Non-Manager Sig.	195	90.7	3.68	3.76	3.78	2.64	3.65	3.72	3.72	3.77	3.66	3.76	3.76	3.70
Type of Job	Front Office	75	35.8	3.72	3.76	3.77	2.61	3.57	3.71	3.68	3.72	3.55	3.74	3.68	3.67
	Back Office	120	57.2	3.66	3.77	3.79	2.66	3.70	3.72	3.75	3.81	3.72	3.78	3.82	3.72
	Both Sig.	20	7	4.22	4.08	4.05	2.60	3.85	4.02	4.05	4.15	4.05	3.90	4.25	4.02
Year of Work (Overall)	Less than 3 years	91	42.3	3.66	3.68	3.75	2.60	3.63	3.67	3.68	3.74	3.61	3.81	3.75	3.69
	3-5 years	54	25.1	3.91	3.94	3.99	2.65	3.71	3.89	3.91	3.92	3.88	3.78	3.86	3.83
	> 5 years	70	32.6	3.70	3.83	3.74	2.67	3.70	3.72	3.72	3.80	3.66	3.73	3.84	3.71
Year of Experience in Hotels	Less than 3 years	106	49.3	3.67	3.69	3.76	2.63	3.62	3.66	3.66	3.74	3.59	3.79	3.74	3.66
	3-5 years	58	27	3.85	3.93	3.95	2.67	3.74	3.88	3.93	3.92	3.90	3.79	3.90	3.86
	> 5 years	51	23.7	3.73	3.86	3.74	2.62	3.69	3.77	3.75	3.82	3.67	3.72	3.86	3.73
Resident	Local Resident	163	25.8	3.69	3.78	3.78	2.64	3.62	3.72	3.74	3.77	3.68	3.73	3.76	3.71
	Non-local Resident Sig. (2-tailed)	52	24.2	3.87	3.83	3.89	2.61	3.84	3.81	3.81	3.91	3.74	3.91	3.95	3.81
Education	Below Bachelor	102	47.4	3.66	3.66	3.65	2.57	3.61	3.60	3.63	3.66		3.68	3.71	3.60
	Bachelor	109	50.7	3.81	3.93	3.95	2.69	3.73	3.88	3.87	3.95	3.76	3.88	3.92	3.85
	Master or above Sig.	4	1.9	3.42	3.58	4.00	2.69	3.42	3.67	3.67	3.75	4.00	3.50	3.38	3.84
Star Category	2 Stars	9	4.2	3.78	3.70	3.72	2.42	3.81	3.78	3.70	3.67	3.33	3.83	3.50	3.70
	3 Stars	154	71.6	3.74	3.80	3.80	2.66	3.66	3.71	3.71	3.80	3.67	3.75	3.80	3.70

		Frequency		Internal Environment			External Environment	Enterprise Risk Management			Strategy Success	Performance					
				Mission Clarity		Vision, mission and core value		Objectives	Risk Governance and Culture	Strategy Development Risk Management		Performance Risk Management	Information Communication and Reporting Risk Management	Financial	Customer	Internal Business Process	Learning and Growth
	4 Stars	39	18.1	3.77	3.88	3.90	2.60	3.71	3.86	3.93	3.89	3.87	3.86	3.97	3.91		
	5 Stars	13	6	3.54	3.49	3.67	2.63	3.62	3.77	3.72	3.77	3.65	3.73	3.65	3.54		
Number of Room	Less than 40 rooms	96	44.7	3.75	3.75	3.77	2.57	3.63	3.71	3.60	3.71	3.57	3.66	3.65	3.63		
	41-79 rooms	77	35.8	3.71	3.72	3.77	2.66	3.55	3.68	3.76	3.81	3.68	3.74	3.81	3.67		
	> 80 rooms Sig.	42	19.5	3.73	4.03	3.95	2.74	3.98	3.95	4.08	4.02	4.00	4.11	4.19	4.07		
Hotel type	Commercial Hotel	163	75.8	3.69	3.76	3.77	2.65	3.65	3.72	3.72	3.78	3.71	3.75	3.79	3.73		
	Resort Hotel	28	13	3.86	3.88	3.88	2.67	3.63	3.76	3.92	4.00	3.71	3.82	3.91	3.77		
	Boutique Hotel	24	11.2	3.90	3.93	3.96	2.49	3.86	3.86	3.76	3.75	3.52	3.88	3.81	3.71		
Management type	Independent Hotel	164	76.3	3.74	3.79	3.79	2.65	3.66	3.73	3.75	3.78	3.67	3.79	3.83	3.76		
	Chain Hotel	51	23.7	3.70	3.79	3.88	2.60	3.71	3.79	3.78	3.89	3.76	3.73	3.75	3.64		
Services type	Room only	65	30.2	3.69	3.66	3.68	2.58	3.54	3.55	3.54	3.62	3.47	3.53	3.48	3.58		
	Room plus other services Sig. (2-tailed)	150	69.8	3.75	3.85	3.86	2.66	3.73	3.83	3.85	3.89	3.79	3.88	3.95	3.80		
Number of employees	Less than 25 people	94	43.7	3.63	3.69	3.71	2.58	3.57	3.63	3.60	3.67	3.51	3.56	3.56	3.57		
	26-50 people	82	38.1	3.79	3.78	3.85	2.62	3.69	3.85	3.81	3.81	3.76	3.87	3.91	3.76		
	51-75 people	9	4.2	3.96	3.81	3.81	2.78	3.56	3.56	3.55	3.89	3.89	3.94	3.94	3.93		
	76-100 people	18	8.4	3.76	4.15	4.10	2.90	4.35	4.11	4.31	4.32	4.36	4.44	4.50	4.35		
	More than 100 people Sig.	12	5.6	3.97	4.11	3.83	2.71	3.36	3.47	3.86	4.00	3.54	3.63	3.92	3.72		
Year of hotel operation	Less than 5 years	78	36.3	4.07	3.96	4.01	2.64	3.79	3.88	3.79	3.97	3.80	4.01	3.95	3.85		
	6-10 years	102	47.4	3.64	3.81	3.79	2.60	3.68	3.73	3.82	3.83	3.74	3.79	3.86	3.79		
	11-15 years	25	11.6	3.09	3.27	3.29	2.76	3.25	3.43	3.35	3.25	3.22	3.14	3.22	3.25		
	More than 20 years Sig.	10	4.7	3.63	3.67	3.75	2.65	3.67	3.63	3.77	3.67	3.55	3.35	3.65	3.40		
				0	.002	.001		.011	.037	.019	.001	.018	0	.002	.008		

Numerous important insights are revealed from the comparative studies and are stated in the following. The respondents who work in managerial position acknowledged that vision, mission and core values are made clear and communicated and that their jobs contributed to them, and objectives are well aligned with hotel strategy that they hold to the belief that job functions are designed to achieve objectives and will lead them to accomplish the vision. These managerial positions also are more involved than other positions, significantly, on risk governance and culture, involving tasks like monitoring and control to meet objectives, constant review of work performance, and a work system (i.e., procedures, processes, and guidelines) to aim to minimize uncertainties that may lead the hotel to fail, particularly by making use of the “information, communication and reporting risk management” aspect of enterprise risk management (ERM).

Respondents whose tasks involve both back-office and front-office have clearly understood internal environment in hotel more than respondents who work only either front-office or back-office. Even they are not statistically significant, these respondents project higher means value in internal environment, enterprise risk management and strategy success, which are contributed to better hotel performance, especially in their working processes. Having tasked both ways, back-office and front-office, they project higher level of clarity of vision, mission and core value and acknowledged that their jobs clearly contributed to them. Significantly, they are also shown to the perceptual fact that the hotel is operated to the desired quality standard, and the operation is managed to the expectation. In resident section, the non-residents consider the efforts on enterprise risk management, especially in strategy development of risk management, more than the residents, and is statistically significant. The reason behind the higher level of perceptual ERM could be owed to the fact that they are employed from outside the local residence for their job roles, and had gained the additional experiences and attitude in dealing simultaneously with strategy and enterprise risk management, causing them to have higher understanding in ERM and they acquire the ERM practices in their jobs in terms of discussion and taking actions on anything that can make them not able to implement strategy and success of their strategy more than the resident group.

Those with Bachelor degree significantly perceive higher on the constructs investigated in view of the ERM model. Group of employees who work in hotels which have more than 80 rooms, considered as a large size hotel, take actions more on ERM aspects. Group of employees who work in hotels providing room and other services have better cognition of what is the situation and anything that will consider as a risk in their jobs and is knowledgeable of how to solve the problems. Moreover, they have communicated the risk information that is important to their job with colleges. Effective ERM practices in hotel can contribute to hotel's higher strategy success, leading to positive effect in better performance that embraces financial, customer and internal business performances. Hotels with more rooms and more employees also consider ERM at a higher level than the lower-room counterparts, leading to better performances across the four BSC perspectives, which supports the findings of, for instance, partly attributable to the complexity increase with room and employee numbers.

Model Fit Test

The goal of structural equation modeling (SEM) analysis is to estimate the model parameters, θ , by using optimization algorithm to minimize a function of the discrepancy

between S and $\bar{\Sigma}$ (variance/covariance matrix implied by the population parameters for the hypothesized model) so that $[\bar{\Sigma} - \Sigma(\theta)]$ is minimized, where $\Sigma(\theta)$ denotes the population covariance matrix of observed variables. The model is tested based on Maximum Likelihood (ML) function, $F_{ML}(\theta) = \ln |\bar{\Sigma}| + \text{tr}(\bar{S}\bar{\Sigma}^{-1}) - \ln |S| - (p+q)$, where S and $\bar{\Sigma}$ are the sample and model estimated variance and covariance matrices, respectively, and $(p+q)$ is the number of observed variables involved in the model yielding $(p+q)(p+q+1)/2$ unique variances and co-variances.

The SEM path structure is shown in Fig. 3, which confirms the eight hypotheses raised. First of all, the positive relationship structure of both internal management quality (manifested on mission clarity, and risk governance and culture) and the sensed external environmental conditions are supported (H1 is supported). The mission clarity is crucial to success in effective strategic management, and what the SEM path in Fig. 3 revealed is, which contributes also to the extant literature, is that as the competitive environment becomes more challenging, the roles of mission clarity and core value communicated to the organizational members, and establishing risk governance system and cultures, become very important and should be aligned. This reflects the first Hypothesis H1.

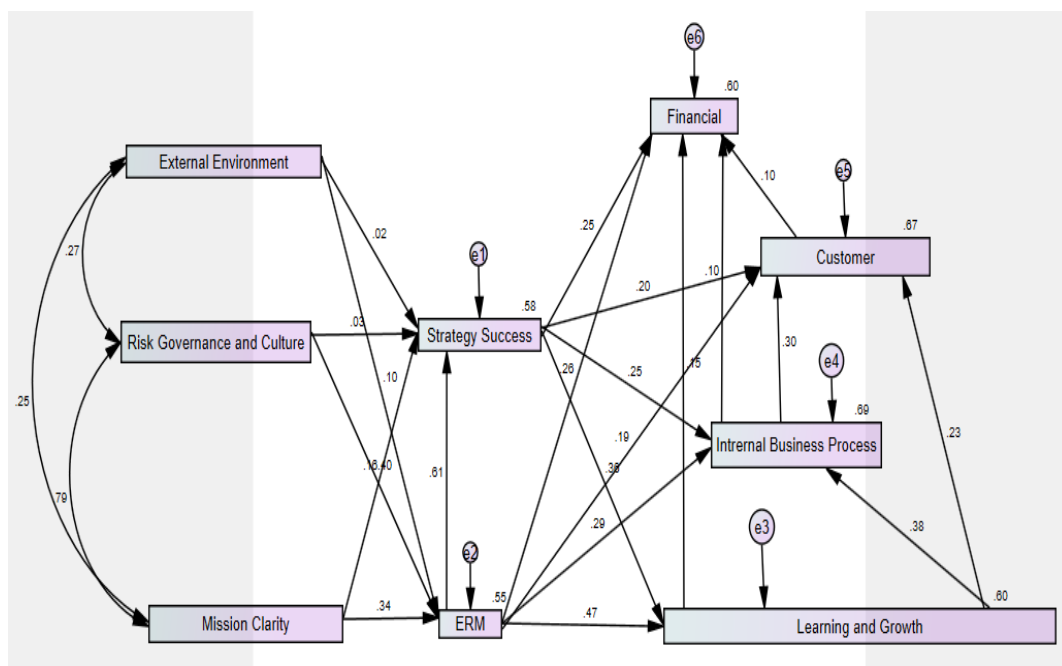


Fig. 3: The Structural Equation Model

The SEM model fit test results are presented in Table 5, with $\chi^2/s = 1.594$, below the threshold of 5, and with $p = 0.086 \geq 0.05$ (showing perfect absolute model fit) based on Maximum Likelihood (ML). Increment model fit indexes also conform to the requirements for increment model fit: Normative fit index (NFI) 0.987, RFI = 0.961, IFI = 0.995, TLI = 0.985, and CFI = 0.995, all closer to 1, together with the absolute fit RMSEA = 0.053. (Hair, William, Barry. & Anderson, 2014)

Table 5: Model Fit Statistics

CMIN					
Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	42	19.127	12	.086	1.594
Saturated model	54	.000	0		
Independence model	18	1475.745	36	.000	40.993

Baseline Comparisons					
Model	NFI	RFI	IFI	TLI	CFI
	Delta1	rho1	Delta2	rho2	
Default model	.987	.961	.995	.985	.995
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA				
Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.053	.000	.095	.414
Independence model	.432	.414	.415	.000

Hypothesis Testing

The hypothetical structures stated in H2 to H8 are supported by the path analysis structure of SEM analysis in Fig. 3, with the statistically significant regression coefficients, Beta, presented in Table 6, as evidences to support the hypotheses H2 to H8.

Table 6: Hypothesis Supporting Details

Hypotheses	Independent Variable	Dependent Variable	Beta	t	Sig	Result
H2	External Environment	Enterprise risk management	0.10	2.18	0.03	Support
H3	External Environment	Strategy success	0.02	0.49	0.62	Support
H4	Mission clarity Risk Governance and Culture	Enterprise risk management	0.34 0.40	4.52 5.33	0.00 0.00	Support
H5	Mission clarity Risk Governance and Culture	Strategy success	0.16 0.03	2.12 0.38	0.04 0.70	Support
H6	Enterprise risk management	Strategy success	0.61	9.12	0.00	Support
H7	Strategy success Enterprise risk management	BSC performance	0.43 0.50	8.58 10.07	0.00 0.00	Support
H8	Learning and growth Internal business process Customer Customer	Internal business process Customer Financial	0.38 0.30 0.10	6.22 4.17 1.38	0.00 0.00 0.17	Support

The SEM confirms that hotel performance is influenced and significantly mediated by enterprise risk management and strategy success in making use of internal management and

external environmental conditions. Hypothesis H1 is evidenced in the significantly positive correlations outcome given in Table 3. SEM in Fig. 3 also confirms the BSC structure, stating the significant role of learning and growth as the fundamental driving forces to provide the knowledge and insights to guide the development of internal business process and improves the values offered to customers. In doing so, financial performance is shown achieved, attributable to learning and growth, internal business process, customer performances, and most importantly, strategy success and ERM.

Conclusion

Strategy success of hotel will have more effectiveness when the hotel implements ERM that rationalizes based upon acknowledging the external environmental pressures, which serves as an urgency motivator, and clarity in the mission and the regulatory and aspirations environment (Tan, 2018b). There are numerous important concluding insights drawn from this research, which manifest the domains of contributions, both theoretically and practically.

First, this research demonstrates the positive relationship between the perceived environmental threat level and the efforts level of enterprise risk management (ERM), which underpins a working of contingency based approach to ERM. While the current research projects that the ERM effort is contingent upon how the hotel management and teams perceive the environmental complexity and stresses, it is suggested the hotels should take a more proactive approach in ERM.

Second, there is a very significant positive relationship also shown in between the external environment and the internal organizational efforts in terms of putting the management efforts right, by means of mission clarity and risk governance and culture. Considering internal and external environment while ERM and strategy are implementing is very important, justifying an open system that rationalizes the mutual alignments and matching (both internal and external) in order to win, leading to both external and internal roles to influence both ERM and strategy success. Most importantly, as the competitive environment gets difficult or becomes more challenging, the roles of mission clarity and core value communicated to the organizational members, and establishing risk governance system and cultures, become very important and should be aligned.

Third, this study indicates that ERM is a perfect mediator in leveraging up the efforts in mission clarity, risk governance and culture, and handling with the external environment for strategy success. The result of this research shows that employees who perceive higher level of threat of the environment, has higher level of mission clarity and risk governance and culture, tend to have better ERM practices in their job which further directly impact to the higher success of strategy of their hotels. In view of this, the hotels should allocate budgetary resources to provide training to employees and the management relating to ERM, as well as strategic management in a more holistic and measurable manner.

Fourth, performance of the hotels, in holistic balanced scorecard sense, is shown to be explained by both strategy success and the efforts of ERM. This matches with the definition of ERM as a significant part of the efforts to reduce uncertainty and possibility of unsuccessful strategy implementation. In other words, the effect of ERM practices not only

impacts directly to hotel performance outcome but it also impacts to hotel performance indirectly by passing through the success of hotel strategy.

Fifth, this research provides a holistic view of performance in terms of four perspectives of BSC concept. In short, hotel performance is simultaneously demonstrated by the ability to fulfil the objectives in four respective perspectives (namely, learning and growth, internal business process, customer, and financial) and equally, each perspective is inter-supporting each other to yield expected financial performances. Organizational learning is important particularly when our aim is to survive at a rate not lowering than the rate of change of the environment (Tan, 2018a).

Sixth, the BSC logics which states how learning and growth objectives and initiatives support achievement level and effort of internal business process, which in turn, drives customer-domain performance, and thus, financial performance, is empirically supported. Their interrelationships provide a balanced approach to ERM, and presents the organizational performance in more sustainable manner (Denton & White, 2000).

Implication

This study suggests several practical implications for hotel owners and managers to give considerable attention to ERM implementation to improve the success of strategy and hotel performance, and both the external and internal environment factors should be strategically incorporated and be supportive. The practical implications stated below are inferred and drawn from the outcomes of this research.

As effective ERM implementation is hardly straightforward (da Silva Etges et al, 2018), this research shows that educational background is important – Those with Bachelor degree significantly perceives higher on the constructs investigated in view of the ERM model. No significant differences are found across the different star-categories of hotel sector, which provides a practical utility sharing across the entire hotel sector, to use the ERM model suggested to benefit and enhance operating and financial performances. Hotels with more rooms and more employees also consider ERM at a higher level than the lower-room counterparts, leading to better performances across the four BSC perspectives, which supports the findings of, for instance, Callahan & Soileau (2017) and Ma, Maozhu, Yifeng, and Xiaobo, 2019, partly attributable to the complexity increase with room and employee numbers.

Most importantly, there seems to be a lax when the hotel operations years increase – that is, the more years of hotel operations, the lower the efforts of the entire ERM model dynamics, spanning from both internal and external environment, to ERM and strategy success, and BSC performances, signifying a weakening of the so-called “dynamic capability” of the hotels to sense opportunities (the external environment), and seize them or formulate strategies to take advantages of them, while simultaneously shape threats. According to the perspective of dynamic capability, firms need to continuously build, integrate, and reconfigure their skills and abilities to adapt to their important environment and sustain competitive advantage.

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