

THE DETERMINANTS AFFECTING THE CUSTOMS RISK MANAGEMENT (CRM) IN DONG NAI PROVINCE

Nguyen Thi Bich Thuy and Tran Thi My Huong

Lecturer of Lac Hong University (LHU)

ABSTRACT *In modern customs management, the application of risk management (RM) is considered to be important. The customs risk management can identify the key areas of potential high risk of smuggling, trade fraud, tax evasion and budget deficits so that customs administrations can take effective preventive measures. At the same time, it will create favorable conditions for enterprises to obey customs law. The objective of this study is to find out various factors affecting the customs risk management (CRM) in Dong Nai province. Data surveyed 200 managers of enterprises related to Dong Nai customs. The surveying time is from 9/2017 to 3/2018. Data processed by SPSS 20.0 and method used by the multiple linear regression analysis. The research results showed there are three key factors that affecting the customs risk management (CRM) in Dong Nai province with level significance 5 percent.*

KEYWORDS: Customs, Risk, CRM, Management, LHU

INTRODUCTION

Customs Risk Management (CRM) is a key tool to help customs agencies meet the requirements of the international trade environment. Over the past time, the operation of the CRM has been effectively implemented by the Dong Nai Customs, contributing to the management work, increasing budget revenue as well as creating legal compliance for enterprises and improving the customs-business partnership. Besides, the operational risk management in customs is the application of a system of professional measures and processes to arrange and arrange reasonable resources for effective analysis, evaluation and management. The fields, objects are in danger of violation of customs law. Dong Nai customs needs to improve the effectiveness of data collection and risk management, this will further enhance information technology, communication and guidance to improve the knowledge and capacity of the team. Dong Nai customs servants working in risk management; strengthening the collection of business information inside and outside the province in order to build a complete system of business records; discussing with the concerned agencies in the localities to unify the contents and modes of supply and exchanging of information in service of the State management

In addition, Dong Nai customs should regularly review risks arising in the area, analyze and evaluate information, identify the risks, propose risk records, timely prevent violations. At the same time, Dong Nai customs should propagate to raise the sense of law observance of enterprises, organizations and individuals engaged in export and import activities, exit and entry activities in order to limit the arising risks. However, the implementation of customs procedures in the customs sector is still limited in scope and level of professional expertise; the collection and processing of customs information and risk management is also fragmented, lack of uniformity and professionalism. One of the main reasons leading to the above situation is that there is no legal status to be the focal point for building, advising and

organizing the collection and processing of information. Combined with the practical requirements of the teaching job, the researchers had chosen topic “*The determinants affecting the customs risk management (CRM) in Dong Nai province*” as a study. This study helps improving policy on the management of the customs risk management (CRM) in Dong Nai province better in the future.

LITERATURE REVIEW

Customs risk management (CRM): Anderson, K. and Terp, A. (2006) showed that CRM has its own limited legacy in literature, consisting mainly of policy papers, practitioner guidelines, technical reports, project reports, and press releases. Academic literature is currently very limited, possibly due to its previously perceived niche nature and security sensitivities linked with the topic. At first, the research team will share a few snapshots on project reports and press releases written by customs administrations themselves, in chronological order found through Google with the keyword “Customs risk management”.

According to Anderson, K. and Terp, A. (2006): “Customs risk management has always been at the core of customs administration and is a fundamental discipline enshrined within the WCO’s Revised Kyoto Convention on the Simplification and Harmonization of Customs Procedures. It has proven to be the most effective means of managing the huge volumes of cargo that enter the country every day of the week because it allows an administration to concentrate resources on areas of high-risk while allowing low-risk cargo to flow unimpeded into the commerce of the country. Besides, Conrow E.H (2003) claimed that customs risk management coupled with good intelligence and effective data analysis allows the profiling and targeting of cargo prior to arrival at a port so that low risk cargo. CRM can be released immediately and high-risk cargo can be diverted for physical examination by Harrison, M. (2007).

The Customs procedure (CP): The procedures of risk management have recently been published in a few papers. According to Conrow E.H (2003), a risk management framework encompasses the scope, the process/system/procedures to manage risks and the roles and responsibilities of the individual related to risk management. Besides, Chapman C.B., Ward, S.C (2013) studied that the effective risk management framework includes the risk management policies and procedures that cover risk identification, acceptance, measurement, monitoring, reporting and control. The main risks that occur when business processes are not carefully considered and defined, with the right processes to be provided at an appropriate time.

Conrow E.H (2003) showed that customs procedure reducing congestion cargo, passenger, enterprises and strengthening the goods declared periodically affecting the customs risk management. Chapman C.B., Ward, S.C (2013) claimed that customs procedure encouraging self-assessment of enterprises and allowing enterprises (instead of customs) filing trade and many key documents affecting the customs risk management. Conrow E.H (2003) studied that customs procedure strengthening the news report and the declaration by electronic means and increasing the use of information systems affecting the customs risk management. Vanany, I., Pujawan, N. (2009) showed that customs procedure encouraging enterprises in complying customs law and complying new procedure affecting the customs risk management.

The above mentioned the customs procedure, the researchers have hypothesis 1:

H1: The customs procedure had positive relation to the customs risk management (CRM) in Dong Nai province

The communication (C): communication is another important consideration for effective risk management. Conrow E.H (2003) claimed that communication plays an important role in risk mitigation. It provides opportunities for clarification, for making sense of the organization's progress, and for members to discuss how to improve the organization and the impact of using different risk mitigation strategies.

Vanany, I., Pujawan, N. (2009) showed that the communication process provides opportunities for members to understand their roles and responsibilities as the structure of the organization changes. In case, the wide range of people from a broad cross-section of the business. There is involved in the risk identification and assessment process and if there are no "taboo" subjects which prevent conventional wisdom within the organization being challenged when necessary. Financial institutions need to consider the concept of verifiability. If a different group of members were making the same decision about the importance of risks, it would come to the same conclusion by Sergey M. Avdoshin (2008).

Conrow E.H (2003) claimed that customs had good cooperation, answering questions between enterprises and customs in other countries affecting the customs risk management. Vanany, I., Pujawan, N. (2009) showed that customs had good cooperation between agencies such as banks, airports, airlines and customs in other provinces affecting the customs risk management. Sergey M. Avdoshin (2008) studied that customs strengthening to exchange the information between the customs authorities in the provinces and in other regions affecting the customs risk management. Conrow E.H (2003) claimed that customs joining Asia seminars and conferences to exchange the information between the customs authorities affecting the customs risk management.

The above mentioned the communication, the researchers have hypothesis 2:

H2: The communication had positive relation to the customs risk management (CRM) in Dong Nai province.

The Information Technology (IT): an organization is on such a large scale that it would be difficult for members to communicate and share information without an information technology infrastructure by Conrow E.H (2003). Information technology can enable prompt searches, the access of and retrieval of data, and support communication in an organization. Sergey M. Avdoshin (2008) showed that information technology is changing rapidly and no one can predict exactly what will happen in the next few years. The best thing today will be better in the future. There are many components of the underlying infrastructure technology that are involved in implementing the transition from the current system to the under-construction system, and the potential risks of technology must be closely monitored and monitored.

Conrow E.H (2003) suggests using IT to drive effective risk management. IT can create an important link between risk management and corporate performance. IT provides data security by employee level, limiting a user's access by time, line of business, business activity and individual risk. Besides, Sergey M. Avdoshin (2008) showed that IT tools collect data used in the past so companies can learn through experience and avoid repeating the same mistakes.

The effective risk management information makes more valuable for decision making. Therefore, Information Technology (IT) is another imperative factor for successful risk management.

Conrow E.H (2003) showed that customs had been using of information technology in risk management and technology to friendly, modern, fast and easy to use for customs staffs affecting the customs risk management. Sergey M. Avdoshin (2008) showed that customs had been using the automatic data processing via modern technology and automatically updates the information for the enterprises affecting the customs risk management. Francis, S., Paladino, B. (2008) studied that customs had been improving the information processing to ensure accuracy and security for enterprises by using modern facilities in risk management affecting the customs risk management. Wood, P. (2005) studied that customs had been improving the management system of the modern facilities in risk management affecting the customs risk management.

The above mentioned the information technology, the researchers have hypothesis 3:

H3: The information technology had positive relation to the customs risk management (CRM) in Dong Nai province.

Methods of Research

Methods of collecting scientific information based on the study of existing documents and tapes and the logical thinking process to draw the necessary scientific conclusions.

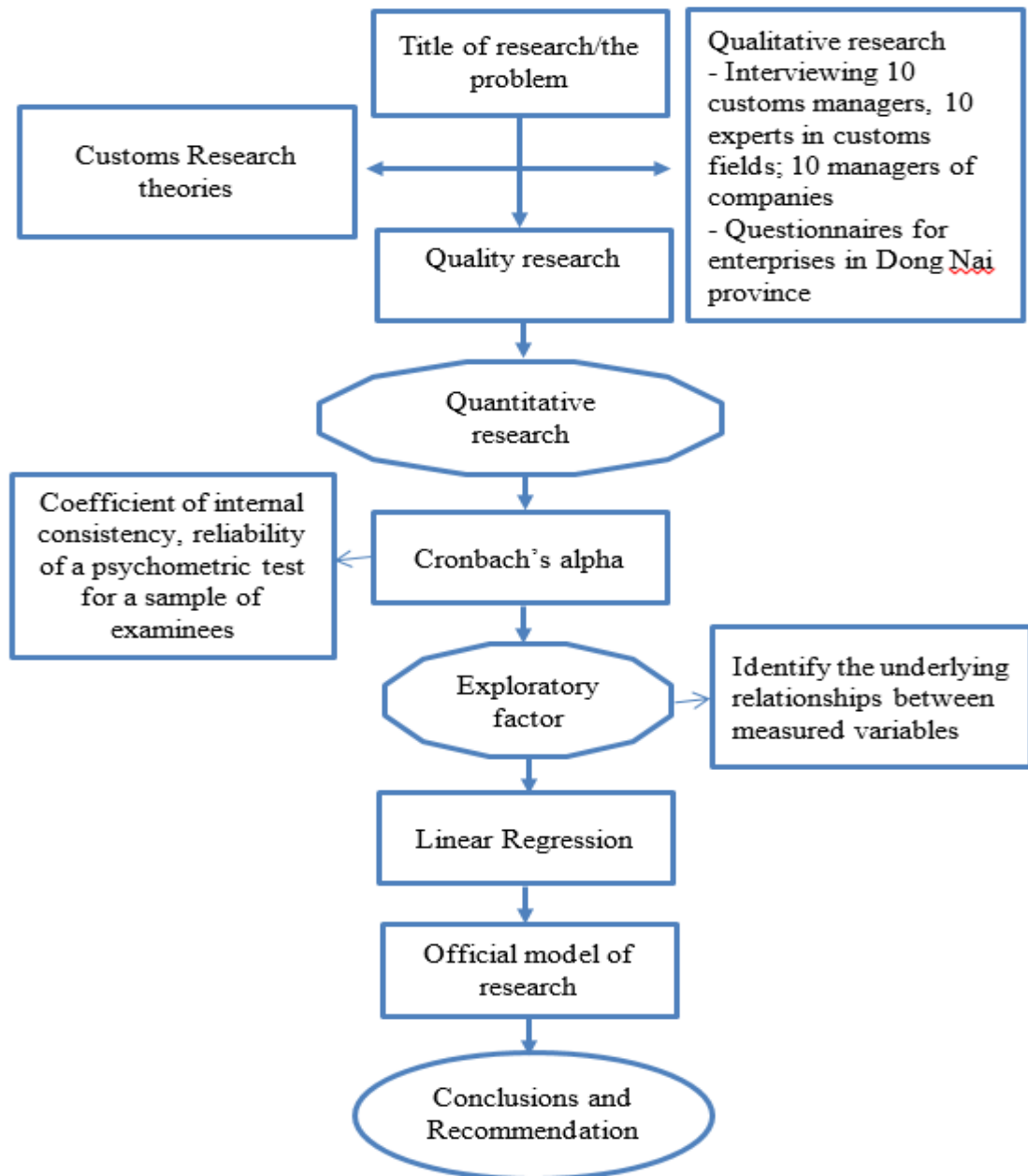


Figure 1: Research processing for the customs risk management in Dong Nai province

Figure 1 showed that the data obtained from units selected with complex sample designs needs to take into account in the survey analysis: weights need to use in analyzing survey data and variances of survey estimates need to compute in a manner that reflects the complex sample design. The researchers surveyed 200 managers of enterprises in Dong Nai province. In this province, there are more than 12.000 the enterprises. First of all, the researchers surveyed 10 enterprises, managers related to customs in the province, Secondly, the researchers had surveyed 10 experts in customs field in the province. Finally, the researchers had surveyed 10 managers of customs in the province. There is total of population to be more than 100 customs leaders, 100 experts and 12.000 managers of enterprises. The purpose of the survey is to examine the content of the questions and to test the research model.

In this paper, after preliminary investigations, formal study is done by using quantitative methods questionnaire survey of 200 managers of enterprise but 172 samples processed in Dong Nai province in Vietnam who related and answered nearly 15 questions. Model and test research hypotheses. Data collected were tested by the reliability index (excluding variables with correlation coefficients lower < 0.30 and variable coefficient Cronbach's alpha < 0.60), factor analysis explored (remove the variable low load factor < 0.50). The hypothesis was tested through multiple regression analysis with linear Enter method in this research, the Likert scales applied to this questionnaire form for inquiring the opinions as well as estimate of respondents towards their decision. To be more specific, the participants asked to rate the opinion about five dimensions and among the five scales following: (1) Strongly disagree; (2) disagree; (3) Neutral/Normal; (4) Agree and (5) Strongly agree. Finally, multiple regression analysis is also used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

Y: the customs risk management (CRM).

$\beta_0 - \beta_3$: Regression coefficients.

Custom procedure (X1),

Communication (X2),

Information technology (X3).

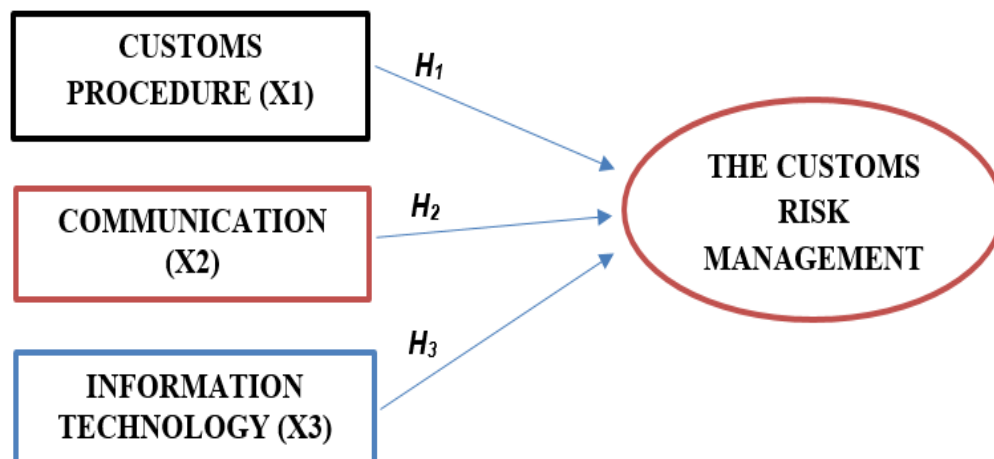


Figure 2: Research model for the customs risk management of Dong Nai province

Hypothesis:

H1: Customs procedure (X1) had positive relation to the customs risk management (CRM) in Dong Nai province;

H2: Communication (X2) had positive relation to the customs risk management (CRM) in Dong Nai province and

H3: Information technology (X3) had positive relation to the customs risk management (CRM) in Dong Nai province.

RESEARCH RESULTS

Table 1: Cronbach's Alpha testing for customs procedure (CP), communication (CO), information technology (IT)

Code	CUSTOMS PROCEDURE (CP)	Cronbach's Alpha
CP1	Dong Nai customs procedure reducing congestion cargo, passenger, enterprises and strengthening the goods declared periodically	0.873
CP2	Dong Nai customs procedure encouraging self-assessment of enterprises and allowing enterprises (instead of customs) filing trade and many key documents	
CP3	Dong Nai customs procedure strengthening the news report and the declaration by electronic means and increasing the use of information systems	
CP4	Dong Nai customs procedure encouraging enterprises in complying customs law and complying new procedure	
Code	COMMUNICATION (CO)	Cronbach's Alpha
CO1	Dong Nai customs had good cooperation, answering questions between enterprises and customs in other countries	0.879
CO2	Dong Nai customs had good cooperation between agencies such as banks, airports, airlines and customs in other provinces	
CO3	Dong Nai customs strengthening to exchange the information between the customs authorities in the provinces and in other regions	
CO4	Dong Nai customs joining asia seminars and conferences to exchange the information between the customs authorities	
Code	INFORMATION TECHNOLOGY (IT)	Cronbach's Alpha
IT1	Dong Nai customs had been using of information technology in risk management and technology to friendly, modern, fast and easy to use for customs staffs	0.918
IT2	Dong Nai customs had been using the automatic data processing via modern technology and automatically updates the information for the enterprises	
IT3	Dong Nai customs had been improving the information processing to ensure accuracy and security for enterprises by using modern facilities in risk management	
IT4	Dong Nai customs had been improving the management system of the modern facilities in risk management	

(Source: The researchers' collecting data and SPSS)

Table 1 showed that three components include: The customs procedure (CP) surveyed Corrected Item-Total Correlation greater than 0.3 and Cronbach's Alpha if Item deleted greater than 0.6 and Cronbach's Alpha is very reliability. Besides, Cronbach's Alpha testing for communication (CO), information technology (IT) are high 0.6. They are very reliability.

Table 2: Cronbach's Alpha testing for the customs risk management (CRM)

Code	CUSTOMS RISK MANAGEMENT (CRM)	Cronbach's Alpha
CRM1	The customs procedure (CP) factor affecting the customs risk management (CRM) in Dong Nai province	0.671
CRM2	The communication (CO) factor affecting the customs risk management (CRM) in Dong Nai province	
CRM3	The information technology (IT) factor affecting the customs risk management (CRM) in Dong Nai province	

(Source: The researchers' collecting data and SPSS)

Table 2 showed that three items in the customs risk management (CRM) surveyed Corrected Item-Total Correlation greater than 0.3 and Cronbach's Alpha if Item deleted greater than 0.6 and Cronbach's Alpha is very reliability.

Table 3: KMO and Bartlett's Testing for various factors of the customs risk management**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.747
Bartlett's Test of Sphericity	Approx. Chi-Square	1530.483
	df	66
	Sig.	.000

Total Variance Explained

Com.	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.166	34.713	34.713	4.166	34.713	34.713	3.269
2	3.147	26.221	60.934	3.147	26.221	60.934	3.441
3	1.851	15.424	76.359	1.851	15.424	76.359	3.318
4	.762	6.348	82.707				
5	.582	4.850	87.557				
6	.363	3.028	90.585				
7	.336	2.804	93.389				
8	.248	2.066	95.455				
9	.186	1.549	97.004				
10	.149	1.245	98.248				
11	.106	.882	99.130				
12	.104	.870	100.000				

(Source: The researchers' collecting data and SPSS)

Table 3 showed that the results showed that KMO coefficient had: $0.5 \leq \text{KMO} \leq 1$ (KMO: Kaiser-Meyer-Olkin). KMO is an index used to examine the appropriateness of factor analysis. KMO value significantly larger factor analysis is appropriate. KMO coefficient is 0.747 and the level of significance (Sig) is 0.000. Exploratory Factor Analysis (EFA) is consistent with survey data of 200 the managers of enterprises but 172 managers processed by SPSS 20.0.

Table 4: Structure Matrix testing for various factors of the customs risk management

Code	Component		
	1	2	3
CP3	.939		
CP4	.904		
CP2	.894		
CP1	.841		
CO1		.920	
CO3		.875	
CO2		.839	
CO4		.778	
IT3			.928
IT4			.874
IT2			.869
IT1			.692

(Source: The researchers' collecting data and SPSS)

Table 4 showed that there are three factors affecting the customs risk management (CRM). Table 4 showed that there are three factors: Custom procedure (X1), Communication (X2) and Information technology (X3).

Table 5: KMO and Bartlett's Testing for the customs risk management (CRM)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.647
Bartlett's Test of Sphericity	Approx. Chi-Square	79.206
	df	3
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.815	60.512	60.512	1.815	60.512	60.512
2	.669	22.314	82.826			
3	.515	17.174	100.000			

(Source: The researchers' collecting data and SPSS)

Table 5 showed that KMO of the customs risk management (CRM) is 0.647 (KMO: Kaiser-Meyer-Olkin). KMO is an index used to examine the appropriateness of factor analysis. KMO value significantly larger factor analysis is appropriate. KMO coefficient of the customs risk management (CRM) is 0.647 and the level of significance (Sig) is 0.000.

Table 6: Testing various factors affecting the customs risk management (CRM)

Model		Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			To.	VIF
1	Con.	1.819	.159		11.417	.000		
	X1	.249	.036	.420	6.849	.000	.992	1.008
	X2	.115	.030	.257	3.874	.000	.847	1.180
	X3	.151	.031	.319	4.818	.000	.849	1.178

a. Dependent Variable: Y

(Source: The researchers' collecting data and SPSS)

Table 6 showed the Sig. column is smaller significance level 0.05 and statistically significant data to explain the variation of the customs risk management (CRM). Besides, the regression coefficient is positive. This means that the impact of the independent variables in the same direction with the customs risk management (CRM).

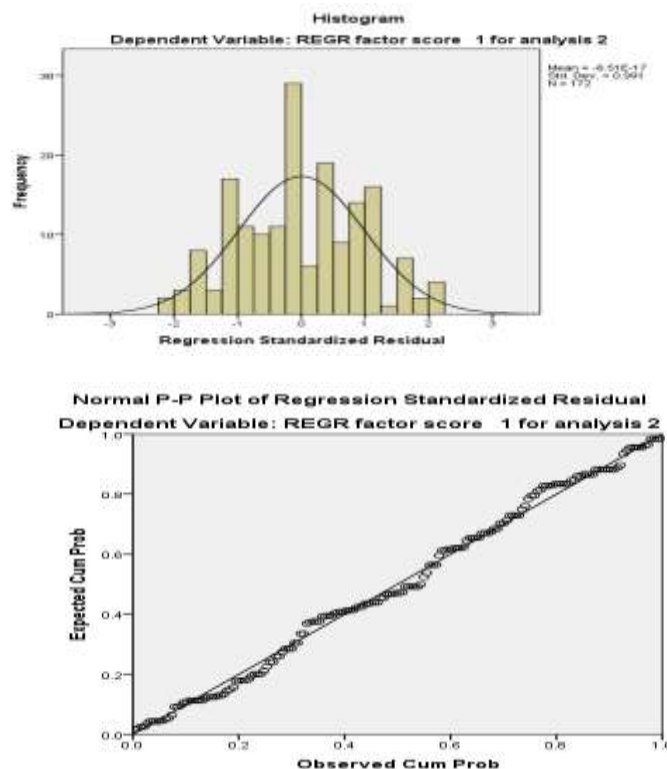


Figure 3: Testing Normal Residual

Figure 3 showed that there is testing normal residual. This is the hypothesis about the importance of checking the residual plots when performing linear regression analysis. The result showed that the residuals are normally distributed.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Risk management is now considered an effective tool for modern customs management, enabling customs to allocate resources appropriately while still ensuring customs management and no operational difficulties. This improves the compliance of enterprises in import-export activities. In terms of automatic clearance, risk management is an important basis to ensure that the customs inspection and supervision is carried out efficiently and in accordance with international customs practice. The study results showed that the objective of this study is to find out three factors affecting the customs risk management (CRM) in Dong Nai province. Data surveyed 200 managers of enterprises related to Dong Nai customs. The surveying time is from 9/2017 to 3/2018. Data processed by SPSS 20.0 and method used by the multiple linear regression analysis. There are three key factors that affecting the customs risk management (CRM) in Dong Nai province with level significance 5 percent.

Recommendations

Dong Nai customs should need to improve the system of procedures, regulations and guidelines on risk management; organize organizational units and units of risk management at all levels in the direction of arranging full-time and qualified staffs in charge of risk management to ensure full implementation of risk management tasks in the feces. Besides, Dong Nai customs should need to implement full tasks and effective risk management in the areas of customs operations in accordance with the Customs Law, focusing on completing the process of application of risk management in the selection of import container screening before carrying out customs procedures at seaport border gates and international airports. Dong Nai customs should need to perfect the system of flow control in the implementation of customs procedures; Dong Nai customs should need to develop and implement risk management in the post-clearance inspection option based on this research, Moreover, Dong Nai customs should need to establish a mechanism for connecting risk management information between customs clearance and post-customs clearance. In addition, Dong Nai customs should need to improve the quality of management and assessing the compliance of enterprises, on the basis of concentrating on completing the collection and management of enterprise profile information; organizing the management, monitoring and updating activities of enterprises; establishing mechanisms to support enterprises in compliance with laws, thereby raising awareness and compliance capacity of enterprises. Dong Nai customs should need to strengthen the conditions to support the determination of the focus, improve the quality of the flow of inspection; integration, processing of preflight data with data streams and customs inspections in customs procedures to minimize inspection in customs clearance. Finally, Dong Nai customs should need to thereby improve detection capacity, violation of customs inspection; develop and implement mechanisms to ensure the quality and effectiveness of direct examination of records.

REFERENCES

- [1] Adam, F., and Healy, M. (2000). *A practical guide to postgraduate research in the business area*. Blackball Publishing.
- [2] Anderson, K. and Terp, A. (2006). *Risk Management*. Andersen T.J. Perspectives on Strategic Risk Management. Denmark: Copenhagen Business School Press.
- [3] Avdoshin S., Pesotskaya E., (2011). *Business informatization for Managing risks*. Moscow: DMK Press.
- [4] Babakus, E. & Boller, G.W. (1992). *An empirical assessment of SERVQUAL scale*. University of Missouri, USA.
- [5] Berg, Bruce L., (2009). *Qualitative Research Methods for the Social Sciences*. Boston MA: Pearson Education Inc.
- [6] Blaug, Mark (2007). *The Social Sciences: Economics*. The New Encyclopædia Britannica.
- [7] Brymman, A. and Bell, E. (2007). *Business research strategies*. United States: Oxford University Press.
- [8] Cohen, L., Manion, L., Morrison, K., (2007). *Quantitative data analysis*. New York: Routledge.
- [9] Conrow E.H (2003). *Effective Risk Management: Some Keys to Success*. American Institute of Aeronautics and Astronautics. Reston, USA.
- [10] Creswell, J. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, California: Sage Publications.
- [11] Chapman C.B., Ward, S.C (2013). *Project Risk Management, Processes, Techniques and Insights*. John Wiley. Chichester, UK.
- [12] Cheng, Y.C. & Tam, M. M. (1997). *Multi-Model of quality in education*. Quality Assurance in Education.
- [13] Edward E. Leamer (2008). *Specification problems in econometrics*. The New Palgrave Dictionary of Economics.
- [14] Francis, S., Paladino, B. (2008). Enterprise risk management: A best practice approach. *The Journal of Corporate Accounting and Finance*.
- [15] Harrison, M. (2007). Challenges for customs. *Annual conference on APEC centers, Melbourne, Australia*.
- [16] Howell, K. E. (2013). *Introduction to the Philosophy of Methodology*. London: Sage Publications.
- [17] Keisuke Hirano (2008). *Decision theory in econometrics*. The New Palgrave Dictionary of Economics.
- [18] Kennedy, Peter (2003). *A guide to econometrics*. Cambridge, Mass: MIT Press.
- [19] Levesque (2007). *SPSS Programming and Data Management: A Guide for SPSS and SAS Users*. SPSS Inc., Chicago.
- [20] Merriam, S. (1998). *Qualitative research and case study applications in education*. San Francisco.
- [21] Moore, David; George P. McCabe, Bruce Craig (2012). *Introduction to the practice of statistics*. New York: W.H. Freeman.
- [22] Noe, R. A., Hollenbeck, J. R., Gerhart, B., and Wright, P. M. (2006). *Human resource management: gaining a competitive advantage (6th ed.)*. Boston: MA: McGraw-Hill Irwin.
- [23] Pindyck, Robert S., and Daniel L. Rubinfeld (1998). *Econometric Methods and Economic Forecasts*. McGraw-Hill.

- [24] Powney, J. and Watts, M. (1987). *Interviewing in Educational Research*. London, Routledge and Kegan Paul.
- [25] Probability, econometrics and truth (2000). *The methodology of econometrics*. By Hugo A. Keuzenkamp Published by Cambridge University Press, ISBN.
- [26] Rudestam, K., and Newton, R. (2007). *Surviving your dissertation: A comprehensive guide to content and process (3rd ed.)*. SAGE Publications, Inc.
- [27] Sergey M. Avdoshin (2008). *Software Risk Management: Using the Automated Tools*. National Research University Higher School of Economics, Moscow, Russian Federation.
- [28] Silverman, David (Ed). (2011). *Qualitative Research: Issues of Theory, Method and Practice*. Thousand Oaks, New Delhi, Singapore: Sage Publications.
- [29] Taylor, S., and Bogdan, R. (1984). *Introduction to qualitative research methods: the research for meaning*. Canada: John Wiley and Sons.
- [30] Tombs, S. (1995). *Research methods for your dissertation*. Liverpool Business School, Liverpool John Morse University.
- [31] Vanany, I., Pujawan, N. (2009). "Supply chain risk management: literature review and future research. *Journal of Information Systems and Supply Chain Management*.
- [32] Velde, M., Jansen, P., and Anderson, N. (2004). *Guide to management research methods*. Malden: Blackwell Publishing Ltd.
- [33] Watkins, A. E.; Richard L. Scheaffer, George W. Cobb (2008). *Statistics in action: understanding a world of data*. Emeryville, CA: Key Curriculum Press.
- [34] Wood, P. (2005). Risk management off the shelf and into practice. *British Journal of Administrative Management*.
- [35] Wooldridge, Jeffrey (2003). *Introductory Econometrics: A Modern Approach*. Mason: Thomson South-Western.
- [36] Yin, R. K. (2009). *Case study research: design and methods*. California: Sage Ltd.