

## Indicator Development for Business Continuity Management of Thai Convention Venues under Crisis Situation

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## Abstract

The purpose of this paper is to study the indicators development for business continuity management of Thai convention venues under crisis situation. This article was designed a survey research to develop construct measurement by using Third Order Confirmatory Factor Analysis. The research finding indicated that the indicator for business continuity management of Thai convention venues under crisis situation were created consistently with empirical data. There are 96 indicators in the total were remained from 150 indicators after the exploratory factor analysis (EFA). It is a statistical method used to describe variability among observed. Factor loading of 0.40 or greater and Cronbach's coefficient alpha should have a minimum level of 0.7. were considered. The confirmatory factor analysis (CFA) was using on the indicators for the close investigation of the overall construct reliability of all constructs reveals have acceptable construct reliability scores within an acceptable range of factor loadings (0.32 and above). The model fit indices present the acceptable fit scores, including Chi-square (178.584), df (68), CFI (0.961), GFI (0.930), RMSEA (0.137), RMR (0.018).

**Keywords:** Indicators for Business Continuity Management, Crisis, MICE, Venue Business

## บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาการพัฒนาตัวบ่งชี้เพื่อการบริหารจัดการความต่อเนื่องทางธุรกิจ การจัดประชุมภายใต้ภาวะวิกฤต ประเมินการวิจัยเชิงสำรวจและพัฒนาเครื่องมือวัดเพื่อการพัฒนาตัวบ่งชี้ โดยอาศัยเทคนิคการวิเคราะห์องค์ประกอบเชิงยืนยันอันดับสาม

ผลการวิจัยสรุปได้ว่า ตัวบ่งชี้ในการบริหารจัดการความต่อเนื่องทางธุรกิจการจัดประชุมภายใต้ภาวะวิกฤตที่พัฒนาขึ้นมีความกลมกลืนเชิงประจักษ์ จากตัวบ่งชี้ทั้งหมด 150 ตัว มีคงเหลือจากการวิเคราะห์องค์ประกอบเชิงสำรวจ 96 ตัว จากการพิจารณาค่าน้ำหนักขององค์ประกอบไม่ต่ำกว่า 0.4 และค่าสัมประสิทธิ์ของความเชื่อมั่นต่ำสุดอยู่ที่ 0.70 และผลวิเคราะห์องค์ประกอบเชิงยืนยันตัวบ่งชี้ เพื่อยืนยันความถูกต้องและความน่าเชื่อถือ ด้วยค่าน้ำหนักขององค์ประกอบ (0.32 และมากกว่า) และพิจารณาจากเกณฑ์วัดความสอดคล้อง ได้แก่ ค่าสถิติไคสแควร์ (178.584) ค่าสัดส่วน (68) ดัชนีที่ใช้เปรียบเทียบแบบจำลองการวิจัย (0.961) ดัชนีวัดระดับความกลมกลืน (0.930) ดัชนีรากกำลังสองเฉลี่ยของค่าความแตกต่างโดยประมาณ (0.137) ดัชนีรากของค่าเฉลี่ยกำลังสองของเศษเหลือ (0.018) ถือว่าอยู่ในเกณฑ์ที่ยอมรับได้

**คำสำคัญ :** ตัวบ่งชี้เพื่อการบริหารความต่อเนื่องทางธุรกิจ ความเสี่ยง ไมซ์ ธุรกิจการจัดประชุม

## Introduction

The Meeting, Incentive, Convention and Exhibition (MICE) industry has grown and has become a key contributor to many economies and as such, it is important to explore, in detail, the influence it has on both society and the economy (McCartney, 2010). The MICE industry is one of the fastest-growing industries and most productive areas of the tourism industry worldwide. Moreover, the MICE industry in many regions is growing every year because many expenditures and incomes flow to local communities directly. Sangpikul (2009) has stated that the MICE business is significant in contributing to the sustainable and robust growth of Thailand's tourism-driven economy. Furthermore, (Smith, Hama, & Smith, 2003) have mentioned that the MICE industry has great potential for future development and growth and has become a key sector in Thailand's already well-established tourism industry.

Business operations today require leadership that is keen to avoid the problems of corporate crises, or otherwise involving goods or services. Therefore, when a crisis happens, directives need to be followed urgently, however, the crisis could have been avoided if the business had appropriate internal controls already in place. Business continuity management (BCM) is a holistic management process that identifies potential impacts that threaten an organization and provides a framework for building resilience and the capability for an effective

response that protect the organization's reputation and brand and value-creating activities (Herbane, Elliott, & Swartz, 2004). This risk enters the picture primarily because the Thai convention venue in Bangkok has never had indicators for business continuity management under a crisis. This study analyzes the indicators for the business continuity management of Thai convention venues under crisis.

The indicators developed in this research will hopefully facilitate and simplify the quality practice implementation process for Thai convention venues in Bangkok. It will identify the gap between current practices and best practices and develop a plan for business continuity management.

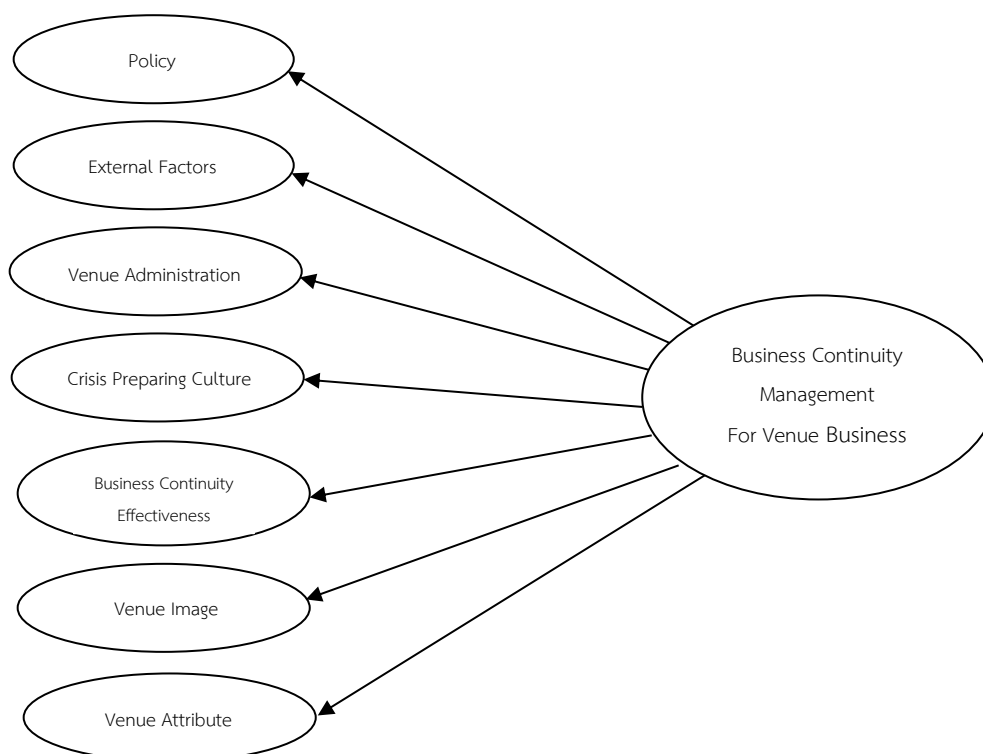
## Objective

To analyze and confirm the indicator development for the business continuity management of Thai convention venues under crisis situation.

## Scope of research

The units of analysis in this study are the people that work in the venue business in Bangkok. The respondents were asked about their general perception of their respective organizations to complete the questionnaire.

## Conceptual Framework



## Definition of Operational Terms/Research Terms

Indicators means measurable variable used as a representation of an associated factors.

Crisis means a significant unexpected disruptive event that affects an organization's personnel, facilities, or critical records.

Thai convention venues mean the place where events happen, especially an organized event such as a concert, conference, or sports event. In this paper will cover only convention organizations in Bangkok, Thailand.

## Literature review

One of the most comprehensive definitions of a crisis, and one that describes its vital variables and impacts in tourism, is a very unusual and unexpected event. The crisis can be both internal and external and it can be a barrier to business operations. Silvers (2008) stated that the dimension of risks for meetings and events consists of people, property, finances, systems, environment, and image. The risk management process requires the event organizer has to be able to anticipate the risks involved in any possible event and any harm that many results from the event.

## Concept of Business Continuity Management (BCM)

Business continuity Management is a very complex process that must be integrated throughout the entire organization. Business continuity is an ongoing priority for financial industry participants and financial authorities include:

### Policy Dimensions and Components

Rose (2011) stated that policy is the basic source and guideline that specified by the organization management in order to direct actions to achieve the long-term goals of the establishment. A business continuity policy is very important because it can raise an unregulated organization to a higher level of success (Matland, 1995). Human capacity development can be measured in terms of shorter-term outputs and their achievements. Human development can inform the role of the organization in responding to environmental change. Understanding human development can help a company manage personnel, market and sell products, or negotiate in trade (Lado & Wilson, 1994). In addition, another factor of policy is job growth which refers to the growth of the employee in an organization, and job security means that a person will keep his or her job without the risk of being unemployed. It

also means being assured of continuous employment because of, for example, the terms of the contract, collective bargaining agreements, or labor legislations that disallow a person being fired (Berk, Green, & Naik, 1990). In addition, Lazear (1990) mentioned that job security typically rises from the terms of the employment contract, collective agreement, or labor regulation that prevent a chance of termination, layoffs, and lockout. Green (2006) stated that higher job security could also reduce turnover rates and bias the composition of employment against young workers and against employment in the formal sector.

### **External Factors Dimensions and Components**

Smidts, Pruyn, and Van Riel (2001), mentioned that the common external factors are comprising of the socio-economic, legal or ethical, and political and technological. In addition Meyer and Heppard (2000) also confirmed that the external factor is the environment that the organization could not be controlled but only to adjust with the environment. The analysis of the external factor helps to increase efficiency and effectiveness of planning in smaller organization (Kraus, Harms, & Schwarz, 2006). Thus the organization needs to prepare the plans to manage changes as they face dynamically-changing environments, especially when such changes may be unpredictable and may occur suddenly. External factors significantly affect organizational performance include;

1.) A social impact is the effect of an action or activity on a group of individuals, and this effect can be immediate or direct. However, the effect can have long-terms consequences and on a number of entities; not only people but also organizations and institutions that are not directly involved (Dovidio, Kawakami, & Gaertner, 2002). 2.) Constitutionalism which is a set of customs, traditions, rules, and laws that structure the way a government is organized and defines the relationship between the government and its citizens. Rose, Beh, Uli, and Idris (2006) also confirmed that constitutionalism in the work organization is a way that the firm respects the laws and labor rights as well as personal privacy and impersonal treatment as equal. To confirm this statement, Gupta and Sharma (2011) mentioned that constitutionalism in the organization comprise of adequate income, safety and healthy in working conditions, opportunity to use and develop human capacity, opportunity for career growth, social integration in the work force, and the distinction of work life and the social relevance of work. 3.) Politic relevance which has an effected to the organization operations. These will all play a

part in helping the organization achieve an ethical way to ensure an approach that helps to protect the long-term and successful sustainability of the organization.

### **Venue Administration Dimensions and Components**

Kanungo (2001) that administrative processes such as communication processes, practice, and work procedures affect organizational performance. This helps create the good administrative and participation of the staffs and builds an atmosphere of achievement and responsibilities. For this study administrative dimension can be consider in 4 components as follows; 1.) Leadership is a process by which a person influences others to accomplish an objective and directs the firm in a way that makes it more consistent and intelligible. Northouse (2007) defined leadership is a process whereby an individual influence a group of individuals to achieve a corporate goal. Jago (1982) stated that leaders carry out this procedure by applying their leadership skills and knowledge. 2.) Achievement means something very good and difficult which had done successfully by effort, courage or skills. Pintrich (2000) stated that achievement goals are competency based that aims the individuals target in evaluative settings. 3.) Self-organization means a procedure that is the result of the systematic work and examination of a task in order to identify all the hazards. Christian, Garza, and Slaughter (2011) stated that concept of successful work will represents the active allocation of personal resources toward the tasks associated with a work role and it can improve decision making, leadership, strategic and operational processes, appropriate and free communications, team work and healthy work relations. 4.) Responsibility refers to the fact of having a duty to deal with something or takes responsibility for their team and helps them achieve goals.

### **Crisis Preparing Culture Dimensions and Components**

Culture is considered one of the most powerful set of forces acting on organizations that can identify crisis prone versus crisis prepared organizations (Pauchant & Mitroff, 1988). Robbins and Coulter (2005) described the organizational is the shared values, beliefs, or perceptions held by employees within an organization. Organizational culture has a positive impact on the employee's job performance and work as social glue to bond the employees together and make them feel a strong part of the organization, which is useful to attract all staff to perform the best performance. In this research, there are 3 components as follow; 1.) Decision-making involves the selection of action from among two or more possible alternatives in order to solve a problem to achieve the organizational goals and also plays an important

role to determine both organizational and managerial activities. Krieshok, Black, and McKay (2009) stated that career decision making represent confidence in setting clear career goals and career information. 2.) Organizational learning refers to the process of improving actions through the better knowledge and understanding. The organizations learning can be learn through the individuals acting. Moreover, the organizational learning is an area of knowledge within organizational (Snow, Fjeldstad, Lettl, & Miles, 2011). 3.) Role of team members, teams' skills require cooperation, communication, skill diversity, and group decision making to symbolizes a fundamental shift in how the work is performed. Trosset (2013) mentioned that teams provide opportunities to individuals to solve problems that they may not be able to solve on their own. Employees who participate in team activities feel more empowered, are more satisfied with the rate of improvement in quality in their organization.

### **Business Continuity Effectiveness Dimensions and Components**

Business continuity effectiveness is the development of the organization to return to holding a business when faced with a crisis or a disaster and respond to the risks associated with the performance of the business continuity plans. (Zsidisin, Melnyk, & Ragatz, 2005). In this research, there are 2 components for business continuity effectiveness include;

1.) Organizational effectiveness refers to how effective of the organization is in achieving the organization's outcomes or aspire which is to be efficient, effective, and productive. Stoeber (2011) stated that organizational effectiveness includes staff learning and development which is provides customized training classes and consulting services as needed to address specific workforce for effectiveness organization.

2.) Performance efficiency defined as a broad management strategy aimed at achieving important changes in the operation, with improving performance as the central orientation. Performance measurement is concerned more narrowly with the production or supply of performance information, and is focused on technical aspects of clarifying objectives, developing indicators, collecting and analyzing data on results. Performance management encompasses performance measurement, but is broader.

### **Venue Image Dimensions and Components**

Corporate image is a picture of an organization, whereas the reputation is the result of the value corporation, and it is a fundamental strategy in promoting market presence and instilling public confidence. Sanders (2004) states that a positive image of meeting destinations

attracts more guests and can boost the number of attendees. Venue image can help to attract visitors and exhibitors as well as promote exhibition branding. A favorable venue image can be an effective form of differentiation and a source of competitive advantage ensuring long-term success. It is regarded as a critical, strategic and enduring intangible asset for the venue. In this study, there are 2 components to create for venue image include; CSR initiatives on the company's image and examining how these factors can help them increase customer retention. Kotler and Lee (2005) stated that CSR involves a commitment to improving community well-being through business practices and corporate resource contributions. Environmental management is an important tool to improve organizational efficiency and adds value to their performance and services. Environment management will demonstrate a company's commitment to environmental performance and improves its corporate image, thus attracting potential clients (Watson & Emery, 2004).

#### **Venue Attributes Dimensions and Components**

Oppermann (1998) stated that venue is a site or destination of meeting and event, or the location of performance such as hall, ballroom or auditorium. Moreover, Tay (2006) mentioned that venue or convention room is the place where a public event or meeting happens. Thailand MICE venue standard (TMVS) has three areas of components consisting

- 1) Physical Component includes condition of the meeting room, surrounding area, equipment related to the conference, water system, lighting system, air conditioning system and safety and environment management system.
- 2) Technology Component includes sound system, visual system, Wi-Fi signal distribution points, communication equipment and audio visual equipment staff.
- 3) Service and Management Component means administrative management and service staff knowledge and management.

#### **Research Method/Research Methodology**

This research study is classified as a descriptive and cross-sectional study. The study aims to apply both quantitative, qualitative techniques. The research tool was questionnaires obtained from documentation and in depth interview and 150 indicators were gained to create words. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were used for content validity.



The research framework can be design as follow:

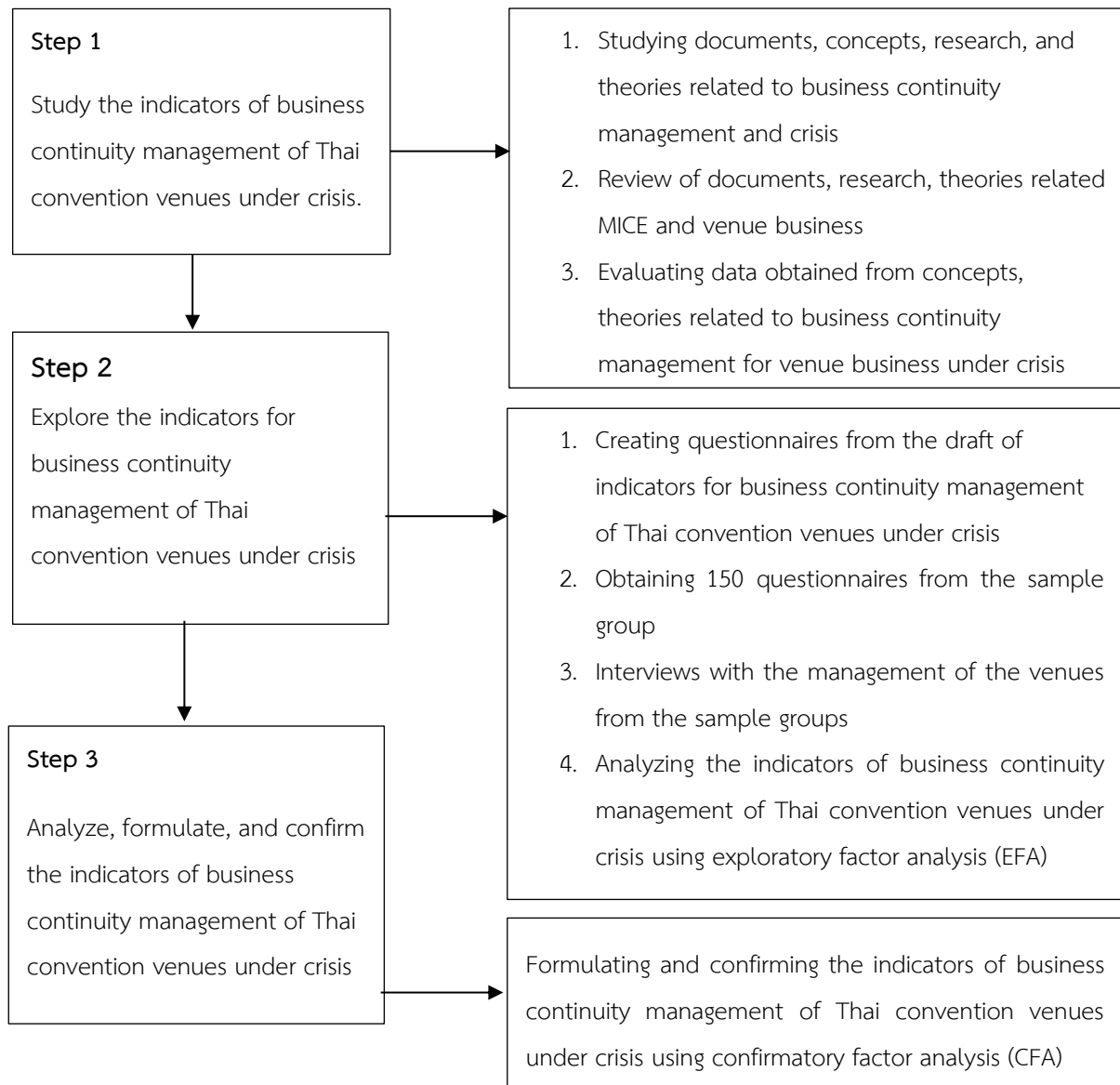


Figure 1 Research Framework analyzing

## Conclusion/ Discussion

Exploratory factor analysis (EFA) was conducted to identify the underlying indicator. Firstly, consider the whole dimension if Cronbach's Coefficient Alpha of less than 0.7 were deleted. Hence, there are 2 dimensions were remove. The first one was business continuity effectiveness and venue image dimension. Secondly, consider each indicator with factor loading below 0.4 were removed. Thus, there are 2 indicators under policy dimension and 7 indicators under venue attribute we removed. Thus there are 96 indicators were remained.

**Table 1** The Summary of EFA Result

Dimension	Statistical Value	
	Cronbach's Coefficient Alpha	Factor Loading
<b>Policy Dimension (24 indicators)</b>		
1. Goal attainment	.910	0.321-0.874
2. Development of human capacity	.818	0.359-0.831
3. Growth and securities	.825	0.612-0.817
<b>External Factors (14 indicators)</b>		
4. Social Impact	.835	0.588-0.890
5. Constitutionalism	.873	0.811-0.876
6. Politic Relevance	.829	0.660-0.864
<b>Venue Administrative (26 indicators)</b>		
7. Leadership	.839	0.492-0.787
8. Achievement	.745	0.562-0.742
9. Self-organization	.701	0.635-0.792
10. Responsibilities	.829	0.635-0.820
<b>Crisis Preparing Culture (17 indicators)</b>		
11. Decision making	.869	0.536-0.900
12. Organization learning	.726	0.563-0.831
13. Role of team members	.832	0.510-0.827
<b>Crisis Preparing Culture (17 indicators)</b>		
14. Decision making	.690	0.108-0.824
15. Organization learning	.637	0.223-0.807
<b>Venue Image (20 indicators)</b>		
16. CSR	.489	-0.209-0.776
17. Environment Management	.613	0.247-0.768
<b>Crisis Preparing Culture (17 indicators)</b>		
18. Physical Component	.724	0.256-0.728
19. Technology Component	.831	0.714-0.913
20. Service and Management Component	.717	0.101-0.819

The proposed CFA model accurately accounts for the variance and covariance in the data, and that the model satisfactorily explains the relationship between the observed variables and their corresponding latent constructs. Having confirmed that the observed variables account accurately for the latent variables, it is appropriate now to examine the fit of the structural model to the empirical data how the latent constructs are related

Diagram for the Measurement Model Fit. Given that most of the model fit indices present the acceptable fit scores, including Chi-square (178.584), df (68), CFI (0.961), GFI (0.930), RMSEA (0.137), RMR (0.018). If compare with the acceptable criteria for each model fit index.

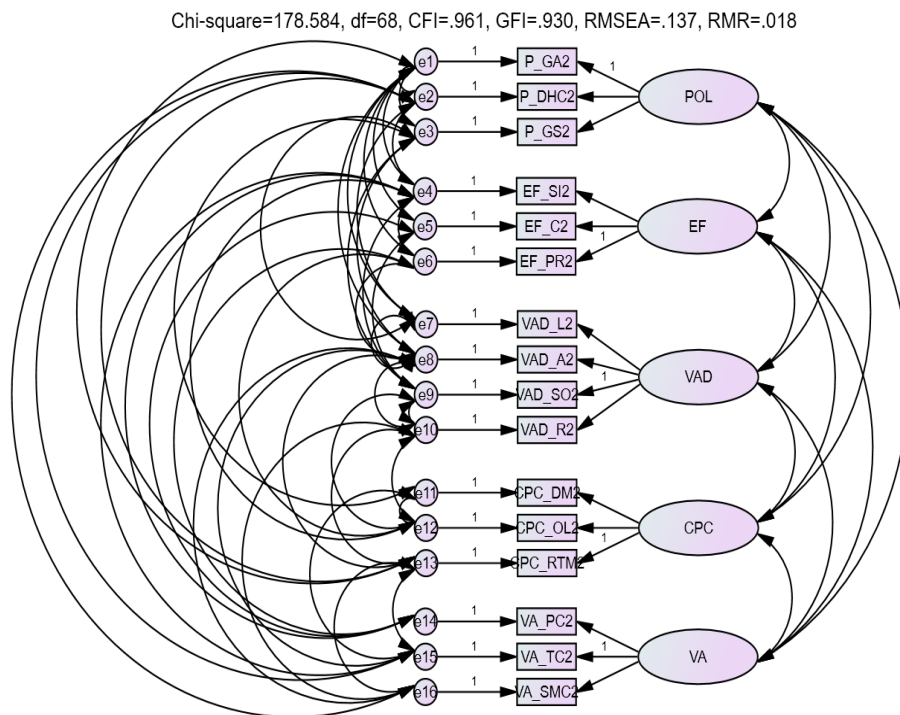


Figure 4.7 Diagram for the Measurement Model Fit

### Recommendation/implication

The result of indicator for business continuity management of Thai convention venues under crisis can be apply to another research as follows:

- 1) To conduct a research on other organization in MICE Business for instance; the exhibitors or the organizers. As the viewpoint of the venue may different from the exhibitor and organizer. Thus, future research is recommended to explore in selection factors from the perspective in order to discuss differentiating factors of the venue and exhibitors or organizers.
- 2) To study on how to apply these indicators of business continuity management to the organization within MICE business in order to evaluate the successful of the indicator.
- 3) The factor loading of the indicator for business continuity management of Thai convention venues under crisis in each dimension from the analysis show that the highest factor loading was decision making (.926) under crisis preparing culture dimension. This reflects that the decision making of the organization is very important to the organization when they

need to invest in anything. Thus the factor loading will help the organization in venue business to know which one should develop first.

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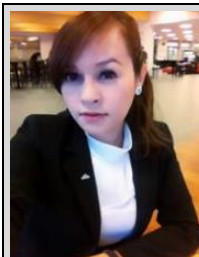
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