EFFECTIVENESS OF RISK MANAGEMENT FUNCTION AT MALAYSIA AIRPORTS (MA) SEPANG SDN BHD

Siti Hajar Muhd Ariff

Politeknik Kota Bharu, Malaysia
hajarariff@pkb.edu.my

Abstract: This research focused on the effectiveness of risk management function at Malaysia Airports Sepang Sdn. Bhd. Several factors had been highlighted in this research and those factors are operational risks, financial risks and hazard risks. This research analysed the sample of 346 of staffs in each department at MA Sepang which is Operation Department, Aviation Security (AVSEC), Finance Department, Airport Fire Rescue Services (AFRS) and support services. From the findings, researcher found that operational risks and hazard risk are significant with the effectiveness of risk management function at Malaysia Airports Sepang Sdn Bhd but financial risks are not so much emphasis towards the effectiveness of risk management function at Malaysia Airports (Sepang) Sdn. Bhd. By understanding all the independent variable roles, Aviation Security, Airport Fire Rescue Services (AFSR), Operations Department and Risk Management Department will realize and take more precautions in order to assuring the effectiveness of risk management function at Malaysia Airports (Sepang) Sdn. Bhd.

Keywords: Risk management function, operational risks, financial risks, hazard risks

1. Introduction

Malaysia Airports (Sepang) Sdn. Bhd. or as known as MA (Sepang) operates, manages, maintains and gives airfield related administrations, for example, parking at the KL International Airport (KLIA), including the second terminal (KLIA 2). MA (Sepang) is a wholly-possessed subsidiary of MAHB. The company is also responsible for the future development of these terminals as well as the management, operation and maintenance of the 203 acres of KLIA's Free Commercial Zone. In the most recent year five of its operation as universal airstrips, MAHB have gained their certificates of Safety Management System and the organization is pointing for the staying residential hangars under its administration to acquire the Safety Management System (SMS) accreditations by 2014. The accreditation certifies that the airports have effectively executed the Hazard Identification, Risk Assessment and Risk Control (HIRARC), and have affirmed to the necessities of the DCA for Acceptable Level of Safety (ALOS). A good safety management is one of the important and crucial parts of an airport. Malaysia airport always committed for it though the formation of wellbeing office, joint endeavours with risk management and the business progression projects, joining together and agreeing to Occupational Health and Safety necessity.

2. Literature Review

Risk management is the application of management process to manage risk exposures to ensure losses will not prevent the achievement of organization’s short term and long term goals. Risk need to be minimized to maximize firm value. Individuals and businesses sometimes analyze risk subjectively and based only on their experiences or feelings at the

time. Businesses are exposed to the few type of risk such as financial risks, operational risks, strategic risks, IT and information risk and so on.

The function of risk management is to control uncertain external developments or events. This is usually interpreted as preventing adverse developments affecting the firm's objectives, activities and projects. Though advocates contend so as to productive risk management practice are the answer for the issue of how to evade business disasters and disappointments, as in National Commission (2011), a few cynics see enterprise risk management as a component of the issue itself (Power 2009).

As indicated by Bloom (2010), airport security alludes to a state of mind, or a subjective state that somebody feels sheltered from purposeful damage or any intentional harm. Passengers and are not by any means the only sources of threats to commercial aviation security. Threats can additionally hail from the numerous procedures that support an airport and the passengers and aircraft it serves, like people who are doing catering, maintaining the airport, cleaning, ticketing, baggage handling, air traffic control, retail store, food services around the airport, parking, auto rental and others. Besides passengers, human dangers to airport security may originate from airport workers, airline personnel, and the overall population which including terrorists, terrorist group and the individuals who unknowingly get to be questions in terrorist plans and assaults whereby the greater part of that with access to plainly screened area and nearby areas or proximal to the Airport.

The worldwide economic downturn is having a remarkable effect on airline activity, and above all the airports. The International Monetary Fund (IMF) has advised that, in 2009, overall advancement will tumble to its most lessened level since the Second World War. The economic recession and diminished in air carrier capacity have brought about another money related pattern for some airport operators. Long term financial planning is troublesome in an environment of budgetary instability and require of new seat limit for years to come. Airport operators need to make everyday choices with the objective of keeping up monetary soundness and abstain from justifying choices under the goal of maintaining financial stability and avoid rationalizing decisions.

Hazard refers to conceivable, potential event of characteristic or individual-incited substantial occasions that may have unfavourable impacts on powerless and uncovered components (White, 1973; UNDRO, 1980; UNDHA, 1992; Birkmann, 2006). In spite of the fact that, now and again, hazard has been credited the same importance as danger, right now it is generally acknowledged that it is a part of risk and not chance itself. The force or repeat of peril occasions could be part of the way dictated by ecological corruption and human mediation in characteristic environments.

3. Methodology

In this study, researcher is aiming to obtain 346 sample sizes of respondents that successful in answering the questionnaires. As per Sekaran (2010), sample sizes between 70 and 200 could compel relying upon the type of sampling design used and the researcher question investigated. For this purpose of the study the researcher utilized just 100 employees of each department. In determining the sample size, the researcher try to be in the comfortable and appropriate sample size of how many sample size that previous researcher had been done in the similar studies. The researcher wants to know the risk management function at each department at MA (Sepang) which is Operation Department, Aviation Security (AVSEC),

Finance Department, Airport Fire Rescue Services (AFRS) and support services. For this reason, all the information will be gathered from every individual respondents and the unit of analysis is individual.

4. Discussion

This is the most important part of the study where the data gathered earlier must be analyzed using the most suitable technique in order to get optimum result. The collected data from questionnaires will be analyzed using Statistical Package for Social Science (SPSS) version 21. This software program is use for data analysis and interpretation.

Table 1: Effectiveness of Risk Management

	N	Minimum	Maximum	Mean	Std. Deviation
Culture	739	1	5	3.60	.716
Education	739	1	5	3.73	.602
Implementation	739	1	5	3.72	.565
Policy	739	1	5	3.77	.578
Budget	739	1	5	3.61	.714
Valid N (listwise)	739				

A quick glance at Table 1 shows that effectiveness of risk management at Malaysia Airport (Sepang) Sdn Bhd are mostly influenced through the policy that has been implemented by the company with the mean of 3.77 compared to the other variables. This is necessary for guidance on what to do when any situation arises that relates to the risks and threats at the airport in relation to the aircraft accidents and other airport hazards (Obwaya, 2010). It show the strength of the policy set up by the Malaysia Airport (Sepang) for their staff to follow all rules and regulation in order to make sure the activities run smoothly. This is because policy is one of the requirements that that need to be understood by the staff to prevent any uncertainties of risk that could happen at airport. Overall, the risk management function at Malaysia Airport (Sepang) Sdn Bhd is effective since the means are generally high. The company could use this information in interpreting which would be thing to be improved to increase level of awareness of risk management at airport.

Table 2: Pearson Correlation for Independent Variables and Dependent Variable

		Effectiveness	Operation	Finance	Hazard
Effectiveness	Pearson Correlation	1	.792**	.597**	.725**
	Sig. (2-tailed)		.000	.000	.000
	N	346	346	346	346
Operational	Pearson Correlation	.792**	1	.660**	.783**
	Sig. (2-tailed)	.000		.000	.000
	N	346	346	346	346
Financial	Pearson Correlation	.597**	.660**	1	.796**
	Sig. (2-tailed)	.000	.000		.000
	N	346	346	346	346
Hazard	Pearson Correlation	.725**	.783**	.796**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	346	346	346	346

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation matrix obtained for the five interval-scaled variables is shown in table 2. From the results, there is no correlation exceeded .05. Bivariate correlation was undertaken between operational risks, financial risks and hazard risk with effectiveness of risk management function. It was hypothesized that a positive relationship would exist between the five variables. Result of the correlation indicate that significant effectiveness of risk management function scores is associated with the high operational scores ($r = .792$, $p < .05$), financial scores ($r = .597$, $p < .05$) and hazard risk scores ($r = .725$, $p < .05$).

Regression analysis is utilized when to anticipate the worth of a variable base on the quality of an alternate variable R^2 tells level of quality of the estimated regression equation which also known as a measure of "goodness of fit" in the regression. The higher the R^2, the more confidence can be placed in the estimated equation. More specifically, the coefficients of determination represent the proportion of the total variation in Y that is explained by the regression equation. R-Squared values range from 0 to 100. R-Squared of 100, means that there are strongly significance between dependent variables and independent variables. For this study, the researcher is using R Squared (R2).

Table 3: Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.807[a]	.651	.647	.324
	.000[b]	.000	.000	.546

a. Predictors: (Constant), Hazard, Operational, Financial

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	66.888	3	22.296	212.223	.000[b]
	Residual	35.930	342	.105		
	Total	102.818	345			
	Regression	.000	0	.000	.	.
	Residual	102.818	345	.298		
	Total	102.818	345			

a. Dependent Variable: Effectiveness
b. Predictors: (Constant), Hazard, Operational, Financial
c. Predictor: (constant)

This indicates the statistical significance of the regression model that was applied. Here, P <0.0005 which is less than 0.05 and indicates that, overall, the model applied is significantly good enough in predicting the outcome variable.

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.668	.124		5.372	.000
Operational	.582	.046	.619	12.528	.000
Financial	.046	.044	.053	1.040	.299
Hazard	.175	.055	.185	3.199	.002
(Constant)	3.697	.029		125.962	.000

Regression analysis was conducted to examine the relationship between operational risks, financial risks and hazard risks with effectiveness of risk management function. Institute of Risk Management (2002) highlight about the role of the effectiveness in risk management function which comprised that it ought to incorporate the setting approach and system for risk management, primary champion of risk management at key and operational level, building a risk aware culture inside the organization including proper instruction, planning and checking on procedures for risk management, organizing the different functional exercises which prompt on risk management, issues inside the organization, developing risk response methods, including contingency and business, progression projects, preparing reports on risk for the board and the stakeholder.

Table 3 summarize and analyze the result. As can be seen from the result as shown in the above table, the study for the relationship of risk management activities toward the effectiveness of risk management function at MAHB found that the value of R-squared, R^2 is 0.651, $p < .001$. This implies that 65.1% of the variation of Y value effectiveness of risk management function) is explained by the independent variable which is operation factor. Another 34.9% of the balance is due to other factors that are not included in the equation. Meanwhile, the Adjusted R-squared measures the goodness of fit of variables. From the result, 64.7 % of the variation of Y value (effectiveness of risk management function) is explained by the independent variable which is operational risks, financial risks and hazard risks. Since the value of adjusted R-Squared is reasonable, it demonstrates that the relationship between those variables does exist.

Except for financial risks, the management handling of operational risks and hazard risks contributed towards the effectiveness of risk management functions at Malaysia Airports (Sepang) Sdn Bhd. From the result, researcher find out that operational risks are the most important in risk management function. To be a competitive advantage, it is a must for a company to have staffs with a good attitude, skilled and knowledgeable as well as experienced workers in handling problems that might incur in future. By having these capabilities, MA (Sepang) Sdn Bhd can run their organization as a whole. Besides that, a hazard risk is also significant shows that MA (Sepang) Sdn Bhd do considered risk mitigation at airport. For example, the airport has established procedures to ensure that operations in adverse weather conditions remain safe, or are suspended and make sure that all staff knows the appropriate safety procedures.

The financial risk is not significant to the effectiveness of risk management functions at Malaysia Airports (Sepang) Sdn Bhd. It may be caused by financial risk is not main emphasis in decision making of risk management at airport as well as give indirect function towards support enterprise risk management. However, financial risks still needed in performing activities at airport in term of physical structure such as pure risk rather than speculative risks.

5. Conclusion

In general, risk management deviation has done a good job. As a conclusion, referring to the findings of the research, researchers identified that the effectiveness of risk management at Malaysia Airports (Sepang) Sdn. Bhd is an important agenda at MA (Sepang). Apparently, effective management of operational risks and hazard risks contributed to the productive implementation of risk management function at airport and none of them can be compromised. However, based on the result, researchers found that financial risk does not really emphasis to the effectiveness of risk management function. This might due to some reasons. Operational risks are main variable because of the level of awareness among employees is high since implementation was carried out through KPI, SOP as well as the longer working experience. In the human resource dimension, it shows that staffs at Malaysia Airport are well educated and they do employ knowledgeable workers. To prevent any risk that could happen at the airport, staff awareness toward airport operation cannot be put aside. Malaysia Airports (Sepang) Sdn. Bhd. as subsidiary of Malaysia Airports does follow consistent standard policy in all activities as an international airport.

References

Birkmann, J. (2006). *Measuring vulnerability to promote disaster-resilient societies: Conceptual frameworks and definitions.* In: Measuring Vulnerability to Natural Hazards: Towards Disaster Resilient Societies. *United Nations University Press*, Tokyo, Japan, pp. 9-54.

Bloom, R. W. (2010). *Fear of Flying: Globalization, Security, and Terrorism*. TR News, July–August 2010, pp. 21–27.

Institute of Risk Management (2002). *A risk management standard* [Electronic version]. Retrieved 12 December 2019, from http://www.theirm.org/publications/documents/ARMS_2002_IRM.pdf

National Commission (2011). *Deep Water: The Gulf Oil Disaster and the Futureof Offshore Drilling*. Report to the President. Retrieved 15 October 2019, from http://www.oilspillcommission.gov/final-report

Power, M. (2009). *The risk management of nothing. Accounting, Organizations and Society*, 34 (6-7): 849–855.

Sekaran, U. & Bougie, R. (2010). *Research Methods for Business. A skill-building approach*. 5th Edition, United Kingdom: John Wiley & Sons Ltd.

UNDHA (1992). *Internationally agreed glossary of basic terms relating to disaster management*. UNDHA, Geneva, Switzerland.

UNDRO (1980). *Natural Disasters and Vulnerability Analysis*. Report of Experts Group Meeting, UNDRO, Geneva, Switzerland.

White, G. F. (1973). *Natural hazards research*. In: Directions in Geography [Chorley, R.J.(ed.)]. Methuen and Co., London, UK, pp. 193-216.