

# Effect of World Economy Globalization and Supply Chain Upon Socio-Economic Processes at the National Level

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**Abstract-**This study investigate the relationship between economy at national and international level, supply chain management system and socio economic process. In this article, we consider the effect of world economy globalization upon socio-economic processes at the national level. We define a set of qualitative attributes of globalization, such as essential growth of international economic relations, national markets' price leveling, the arrival of investment resource in world markets, creation of a single world finance infrastructure, and the advent of a distinct economic constituent in the activities of international political and military organization. This research is aimed at forming a system of quantitative parameters, which can be assigned to the attributes above, as well as revealing globalization effects on socio-economic development either at national or regional levels, since many contemporary works consider globalization and regionalization as a dialectical process consisting of two indissolubly united parts. Besides, the tasks of the research include the forecast of some tendencies towards globalization effects on the development of national economy by monitoring the formed system of parameters.

**Keywords:** World Economy; Globalization; Economic Processes; National Level; Nation

## 1. Introduction

Referring to the above-mentioned case study, the purpose of the research is aimed at forming a system of quantitative parameters as well as revealing globalization effects on socio-economic development either at national or regional levels, since a lot of contemporary works consider globalization and regionalization as a dialectical process consisting of two indissolubly united parts. Besides, the tasks of the research include the forecast of some tendencies towards globalization effects on the development of national economy by monitoring the

formed system of parameters [1-6].

**Table 1.** Share of a leading trade partner in a cumulative foreign trade turnover of the country, (%)

Country	The earliest available year			1900		1998	
	Year	Partner	Share in foreign trade	Partner	Share in foreign trade	Partner	Share in foreign trade
Argentina	1864	England	20	England	24	USA	8
Australia	1890	England	69	England	55	Japan	20
England	1696	USA	9	USA	18	Germany	11
Canada	1872	England	50	USA	48	USA	77
China	1868	England	36	Hong Kong	43	USA	17
France	1845	USA	15	England	22	Germany	16
Germany	1880	England	14	England	15	England	10
India	1840	England	61	England	56	USA	15
Indonesia	1820	Holland	52	Malaysia	16	Japan	20

Italy	18 61	Fran ce	31	Engl and	17	Ger man y	28
Japan	18 73	Chin a	30	USA	23	USA	28
Hollan d	18 46	Engl and	21	Ger man y	23	Ger man y	18
Russia	18 45	Engl and	39	Ger man y	60	Ger man y	8
Spain	18 49	Engl and	22	Engl and	23	Fran ce	19
Swede n	18 32	Ger man y	17	Engl and	38	Ger man y	14
Switze rland	18 85	Ger man y	29	Ger man y	28	Ger man y	29
USA	17 90	Engl and	16	Engl and	30	Can ada	20
DI <sub>20</sub>	0.706		0.824		0.294		
DI <sub>30</sub>	0.471		0.353		0.059		
DI <sub>50</sub>	0.235		0.176		0.059		

At the same time historical data concerning the level of global economy diversification testify to its low rate. Both in the 19th and in the beginning of the 20th century's groups of mutual influence totaled the maximum number of participants with the most typical bilateral and trilateral relations. Interestingly, the domination of one of the countries in foreign trade (Great Britain – in a historical context and the USA – in contemporary global economy), does not exercise appreciable (observable) influence on the diversification level of foreign trade, which is quite an important fact since this indirectly testifies that globalization primarily becomes apparent in strengthening different countries interdependence on each other, rather than in absolute domination of one of the countries (presumably either the USA or European Union countries, as superstates). The state statistics bodies of different countries provide quite detailed information on the given parameter in a wide enough temporary range so that it makes it possible to study and compare the pre-globalization period and the contemporary situation. The parameter calculations of eight states belonging to different economic-geographical regions and with different approaches to socio economic policies for the period of 1975 – 2005 are given in Fig. 1.

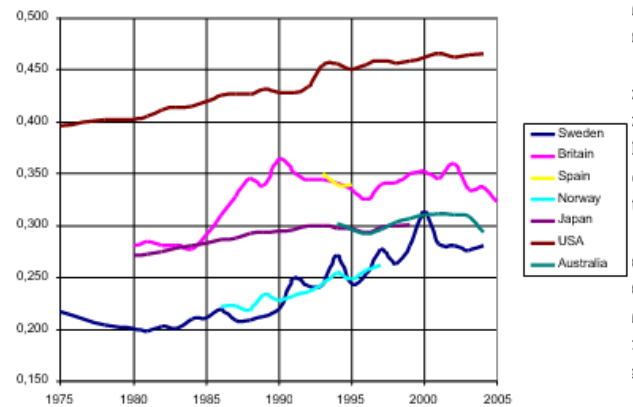


Fig. 1. Jinni index change tendencies

The greatest degree of disparity, which is determined by taxation policy, the most liberal for entrepreneurship, corresponds to the USA. The least degree corresponds to the Scandinavian countries, Sweden and Norway, with their socially-directed economies close to a socialist model, especially if it concerns the 1970s through 1980s. Great Britain, Japan, and Australia take an intermediate position between these poles. Russia and the majority of Latin American countries, which are not shown in the diagram owing to rather limited content of historical information, are characterized by a high degree of disparity close to the USA, which, apparently, is caused by a high degree of social division during the period of economic transformation. Unfortunately, the official national statistics bodies do not provide data on Jinni index, whereas the corresponding data from the World Bank, according to which the level of disparity in Ukraine makes 0,226, which corresponds to the social economy of Sweden of the mid 1960s, cannot be regarded as authentic.

There are number of factors in a country that effect its economy like political, social, socio-economic etc. In this investigation we will discuss the relationship between any country economy, supply chain, international economy and socio economy process. First of all it's needed here know the socio-economic process. [7] by investigation the relationship between socio-economic factors and consumer business and proposed that there are five factors attached with socio-economic like age, gender, education, income and internet exposure. Furthermore proposed that education, income and exposure on the Singapore country predicts the rate of e-commerce adoption business.

[8] studied that the world economy effect the socio economic process of any country. Trade between the countries brings closer the nations. In the results of trade the countries have positive or adverse effect on each other. The effect either can positive or negative. In case of import and export: the export country economy section based on the response showed by the importing country. If there is good trade between nations there will be positive association but on the other hand if importing countries shows some strict policies then these policies and response

will effect the exporting country economy. This effect on exporting country economy will spread its effect from top to bottom. There are a number of individuals attached with the import and export industry. This effect will hit all those people working in this circle. The fluctuating nature of the parameter studied is generalized in Tab. 2, where the main frequencies of this parameter's fluctuations determined with the spectral analysis of dynamic curves shown in Fig.1 are given.

**Table 2.** Duration of main economic cycles for different countries determined by Jinni index, years

	Sweden	England	Norway	Japan	USA	Australia
1 <sup>st</sup> frequency	13	13	11	10	13	10
2 <sup>nd</sup> frequency	9	2	6	6	9	4
3 <sup>rd</sup> frequency	3	3	4	4	6	3

It is evident that in most cases the main economic cycles determined by Jinni index coincide in duration with the fifth Kondratiev's wave semi-cycle (reducing wave) determined for the period of 1969-to the present.

## 2. Literature Review

As evidenced by the analysis, countries with socially-directed economy, which, like Norway, are even not the members of large economic-political unions, are pressured by the dominant of global trade, i.e. the USA and the leaders of EU countries (Great Britain). It is shown by the fact that a disparity level in these countries grows much faster, than in dominant-countries despite the rigid socially-directed taxation policy. However, it is necessary to pay attention to that the fact, that such a model of behavior is only fulfilled in case when the main frequencies of business cycles, determined by Jinni index, coincide. In the case of Sweden and the USA not only the first, but also the second frequencies of macroeconomic cycles coincide. For Japan, on the contrary, where their own frequencies of cyclic processes differ from the USA, any essential changes in the characteristics of property inequality are not observed. It is necessary to note that it turns out this way in spite of the fact that Japan is one of the largest external economic partners of the USA (see Tab. 1) and a system of the international distribution of labor between those two countries has been developed [9, 10].

Moreover, curve superposition for the USA and Sweden on Jinni index proves the fact that there is a resonance in mutual influence of cyclic processes in the socio-economic area – the amplitude of fluctuations of Jinni index has been growing significantly since the beginning

of the 1990s while the character of the corresponding curve for Japan practically does not change [11]. The tendency towards accelerating macroeconomic cycles at a national level, which is obviously traced during the whole period of Kondratiev's cycles observation, i.e., for the period from the end of 1780s to the present, inevitably will result in alignment of the reference frequencies of these fluctuations that, in its turn, will cause removal of all barriers in the way of creating common free resource markets, which are controlled by the same laws. In the strict sense, the important processes of increasing mutual influence of national economies are also connected to the convergence of the second and third frequencies of macroeconomic cycles, which becomes apparent not only from the data on Jinni index, but also from other data.

The social conditions also have strong effect on the economy. Along with other factors, if any country societal conditions are stable that will attract the international business in the country. The social conditions having positive association with business and economy of both national and international.

There is an association proposed between the socio-economic condition and world economy. The economic condition of any country always has the effect from country socio-economic condition. There is a sustainability needed in socio-economic in order to bring stability in the economy. These socio-economic conditions not only national but also at international effect the economy. Where there is business supply chain definitely exist. In the modern world the term supply chain is gaining importance with the passage of time. Whether the business is at national or international level will deals with supply chain. As the trade is about export and import. The firms operating in products productions for export knows the importance of a proper supply chain management system. The entire production process has the effect of any change in the supply chain management system.

Thus, the creation of large groups of mutual influence taking place in the last one and a half decades can be referred to the main prerequisites of the world globalized economy, while the maximal convergence of dynamic processes' frequencies at the macroeconomic level, which has also been observed recently in the course of accelerating cyclic development, is a sufficient condition of irreversibility and completeness of this process [12]. Hence, it makes it possible to predict for the future not only the diversification level growth of foreign trade activities and, correspondingly, the reinforcement of interdependence of global economic participants, but also the rapid formation of varied common resource markets, despite whatever welfare barriers [13-16]. Ukraine is also a participant in the given tendency since the parameters of oscillatory processes within the framework of its national economy, determined through a number of socio-economic factors, also come nearer to the parameters of

international cycles. However, the analysis of these processes can be examined as a direction for further research, since the cyclic processes in the national economy, which are under the influence of economic system transformation, have their own unique features [17, 18].

Thus, if the diversification indicator is calculated with a share in 20 % (DI20), this indicator meets a hypothesis that compact groups of dependency and influences, which have been usual in global economy, total 5 participants, 30 % share (DI30) corresponds to a three-group-participant hypothesis. At last, 50 % indicator (DI50) shows minimal trade diversification, when an interdependence group has only 2 participants. It is not only the rate of indicator conforming to the certain period of time, but also the difference between DI20, DI30 and DI50 values, as well as a degree of DI20 proximity to unity [19].

These parameters are characterized by “accrual speed” and “the limit” of diversification of foreign trade, i.e. capability of the tendency to expand the geography of foreign economic relations and limiting the number of participants in compact groups of mutual influence. At small and approximately constant accrual speed of diversification and DI20 value proximate to unity; it is safe to conclude that in conditions when the groups with the limited number of participants dominate it is typical for an individual country to participate in multilateral relations. Besides, under such circumstances small groups of two, three, and five participants are equally probable. At a significant difference between DI20, DI30 and DI50 and its essential changes it is possible to make a conclusion that the groups of mutual influence containing a large number of participants are most likely to appear. Finally, the essential difference of DI20 value from unity will testify that quite extensive groups of mutual influence containing more than five participants are typical for global economy, while compact groups of two or three participants are a disappearing tendency [20, 21].

Some particular economic calculations were conducted basing on the data published in the edition of *The Economist* where the economic results of the 20th century are summarized. These data contain a portion of leading foreign trade partners from seventeen countries for different periods, see Tab. 1. The data are especially valuable as the newspaper analysts managed to collect information from quite a remote period, which makes the results of the analysis on the basis of a diversification index rather representative [22-26]. However, at present DI20 index is not comprehensive enough in order to deliver the factual level of diversification in full, as its value is much less than unity [27, 28]. Calculations of DI10 value made following the data in Table 1 give the value of 0,882, which means that in contemporary global economic conditions the groups of mutual influence consisting of ten and more participants are most typical

[25]. The former conclusion is rather an important argument against the ant globalists’ political theses, which accuse the USA and the richest EU countries of imperialism, dictatorship, etc. However, from the economic point of view strengthening of mutual dependence of separate states in view of cyclic development cannot be regarded as a positive effect [26, 27]. The level of global economic uncertainty, which is directly connected to strengthening interdependence, has essentially risen for the last ten to fifteen years, which becomes apparent in the opportunity of “penetrating” crisis affects through absolutely insuperable earlier geopolitical barriers. The direct illustration in favor of such a conclusion is the impact of the Asian crisis of 1998 on the Russian and Ukrainian economies.

Hypotheses derived from the study are as under:

**Hypothesis 1:** These is positive association among world economy and socio-economic process.

**Hypothesis 2:** These is positive association among supply chain and socio-economic process.

**Hypothesis 3:** These is positive association among national economy and socio-economic process.

### 3. Research Methods

Different researchers tend to interpret these effects in a different way. Sometimes the interpretation of such effects has been changing in short periods of time. Various specialists will in general decipher these impacts in an alternate way. Here and there the understanding of such impacts has been changing in brief timeframes.

Along these lines, it is important to develop a quantitative estimating instrument basically for the quantitative trait of the world economy globalization. It is felt that such an estimating instrument is to be an enhancement, which characterizes the world exchange structure. This pointer can be determined as a proportion of various accomplice nations participating on exchange exercises whose share altogether outside exchange turnover surpasses the fixed level towards the aggregate sum of nations analyzed. For all intents and purposes, this pointer is the proof of how close the contacts and connections among accomplices on remote exchange exercises are. A significant level of the broadening marker delineates that there is a solid opportunities for the nations taking an interest in outside exchange exercises to break into reduced gatherings of a few members. A fixed degree of an offer in an all-out outside exchange turnover among such nations determines the size of a minimal gathering inside which it is conceivable to anticipate the nearest contacts and reliance.

The method that is adopted by the existing study to collect and process the data is the quantitative method and questionnaires were used to gather the data from the respondents. For the purpose of data collection, firstly get the permission from the relevant authorities by providing

the appropriate grounds that there data should be kept secret and used only for the study purpose. After getting the permission, through personal visit around 410 questionnaires were sent and 290 were returned and used for analysis by using the PLS-SEM. The world economy (WE) has 12 items, supply chain (SC) has 9 items, national economy (NE) has 6 items and socio-economic process (SEP) has 5 items. These variables are shown in Figure 2.

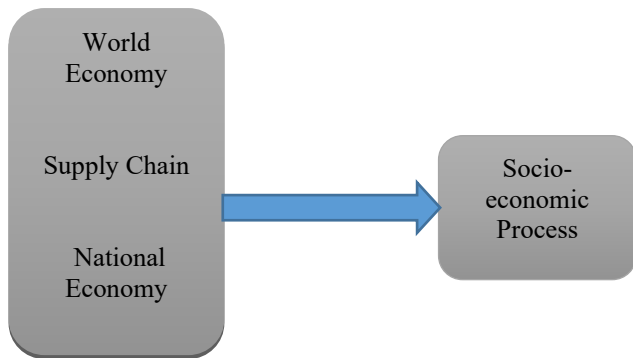


Figure 2. Theoretical framework

4. Results and Discussion

The findings exposed the valid convergent validity related to the association among the items that means items are highly correlated and measure the same constructs that is necessary for the measurement model validity because the loadings are larger than 0.50, the values of AVE are also more than 0.50, the values of Alpha are not less than 0.70 and CR values are also not smaller than 0.70. These are highlighted in Table 3.

Table 3. Convergent validity

Items	Loadings	Alpha	CR	AVE
NE1	0.868	0.845	0.889	0.618
NE2	0.734			
NE3	0.718			
NE4	0.787			
NE6	0.813			
SC1	0.697	0.895	0.913	0.539
SC2	0.654			
SC3	0.734			
SC4	0.769			
SC5	0.761			
SC6	0.740			
SC7	0.771			
SC8	0.784			
SC9	0.687			
SEP1	0.739	0.798	0.868	0.623
SEP2	0.751			
SEP3	0.838			

SEP5	0.824			
WE1	0.766	0.920	0.932	0.532
WE10	0.710			
WE11	0.738			
WE12	0.753			
WE2	0.692			
WE3	0.694			
WE4	0.710			
WE5	0.704			
WE6	0.696			
WE7	0.800			
WE8	0.784			
WE9	0.696			

The results exposed the valid discriminant validity related to the relationship among the constructs that means constructs are not highly correlated that is necessary for the measurement model validity because all the ratios of Heterotrait Monotrait are lower than 0.90. These are highlighted in Table 4.

Table 4. Heterotrait Monotrait ratio

	NE	SC	SEP	WE
NE				
SC	0.732			
SEP	0.774	0.747		
WE	0.538	0.588	0.689	

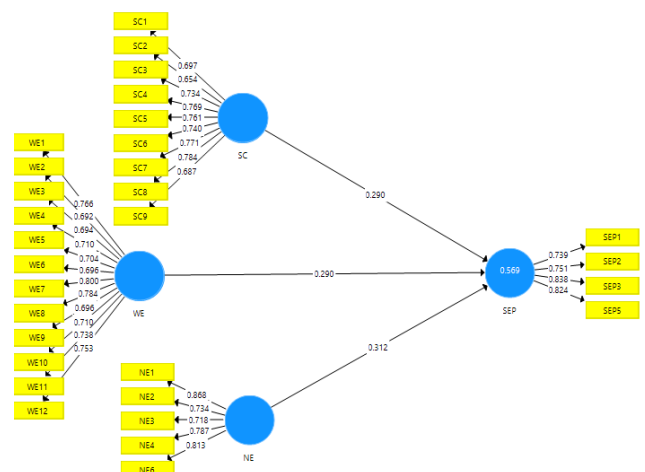


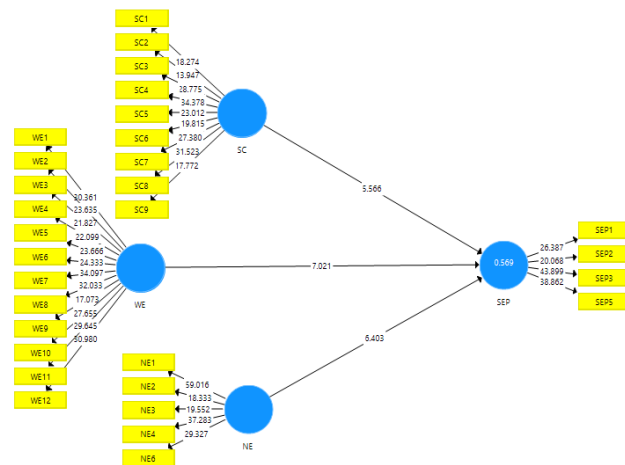
Figure 3. Measurement model assessment

The regression analysis indicated that positive association among the world economy and socio-economic process, supply chain and socio-economic process, national economy and socio-economic process and accept H1, H2 and H3. In addition, if one unit increase in world economy, the socio-economic process will also increase by 0.290 and vice versa. Moreover if one unit increase in supply chain, the socio-economic

process will also increase by 0.290 and vice versa. Finally, if one unit increase in national economy, the socio-economic process will also increase by 0.312 and vice versa. These stats are mentioned in Table 5.

**Table 5.** Path analysis

	Beta	S.D.	t-values	p-values
NE -> SEP	0.312	0.049	6.403	0.000
SC -> SEP	0.290	0.052	5.566	0.000
WE -> SEP	0.290	0.041	7.021	0.000



**Figure 4.** Structural model assessment

## 5. Conclusion

At last, the effect that national and international economy left on socio economic process can be summarized as under:

1- Dissimilar what is normally supposed, especially at political research procedures level, globalization becomes evident through fortifying the relationship of various countries as opposed to through undeniable mastery of one of the nations or a number of nations firmly connected financially and strategically;

2- Strengthening international financial system brings about the development of general vulnerability, both in the worldwide economy and at economic system level;

3- The dynamic associations between cyclic procedures in national economies of those nations which are involved into enormous groups of common impact are the wellspring of increase uncertainty in the worldwide monetary framework;

4- The shared impact and reliance of the state – members of the world financial procedures become clear in a lot more noteworthy degree if the oscillatory parameters of their national economies agree, consequently, affinities/differentiations between these parameters decide a chance of making a typical free market zone.

International economy effect by a number of factors. The socio economic process also has effect from any changes in the national economy. Another factor which influence is supply chain process between the nations. Supply chain is an important factors through the world in business section.

Although the factors like national and international economy studies a number of times with the social economic factors. This study check the relation with the intervention of supply chain management system. The results proposed that there is a positive association between national and international economy. Furthermore supply chain management system also has a positive relationship with socio economic process.

More studies on economy, supply chain and socio economic process are need in order to support the findings of this investigation.

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