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ANALYSIS OF GEOPOLITICAL AND ECONOMIC THREATS TO THE PORT OF COLOMBO

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ABSTRACT - The port of Colombo is the main seaport in Sri Lanka which operates as a transhipment hub in South Asia. However, the various scenarios that have been favourable to the port of Colombo to date, not remain the same. Identifying the geopolitical and economic threats to the port of Colombo is vital to safeguard and plan its future. The general objective of this study is to identify geopolitical and economic threats to the Port of Colombo. Twenty-six variables were identified as threats to the port of Colombo and their impacts discussed through a literature survey. Explorative factor analysis and reliability analysis were conducted to get the result. Among twenty-six variables, twenty-three remain threats to the port. Results show three dimensions of threats : "Threats from operational aspects", "Threats from policy-making decisions", and "Threats associated with the Future". Finally, the study concludes that, with rising geopolitical and economic threats, port of Colombo may not raise Sri Lanka into a logistic hub in 2025.

Keywords: Port of Colombo; Threats; Geopolitical; Economic

1. INTRODUCTION

The port of Colombo plays a vital role as a major maritime seaport in South Asia mainly due to its geographic location in the East-West shipping route. Literature bears witness to the existence of the port of Colombo during the periods of ancient kings, and it was a famous port in the world since the 18th century; nicknamed "The Clapham Junction of the East", that was ranked as the seventh busiest port in the world. The port was of great interest to Western geographers, and it became a regular stopping point as an entrepot to the Indian subcontinent after opening the Suez Canal. An increase in the volume of world trade, tourism, communications, and traffic have underpinned the location of the port of Colombo on the East-West Sea route. Sea transportation is highly vulnerable to geopolitics. Both Panama Canal and Suez Canal provide evidence to geopolitical scenarios concerning sea transportation. Sri Lanka's government announced its maritime objective to become a logistics hub in South Asia by the year 2025. The Asian region is highly vulnerable to geopolitical and economic consequences, especially due to the activities and policy decisions of the two emerging powers India, and China. This research was conducted to identify arising geopolitical and economic threats to the port of Colombo and their impacts on Sri Lanka's maritime objective. According to literature, the following 26 variables were identified.

Table 4. Variables Identified from the Literature

No.	Questions	No.	Questions
Q1.	Largely handles only containerised cargo	Q14.	The rapid growth of the Indian economy
Q2.	Maritime sector liberalisation in the country	Q15.	Developments and the influences of the Chinese economy.
Q3.	The construction of the Colombo International Finance City (CIFC)	Q16.	Regional development in South Asia

Q4.	Environmental problems arise due to the Colombo International Finance City project	Q17.	Leasing CICT terminal to the Chinese government
Q5.	Oil Price Fluctuations	Q18.	Port of Hambantota after 10 years.
Q6.	Rupee Value Depreciation	Q19.	Port of Hambantota in terms of MSRI
Q7.	Policies and authorities change with the ruling party changes.	Q20.	Distance to the international sea
Q8.	The emergence of the port of Hambantota	Q21.	The Kra canal project
Q9.	Lack of sufficient investments to further development of the port sector.	Q22.	Sethusamudram project
Q10.	Expectations to increase the container handling volume	Q23.	Terrorist networks via sea transportation
Q11.	Indian port Expansion	Q24.	Warship arrivals
Q12.	The decision of the Indian government to relax cabotage	Q25.	Partaking in illegal drug transportation
Q13.	The disappearance of the port of Singapore.	Q26.	Human smuggling via sea transportations

Source: Created by the author

2. MATERIALS AND METHODS

Primary data were collected by mailing a questionnaire to logistics-related companies, university lecturers, and some undergraduates after conducting the pilot study survey. The judgment sampling method was used to identify respondents, where the researcher collects data or responds according to his or her judgment. In this research respondent's opinions were rated by using a Likert scale, which includes five options ranging from Strongly agree to strongly disagree. The expected sample size was 200. At the end of the period, 187 responses were collected. The research was conducted according to the following research strategy.

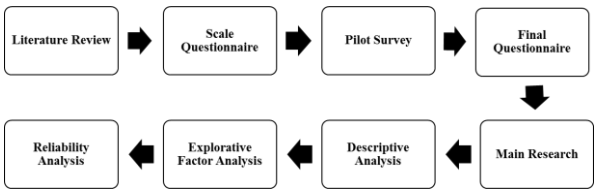

Figure 1. Research Strategy

Researchers used sample size and Kaiser-Meyer-Olkin (KMO) and Bartlett's Test to evaluate the suitability of the Data for EFA. In this study Principal Component Analysis (PCA) was used to extract the factors. Under the factor retention method, both rules of Cumulative Percentage of Variance and Scree Tests were conducted to obtain the results. Used Orthogonal Varimax/Quartimax rotational technique in this study as a rotational method. Cronbach's alpha test was used to measure the reliability. Cronbach's alpha is a common method used to assess the internal consistency of a multiple Likert-type scale questionnaire.

3. RESULTS AND DISCUSSION

Table 5. Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.93
Bartlett's Test of Sphericity	Approx. Chi-Square	7157.361
	df	325
	Sig.	0

The KMO (Table 2.) value was .930 which was greater than .5, was appropriated for PCA. The Bartlett test was significant ($p < .001$), which was good, and indicated that the correlation is not near zero.

Table 6. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	18.892	72.662	72.662	18.892	72.662	72.662	8.817	33.911	33.911
2	1.225	4.713	77.375	1.225	4.713	77.375	6.766	26.023	59.934
3	1.094	4.209	81.584	1.094	4.209	81.584	5.629	21.65	81.584
4	0.529	2.034	83.618						
5	0.476	1.831	85.448						
6	0.446	1.714	87.162						
7	0.43	1.654	88.817						
8	0.377	1.451	90.267						
9	0.346	1.329	91.596						
10	0.303	1.167	92.763						
11	0.246	0.945	93.708						
12	0.217	0.835	94.542						
13	0.209	0.802	95.344						
14	0.203	0.78	96.124						
15	0.158	0.609	96.733						
16	0.156	0.599	97.332						
17	0.125	0.481	97.813						
18	0.107	0.411	98.225						
19	0.105	0.406	98.63						
20	0.089	0.343	98.974						
21	0.072	0.279	99.252						
22	0.052	0.199	99.452						
23	0.043	0.167	99.618						
24	0.038	0.148	99.766						
25	0.033	0.126	99.892						
26	0.028	0.108	100						

Extraction Method: Principal Component Analysis.

The Total Variance Explained (The KMO (Table 2.) value was .930 which was greater than .5, was appropriated for PCA. The Bartlett test was significant ($p < .001$), which was good, and indicated that the correlation is not near zero.

Table *6*.) shows that there were three components with initial Eigenvalues more than 1. The first component explained 72.66% of the total variance. The second and third components explained 4.713 and 4.209 of total variance respectively.

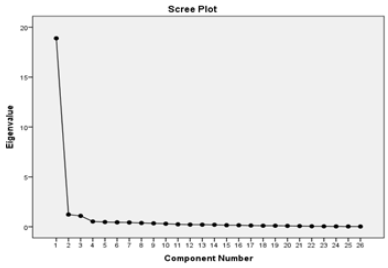

Figure 2. Scree Test Result

The Scree Plot (Figure 2) represents the initial Eigenvalues. Both the scree plot and the eigenvalues support the conclusion that these twenty-six variables can be reduced to three components. The scree plot flattens out after the third component. However, both the second and third components were very poorly defined, compared to the first component.

Table 7. Component Loadings for the Rotated Component

Variable	Component Loading			
	1	2	3	Communality
Q15	0.787			0.877
Q14	0.783			0.907
Q21	0.777			0.833
Q6	0.765			0.88
Q5	0.756			0.748
Q25	0.721			0.79
Q2	0.703			0.805
Q4	0.669			0.812
Q20	0.648			0.836
Q19	0.623			0.85
Q3	0.606	0.598		0.774
Q8	0.598			0.846
Q18	0.595	0.577		0.836
Q24	0.559	0.541		0.728
Q22	0.538			0.713
Q7		-0.75		0.75
Q17		-0.746		0.827
Q23		-0.718		0.823
Q26		-0.696		0.8
Q10	0.606	0.693		0.849
Q16		0.666		0.779
Q1		-0.652	-0.543	0.853
Q9			0.824	0.873
Q11			0.796	0.792
Q13			-0.714	0.802
Q12	0.58		0.617	0.827

Note. Loadings < .53 are omitted.

The above (Table 7.) displays the variables and component loadings for the rotating components, where loadings less than .53 were omitted to improve the clarity. All the questions that were highly loaded for

factor 1, related to port operations. Therefore, factor 1 was labelled as “Threats to the port operations”. All the questions that were highly loaded for factor 2 related to threats that emerge from policy decisions. Therefore, factor 2 was labelled as “Threats emerge from policy decisions. The rest of the questions highly loaded for factor 3 related to the futuristic threats. Therefore, it was labelled as “Threats associated with the future”.

4. CONCLUSION

The identified impacts of geopolitical and economic threats and most threats, have negative consequences for the port of Colombo. Therefore, amid rising geopolitical and economic threats, the port of Colombo, may not raise Sri Lanka into a logistic hub in 2025.

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