

Modelling the Sustainability of International Economic Relations and Supply Chain of the World States

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Abstract- Studying and monitoring the international cooperation zone allows us to take a fresh look at the integration processes in the system of world economic relations and answer the question about the nature and scale of international economic integration and globalization. This paper investigated the relationship between economy, supply chain management, international trade and international cooperation zone with mediation effect of international relations. The empirical basis of this study was the data of the state statistical service of the two largest economies in the Asia-Pacific region — the Republic of Korea and Japan. As part of the study, the task was set to conduct a comparative analysis of the system of international economic relations of the Republic of Korea and Japan.

Keywords; Export, Import, Foreign Trade, International Cooperation Zone, Core of the International Cooperation Zone, Japan, Republic of Korea

1. Introduction

International trade is the basis of modern international economic relations. The modern international trading system continues to evolve, create new forms and mechanisms of exchange. Therefore, interest in various aspects of international trade continues to be in the field of scientific interests of both foreign and Russian researchers. Back in the eighteenth century. An outstanding scientist, the founder of economics, Adam Smith, answering the question why countries participate in international trade, wrote: "If any country can supply us with any goods at a cheaper price than we can manufacture it, then it is much better to buy from it for some part of the product of our own labor, applied in that area in which we have some advantage"[1]. In modern international law enforcement practice, foreign trade is understood as trade between countries, consisting of the export and import of goods and services. Foreign trade is carried out mainly through commercial transactions drawn up by foreign trade contracts [2].

The Republic of Korea and Japan were not the subject of study. Both subjects of international economic relations belong to the type of states of the post-industrial development model, both economies are among the

leading in the world. Both the Republic of Korea and Japan occupy a significant position in world trade, are competitors in world markets for industrial goods, such as automobiles, sea vessels, electronics, industrial robots, petrochemical complex products, etc. [3]. Both states are approximately proportional in area. At the same time, both states are in approximately the same position with respect to dependence on external sources of raw materials and energy resources, which evens out their chances in competing with each other [4].

As can be seen from table 1, the global economic crisis had an adverse effect on the state of the national economy of both states, the consequences of which neither side has overcome so far. The volume of GDP of the Republic of Korea and Japan remains at a level lower than 2014, although the Republic of Korea looks somewhat more preferable than its island neighbor [5].

Table 1. Dynamics of GDP of the Republic of Korea and Japan (2014-2017)

Years	GDP trillion US \$		Growth rate % to the level of 2014	
	Republic of Korea	Japan	Republic of Korea	Japan
2014	1,486	4,970	100	100
2015	1,558	4,28	104,8	86,1
2016	1,420	4,81	95,5	96,8
2017	1,460	4,75	98,3	95,6

The data in Table 2 indicate some, although insignificant, advantage of the Republic of Korea over Japan in world trade.

Table 2. Share of the Republic of Korea and Japan in world exports and imports

Years	Share in the world export		Share in the world import	
	Republic of Korea	Japan	Republic of Korea	Japan
2013	3,0	3,8	2,7	4,4
2014	3,0	3,6	2,8	4,3
2015	4,0	3,8	3,3	3,9
2016	4,0	4,0	3,3	3,7
2017	3,2	3,9	2,7	3,7
2018	3,1	3,8	2,7	3,8

Let us consider in more detail the core of international cooperation relations of the Republic of Korea and Japan (Tables 3a and 3b).

2. Literature Review

Export of goods is the export of goods for sale on the foreign market. Import is the action by which goods are imported into the customs territory or which leads to the arrival of goods into the customs territory [6]. Together, exports and imports form foreign trade. Foreign trade, as it is known, is the main, although not the only, form of the country's participation in international economic relations. Although it is a basic indicator reflecting the nature of the country's participation in the system of international economic relations, nevertheless, taken by itself, foreign trade turnover does not allow to determine the quality side of international cooperation relations of the state participating in foreign trade, namely their stability [7].

Trade is the combination of imports and exports. Exports are trading the goods or services out from country. On the other hand import is to bring the goods or services in the country. Trade whether its national or international is all about the customer [8]. Customer are the back bone of any trade. The prime aim for any organization is timely deliverance of superior quality product to its customer as around the globe customer avoid to compromise not only at quality of the products but also timely deliverance. Organizations around the globe exploring more potentials in the supply chain management to overcome both quality and product delivery hurdles for a better organizational financial growth [9]. In this context firms are following agile supply chain for faster delivery of their product by achieving the minimum cost. Studies have witnessed that an effective supply chain management not only leads to success in global but also international e-markets. The prime aim of supply chain management is the exchange of goods and information among supplier and buyers and finally the end users. An effective supply chain management truly effect the national and international trade [10].

A sound-integration supply chain management is one of the serious concern for the organizations operating in the international trade. The increasing trend in global export is forcing the organizations to purify their supply chain management in order to enhance the product quality and timely deliverance of the product. It is also witnessed in export channel the management supply chain strategies varies according to the industry, firm size etc. [11].

[12] investigated the effect of supply chain and information linkage on supply chain and export performance proposed that there is a positive association between export and supply chain performance.

In such a competitive world organizations are investing more and more to explore the competitive edge. This competitive edge is the only way of survival in competition. Supply chain line effect the entire production line of the organization. Studies witnessed that in

developing countries less attentions are paid to supply chain section. An effective supply chain line enhance the organization production capacity for timely fulfillment of suppliers need.

From the data of tables 3a and 3b it can be seen that the weight of the core of the international cooperation zone of the Republic of Korea and Japan on export commodity flows is more than 60% of their total exports. However, in Japan, the share of states that form the core of the international cooperation zone is somewhat "heavier" than that of the Republic of Korea [13]. This circumstance indicates a greater relationship between the Japanese economy and the economies of its foreign trade partners of this group, but also a greater dependence on them [14].

Another observation worth noting. The gap between the maximum and minimum export figures for the Republic of Korea is 1.06 and 1.08 for Japan. Thus, the stability of export positions in the Republic of Korea is slightly higher than that of Japan [15]. The higher this indicator, the wider the gap between the maximum and minimum values, the more unstable, *ceteris paribus*, international cooperation relations of the state - object of study. Obviously, in the complete absence of volatility, this indicator is 1.00. In this case, we can talk about the absolute stability of the core of the international cooperation zone [16]. True, in a real situation, this state of affairs is unlikely and can be considered rather a theoretical abstraction.

In terms of import, the stability of the core of the international cooperation zone is less strong for both states. The gap between the maximum and minimum indicators is somewhat larger and amounts to 1.17 for the Republic of Korea and 1.15 for Japan. In other words, the stability of import positions is more stable in Japan than in the Republic of Korea.

At the same time, one can observe the strengthening of the Japan position in the system of international economic relations. Japan has stepped up its foreign economic activity in its traditional markets [17]. According to the Japanese Customs, with a total increase in Japanese exports of 16.79% in 2018 to the level of 2013 the share of the latter in Japan's export deliveries increased by 32.01% (lead coefficient 1.130).

The Republic of Korea has also strengthened its interaction with counterparty states of the core of the international cooperation zone in export commodity flows. According to the data of the customs service of the Republic of Kazakhstan, its total exports grew over the same period by 8.27%. Including 12.81%. The export activity of the Republic of Korea with the core states of the zone of international cooperative interaction increased [7]. With regard to imported commodity flows, the following trend is observed. The Republic of Korea maintains a positive trend in imports. With the growth of total imports of the Republic of Kazakhstan by 3.78%,

imports from the countries that are counterparties of its core international cooperation zone increased by 16.2% [18]. For Japan, the situation is as follows. Japan's total imports increased in 2018 to the level of 2013 by 1.84% imports from the states - counterparties of the core of the international cooperation zone 12.7 [19].

Thus, both states have intensified their interaction with states that are counterparties to the core of the international cooperation zone for both export and import. This trend indicates the desire to strengthen their cooperation and integration ties with partners. Moreover, priority is given to more stable trade relations [20].

If we detail the core structure of the international cooperation zone in individual countries, then the following pronounced features emerge. Both countries have a group of leaders whose share in trade is significant compared to other partner countries [21, 22]. For Japan, China, the United States and the Republic of Korea are both export and import. For the Republic of Korea, export leaders are China, the USA and Vietnam. By import - China, the USA and Japan [23].

It is important to note that the composition of the counterparty states of the Republic of Korea and Japan almost completely coincides, with the exception of three [24]. At the core of the international cooperation zone of Japan is Canada, which is not in the core of the international cooperation zone of the Republic of Korea. At the core of the international cooperation zone of the Republic of Korea, Australia and Singapore are present, which are not in the core of the international cooperation zone of Japan [25]. There are mix trends are reflecting in the table regarding export report of the japan. Moreover, Japan and the Republic of Korea are also part of the core of the international cooperation zone of each other [26].

Table 3a. The share of the states of the core of the international cooperation zone of Japan

Japan's export							
		2013	2014	2015	2016	2017	2018
1	Vietnam	1,4	1,6	1,9	2,0	2,0	2,2
2	Germany	2,6	2,7	2,5	2,7	2,7	2,8
3	Indonesia	2,3	2,1	1,7	1,7	1,9	2,0
4	Canada	1,1	1,0	1,2	1,1	1,2	1,2
5	China	18,1	18,2	17,5	17,5	18,9	19,4
6	Malaysia	2,0	1,9	1,8	2,0	1,8	1,8
7	Rep. Korea	7,9	7,4	7,0	7,1	7,5	7,0
8	USA	18,5	18,6	20,1	20,1	19,3	18,9
9	Taiwan	5,7	5,7	5,8	6,0	5,7	5,6

Japan's import							
		2013	2014	2015	2016	2017	2018
10	Thailand	5,0	4,5	4,4	4,1	4,2	4,3
	Total	69,8	69,1	64,0	64,3	65,2	65,2
1	Vietnam	1,6	1,8	2,3	2,5	2,65	2,8
2	Germany	2,8	2,9	3,1	3,4	3,4	3,4
3	Indonesia	3,4	3,1	2,9	2,8	2,9	2,8
4	Canada	1,4	1,3	1,3	1,5	1,6	1,4
5	China	21,6	22,1	24,7	25,7	24,4	23,2
6	Republic of Korea	4,1	4,0	4,1	4,1	4,1	4,2
7	Malaysia	3,5	3,5	3,3	2,7	2,8	2,4
8	USA	8,3	8,7	10,2	11,0	10,6	10,9
9	Taiwan	2,8	2,9	3,5	3,6	3,7	3,5
10	Thailand	2,6	2,6	3,1	3,1	3,3	3,2
	Total	52,1	52,9	58,5	60,4	59,4	57,8

Table 3b. The share of the states of the core of the international cooperation zone of the Republic of Korea

Export of the Republic of Korea							
		2013	2014	2015	2016	2017	2018
1	Australia	1,7	1,8	2,0	1,5	3,5	1,58
2	Vietnam	3,7	3,9	5,3	6,6	8,3	8,03
3	Germany	1,4	1,3	1,2	1,3	1,5	1,53
4	Indonesia	2,0	2,1	1,5	1,3	1,5	1,45
5	China	26,0	25,4	26,0	25,1	24,8	26,8
6	Malaysia	1,5	1,3	1,5	1,5	1,4	1,47
7	Singapore	4,0	4,1	2,8	2,5	2,0	1,93
8	USA	11,0	12,3	13,2	13,4	12	12,01
9	Taiwan	2,8	2,6	2,3	2,5	2,6	3,42
10	Thailand	1,4	1,3	1,2	1,3	1,3	1,4
1	Japan	6,2	6,1	4,8	4,9	4,7	5,

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					62,8		65,8
	Total	63,7	64	61,8	5	64,8	6
Import of the Republic of Korea							
1	Australia	4,0	3,9	3,8	3,7	4,0	3,86
2	Vietnam	1,4	1,5	2,2	3,1	3,4	3,66
3	Germany	3,7	4,0	4,8	4,6	4,1	3,88
4	Indonesia	2,5	2,3	2,0	2,0	2,0	2,07
5	China	16,1	17,1	20,6	21,4	20,4	19,9
6	Malaysia	2,2	2,1	2,0	1,8	1,8	1,9
7	Singapore	2,0	2,2	1,8	1,7	1,9	1,49
8	USA	8,0	8,6	10,0	10,6	10,6	10,99
9	Taiwan	2,8	3,0	3,8	4,0	3,8	3,12
10	Thailand	1,0	1,0	1,1	1,1	1,1	1,02
11	Japan	11,6	10,2	10,5	11,7	11,5	10,2
							65,3
	Total	57,5	58,9	65,5	67,8	67,1	6

The proposed hypotheses of the study are:

Hypothesis 1: There is positive association among economy trends and International Cooperation Zone.

Hypothesis 2: There is positive association among Supply Chain Management and International Cooperation Zone.

Hypothesis 3: There is positive association among International Trade and International Cooperation Zone

Hypothesis 4: International Relations has positive mediation among the links of economy and International Cooperation Zone.

Hypothesis 5: International Relations has positive mediation among the links of supply chain management and International Cooperation Zone.

Hypothesis 6: International Relations has positive mediation among the links of International Trade and International Cooperation Zone.

3. Research Methods

For the purposes of this study, the authors rely on a methodology developed by them that allows one to identify the stability of foreign trade relations of the state that is the object of study (hereinafter the state-object of study). Described in previously published works, it was

tested on the statistics of foreign trade of the Republic of Korea and Japan [27, 31].

The first group includes those states which, in terms of export and import in the goods turnover of the state - object of study, have a specific gravity of one or more percent; the second group includes countries that have a share of more than one percent only in exports or only in imports in the turnover of the state - object of study; the third group includes countries with a share of less than one percent in exports and imports in the turnover of the state - object of study, the fourth group includes countries with less than one percent in export or import of goods in the state - object of study and, do not participate in export or import turnover, respectively [28].

It is quite natural to assume that the first group of counterparty states is the most significant trading partner for the state - object of study, the second group of counterparty states is less significant than the first, but more significant compared to the third and fourth groups and so on in decreasing order.

Due to the prevailing division of labor and specialization of production, each state, the object of research, by trial and error, forms around itself an international cooperation zone. Under the international cooperation zone between the states - object of study, we mean a group of countries - counterparties with which it has a certain level of trade and economic ties. The international cooperation zone is heterogeneous in its structure. It can distinguish the core, center and periphery. The core is a group of countries, characterized by the most dense and stable trade relations with the state - object of study. Only those counterparties that fall into the first group should be included in the core of the international cooperation zone. A center is a group of counterparty states that have tight, but less stable trade ties with the state - object of study [9]. This group should include countries that fall into the second group. The periphery is a group of counterparty states with weakly expressed and unstable trade relations with the state - object of study. This includes states that find themselves in the third and fourth groups according to the selected evaluation criterion.

Based on the above methodology, it was possible to find out that both states - objects of study (the Republic of Korea and Japan) formed around themselves a stable core of the international cooperation zone ties [29]. For the Republic of Korea, it consists of eleven contracting states, for Japan, of ten. The next stage of the analysis is related to a comparative analysis of the core of the international cooperation relations zone of the Republic of Korea and Japan. For the quantitative analysis purpose a questionnaire method was adopted to collect the data from the respondents and around 750 questionnaires were distributed and only 510 were returned that was only 68.0 percent response rate. The economy trends (ET) has 15 items, supply chain management (SCM) has 10 items,

international trade (IT) has 4 items, international relation (IR) has 6 items and international cooperation zone (ICZ) has 5 items. These constructs are shown in Figure 1.

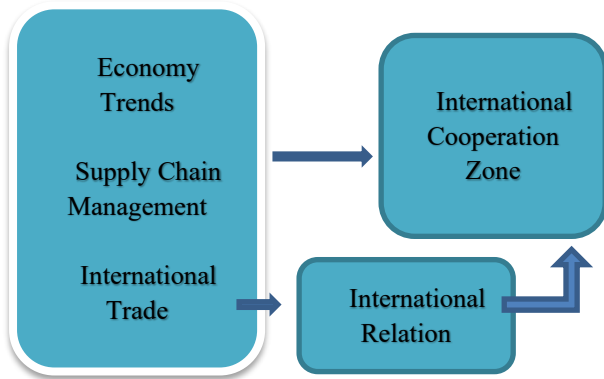


Figure 1. Theoretical framework

4. Findings

The first part of the findings show the relationship among the items and the figures show the high correlation among the items because loadings along with AVE are more than 0.50 while Alpha and CR are larger than 0.70 and these are shown in Table 4.

Table 4. Convergent validity

Items	Loadings	Alpha	CR	AVE
ET1	0.674	0.924	0.934	0.520
ET10	0.745			
ET11	0.669			
ET13	0.686			
ET15	0.690			
ET2	0.709			
ET3	0.730			
ET4	0.742			
ET5	0.737			
ET6	0.744			
ET7	0.699			
ET8	0.773			
ET9	0.766			
ICZ1	0.740	0.798	0.868	0.623
ICZ2	0.753			
ICZ3	0.837			
ICZ5	0.823			
IR1	0.897	0.878	0.909	0.626
IR2	0.848			
IR3	0.724			
IR4	0.671			
IR5	0.748			
IR6	0.836			
IT1	0.655	0.746	0.811	0.590

IT3	0.847			
IT4	0.790			
SCM1	0.738	0.908	0.922	0.543
SCM10	0.690			
SCM2	0.716			
SCM3	0.749			
SCM4	0.737			
SCM5	0.711			
SCM6	0.744			
SCM7	0.771			
SCM8	0.808			
SCM9	0.698			

The second part of the findings show the links among the constructs and the figures show the no high correlation among the constructs because Heterotrait Monotrait ratios are not higher than 0.90 and these are shown in Table 5.

Table 5. Heterotrait Monotrait ratio

	ET	ICZ	IR	IT	SCM
ET					
ICZ	0.709				
IR	0.549	0.762			
IT	0.243	0.344	0.406		
SCM	0.594	0.734	0.706	0.296	

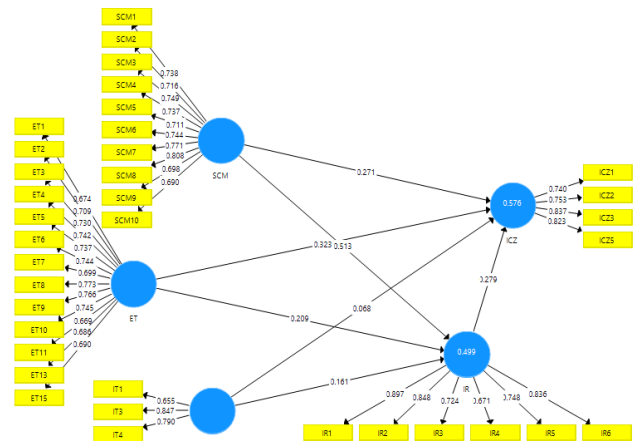
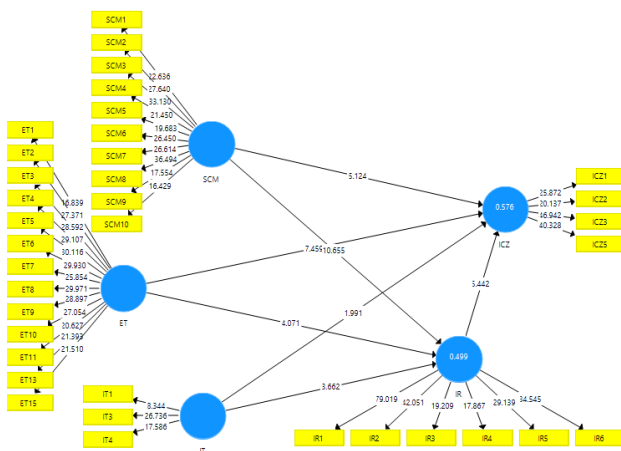


Figure 2. Measurement model assessment

The path analysis of the current article show that economic trends, supply chain management and international trade have positive association with the international cooperation zone and accept H1, H2 and H3. In addition, international relation has positive mediation among the nexus of economic trends and international cooperation zone, supply chain management and international cooperation zone, international trade and international cooperation zone and accept H4, H5 and H6. These figures are shown in Table 6.

Table 6. Path Analysis

	Beta	S.D.	t-values	p-values
ET -> ICZ	0.323	0.043	7.459	0.000
ET -> IR	0.209	0.051	4.071	0.000
IR -> ICZ	0.279	0.051	5.442	0.000
IT -> ICZ	0.068	0.034	1.991	0.047
IT -> IR	0.161	0.044	3.662	0.000
SCM -> ICZ	0.271	0.053	5.124	0.000
SCM -> IR	0.513	0.048	10.655	0.000
ET -> IR -> ICZ	0.058	0.017	3.442	0.001
IT -> IR -> ICZ	0.045	0.015	3.039	0.003
SCM -> IR -> ICZ	0.143	0.032	4.403	0.000

**Figure 3.** Structural model assessment

5. Discussions and Conclusions

The study allows us to draw the following conclusions: The Republic of Korea and Japan are active participants in international cooperation and integration processes in the Asia-Pacific region. Both participants in international economic relations formed around themselves a zone of stable cooperative ties. The core of the international cooperation zone of the Republic of Korea and Japan maintains its structure and stability, at least in the medium term.

The states - objects of study have formed a short run in foreign trade relations. Partner countries are geographically localized by Southeast and East Asia. Geographically, the core of the international cooperation zone of the Republic of Korea and Japan overlap each other, which allows us to talk about the existence of competitive relations between the two states.

It is known that trade brings the countries closer. In past there is a positive trend witnessed between the factors discussed in this study. From the received results we can see that there is a positive association between economy of the country and countries trade zone at international level [30]. It can also be seen that supply chain

management positively associates with international trade zone. There is also a positive trend between international trade and international cooperation zone. International relations positively mediates in the relationship between economy, supply chain, international trade and international cooperation zone.

In the context of above debate, different aspects have been seen which is not only endorsing the possible aspects of past studies but also related the researches with current study findings. It is also proposed in a number of investigations that supply chain management left a strong impact on the firm product quality and timely deliverance. Proper management of supply chain system will allow the export dealing organizations to grow their financial section by satisfying their clients by timely deliverance of required quality products. In this way the organization not only contribute in national but also international economy. A healthy trade bring closer the nations by building a zone. In this era the international economic relations of the nations based on trade between the nations. A fair trade leads to strengthen the relationships.

REFERENCES

- [1] G. Balabanis, Antecedents of cooperation, conflict and relationship longevity in an international trade intermediary's supply chain, *Journal of Global Marketing*, Vol 12, 2, pp. 25-46, 1998
- [2] C. L. Mann, Supply chain logistics, trade facilitation and international trade: a macroeconomic policy view, *Journal of Supply Chain Management*, Vol 48, 3, pp. 7-14, 2012
- [3] L. Ling-yee and G. O. Ogunmokun, Effect of export financing resources and supply-chain skills on export competitive advantages: implications for superior export performance, *Journal of World Business*, Vol 36, 3, pp. 260-279, 2001
- [4] S.-g. Hong, S.-w. Lee, and S.-j. Park, International Cooperation and the Logistics Market in Northeast Asia: Problems and Prospects for North Korea, *North Korean Review*, Vol pp. 39-55, 2014
- [5] P. Holimchayachotikul and N. Phanruangrong. A framework for modeling efficient demand forecasting using data mining in supply chain of food products export industry. in *Proceedings of the 6th CIRP-Sponsored International Conference on Digital Enterprise Technology*. 2010. Springer.
- [6] M. J. Ferrantino, Using supply chain analysis to examine the costs of non-tariff measures (NTMs) and the benefits of trade facilitation, Available at SSRN 1988245, Vol pp. 2012
- [7] A. Genovese, et al., Sustainable supply chain management and the transition towards a circular economy: Evidence and some applications, *Omega*, Vol 66, pp. 344-357, 2017
- [8] R. De Angelis, M. Howard, and J. Miemczyk, Supply chain management and the circular economy: towards the circular supply chain, *Production Planning & Control*, Vol 29, 6, pp. 425-437, 2018

- [9] F. Altemöller, Towards an international regime of supply chain security: an international relations perspective, *World Customs Journal*, Vol 5, 2, pp. 21-34, 2011
- [10] A. M. Janvier-James, A new introduction to supply chains and supply chain management: Definitions and theories perspective, *International Business Research*, Vol 5, 1, pp. 194-207, 2012
- [11] G. C. Mahata, An EPQ-based inventory model for exponentially deteriorating items under retailer partial trade credit policy in supply chain, *Expert systems with Applications*, Vol 39, 3, pp. 3537-3550, 2012
- [12] A. Alemanno, European food import safety regime under a stress test: The melamine contamination of the global food supply chain, *Erasmus L. Rev.*, Vol 3, pp. 203, 2010
- [13] J. Cotton, The Rajin-Sonbong free trade zone experiment: North Korea in pursuit of new international linkages, Vol pp. 1996
- [14] K. Govindan and M. Hasanagic, A systematic review on drivers, barriers, and practices towards circular economy: a supply chain perspective, *International Journal of Production Research*, Vol 56, 1-2, pp. 278-311, 2018
- [15] J. Moon and H. Lee, On the internal correlates of export stage development: an empirical investigation in the Korean electronics industry, *International marketing review*, Vol pp. 1990
- [16] L. Busch, Performing the economy, performing science: from neoclassical to supply chain models in the agrifood sector, *Economy and Society*, Vol 36, 3, pp. 437-466, 2007
- [17] V. Mani, A. Gunasekaran, and C. Delgado, Enhancing supply chain performance through supplier social sustainability: An emerging economy perspective, *International Journal of Production Economics*, Vol 195, pp. 259-272, 2018
- [18] F. Taniguchi, The Economic Outlook for Textiles and Clothing in the 1990s: Developments in the Textile and Clothing Industry in Japan, *Journal of the Textile Institute*, Vol 82, 2, pp. 195-202, 1991
- [19] S. H. Jeh, Russian Far East development and directions for improvement in Korean-Russian cooperation: Korea's perspective, in *International cooperation in the development of Russia's Far East and Siberia*. 2015, Springer. p. 144-163.
- [20] M. Ke, Constructing Path of China's Tumen (Hunchun) International Cooperation Demonstration Area and Cross-border Economic Cooperation Zone, *Around Southeast Asia*, Vol 9, pp. 12, 2013
- [21] L. Jianwen and L. Xiaohua, Prospects, Problems and Countermeasures of Building China-Vietnam Cross Border Economic Cooperation Zone in Guangxi [J], *Around Southeast Asia*, Vol 6, pp. 2010
- [22] M. Xia and S. Caicen, China-Egypt Suez Economic and Trade Cooperation Zone: New Oasis on "The Belt and Road", *West Asia and Africa*, Vol 2, pp. 9, 2016
- [23] J. K. Sebenius, Challenging conventional explanations of international cooperation: negotiation analysis and the case of epistemic communities, *International organization*, Vol 46, 1, pp. 323-365, 1992
- [24] B. Baker, Law, Science, and the Continental Shelf: the Russian Federation and the promise of Arctic cooperation, *Am. U. Int'l L. Rev.*, Vol 25, pp. 251, 2010
- [25] G.-b. LIU and Y.-h. DU. On the Ties of Northeast Asian Silk Road: Strategic Thinking of the Construction of Tumenjiang Region (Hunchun) International Cooperation Demonstration Zone [J]. in *Northeast Asia Forum*. 2014.
- [26] K. Momaya and K. Selby, International competitiveness of the Canadian construction industry: a comparison with Japan and the United States, *Canadian journal of civil engineering*, Vol 25, 4, pp. 640-652, 1998
- [27] A. N. Mustafin, S. N. Kotenkova, A. Shlyakhtin, R. Kotulič, I. Kravčáková Vozárová, & E Benková, The governance of innovation in industrial enterprises. *Polish Journal of Management Studies*, 20. 2019.
- [28] L. E. Jraisat, Information sharing in an export supply chain relationship: The case of the Jordanian fresh fruit and vegetable export industry. 2010, Brunel University Brunel Business School PhD Theses.
- [29] Z. Pastuszek, The philosophy of supply chain management in the new economy: net readiness in the net supply chain, *Managing Global Transitions*, Vol 2, 1, pp. 15, 2004
- [30] W. H. Organization, Immunization supply chain and logistics: a neglected but essential system for national immunization programmes: a call-to-action for national programmes and the global community by the WHO Immunization Practices Advisory Committee, Geneva, Switzerland, March 2014. 2014, World Health Organization.
- [31] R. R. Young, Managing residual disposition: Achieving economy, environmental responsibility, and competitive advantage using the supply chain framework, *Journal of Supply Chain Management*, Vol 36, 4, pp. 57-66, 2000