RGSA – Revista de Gestão Social e Ambiental
ISSN: 1981-982X
Data de submissão: 01/15/2023
Data de aceite: 03/15/2024
DOI: https://doi.org/10.24857/rgsa.v18n8-010
Organização: Comitê Científico Interinstitucional
Editor Chefe: Christian Luiz da Silva
Avaliação: Double Blind Review pelo SEER/OJS

CONFIRMATORY FACTOR ANALYSIS FOR THE STRATEGIC MANAGEMENT MODEL OF THE RECOVERY OF SMEs HOTEL BUSINESSES DURING THE COVID-19 SITUATION

Kanokwan Papamo[1]
Aree Naipinit[2]

ABSTRACT

Objective: To examine the determinants of confirmatory factor analysis of business recovery strategy factors that affect expected business outcome after being affected by the COVID-19 situation of medium and small hotels.

Theoretical Framework: This study uses a Turnaround Theory, especially the theory of Crisis Management.

Method: This research uses a quantitative approach with a questionnaire as the tool to collect the data design using a sample of 298 with the Purposive Sampling technique. The data analysis technique used is Structural equation modeling (SEM); with the AMOS device to test the statistics of the goodness of fit of the measurement model with the empirical data.

Result: From examining the statistics of the goodness of fit of the measurement model with the empirical data, it was found that the business recovery strategy model that affects expected business outcomes had been consistent with the empirical data. This met the criteria for considering the harmony between the measurement model and the empirical data. Moreover, each question had demonstrated a statistical significance level of 0.01. The results of testing the influence of all 6 paths found that all the paths had had a positive influence, and the predictive power of the expected business outcome had been 67.1 percent.

Implications: The COVID-19 outbreak has had an impact on hotel operations and revenue. As a result, demand and service activities contracted significantly. Therefore, to alleviate this negative impact and business recovery. Originality/Value: After reviewing the literature, it was found that. It was found that various strategies were used in response to this crisis. The researcher therefore analysis on strategies for business recovery So that it can be used as a model for restoring businesses after being affected by crisis situations.

Keywords: Entrepreneur, Strategy, Small and Medium Business, Covid-19 Situation, Confirmatory Factor Analysis.

ANÁLISE DOS FATORES CONFIRMATÓRIOS PARA O MODELO DE GESTÃO ESTRATÉGICA DA RECUPERAÇÃO DAS PME DO SETOR HOTELEIRO DURANTE A SITUAÇÃO DA COVID-19

RESUMO

Objetivo: Examinar os determinantes da análise fatorial confirmatória dos fatores de estratégia de recuperação de negócios que afetam o resultado comercial esperado depois de serem afetados pela situação da Covid-19 de hotéis médios e pequenos.

Estrutura Teórica: Este estudo utiliza uma Teoria da Reversão, especialmente a teoria da Gestão de Crises.

Método: Esta pesquisa utiliza uma abordagem quantitativa com um questionário como a ferramenta para coletar o desenho de dados usando uma amostra de 298 com a técnica de Amostragem Purposive. A técnica de análise de

[1] Khon Kaen University, Thailand. E-mail: kanokwan.papamo@kkumail.com
Orcid: https://orcid.org/0009-0001-8427-3617
[2] Khon Kaen University, Thailand. E-mail: arekul@kku.ac.th
Orcid: https://orcid.org/0009-0004-8535-1420

dados utilizada é a Modelagem de Equações Estruturais (SEM), com o dispositivo AMOS para testar as estatísticas da adequação do ajuste do modelo de medição com os dados empíricos.

Resultado: Ao examinar as estatísticas de adequação do modelo de medição com os dados empíricos, constatou-se que o modelo de estratégia de recuperação de negócios que afeta os resultados comerciais esperados tinha sido consistente com os dados empíricos. Isso atendeu aos critérios para considerar a harmonia entre o modelo de medição e os dados empíricos. Além disso, cada questão tinha demonstrado um nível de significância estatística de 0,01. Os resultados dos testes da influência de todos os 6 caminhos descobriram que todos eles tiveram uma influência positiva, e o poder de previsão do resultado comercial esperado foi de 67,1%.

Implicações: o surto de Covid-19 teve impacto nas operações e nas receitas dos hotéis. Como resultado, as atividades de demanda e serviços contraíram significativamente. Portanto, para aliviar esse impacto negativo e a recuperação dos negócios.

Originalidade/valor: Após rever a literatura, foi constatado que. Constatou-se que foram utilizadas várias estratégias em resposta a essa crise. O pesquisador, portanto, analisa estratégias de recuperação de empresas para que possa ser usado como modelo de recuperação de empresas depois de serem afetadas por situações de crise.

Palavras-chave: Empreendedor, Estratégia, Pequenas e Médias Empresas, Situação da Covid-19 e Análise de Fatores de Confirmação.

ANÁLISIS FACTORIAL CONFIRMATORIO PARA EL MODELO DE GESTIÓN ESTRATÉGICA DE LA RECUPERACIÓN DE LAS PYMES HOTELERAS DURANTE LA SITUACIÓN DE COVID-19

RESUMEN

Objetivo: Examinar los determinantes del análisis factorial confirmatorio de los factores de la estrategia de recuperación empresarial que afectan el resultado comercial esperado después de verse afectados por la situación de COVID-19 de los hoteles medianos y pequeños.

Marco Teórico: Este estudio utiliza una Teoría de la Transformación, especialmente la teoría de la Gestión de Crisis.

Método: Esta investigación utiliza un enfoque cuantitativo con un cuestionario como herramienta para recolectar el diseño de datos utilizando una muestra de 298 con la técnica de Muestreo Purpositivo. La técnica de análisis de datos utilizada es el Modelado de ecuaciones estructurales (SEM); con el dispositivo AMOS para probar las estadísticas de la bondad de ajuste del modelo de medición con los datos empíricos.

Resultado: Al examinar las estadísticas de la bondad de ajuste del modelo de medición con los datos empíricos, se encontró que el modelo de estrategia de recuperación empresarial que afecta los resultados esperados del negocio había sido consistente con los datos empíricos. Esto cumplió con los criterios para considerar la armonía entre el modelo de medición y los datos empíricos. Además, cada pregunta había demostrado un nivel de significación estadística de 0,01. Los resultados de probar la influencia de los 6 caminos encontraron que todos los caminos habían tenido una influencia positiva, y el poder predictivo del resultado comercial esperado había sido del 67,1 por ciento.

Implicaciones: El brote de COVID-19 ha tenido un impacto en las operaciones e ingresos hoteleros. Como resultado, la demanda y las actividades de servicios se contrajeron significativamente. Por lo tanto, para aliviar este impacto negativo y la recuperación de las empresas.

Originalidad/Valor: Después de revisar la literatura, se encontró que. Se encontró que se utilizaron diversas estrategias en respuesta a esta crisis. Por ello, el investigador analiza las estrategias de recuperación empresarial para que pueda ser utilizado como modelo de restauración de empresas tras verse afectadas por situaciones de crisis.

Palabras clave: Emprendedor, Estrategia, Pequeña y Mediana Empresa, Situación Covid-19 y Análisis Factor Confirmatorio.

1 INTRODUCTION

The hotel industry has faced major disruptions caused by the COVID-19 pandemic, which has had a severe impact on hotel revenues. Within just a few weeks, the COVID-19 pandemic changed personal lives and society, as well as completely changed the global situation. Millions of people's health were put at risk by the global spread of COVID-19, particularly in East Asia, Europe, and North America. (Baum and Hai, 2020). Even though the first cases of the virus were discovered in Wuhan, China, at the end of 2019, the number of confirmed cases worldwide more than doubled in a period of less than three months, which caused political, economic, and social unrest and affected every aspect of life on a scale that has not been previously seen in modern times (Huang et al., 2020). On the whole, governments and society were seriously threatened by the rapid spread of the virus because at that time, there were no vaccines or reliable medical therapies. In response, the majority of nations implemented a range of non-pharmacological measures (Gössling, 2020), such as social distancing, lockdowns (isolation at home), business closures, and limitations on public meetings and travel. The impact of these restrictions was felt across all sectors of the economy. However, it was particularly severe in the hospitality sector, with global travel dropping sharply in less than 30 days (Sigala, 2020; S. Zenker and F. Kock., 2020) due to travel bans and air travel being closed so that the spread of the epidemic could be stopped (World Bank, 2020). As a result, most hotels around the world faced 100% cancellation rates, were empty, and were looking toward an uncertain future (Gössling et al., 2020). This outbreak was one of the most serious events of this century (S. Zenker and F. Kock., 2020), causing greater damage to the global economy than in the case of SARS (Saowanee Chantaphong, 2020).

In Thailand, before the COVID-19 outbreak, it was found that the accommodation business was growing well. Based upon the GDP, it was observed in the Accommodation & Food Service category had continued to grow and had garnered an increased proportion to the gross domestic product. However, the spread of the COVID-19 virus in countries around the world led to lockdowns and travel restrictions. Therefore, the accommodation business, which is a business related to tourism, was heavily affected by the inability of tourists to easily travel to Thailand as before the outbreak of the COVID-19 disease or even travel into Thailand. There

were various restrictions that created difficulties and expenses for tourists, such as having to be quarantined for the number of days specified by the government when traveling to Thailand, etc. (Pasut Ngowiwatchai, 2021). Not only has the long global COVID-19 crisis affected the economy, but it has also resulted in changes in business operations and in the daily lives of people in the post-COVID-19 world, which has required businesses in Thailand to adapt to the situation (Saowanee Chantaphong, 2020). This is especially true in the case of small-sized and medium-sized hotels, which are considered to be important components of the economic system. As such, they are deemed to be the main mechanisms that can be utilized to revive and strengthen the economic progress of many countries. Statistics around the world have shown that SMEs account for 90 percent of all businesses and SMEs employ approximately 65 - 70 percent of all employees in developed countries and approximately 80 - 90 percent in developing countries. For this reason, developed countries advance their economies by giving the utmost importance to SMEs (Salitta Saributr, 2018). Therefore, in addition to managing business functions during the COVID-19 outbreak crisis, it is important to recognize that not only is it vital for businesses to perform the functions of maintaining their cash flows and risk management systems, but it is also important for businesses, which have been affected by the situation, to also promote and educate their employees so that their businesses can be revived (Suchart Uthaiwat, 2021).

This research aimed at gaining knowledge from the operators of small-sized and medium-sized hotel businesses on the topic of how their businesses were recovering after experiencing the effects of the COVID-19 situation. The goal was to gain insights into the types of crisis management strategies that are currently being used in the hotel industry to adapt during the post-crisis era. Firstly, this study began by examining the impact that previous crisis management research in the tourism and hospitality sector had had on the hotel business. Secondly, the study addressed some of the recovery measures that had been previously identified by researchers in this area and some of the new measures that could be adapted for the COVID-19 crisis. This study intended to increase knowledge with regard to the hotel operators' responses to the COVID-19 pandemic by analyzing their responses to a survey tool that had been developed based on the previously available data. The tool makes suggestions and conducts an empirical analysis of the strategic solutions that can be utilized to help hotels navigate the COVID-19 situation and get back to business. For this reason, the researcher conducted a cross-sectional study of a sample of 298 owners of small-sized and medium-sized hotels in Udon Thani, Khon Kaen, and Ubon Ratchathani Provinces. These 3 provinces were chosen because they are the Top 3 provinces with the highest numbers of hotel rooms. This

meant that when they were affected, they would be affected to a greater extent (National Statistical Office, 2020). There were also air transport statistics showing them to have the highest numbers of both inbound and outbound passengers and to, therefore, be the Top 3 in the Northeastern region. (Ministry of Tourism and Sports, 2022). In addition, these provinces share a similar type of tourism, which is cultural tourism. As a result, these 3 provinces were selected as the sample groups. In this study, confirmatory factor analysis was performed to confirm that the composition of the observed variables and the latent variables, which had been determined by the researcher, was accurate and consistent with the empirical data. All of this was utilized to assist in determining the tactical steps that would be required to support the recovery of the firm.

2 LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

2.1 TURNAROUND THEORY

Turnaround means turning negative operating results back to sustainable positives (Businessdictionary, 2010) or turning around a crisis for the success of the company. For example, an investor takes a risk by increasing capital in a company that has low operating results but is eventually able to manage it so that the operating results return to a profit. (Allbusiness, 2010)

Balgobin and Pandit (2001) propose a five-step model for successful recovery: Fall and crisis Change-inducing factors and developing a recovery plan, cutting back, stabilizing, and starting up again.

Hofer (1980) developed the concept further and defined two types of recovery: 1) Operating turnaround: Operating turnaround is used to solve short-term problems during periods of poor performance. Emphasis is placed on measuring performance to increase efficiency. And 2) Strategic turnaround: Strategic turnaround involves changing the company's direction. They will enter new business areas or increase the market share of current businesses. The latter recovery will focus on long-term growth of the company. (Tvorik et al., 1998; Salitta Sariputra, 2018)

2.2 CRISIS MANAGEMENT

Crisis refers to a situation that needs to be managed in order to make corrections or to avoid damage (Long, 2001), whether the situations are environmental, health, or safety issues. This is usually an event that occurs unexpectedly, without warning and without any prior planning. Crises result in negative effects to organizations, individuals, or stakeholders and may affect business profits (Puchong Satirapipatkul, 2020). There are many events that can cause a crisis, such as safety issues, problems arising from breaking the law, environmental problems, health issues, litigations, products or the image of the organization, employee problems, conservation group activities, and other problems that stem from differences in opinions, etc. (Covello, 1995)

Crisis Management is an organizational management theory that utilizes strategic concepts involving preparation, beginning with the planning process and extending to the operational plans for organizational recovery after a crisis situation (Israeli, A., 2020). The processes and measures that are employed to prevent crises must have three main goals: 1) to prevent crises, 2) to manage crises in order to limit damage, and 3) to build greater credibility (Glaesser, 2006). Therefore, understanding the importance of crisis management is considered one of the organizational strategies that needs to be given great importance and should be included in an organization's strategic plans. Because temporary, unexpected events can often occur suddenly and can cause negative effects in many areas. Crisis management creates readiness to deal with various situations that may occur at any time (Puchong Satirapipatkul, 2020). Moreover, the Stock Exchange of Thailand has stated that due to the situation of the COVID-19 crisis outbreak, Business Management guidelines are in place for planning and conducting business operations so that businesses can operate continuously. These consist of the following 4 important guidelines:

1. Responding to the COVID-19 situation

Companies must make quick operational decisions, as well as must predict and assess the situations that will affect operations in various areas, such as supply chains, internal operations, and most importantly, finances. These also include determining the crisis response measures for the organization.

2. Managing the COVID-19 crisis

Companies should set up a special management team or designate people, who will be directly responsible for the project in order to ensure quick and efficient operations. Moreover, the company should establish new operational guidelines to comply with the Emergency Decree

and the distancing measures. Importantly, the company should communicate its management guidelines to its stakeholders so that confidence can be built both internally and externally.

3. Caring for and mitigating impacts for stakeholders during the COVID-19 situation

To maintain the people's confidence and trust over time, businesses must look out for everyone concerned and lessen the effects on individuals. This includes preserving cordial ties with interested parties.

4. Planning for Business recovery after the COVID-19 situation

As the COVID-19 situation begins to subside, companies must evaluate, review goals, and create new plans that are in line with the current situation in order to quickly restore businesses to normal. Also, the company must understand and analyze its long-term competition so as to best deal with consumers in the era of the New Normal.

3 HYPOTHESES DEVELOPMENT

Strategic Management is an approach that helps executives to set the direction of their organizations. It allows them to analyze the environment both inside and outside the organization in order to determine the strategies that are the most appropriate and then to apply those strategies with the aim of controlling and evaluating the performance of the organization. A quality management strategy must be good and complete, as well as be in accordance with both of the following meanings: 1) Effectiveness, which can achieve success in that goal, and 2) Efficiency, which can achieve goals at the lowest costs. As specified by Warangkana Phonprasert (2010), there are six strategic recording factors, which are important and can assist organizations in the following ways: 1) by helping the organization to establish a clear framework and direction, 2) by helping executives to think systematically, 3) by helping to create readiness for the organization, 4) by helping to create efficiency in competition, 5) by helping workers to become consistent in performing their duties, and 6) by helping organizations to gain a more comprehensive view.

Regarding research conducted in Thailand, research studies were carried out during the COVID-19 outbreak, consisting of both qualitative and quantitative studies, as well as literature reviews. Doungta Saranrom (2021) examined recovery forecasts and factors affecting the recovery of business groups after the COVID-19 situation. The results, which were summarized as guidelines for the factors affecting recovery, consisted of 4 main factors as follows: 1) making adjustment to work efficiency, 2) using innovations in work, 3) supervising employees so that they can appropriately perform their jobs, and 4) evaluating potentials and recruiting

partners, who can help to support the process of resolving weaknesses. This was determined to be consistent with findings from Monsicha Sawakham (2021), who also studied the impact of the COVID-19 epidemic. It was found that hotel businesses should adjust to a new business model, which develops hotels into Hotel 4.0 and is in greater alignment with the New Normal. Aspects include reducing the use of cash and developing check-in and check-out systems using applications or Kiosk software. This correlates with research by Suchart Uthaiwat et al (2021), who stated that improvements in structure and work processes that promote recovery have occurred after the crisis. Hotel operators must adapt their businesses in order to align with the lifestyle of the New Normal. Based upon a review of the literature, there are problems and obstacles to crisis management, which are faced by Thai hotel businesses. However, there are certain strategies that can be utilized to revive a business after a crisis. These strategies consist of the following: 1) rapidly adopting and adapting to new normal; 2) creating new marketing channels, such as online marketing; 3) taking advantage of governmental policies; and 4) preparing for the process of re-starting operations and scanning for new business opportunities (Sakda Siriphatthasopon, 2020). After conducting in-depth interviews focusing on business recovery strategies with 6 hotel operators in the most controlled and strict areas of 6 provinces, it was that found that the recovery strategies for responding to the COVID-19 crisis at 5-star hotel businesses in Bangkok, had been as follows: 1) re-organization, 2) cost reduction strategies, 3) non-room revenue strategies, 4) new business norms strategies, 5) pricing strategies, 6) digital marketing strategies, and 7) flexible strategies (Daranee Athan, 2021).

Regarding foreign research, there has been much research on the outbreak of respiratory diseases. Outbreaks can be divided into 6 critical stages: 1) the Pre-event, 2) the Prodromal period, 3) Emergency, 4) Intermediate, 5) Recovery, and 6) Resolution (Henderson, J., Ng, A., 2004) The Coronavirus disease of 2019 (the COVID-19 pandemic) had important and permanent impacts on China's hotel industry in the following four areas: 1) multi-businesses and multi-channels, 2) product design and investment, 3) digital and intelligent transformation, and 4) new marketing (Hao et al., 2020). In addition, Aurora, G-M. (2021) identified business recovery strategies that focus on key strategic measures for short-term implementation, which consisted of the following:

1) Technology and Collaboration Strategies: The COVID-19 disaster forced hotels to adopt more sophisticated digital systems and other technology-based response plans (Rodriguez-Anton and Alonso-Almeida, 2020). Consequently, hotels began to modernize their operations with specialized technology for contactless services in order to guarantee the safety of their patrons and staff members (Sigala, 2020). Among the primary recovery methods for

the hospitality sector, the use of technology is also a crucial foundation for creating the inter-enterprise collaboration strategies that are required for business recovery (Fu, Y., 2020). This entails working with other industry representatives in order to create partnerships and foster strategic alliances that can strengthen the current capacities of a hotel in light of the recent health issue.

2) Organizational and HR Strategies: Given the fact that the hotel industry relies heavily on human resources, it is imperative that these strategies be given consideration. Companies should develop and execute specialized emergency plans that include organization-wide procedures. Moreover, during the recent public health emergencies, hotels have found success with these kinds of measures (Chien and Law, 2003). In order to keep workers informed and to maintain morale, which are two crucial elements during trying times, organizations should establish cross-functional teams, who could develop health and safety measures and propose specific action protocols. They should also add more internal communication channels and emergency communications networks. (Hao et al., 2020; Kim et al., 2005; Lo et al., 2006). These strategies consisted of cutting back on wasteful spending and keeping constant tabs on cash flow predictions (Hao et al., 2020). Overcoming obstacles in investment, having flexible staffing, and maintaining lower operational costs are the cornerstones of effective control strategies. These strategies have been deemed essential for crisis management and have been able to aid companies in their recovery from previous health crises like SARS (Lo et al., 2006) and Ebola (Novelli et al., 2018).

3) Marketing Strategies: Establishing campaigns that inform guests of the health and safety precautions that the hotel is undertaking is one essential element that can help to gain the clients' trust (Lo et al., 2006). Long-term shifts in consumer preferences, demands for information, and in purchase patterns were brought about by COVID-19 (Hao et al., 2020). Businesses need to produce fresh offerings and ascertain the interests of their new guests. Simultaneously, revamping marketing strategies and creating new digital channels, including social media, are top priorities to promote client connection. In a recent global study that examined important recovery strategies, a great number of hotels reported that they had made significant investments in marketing and sales techniques in order to attract new customers, while also developing fresh packages and exclusive deals (Heredia-Colaco, V. & Rodrigues, H., 2021).

4) Service Provision Strategies: Building on the lessons learned from past crises, hotels need to develop new service procedures that can satisfy the evolving needs of their clients. Implementing services thorough advertising and promotional initiatives, as well as enhancing

customer service and the facilities, are all components of an efficient service strategy. This includes providing a dedicated customer support line or extra rewards, enhancing client satisfaction, encouraging direct reservations via the hotel website, introducing new lodging options with extra perks, and expanding the individual living space. (Hao et al., 2020; Henderson and Hg, 2004; Heredia-Colaco, V. & Rodrigues, H., 2021)

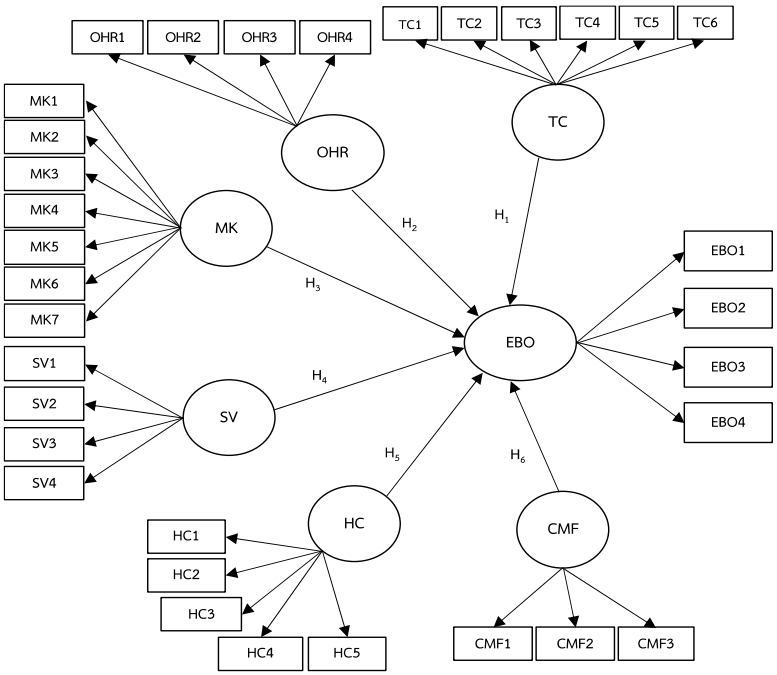
5) Healthcare Strategies: In order to ensure a secure experience for tourists, hotels should also implement and strongly execute this plan. The strategies require cleaning intensively, regulating the hygiene of the food, maintaining a sufficient supply of protective gear, providing online medical consultations, measuring body temperatures, teaching the staff members how to recognize the symptoms of epidemics, and closing down other public spaces (Hao et al., 2020; Lai and Wong, 2020). Additionally, hotel operators had to deal with the significant decline in occupancy rates that were brought on by COVID-19, as well as the large number of cancellations and the low number of new reservations. Gaining the trust of customers is important in avoiding this problem. By offering no-cost cancellations and re-booking assistance, by extending loyalty program memberships, and by boosting membership benefits, several hotel chains have been able to comfort their patrons (Hao et al., 2020; Rodriguez-Anton, J.M. & Alonso-Almeida, M.M., 2020).

6) Cancellation Management and Flexibility Strategies: These help to prevent widespread service cancellations. Many hotels have developed new features that provide greater flexibility to their customers in order to prevent cancellations and to reclaim a portion of the market. For instance, they offer additional flexibility with regard to check-in and check-out times and provide special offers or re-booking incentives to those customers who cancel. They also provide flexible re-scheduling and penalty-free reservation cancellations for consumers with health problems. (Aurora, G-M., 2021)

From the literature review, the following conceptual framework was developed.

Figure 1

The Conceptual Framework of the Research



Adapted from Aurora, G-M., 2021

In this research, the researcher used a questionnaire based on a study by Aurora, G-M., 2021. The researcher gave the developed questionnaire to 3 experts, who checked its content validity. The criteria used to decide the content validity of the questions was the Index of Item-Objective Congruence: 100, which was in accordance with the standard criteria and which states that the IOC value should be from 0.5-1.00 (Rovinelli and Hambleton, 1977).

4 METHODS

This research study used quantitative research methods. The researcher utilized the following guidelines and steps to conduct the research study: The population and sample used in this research was composed of 298 hotel business operators in Udon Thani Province, Khon Kaen Province, and Ubon Ratchathani Province. The sample size was determined according to recommendations from Comrey and Lee, who stated that structural equation model analysis has an appropriate sample size, consisting of 50 samples (a very low level), 100 samples (a low level), 200 samples (an adequate level), 300 samples (a good level), 500 samples (a very good level), and 1,000 samples (an optimal level) (Comrey and Lee, 1992). This study was a

quantitative research study for which the information was gathered from a literature review from research articles published both in Thailand and abroad, from internet media, and from television media in order to provide comprehensive information on the issues being studied and on the research methods. In this research, the researcher used the Purposive Sampling method. This study utilized a questionnaire as the tool for collecting the data. It was important to receive feedback from the owner or primary company official of the business to ensure that adequate information would be provided regarding the status of business operations during the pandemic. Data showing the levels of importance was used as the criteria for interpretation by employing a rating scale using a 7-level Likert-scale estimation method (Aurora, G-M. et al, 2021). In addition, the Confirmatory Factor Analysis (CFA) was analyzed using a statistical package in order to check the harmony of the structural equation model, to study the causal relationship model between the theoretical latent variables, and to analyze the causal relationship model between the latent variables and the observable variables.

5 RESULTS

Table 1

Statistics for checking the harmony of the measurement model with empirical data

Variable	Item	λ	R^2	A.M.
1. Technology and Collaboration strategy)TC)	TC1	0.783**	0.733	α = 0.891
	TC2	0.775**	0.726	CR = 0.951
	TC3	0.811**	0.761	AVE = 0.794
	TC4	0.901**	0.861	KMO = 0.800
	TC5	0.876**	0.832	
	TC6	0.871**	0.850	
2. Organization and HR strategy)OHR)	OHR1	0.803**	0.754	α = 0.895
	OHR2	0.658**	0.521	CR = 0.887
	OHR3	0.762**	0.616	AVE = 0.759
	OHR4	0.814**	0.767	KMO = 0.723
3. Marketing strategy)MK)	MK1	0.649**	0.601	α = 0.889
	MK2	0.759**	0.721	CR = 0.957
	MK3	0.710**	0.672	AVE = 0.772
	MK4	0.924**	0.824	KMO = 0.851
	MK5	0.805**	0.766	
	MK6	0.744**	0.696	
	MK7	0.813**	0.776	
4. Service Provision strategy)SV)	SV1	0.847**	0.888	α = 0.898
	SV2	0.835**	0.640	CR = 0.918
	SV3	0.775**	0.803	AVE = 0.755
	SV4	0.923**	0.688	KMO = 0.690
5. Healthcare strategy)HC)	HC1	0.887**	0.819	α = 0.889
	HC2	0.898**	0.837	CR = 0.935
	HC3	0.786**	0.637	AVE = 0.737
	HC4	0.823**	0.788	KMO = 0.781
	HC5	0.751**	0.603	

6. Cancellation management and Flexibility strategy)CMF)	CMF1 CMF2 CMF3	0.532** 0.945** 0.781**	0.637 0.845 0.501	α = 0.926 CR = 0.843 AVE = 0.661 KMO = 0.501
7. Expected Business Outcome)EBO)	EBO1 EBO2 EBO3 EBO4	0.754** 0.891** 0.893** 0.758**	0.658 0.793 0.691 0.604	α = 0.900 CR = 0.962 AVE = 0.687 KMO = 0.794
Goodness of fit statistics	χ^2/df = 1.091 ; CFI = 0.992 ; TLI = 0.989 ; GFI = 0.938 ; AGFI = 0.910 RMSEA = 0.018 ; RMR = 0.041			

Note : λ = Standardized Structural Coefficient; R^2 = Reliability; α = Alpha Cronbach; CR = Compound Reliability; AVE = Average Variance Extraction; KMO = Kaiser-Meyer-Olkin A.M. = Adjustment Measurement; χ^2/df = Relative chi-square value; CFI = Comparative Fit Index; GFI = Goodness of Fit Index; AGFI = Adjusted Goodness of Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation; RMR = Root Mean Square Residual; ** Correlation is significant at the 0.01 level (2-tailed). Source: (Kanokwan Papamo, 2024)

After meeting the criteria, the researcher determined that the factor loading weight for each item must have a value of not less than 0.50. If an item has a value of less than 0.50, then that item should be removed from the analysis because each item must have a statistical significance level of predictive power (Hair et al., 2010). The results of the calculation for each item found that the weight of every component of the observed variable had been greater than 0.50 according to the standard criteria set by Hair et al. (2010). The lowest value of Factor Loading had been 0.532, while the highest value had been 0.945. This indicated that the relationship between the observed variables and the latent variables had been at a good level of accuracy when comparing the individual variables. The coefficient of determination (R^2) for each question had shown a value of between 0.501 to 0.888, and for each item, the calculated value had been statistically significant at the 0.001 level. This indicated that the items used to measure the variables according to the extraction research framework had been good, and there had been a statistical level for each item. Therefore, in conclusion, the confirmatory factor analysis that had passed the criteria confirmed that the composition of the observed variables and latent variables, which the researcher determined, had been accurate and had been consistent with the empirical data. This confirmatory element was able to be introduced into the structural equation model analysis process. The evaluation of the the validity of the structural components (the Fit of the Model), which the researcher used to evaluate criteria, was conducted in accordance with Hair et al. (2010).

Considering the average variance extracted (Average Variance Extracted: AVE), it should be greater than 0.5 (Hair et al., 2018). From the analysis, it was found that there is a value between 0.661 to 0.749. The construct reliability (Construct Reliability: CR) value should be greater than 0.7 to be considered at a very good level of reliability. If the value is greater

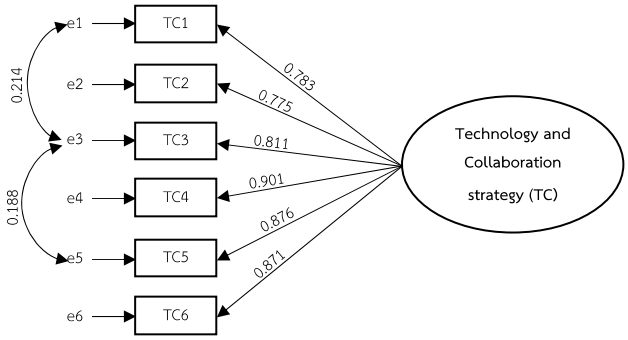
than 0.6 or more, it is considered that the reliability is only acceptable (Hair et al., 2018) and from the analysis it was found that the CR value has a value between 0.843 to 0.962. Therefore, it can be considered that the measurement for grouping of variable measurement indicators is at a very good level of reliability.

5.1 THE RESULTS OF EXAMINING THE STRUCTURAL VALIDITY OF THE RESEARCH VARIABLES OF THE STRUCTURAL EQUATION MODEL OF BUSINESS RECOVERY STRATEGIES THAT AFFECT EXPECTED BUSINESS OUTCOME

5.1.1 Results of confirmatory factor analysis of technology and collaboration strategy (TC) latent variables

Figure 2

Confirmatory components of the technology and collaboration strategy (TC) latent variable measurement model



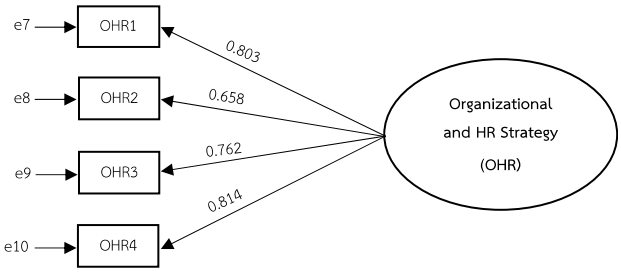
Chi-square = 7.367; df = 7; P-value = 0.392; χ^2/df = 1.052; GFI = 0.992; AGFI = 0.976; CFI = 0.999; TLI = 0.997; NFI = 0.978; RMSEA = 0.013; RMR = 0.048

Resource: Kanokwan Papamo. (2024)

5.1.2 Results of confirmatory factor analysis of organizational and human resources strategy (OHR) latent variables

Figure 3

Confirmatory components of the measurement model for organizational and human resources strategy (OHR) latent variables measurement model

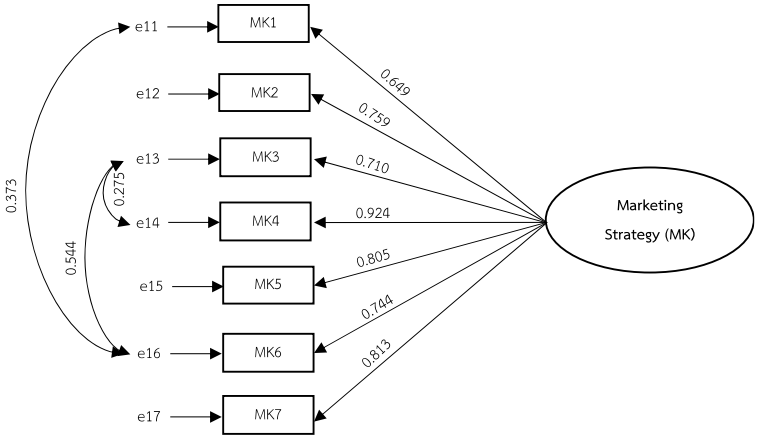


Chi-square = 0.371; df = 2; P-value = 0.831; χ^2/df = 0.186; GFI = 0.999; AGFI = 0.997; CFI = 1.000; TLI = 1.000; NFI = 0.998; RMSEA = 0.000; RMR = 0.022
Resource: Kanokwan Papamo. (2024)

5.1.3 Results of correlation analysis and confirmatory components of marketing strategy (MK) latent variables

Figure 4

Confirmatory components of the marketing strategy (MK) latent variable measurement model

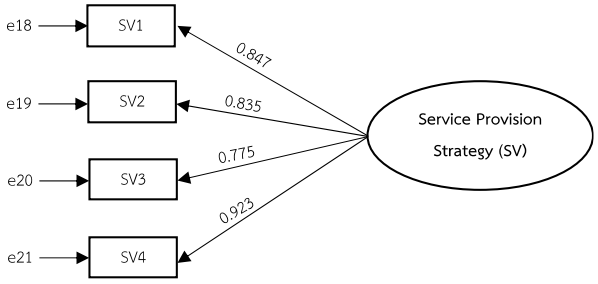


Chi-square = 12.721; df = 11; P-value = 0.312; χ^2/df = 1.156; GFI = 0.988; AGFI = 0.970; CFI = 0.997; TLI = 0.994; NFI = 0.977; RMSEA = 0.023; RMR = 0.049
Resource: Kanokwan Papamo. (2024)

5.1.4 Results of correlation and confirmatory component analysis of service provision strategy (SV) latent variables

Figure 5

Confirmatory components of the service provision strategy (SV) latent variable measurement model

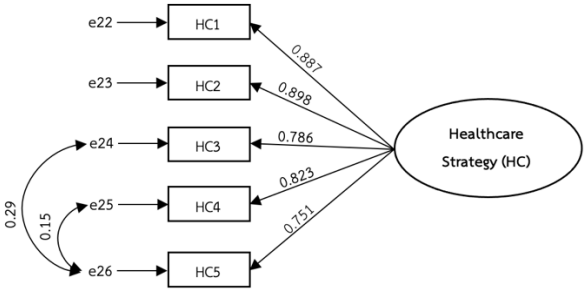


Chi-square = 2.859; df = 2; P-value = 0.239; χ^2/df = 1.430; GFI = 0.995; AGFI = 0.975; CFI = 0.993; TLI = 0.980; NFI = 0.979; RMSEA = 0.038; RMR = 0.050
Resource: Kanokwan Papamo. (2024)

5.1.5 Results of confirmatory factor analysis of healthcare strategy (HC) latent variable

Figure 6

Confirmatory components of the healthcare strategy (HC) latent variable measurement model

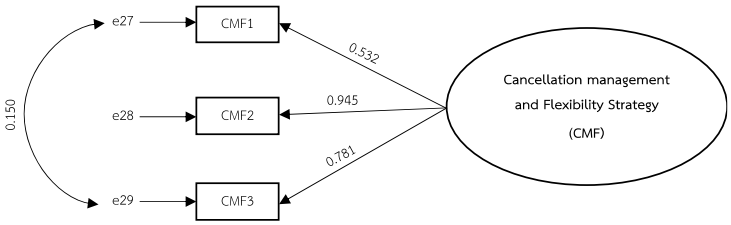


Chi-square = 4.357; df = 3; P-value = 0.225; χ^2/df = 1.452; GFI = 0.994; AGFI = 0.972; CFI = 0.997; TLI = 0.989; NFI = 0.990; RMSEA = 0.039; RMR = 0.046
Resource: Kanokwan Papamo. (2024)

5.1.6 Results of confirmatory factor analysis of cancellation management and flexibility strategies (CMF) latent variables

Figure 7

Confirmatory components of the latent variable measurement model of cancellation management and flexibility strategies (CMF)

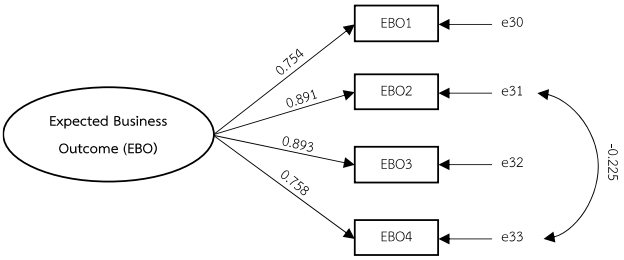


Chi-square = 1.584; df = 1; P-value = 0.208; χ^2/df = 1.584; GFI = 0.989; AGFI = 0.992; CFI = 0.994; TLI = 0.982; NFI = 0.984; RMSEA = 0.044; RMR = 0.031
Resource: Kanokwan Papamo. (2024)

5.1.7 Results of confirmatory factor analysis of expected business outcome (EBO) latent variables

Figure 8

Confirmatory components of the latent variable measurement model of expected business outcomes (EBO)

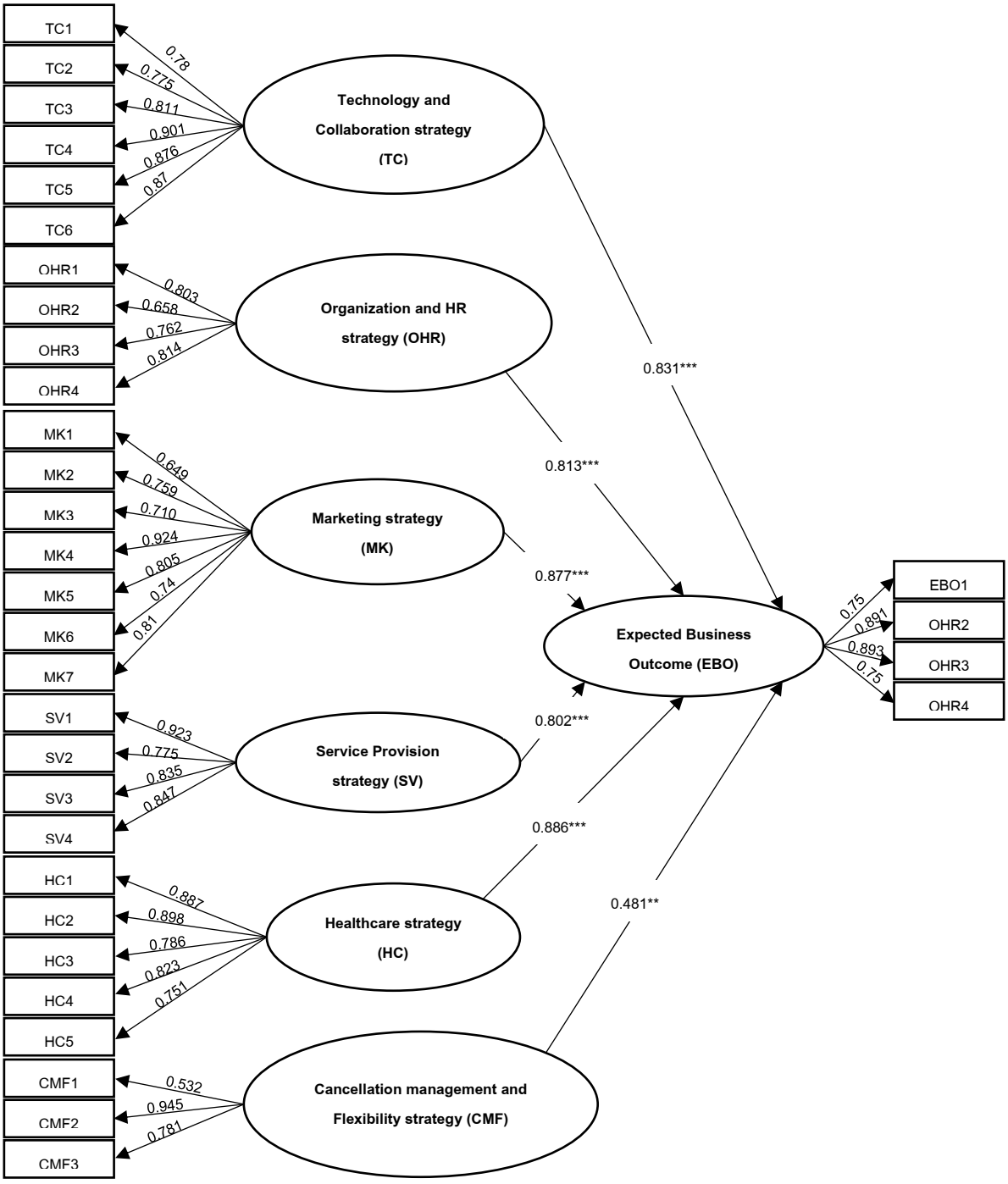


Chi-square = 0.240; df = 1; P-value = 0.624; χ^2/df = 0.240; GFI = 1.000; AGFI = 0.996; CFI = 0.982; TLI = 1.000; NFI = 1.000; RMSEA = 0.000; RMR = 0.007
Resource: Kanokwan Papamo. (2024)

5.1.8 Results of confirmatory factor analysis of business recovery strategy variables that affect expected business outcomes

Figure 9

Confirmatory components of the latent variable measurement model of expected business outcomes (EBO)



Chi-square = 24.762; df = 9; P-value = 0.083; χ^2/df = 2.751; GFI = 0.974; AGFI = 0.939; CFI = 0.986; TLI = 0.977; NFI = 0.979; RMSEA = 0.077; RMR = 0.033

Resource: Kanokwan Papamo. (2024)

5.2 ANALYSIS OF RESEARCH ASSUMPTIONS OF THE RELATIONSHIP MODEL

From structural equation testing of the causal relationship model to determine the strategic management model for the recovery of medium and small-sized hotel businesses in the COVID-19 situation: case studies of Udon Thani, Khon Kaen, and Ubon Ratchathani provinces. The researcher can summarize as shown in Table 2.

Table 2

Results of analysis of research hypotheses

Research hypothesis	Influence coefficient	P-value	Results
H_1 : TC ---> EBO	0.831***	0.000	H_1 Supported
H_2 : OHR ---> EBO	0.813***	0.000	H_2 Supported
H_3 : MK ---> EBO	0.877***	0.000	H_3 Supported
H_4 : SV ---> EBO	0.802***	0.000	H_4 Supported
H_5 : HC ---> EBO	0.886***	0.000	H_5 Supported
H_6 : CMF ---> EBO	0.481**	0.004	H_6 Supported
Predictive power of expected business outcome 67.1 percent			

*** means statistical significance level 0.001
** means statistical significance level 0.01
Resource: Kanokwan Papamo. (2024)

6 CONCLUSION

From all the analyses, the strategy with the highest factor loading had been Healthcare Strategies (HC), which meant that when a health crisis occurs, both the service providers and service users would place greater importance on hygiene. The second highest factor loading had been Marketing Strategies (MK), which meant placing focus on advertising through social network channels that have relatively low costs with the goal of presenting an image of cleanliness and safety, including offering various promotions. Next, were the Technology and Collaboration Strategies (TC), in which the following aspect stood out: digitizing many things, such as scanning QR codes to access food menus so that technology could be used to reduce contact between people, which would also reduce the cost of printing food menus. The second aspect of these strategies was cooperating with local agencies to launch promotions that could also stimulate local tourism. Organization and HR Strategies (OHR) stated that organizations must have health and safety trainings for their employees so that the team can adjust their ways of working to align with the new situation. Additionally, safeguards must be put into place, which guarantee that staff members adhere to the updated procedures, thereby reducing the possibility of infection for both the service providers and beneficiaries. In terms of the Service Provision Strategies (SV), hotels should offer promotions when their guests book directly through the hotel's website, such as offering medical staff discounts to encourage more stays.

Furthermore, special privileges should be offered to the local population to encourage them to come and use the hotel's other services (rather than the rooms), such as dining in the restaurant or using the swimming pool. Lastly, regarding the Cancellation Management and Flexibility Strategies (CMF), hotels should offer greater flexibility in order to avoid cancellations, such as allowing customers to change their reservation dates or allowing them to exchange for a voucher instead. This strategy had a low factor loading. This was probably because even though there is presently no COVID-19 situation, the hotels were already using these methods to avoid room cancellations. Therefore, there had not been many changes to these strategies.

The results of Confirmatory Factor Analysis (CFA) found that the observed variables had been normally distributed and related. When examining the fit of the model and its consistency with the empirical data, it was found that the business recovery strategy model affecting the Expected Business Outcomes had been in harmony with the empirical data. This met the criteria for considering the harmony between the measurement model and the empirical data. Moreover, every item had shown a statistical significance level of 0.01. The results of testing the influence of all 6 paths found that every path had exhibited a statistically significant positive influence, and the predictive power of the expected business outcomes had been at 67.1 percent.

7 PRACTICAL IMPLICATIONS

7.1 THE GOVERNMENTAL SECTOR

When considering governmental policy, the findings from this research can be used by the governmental sector during the process of formulating policies and planning promotions. Moreover, the findings can also be utilized when determining budgetary support to stimulate the tourism industry or when issuing measures to assist entrepreneurs in accordance with those factors that affect entrepreneurs and are in alignment with the reality that entrepreneurs must face.

7.2 THE ENTREPRENEURIAL SECTOR

The results obtained from this research can be applied by entrepreneurs and executives, who seek to rehabilitate their businesses after having been affected by crisis events or who are planning ahead in order to prepare for dealing with various crises. All of these strategies can be

used by the entrepreneurs to plan strategies that align with their operations, objectives, and policies in accordance with the organization's context so that the business can survive and quickly recover.

8 LIMITATION AND SUGGESTION FOR FURTHER RESEARCH

This research solely examined the opinions of the operators of small-sized and medium-sized hotels in Udon Thani, Khon Kaen, and Ubon Ratchathani Provinces, focusing specifically on studies of the post-crisis period. Therefore, in the future, researchers may choose to conduct comparative studies among small-sized, medium-sized, and large-sized hotels or may choose to conduct studies in business venues other than the hotel business, such as restaurant businesses, entertainment businesses, and transportation businesses in order to see the differences in the operations of the organization and to obtain clearer results. Furthermore, a study should be conducted on the factors that affect tourists' choices to stay in hotels after the crisis.

REFERENCES

Aurora, G.M., Víctor, J. & Rodrigo Martín-Rojas, G.M. (2021). Going beyond the curve: Strategic measures to recover hotel activity in times of COVID-19. **International Journal of Hospitality Management, 96**, 102928.

Baum, T., Hai, N.T.T., 2020. Hospitality, tourism, human rights and the impact of COVID-19. **International Journal of Contemporary Hospitality Management. 32**(7), 2397–2407.

Chien, G.C.L. & Law, R. (2003). The impact of the severe acute respiratory syndrome on hotels: a case study of Hong Kong. ***International Journal* of Hospitality *Management,* 22,** 327–332.

Comrey, A.L. & Lee, H.B. (1992). **A First Course in Factor Analysis**. 2nd ed. Hillsdale, NJ: Lawrence Erlbaum.

Daranee Ajharn and antidhorn Pooripakdee. (2021). Crisis Response Strategies of Hotel Business in Bangkok During the COVID-19 Epidemic. **Journal of Accountancy and Management, 13**(4), 83-97.

Fu, Y. (2020). The impact and recovering strategies of the COVID-19 pandemic: Lessons from Taiwan's hospitality industry. **Cogent Social Sciences, 6**(1), 1829806.

Gössling, S., Scott, D., Hall, C.M., 2020. Pandemics, tourism and global change: a rapid assessment of COVID-19. **Journal of Sustainable Tourism. 29** (1), 1–20.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2018). Advanced issues in partial least squares structural equation modeling (PLS-SEM). **Thousand Oaks, CA: Sage.**

Hair, J.F, Black, W., Babin, B., Anderson, R. & Tatham, R. (2006). **Multivariate Data Analysis.** 6th ed. New York: Pearson Education.

Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010) **Multivariate Data Analysis.** 7th Edition, Pearson, New York.

Hao, F., Xiao, Q. & Chon, K. (2020). COVID-19 and China's hotel industry: Impacts, a disaster management framework, and post-pandemic agenda. **International Journal of Hospitality Management, 90,** 1-11.

Heredia-Colaco, V. & Rodrigues, H. (2021). Hosting in turbulent times: Hoteliers' perceptions and strategies to recover from the Covid-19 pandemic. **International Journal of Hospitality Management, 94**, 1-12.

Huang, C., et al., 2020. Clinical features of patients infected with 2019 novel coronavirus in Wuhan China. **Lancet 395** (10223), 497–506.

Kanokwan Papamo. 2024.**The strategic management model for the recovery of small and medium-sized hotel business in the situation of COVID-19: A case study of Udon thani, Khon Kaen and Ubon ratchathani provinces.** Doctor of Philosophy degree thesis. Business Administration major. Graduate school. Khon Kaen University.

Kim, S.S., Chun, H. & Lee, H. (2005). The effects of SARS on the Korean hotel industry and measures to overcome the crisis: a case study of six Korean five-star hotels. ***Asia Pacific Journal of* Tourism *Research,* 10,** 369–377.

Lai, I.K.W. & Wong, J.W.C. (2020). Comparing crisis management practices in the hotel industry between initial and pandemic stages of COVID-19. ***International Journal* of *Contemporary* Hospitality *Management,* 32**(10), 3135–3156.

Lo, A., Cheung, C. & Law, R. (2006). The survival of hotels during disaster: a case study of Hong Kong in 2003. ***Asia Pacific Journal of* Tourism *Research,* 11**(1), 65-79.

Ministry of Tourism and Sports.)2022(. **Master plan under the national strategy. Issue 05.** Retrieved from http://nscr.nesdc.go.th/wp-content/uploads/2022/03/11_NS-05_070365.pdf.

Monsicha Saokham.)2021(. Crisis and Opportunities of Hotel Business Arising after the COVID-19 Situation. **Journal of Hospitality and Tourism, 6**(1), 1-11.

National Statistical Office Ministry of Digital Economy and Society. (2020). **the 2020 accommodation survey.** Retrieved on 8 December 2022, from https://www.nso.go.th/ sites/2014en/Survey/economics/Tourism%20and%20Sports /2020/fullreport.pdf

Novelli, M., Burgess, L.G., Jones, A. & Ritchie, B.W. (2018). No Ebola. still doomed': the Ebola-induced tourism crisis. **Annals of *Tourism Research,* 70,** 76–87.

Pasut Ngowiwatchai. (2021). **SMEs Business Analysis (Quick Study).** Chonburi: Economic Tools and Projections Development Division. Economic Situation Analysis and Warning Department (FFT).

Robbins, S.P. and Timothy, A.J. (2010) **Organizational Behavior.** 14th Edition, San Diego State University.

Rodriguez-Anton, J.M. & Alonso-Almeida, M.M. (2020). COVID-19 impacts and recovery strategies: The case of the hospitality industry in Spain. **Sustainability, 12**(8599), 1-17.

Rovinelli, R.J. & Hambleton, R.K. (1977) On the Use of Content Specialists in the Assessment of Criterion-Referenced Test Item Validity. **Tijdschrift Voor Onderwijs Research, 2,** 49-60.

Sakda Siriphattrasophon. (2020). The COVID-19 Pandemic: Impacts on Thai Small and Mediums Enterprises and Strategies for Revival. **Journal of the Association of Researchers, 25**(2), 10-30.

Salitta Sariputra, Pimpa Hiranyakitti and Akarawat Chatuphatwarodom. (2018). THE RECOVERY OF SME BUSINESSES AMONG THE GROUP OF ENTREPRENEURS WITH DECLINING GROWTH (TURNAROUND). **RMUTT Global Business and Economics Review, 13**(2), 1.

Saowanee Chantaphong and Tosapon Tonghui. (2020). Impact of the COVID-19 crisis on the world economy. **Bot Magazine, 2,** 14-17.

Sigala, M., 2020. Tourism and COVID-19: impacts and implications for advancing and resetting industry and research. **Journal of Business Research**. 117, 312–321.

Siripong Rugmai. et al.)2017). Crisis Management in Hotel Business**. Dusit Thani College Journal.** Vol.11 No.1 January-April 2017.

Suchart Uthaiwat et al. (2021). Crisis management in the Thai hotel business. **Journal of Educational Review Faculty of Educational in MCU, 8**(2), 162-178.

World Bank, 2020. International Tourism, Number of Arrivals. Retrieved July 22, 2020, from. https://data.worldbank.org/indicator/ST.INT.ARVL.

S. Zenker and F. Kock. 2020. The coronavirus pandemic – a critical discussion of a tourism research agenda. **Tourism Management.** 81(2020) 104164.