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The Impacts of the Security Climate on the Safety Behaviors of the Chinese Expatriates in Thailand and Malaysian Universities

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Abstract. **Recently, the increasing number of Chinese expatriate projects of international universities in South-Eastern Asian countries was continuously expanding due to the economic growth and cultural exchanges. This study aimed to determine the impact of Chinese expatriate projects on safety behavior in South-Eastern Asian universities. The data were collected from Chinese people's cases who were participating in expatriate projects at Maejo University in Thailand, Segi University in Malaysia, and University Putera Malaysia. This study uses quantitative and qualitative analysis methods. The recovery rate of the questionnaire retrieved was 68.67% from 150 questionnaires shared. The statistical data were analyzed by IBM SPSS software version 23. This current research used two variables, dependent and independent. Dependent variables include safety execution and safety handling (safety behavior). Independent variables include safety management, safety awareness, and safety attitude (safety climate). The non-standardized regression equation was: "safety behavior"=1.047+(0.683*"safety climate"). The unnormalized regression coefficient was 0.683, and the normalized regression coefficient was 0.456. Those corresponded to a significance level of less than 0.01. It reached an extremely significant level, indicating that the "safety climate" had an extremely significant positive impact on "safety behavior." The results encouraged Chinese expatriates in South-Eastern Asian universities to adapt to the safety condition in their workspace.**

Keywords: Chinese expatriates projects, security climate, safety behaviors, regression analysis

INTRODUCTION

Nowadays, the trend of economic globalization has made the world a "global village" with its irresistible rapid development, scientific and technological communications economy, and many other developments. The global people are closely linked [1], [2]. Therefore, the most fundamental feature of the current economic growth is economic globalization [3], [4]. Initially, Organization for Economic Co-operation and Development (OECD) has reported that Asia's economy reflected in Gross Domestic Production (GDP) will continue to maintain rapid growth during this period with an average annual growth rate of 6.3% during 2018-2022. ASEAN's growth rate is expected to reach 5.2% in 2018-2022, and China is predicted to slow to an average of 6.2% in comparison with the growth average between 2011 and 2015 [5]. However, during the Covid-19 pandemic, this calculation has been significantly corrected. In March 2020, OECD has lowered 0.5% of the global economic growth forecast for 2020 from 2.9% to 2.4%. The correction is based on the assumption that the virus will affect economic growth in the opening quarter of 2020 [6].

Before the Covid-19 pandemic, China has a pivotal strategy to accelerate economic growth and strengthen investment around the globe by conducting global expatriate projects, particularly in the business and academic sectors [7]- [9]. The main reasons for creating global academic expatriate projects include the following points. Firstly, due to economic globalization. Expatriate projects in world's class universities are not only aimed to develop the academic exchanges but also to increase the economic relationship and to decrease the gap between countries in many sectors. The project supports many countries to learn the best way from the host country to help their own country for better development. Economic development determines that superstructure is an easy-to-understand truth. The economic exchanges among various countries determine the social and cultural interaction and promote the accelerated development of expatriate projects in all countries. Second, the reasons for the rapid development of expatriate projects in colleges and universities are due to the economic growth of various countries and the ever-closer exchanges between countries.

For example, trade between China and Southeast Asian countries has been frequent in recent years [10]. The frequent economic exchanges strengthen China's economic ties with these countries [11]. It has promoted the development of cultural exchange between China and other countries in Southeast Asia and the rapid development of all kinds of study tours abroad. It is visible in the close contacts between countries, not only an economic exchange between countries but also an exchange of cultures [12]. Countries with close contacts to China have a higher familiarity and a deeper understanding of Chinese expatriates [9]. The system of expatriate projects in international universities in Southeast Asian countries, particularly in Thailand and Malaysia, was relatively running well and improved. Under such a social background, the expatriation of universities will continue as a significant program of global economic development.

Since the establishment date to the present, the ties between China and the international system of Thailand and Malaysian universities have been continuously strengthened. The relationship with the universities in these two countries has been entirely different from that before. Chinese expatriates have more and more large space for international activities [7]-[9]. However, Chinese expatriates' security interests have rapidly risen in a short period. One of the critical components of multinational expatriates project development interests is safety [8]. Nowadays, Chinese expatriate scholars must think about their safety and use this case as a critical research theme to create possible threats on how to maintain and protect them.

The safety of expatriate projects in colleges and universities is not only including the types of accidents such as accidental injuries, natural disasters like earthquakes but, also learning and psychological safety. It shows that the scope involved is extensive. In recent years, many safety problems have arisen in the Chinese expatriate projects in Southeast Asian Universities. Fraud, accidental injuries, robberies, and car accidents account for more than 70% of the total number of safety problems and are the most critical safety issues question type.

This article conducts a questionnaire survey for Chinese expatriate project personnel and performs a new division and integration of data collection on safety issues. It aims to demonstrate the positive impact of the cultural climate of the expatriate project on the personnel behavioral safety and apply the security management mechanism. This article also verifies the feasibility and effectiveness of the system and then puts forward suggestions on strengthening universities. Besides, it suggests the measurement of safety and quality management of outsourced projects.

METHOD

The sample size for a given population of 800-person target population, 260 or more are recommended as the sample size (confidence level = 95%, margin of error = 5%) (N = 278 participants). In this study, the researcher investigated 18 observation variables using the IBM SPSS software version 23. According to the sample number of the sample survey, $n = (k / \alpha) 2p (1-p)$. Therefore, the research group should collect at least 73 valid samples. This study used a questionnaire survey. A total of 150 questionnaires were sent out, and a total of 103 valid questionnaires was retrieved. The recovery rate was 68.67%. The data were collected from individuals who were participating in expatriate projects in Thailand and Malaysia universities. The Chinese expatriates who work at Maejo University in Chiang Mai, Thailand, Segi University, Malaysia, and Universiti Putra Malaysia filled out the electronic version of the questionnaire and returned it after filling it.

RESULT & DISCUSSION

A. Relationship between safe execution and expatriate projects safety climate

The first regression analysis is based on the "safety management", "safety awareness", and "safety attitude" which are under the safety climate of Chinese expatriate projects as independent variables, the "safe execution" which is under the behavioral safety carries on the regression analysis of the dependent variables.

Table 1. Statistical analysis of the relationship between safe execution and expatriate project's safety climate.

Variables	Dependent variable: Safe execution					Collinearity statistics	
	B	Standard Error	Trial Version	t	Sig.	Tolerance	VIF
(Constant)	1.849	0.688		2.687	0.008		
Safety Management	-0.259	0.134	-0.169	-1.924	0.057	0.892	1.121
Safety awareness	-0.134	0.125	-0.092	-1.075	0.285	0.951	1.052
Safety attitude	0.801	0.119	0.589	6.744	0.000	0.906	1.104
R^2				0.316			
F				15.218**			

The results in Table 1 show that the R^2 of the model was 0.316, indicating a joint interpretation of the independent variables of 31.6%. Regarding the parameters of the regression equation and the significance test results of the regression coefficients, the significance levels corresponding to "safety management" and "safety awareness" of expatriate project safety climate were 0.057 and 0.285, respectively. Both were above 0.05 and not reaching a significant level. It shows that "safety management" and "safety awareness" have no significant influence on the "safety execution" of Chinese expatriates. However, the unnormalized

regression coefficient of "safety attitude" in the Chinese expatriate project safety climate was 0.801, and the standardized regression coefficient was 0.589. The significance level was less than 0.01. It reached an extremely significant level, indicating that "safety attitude" had an extremely significant positive impact on the "safety execution." The non-standardized regression equation in this model was: "safety execution" = 1.849 + 0.801 * "safety attitude."

B. Relationship between expatriates' safety handling and related dimensions

The second regression analysis is to take the "safety management", "safety awareness", and "safety attitude" under the safety climate of Chinese expatriate projects in universities as independent variables. The "safe handling" of the expatriates' behavior safety is dependent variables of the regression analysis.

Table 2. Statistical analysis of the relationship between expatriates' safety handling and related dimensions of expatriate project's safety climate.

Variables	Dependent variable: Safe handling					Collinearity statistics	
	B	Standard Error	Trial version	t	Sig.	Tolerance	VIF
(Constant)	1.220	0.481		2.538	0.013		
Safety Management	0.183	0.094	0.172	1.955	0.053	0.892	1.121
Safety Awareness	0.038	0.087	0.037	0.440	0.661	0.951	1.052
Safety Attitude	0.456	0.083	0.480	5.493	0.000	0.906	1.104
R^2				0.317			
F				15.309**			

The results in Table 2 show that the R^2 of the model was 0.317, indicating a joint interpretation of the independent variables of 31.7%. Regarding the parameters of the regression equation and the significance test results of the regression coefficients, the significance levels corresponding to "safety management" and "safety awareness" of expatriate project safety climate were 0.053 and 0.661, respectively. Both were above 0.05 and not reaching a significant level. It shows that "safety management" and "safety awareness" have no significant influence on the "safety handling" of expatriates. The non-standardized regression coefficient of "safety attitude" under the safety conditions of expatriate projects was 0.456. The normalized regression coefficient was 0.480, corresponding to a significance level of less than 0.01. It reached an extremely significant level, indicating that "safety attitude" had a very significant positive impact on "safety handling." The non-standard regression equation in this model was: "safety handling" = 1.220 + 0.456 * "safety attitude."

C. Relationship between the expatriates' safety behavior and expatriate projects safety climate

The third regression is based on the "safety climate" of Chinese expatriate projects in colleges and universities as the independent variable and the "behavioral safety" as the dependent variable.

Table 3. Statistical analysis of the relationship between the expatriates' safety behavior and expatriate project's safety climate.

Variables	Dependent variable: safety behavior				
	B	Standard Error	Trial version	t	Sig.
(Constant)	1.047	0.518		2.020	0.046
Safety Climate	0.683	0.133	0.456	5.153	0.000
R^2			0.208		
F			26.553**		

The results in Table 3 show that the R^2 of the model was 0.208, indicating that the co-interpretation of the independent variables was 20.8%. In this analysis, the "safety climate" of expatriate projects in colleges and universities functioned as the independent variable. The "safety behavior" of expatriates functioned as the dependent variable. The unnormalized regression coefficient was 0.683. The normalized regression coefficient was 0.456, corresponding to a significance level of less than 0.01. It reached an extremely significant level, indicating that "safety climate" had an extremely significant positive impact on "safe behavior." The non-standardized regression in this model equation was: "safety behavior" = 1.047 + 0.683 * "safety climate."

A. Safety climate improvement for Chinese expatriates in Thailand and Malaysia

A safety climate or safety culture determines organizational effectiveness [13]-[16]. Miller and Cooper pointed out that to create a positive safety culture, people's mind, and the soul is the most challenging parts [17], [18]. However, what makes it difficult is that people's psychology and mind cannot be under the control of the organization. Theoretically, a safety climate is outlined as a combination of characteristics that can be perceived by particular work organizations, employees' perspective of the importance and human right priority of safety, institutional safety policies, practices, and procedures in their organization [14][15]. Clarke and Cooper also made a similar point of view[13], [19], [18].

The definition of safety climate is a kind of perception, which is an integral part of an individual in a work environment and an effective guide to conduct work in daily emergencies in principle [18],[20]. It means safety culture is an integration of the pattern, style, consciousness, attitudes of the organization and its members, and placing the highest priority on safety issues [21]. Safety culture is the basic assumptions, values, and artificial

decorations on safety issues. The reference to the safety climate is more extensive in other countries. At the same time, the research related to it in China is extremely scarce, particular in expatriate projects at universities in Thailand and Malaysia. In this study, the reference to the safety climate in safety and quality management of Chinese expatriate projects is the central concept and view.

By looking at the results of statistical analysis and in-depth interviews, to improve the safety climate in Chinese expatriate projects, the researchers strongly recommend strengthening the first step by conducting the consular protection and activate the early warning mechanisms. It is the initial action from the perspective of safety management. To continuously protect expatriates, universities in many countries should establish consular protection and early warning mechanisms under the leadership of the Chinese consulate general. An early warning mechanism should be activated immediately after an expatriate case occurs, and consuls will be rushed to investigate the incident to understand the cause of the accident and verify the identity of the expatriate.

Furthermore, the relevant agencies for expatriate projects should be standardized and expedited for the development of laws and regulations on intermediary supervision. The determination of the regulatory system for outsourced projects is also needed. It is suggested that when the relevant departments promulgate the corresponding administrative regulations, the departments and corresponding responsibilities involved in the supervision work should be clearly defined. Multiple services management should be changed to single management in the one-stop management system to improve work efficiency.

Also, cooperation between governments should be strengthened. The outbound department should strengthen cooperation with the related departments in the host country. To avoid unnecessary accidents, the dispatched universities can take a variety of forms to publicize widely, increase protection, and eliminate hidden safety hazards as much as possible. From the perspective of safety awareness and safety attitude, they should plan reasonably and strengthen the risk prevention awareness of Chinese expatriates. Correct and rational planning is the key to make the project successful, sustainable, bringing the benefits between two countries, and also being an effective way to avoid the risks of Chinese expatriates and other expatriates from other countries.

B. Preparation before going to host county

Before going to host county, the Chinese expatriates should have a clear understanding of their existing conditions such as personality characteristics, academic level, hobbies, family economic strength, and future career positioning. When choosing a host county destination, Chinese expatriates need to consider various factors such as the daily language of living and the official language used in the workspace, the tuition and living standards of the overseas location, the social conditions, and safety factors. There are vast differences between the Chinese and other host countries' cultures, particularly the Buddism culture in Thailand and Islamic culture in Malaysia.

They should also understand the foreign societies, political paradigms, economies, and cultures. Besides, the customs, lifestyles, values, ways of thinking, religious beliefs, national psychology, national character, public security, traffic conditions, related laws, and regulations of the destination country are essential things to learn before. It is also necessary to make psychological preparations and preventive measures. Chinese expatriates in Thailand and Malaysia should integrate into the local community culture as much as possible, shorten the time of cultural adaptation, avoid various cultural collisions, and conflicts caused by cultural differences.

CONCLUSION

According to the statistical analysis of questionnaire data by SPSS, it is concluded that in the Chinese expatriate projects, safety climate has a positive impact on safety behavior. Safety attitude under the safety climate has the most significant impact on the behavioral safety of expatriates. From the data analysis, it shows that the Chinese expatriate projects in universities, the safety attitude under the safety climate has a significant positive impact on the safe execution and the safe handling of the expatriates' behavior safety. In general, the Chinese expatriate project's safety climate has a significant positive impact on the behavior safety of expatriates, and the data analysis results were consistent with the preconceived assumptions in this paper.

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