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Chapter 11

Optimizing Global Value Chain Activities by Diagonal Cumulation of Origin

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Additional information is available at the end of the chapter

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1. Introduction

The pace and scale of contemporary globalisation is unprecedented. One reason for the speeding-up of the globalisation process is the emergence of global value chains (GVCs). First theoretical aspect, important for our research in this paper, is *the framework of GVCs analysis*. One of the four dimensions that are being explored by GVCs methodology is *the institutional context*[1] in which the industry value chain is embedded [1]; the institutional context identifies how local, national and international conditions and policies shape the globalization in each stage of the value chain. The second important theoretical aspect for our research is *the institution-based view of international business strategy (IBS)*, which is argued to be, besides industry- and resource-based views, one of the three leading perspectives in international business strategy [2]. According to the institution-based view of IBS, which has been influenced by the North's [3] metaphor on institutions as being the "rules of the game", the researchers explore the topics, such as entry decisions, foreign direct investment strategies and diversification decisions. The third important theoretical aspect for our research is the Dunning's [4] *OLI paradigm* of a firm's international expansion. According to this paradigm, besides ownership-specific and internalisation advantages, the international expansion of a firm and its competitive performance are based also on exploitation of *the location-specific advantages.* The location-specific advantages affect the attractiveness of a given country or region for companies either in the role of the host or home location for their activities. As part of the institutional context and the specific location advantages are also institutional incentives of regional economic integrations.

[1] The other three dimensions are: (1) an input-output structure, which describes the process of transforming raw materials into final products; (2) a geographical consideration and (3) a governance structure, which explains how the value chain is controlled [1].

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1.1. Research aims and methodology

In dynamic international business context market knowledge is viewed as a key ingredient of companies' competence to effectively manage their international operations. As key knowledge is usually experiential in its nature, firms differ in their capabilities regarding the understanding and application of this knowledge in their business processes and operational procedures [5, 6]. As note Kogut and Zander [7], a key added value of knowledge for firms is derived from the proper alignment of their strategic and operational activities with contextual and institutional requirements in each country market in which they operate. Transaction costs optimization resulting from the utilization of location specific advantages is seen as companies' important competitive driving-force for their internationalization processes. Exploiting various institutional incentive mechanisms in their strategies can be thus an important step for strengthening their competitiveness, when the value of such institutional initiatives for their competitive positions and business performances is properly recognized by managers and then integrated into their strategic and operational decisions.

In this paper we explore how companies could take advantage of *the SAP+ diagonal cumulation of origin* as a supranational institutional mechanism – European Union's (EU's) Common Commercial Policy instrument - in order to improve their business performance. We show how they could optimize their cost structure by integrating this form of cumulation of origin into their strategies for GVC configuration. In the theoretical part we discuss the concept and economic effects of Rules of Origin (RoO), the characteristics of diagonal cumulation of origin schemes in the EU, the importance of SAP+ diagonal cumulation of origin for foreign investors and trade growth of Western Balkan Countries (WBCs) and introduce the origin management as a part of companies' strategic and operational decisions in designing and implementing their cross-border business operation. In the second part we analyse the existent trade patterns in the proposed SAP+ diagonal cumulation zone with the emphasis on the EU-WBCs trade. In the third part we present the possible effects of the SAP+ diagonal cumulation on company's performance by a case study approach. The latter comprises the calculations of the effect of import duty allowances on export prices for two selected products of a Slovenian company's production programme in its affiliation in Serbia. On the basis of summaries of these calculations we present the importance of RoO for cost optimization of companies' GVC activities and the necessity to conduct *the trade intelligence database and origin management* to enjoy the advantages of this institutional mechanism.

1.2. The hypotheses

Our research is based on two hypotheses:

H_1: In order to exploit available institutional incentive mechanisms the optimization of company's business performance should be put into a proper institutional context of a specific country or region as it is dependent on strategies for product components physical flows optimization.

H_2: The diagonal cumulation of origin is an important institutional incentive mechanism that drives company's transaction cost optimization when the origin management is conducted in the company.

The basic assumption of our research is that company can optimize processes and cost structures of its GVCs, if managers know and understand how the diagonal cumulation of origin as the institutional incentive can affect the company's business activities and respond properly.

2. Theoretical backgrounds

2.1. Institutional perspective and value chain optimization

With increased dynamics of international business environment strategic and operational aspects of company's international operations have been broadened, as crafting an effective strategy for world markets requires a better understanding of how far a firm can effectively leverage its domestic advantages for developing a strong competitive position in international markets [8]. A company should continuously align its internationalization strategy in order to optimize the use of its key sources for achieving competitive advantage and optimize its performance in variety institutional settings. For achieving a sustainable competitive advantage, a company should carefully design its geographic scope of operations as the spatial configuration of its assets, capabilities, and resources together with the ability to effectively manage them is a key part of its global strategy. International business performance of a company should be observed on an integrative way by considering institutional perspective of its international business activities together with the industry to which a firm belongs and resource-based perspective. According to the institutional view of international business, institutional factors affect the attractiveness of a given country or region for a company [4] in its dual role, either as a host country or a home location for its business activities. Since company's capabilities are seen as a dynamic concept based on processes that are embedded in a firm [9], a company could take advantage of, for example, opportunities of offered duty reductions, if managers will be able to align the operational *processes* and *procedures* in a way, that the firm will be awarded a status of eligible beneficiary of such institutional incentives. To develop a proper business context by which a company will be able to provide all necessary evidence of its eligibility status, both, objective and experiential knowledge are required.

With such perspective we broaden a traditional institutional view of international business, based on company's effort to comply with institutional restrictions and barriers in a foreign country with the option that it may also take advantage of institutional incentives that are available in foreign countries.

2.2. The concept of Rules of Origin

The concept of rules of origin (RoO) is one of the building blocks of implementing the foreign trade policy provisions of any regional economic integration (REI). Based on the

origin of goods, products being traded with non-member countries remain subject to a preferential or non-preferential treatment when entering REI. The goods with preferential origin can benefit from a reduction or exemption of customs duties and, eventually, they can enter a REI without non-tariff barriers. The goods with non-preferential origin, however, are subject to tariffs and non-tariff barriers.

Rules of origin specify that only products entirely produced in one country, using only materials from that country, or products, which have been treated in a regulated way in that country, can be regarded as originating products [10]. These products are eligible to benefit from preferential treatment under a free trade agreement (FTA) or under the General System of Preferences (GSP) (autonomously granted preferences). Such goods (components, parts, final products) must fulfil the relevant conditions laid down in the origin protocol to the FTA or in the rules of origin of the autonomous arrangements. They must either (1) be manufactured from raw materials or components which have been produced in the beneficiary country or, alternatively, (2) undergo a certain amount of working or processing in the beneficiary country. Explicit rules of origin set out the least amount of working or processing required on non-originating materials in order for the resulting goods to obtain the originating status.

For a better comprehension of the mechanism of RoO and its form "cumulation of origin", we make a practical explanation of their significance and impacts. The rules of origin set in a FTA between A and B are designed to prevent trade deflection, which would happen if, for example, the third party (C) would try to export to B via A, since A implements lower tariffs. Therefore, the exporters to A and B need to prove intra-FTA originating status in order to obtain a reduced or free customs duty access to each other's market. If, for example, A and C sign a similar FTA as do countries A and B, both goods – goods originating in B and goods originating in C would have preferential access to country A. However, goods produced in B, using intermediates from C, which do not meet the rules granting originating status for exporters from B (according to the rules applied between A and B), would then be subject to non-preferential status when exported to A. Hence, goods directly exported from C to A would be granted preferential access, but goods exported from B using intermediates from C in this case would not be granted preferential access [11]. A means of overcoming this is to allow for cumulation of the use of materials or processes across countries with parallel or overlapping FTAs. *Cumulation of origin* therefore exists in order to encourage the use of materials and processing within the FTAs while maintaining a common standard for treating third country non-preferential inputs (identical protocols on rules of origin). Three types of cumulation are identified in the literature: bilateral cumulation (between any pair of countries or a single FTA), diagonal cumulation (between three or more countries or several FTAs with interlinked trading agreements), and full cumulation (the same as diagonal cumulation, but involving more flexibility than with diagonal cumulation).

Several empirical studies confirm that RoO have an important impact on trade flows and that diagonal cumulation of RoO can enhance trade. Gasiorek [12] shows that in the European trade context, RoO serve to restrict trade flows with non-cumulating countries,

and trade with those countries could be lower by up to 50 percent. Woolcock [13] finds that incompatible RoO in different preferential trade agreements (PTAs) are the antithesis of trade facilitation. The latter is particularly important in the context of GVCs, which, through trade in intermediate goods, involve two or more countries in the production of a single final product. Furthermore, as the number of concluded FTAs increases, different RoO in multiple, overlapping FTAs can pose an additional burden on firms. This phenomenon is referred to as the »spaghetti bowl« of trade deals [14].

Thus, the mechanism of RoO may greatly limit the expected economic benefits of REI, or may cause distortions in favour of the partner who has been able to negotiate RoO which match the capacity of domestic industries.

2.3. Trade intelligence and origin management

In order to make informed decisions regarding origin matters, the decision makers need to have access to data up to date *Trade intelligence (TI).* TI is defined as the sum of all legislation and market information needed to make informed decisions with regard to FTAs [15]. TI provides the exporter and importer with the ability to assess whether or not preferential claims can be made, what the country of origin is, and what the duty rate implications are. TI includes the rules of origin, compliance requirements, documentation, (future) duty rates, and insight into FTA and industry developments. These data are required in an organized/structured format that allows the importer and exporter to make (long-term) business decisions. The publication of TI is dispersed across a variety of sources. A step further is to integrate the TI in the Enterprise Resource Planning (ERP) system. Feeding the TI into such a system increases the transparency of the decision-making process regarding origin issues, as now all relevant intelligence is in a single central location. The challenge with TI is the "freshness" – the information must be updated continuously and immediately available to decision makers. This ties into the decision to outsource or collect TI in-house. Either way, that decision needs to include a review of the sources and the capabilities to provide data on time and in the format in which the data can be provided.

Origin management is the holistic approach toward the creation of a single, auditable, and global platform that enables companies to successfully claim preferential origin, sustain, review, and audit preferential claims [15]. A well-run origin management program can provide several advantages: an internal knowledge centre that collects and distributes relevant information and makes origin matters transparent for all parties involved (such as logistics, purchasing, finance, legal, customs/compliance), a clear overview of the duty rate benefits associated with preferential programs on the relevant trade lanes, capacity to identify the most beneficial production location from a duty rate perspective, functionality to automatically generate the necessary documents that will need to accompany the shipments to claim preferential treatment, possibility to determine the non-preferential country of origin, ensuring that for each shipment the FTA eligibility is determined and the calculations, documentation, etc., are properly stored to sustain the preferential claims, creation of a platform/portal where suppliers can submit origin information, capability to

run "what-if" scenarios and to identify risks with regard to eligibility, for example, associated with exchange rate fluctuations, dual sourced goods, or supplier price changes and an opportunity to add new preferential programs within the same framework of compliance, i.e., no excessive costs associated with setting up new programs based on either new trade lanes or newly available FTAs.

2.4. The characteristics of diagonal cumulation of origin schemes in the European Union

The Pan-European diagonal cumulation, which was introduced between the EU and European Free Trade Association (EFTA) member states in 1997[2], evolved in 2005 into the Pan-Euro-Mediterranean (PEM) diagonal cumulation of origin [16][3]. In 2007 it was decided to include countries participating in the Stabilization and Association Process (SAP)[4] (WBCs) with the EU into the PEM diagonal cumulation [18, 19][5]. It was also agreed to start the drafting of a single regional Convention on preferential RoO for the PEM area in order to facilitate the application of identical rules of origin[6] for the purpose of diagonal cumulation of origin for goods traded in the PEM cumulation zone. In 2009 it was supported the conclusion of the regional Convention on Pan-Euro-Mediterranean preferential RoO (PEM RoO) [22, 23] and in 2011 the Council of the EU has decided to sign it [24]. The Convention was open for signature on 15 June 2011 [25].

The study on the economic integration of the Euro-Med region [26] which is based on the survey of government and business representatives in the EU and in 5 Euro-Med countries (MED5) – Egypt, Israel, Jordan, Morocco and Tunisia –, has shown that among the MED5 the percent of companies, that have benefited from this system, changed from sector to sector. Although it is difficult to generalize, in some sectors the rate of utilization of the PEM diagonal cumulation of origin was as high as 70 percent of exports, however, the industries with high level of vertical integration, i.e. textiles, automobiles, electronics, found these RoO out of date and very strict. On their opinion, they do not recognize the "division" of labour and hence the exporters cannot benefit from this mechanism. On the other hand, since the

[2] The Turkey was included in the Pan-European diagonal cumulation of origin in 1999.

[3] PEM comprised the EU and EFTA member states, Turkey, Faroe Islands and the southern Mediterranean countries participating in the "Barcelona Declaration". This decision aimed at replacing the network of some 60 bilateral protocols on RoO among the countries or territories of the Euro-Med zone.

[4] The Stabilisation and Association Process (SAP), as the framework for EU negotiations with Western Balkan Countries (WBCs) has three main aims: firstly, stabilising the countries and encouraging their swift transition to a market economy, secondly, promoting regional cooperation, and thirdly, eventual membership in the EU. The countries covered by the SAP are Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro and Serbia, including Kosovo as defined in UN Security Council Resolution 1244/99 [17].

[5] The Salzburg European Commission Communication from 2006 [20] establishes a two-step approach to extend diagonal cumulation to the WBCs: (1) a new cumulation zone should be established between all Western Balkan countries and territories and the EC, known as SAP diagonal cumulation of origin between the EU, WBCs and Turkey) (for manufactured goods only) (see [21]); (2) WBCs should be included in the Pan-Euro-Med zone of diagonal cumulation.

[6] This decision aimed at replacing the network of some 60 bilateral protocols on RoO among the countries or territories of the Euro-Med zone.

MED5 is beginning to be more and more integrated with Asia, several respondents reported these RoO would not allow inputs from certain countries.

The decision of Euro-Med trade ministers to include WBCs into the PEM diagonal cumulation of origin was related to the fact that the bilateral cumulation of origin, enabled by the Stabilisation Association Agreements (SAAs) signed between EU and WBCs (except Serbia and Kosovo), failed to effectively promote mutual trade within broader region. Bilateral cumulation of origin in trade with the EU discouraged firms from the WBCs from developing mutual production links oriented toward supplying EU markets, because inputs from other WBCs countries were treated as "external" imports. Another consequence of bilateral cumulation of origin was that it erected a barrier to the development of trade, based on fragmentation of production, i.e., moving across border various fragments of a supply chain. These arrangements thus prevented companies from establishing production networks across WBCs. Since the Common Commercial Policy (CCP) of the EU has a central role in the SAP, the inclusion of WBCs in the PEM cumulation of origin is the EU's strategic aim [27, 18].

2.5. Western Balkan countries and the concept of SAP+ diagonal cumulation of origin

Trade flows analyses [28] have shown that PEM diagonal cumulation of origin for WBCs has a rather limited impact on long-term trade and economic growth prospects. These assessments are based on the limited trade relations between the WBCs and the potential partners in the Mediterranean region. It is therefore questionable whether the WBCs could make effective use of diagonal cumulation with Mediterranean business partners in the long run. The inclusion of the WBCs in the PEM cumulation of origin has also proved to be a long lasting process as existing procedural and implementing dilemmas have to be solved in the first place [28]. The main dilemma is related to the lengthy preparation and implementation of the decision on amending the protocols on origin of WBCs, which should be harmonized with all PEM countries. Another dilemma is related to the proposed technical amendments to the PEM protocol, which implies the use of EUR-MED certificates in trade between the EU and the WBCs. This would complicate existing trade between the EU and the WBCs because of the double certification (movement certificates EUR1 and EUR-MED).

Therefore, four forms of rules of origin, which could be used for the WBCs in the meantime, have been presented by the European Commission in 2007 [28]. Amongst them the form of *SAP+ diagonal cumulation of origin*[7], which would create diagonal cumulation zone between the EU, EFTA, WBCs (CEFTA 2006)[8] and Turkey, would be the most justified from the point of view of existing business ties between these partners. Introduction of SAP+ cumulation is seen as a practical, fast and procedurally straightforward solution that includes powerful tools to prevent some of the negative effects that arise from the current lack of diagonal

[7] SAP stands for Stabilization Association Process, and + is because the idea includes Turkey and EFTA beside EU.

[8] As of 1 May 2007, members of CEFTA are: Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Moldova, Serbia and Kosovo (under UN Security Council Resolution 1244/99). Moldova is not covered by the SAP. For CEFTA 2006 impacts and problems see Kumar [29].

cumulation, in particular trade suppression and trade diversion effects [28-30]. Spreading the free trade zone by SAP+ diagonal cumulation would serve the foreign companies which are ready to invest in the WBCs, but are hindered by the limiting rules of origin. Greater attractiveness of the WBCs as areas for foreign direct investment (FDI) would be an incentive for foreign companies to invest and establish production networks across the WBCs region. At the same time, the companies which are active in this region could reduce the unnecessary costs related to customs barriers and consequently increase competitiveness. The removal of technical barriers would give impetus to increased trade in intermediate goods, based on fragmentation of production, and accordingly, the share of intra-industry trade would also increase. According to some theoretical explanations [see 11], the form of diagonal cumulation of origin leads to three positive effects – trade creation, trade reorientation and trade expansion – and the negative effect of trade diversion. The latter might occur if some of the imported goods from the most efficient suppliers in certain segments from the rest of the world would be redirected towards the less efficient partners in the system of cumulation. Since the overwhelming share of WBCs' trade is already taking place with the partners in the prospective SAP+ zone (see the subsequent Chapter), there is little scope for trade diversion to occur.

3. Empirical research

3.1. Trade flows between prospective partner countries in SAP+ diagonal cumulation zone

With the aim of justifying SAP+ diagonal cumulation of origin the actual trade flows between prospective partner countries of this form of cumulation were analyzed. The important indicator of existing trade linkages within this region is EU-extra trade in goods with EFTA member states, WBCs, and Turkey, that was, in 2010, comparable with EU-extra trade in goods with its main trading partners – China and USA (Table 1). In the same period, the extra-EU trade in goods with WBCs represented 0.9 and 2.0 %, respectively, in extra EU-trade in goods with the world.

	Imports	Exports	Imports + Exports
World	100.0	100.0	100.0
Main trading partner	18.8 (China)	17.9 (USA)	14.4 (USA)
EFTA	11.1	11.1	11.1
Turkey	2.8	4.5	3.6
WBCs	0.9	2.0	1.4
EFTA + WBCs + Turkey	14.8	17.6	16.1

Table 1. Extra EU-trade in goods with EFTA, WBCs and Turkey (2010, in %).
Source: [25].

It is evident from Table 2 that the importance of trade in goods with prospective partner countries from the SAP+ diagonal cumulation zone is much higher for WBCs: WBCs trade in goods with these countries amounts 68.5 % of all trade with the world.

	Imports	Exports	Imports + Exports
World	100.0	100.0	100.0
Main trading partner	63.7 (EU27)	64.5 (EU27)	64.0 (EU27)
EFTA	1.6	1.0	1.4
Turkey	3.9	1.6	3.1
EU27 + EFTA +Turkey	69.2	67.1	68.5

Table 2. WBCs trade in goods with EU27, EFTA and Turkey (2010, in %).
Source: [25].

The average annual growth in the EUs' trade with WBCs amounted to 13.2 % in the period from 2004-2008, which was higher than its average growth rate with the rest of the world, over the same period (9.7 %) [31]. The average annual growth of WBCs trade with the EU was lower during the same period (1.1 %), however, a growth in WBCs exports to the EU achieved almost the same growth rate (5.7 %) as the whole of WBCs exports (6 %). International economic crisis, however, left the consequences also in the trade between the EU and WBCs and vice versa: in the period from 2006-2010 the average annual growth in the EU's trade with the WBCs amounted only 2.5 % and was lower than its average growth rate with the rest of the world (3.3 %) [25]. Substantially lower growth levels achieved also the trade between the WBCs and the EU during the same period: average annual growth of WBCs trade with the EU achieved negative level (-5.5 %) and was lower than the level of WBCs growth of trade with the rest of the world (-2.9 %). The decrease in FDI affected the entire region and represented the first mean through which the crisis was transmitted from Western Europe countries to the Western Balkans. The need for foreign direct investment becomes more important to make national economies rescue their previous paths of growth.

In times of economic crisis, regional cooperation may represent a crucial instrument in order to avoid unilateral policies and manoeuvres that could result in a general deterioration of the economic environment in WBCs. Enhancing the region's economic cooperation requires not only political will, but also substantial investment in better regional inter-connections, for instance improved infrastructure and cross-country networks. Transports, energy, environment are all fields that ask for regional cooperation and needs a coordination of policies and strategies in order to get international donors' and investors' support.

Data [25] also show that the average share of exports to WBCs within the total EU-27s' exports (2.0 %) is higher than the average share of imports from WBCs in the total EU-27s' imports (0.9 %), whereby the highest shares belong to the export of textiles (6.2 %) and import of iron and steel (4.4 %) (Table 3).

Within the EU-27 exports to WBCs, as well as within the EU-27 imports from WBCs, the highest shares belong to machinery and transport equipment as they climbed to 27.8 % and 18.3 %, respectively. The structure of trade between the EU-27 and the WBCs shows that the larger parts of WBCs exports to EU27 are represented by goods with low value-added.

Product Groups	EU27 Exports to WBCs	Share of total EU27 Exports	EU27 Imports from WBCs	Share of total EU27 Imports
Total	100.0	2.0	100.0	0.9
Primary products	23.4	3.0	32.2	0.8
- Agricultural products	11.3	3.0	13.0	1.6
- Fuels and mining products	12.2	2.9	19.2	0.6
Manufactures	75.2	1.8	67.0	1.0
- Iron and steel	4.1	3.1	8.3	4.4
- Chemicals	16.3	1.8	7.8	0.8
- Other semi-manufactures	12.3	3.2	9.9	1.9
- Machinery and transport equipment	27.8	1.3	18.3	0.6
- Office and telecommunication equipment	5.0	1.7	1.7	0.1
- Transport equipment	9.1	1.1	4.5	0.6
- Other machinery	13.7	1.3	12.1	1.2
- Textiles	3.6	6.2	1.2	0.8
- Clothing	2.7	4.2	9.4	2.0
- Other manufactures	8.4	1.8	12.1	1.2
Other products	0.6	0.4	0.6	0.3

Table 3. Structure of EU27 trade with WBCs by product grouping (2010, in %).
Source: [25].

Other empirical analyses, based on gravity model estimations [32, 33], have shown that the trade potential between the EU member states and WBCs is not fully utilized, since trade flows between the two remain at 2 to 3 times below their potential level. Hence, there are great opportunities for EU companies to increase their sales within this region. In addition to trade potential, for a detailed evaluation of trade between particular countries/regions it is necessary to examine the qualitative aspects of mutual trade flows and the integration potential of a country/region, respectively. One of the main indicators is the share of intra-industry trade within the total trade of the country/region, being the prevailing type of specialization regarding trade among developed countries. Recent analysis [34] has shown that the share of intra-industry trade within the total trade of WBCs with the EU is relatively low. When analyzed at the total trade level, Croatia has the highest level of intra-industry trade, slightly exceeding 30 percent of trade with the EU in 2004. This is a relatively low-level when considering that, for developed countries the level of this type of trade usually exceeds 70 %, and may indicate low-levels of interaction among firms operating in the same networks of production and distribution as the suppliers of parts and components, as well as limited utilization of economies of scale during the production of parts and components.

Lacking product differentiation through international trade may be the consequence of such a trading pattern.

The low level of intra-industry trade within the WBCs' trade with the EU suggests that trade among WBCs and the EU is driven by differences in factor endowments rather than by the utilization of economies of scale associated with supplying a larger market, and that firms from the WBCs mainly rely on their strategies for price/cost competitiveness. This fact is confirmed by those calculations revealing the comparative advantage indices of WBCs regarding trade with the EU [35], showing the comparative advantages of WBCs in those industries that are relatively intensive in the use of unskilled labour and raw materials.

3.2. Simulations of value-chain optimization via SAP+ diagonal cumulation of origin

This paper presents a case study approach for simulating the effects of SAP+ diagonal cumulation of origin on business performance at the company level. On the basis of calculated summaries regarding export prices for two selected products from a company's production program at its subsidiary in Serbia, the importance of the concept of origin of goods and the consequences of accepting SAP+ diagonal cumulation of origin are presented. These calculations are relevant for the simulations of three possible scenarios concerning the origin of goods [5, 6].

It is obvious from Tables 4 and 5, that conditions for acquiring the status of preferential origin (according to Article 15 of the Protocol on origin [36] that defines exemption from customs duties) for the two observed products, with the intention to export them from Serbia to the EU, have been fulfilled.

	Euros	% (in EXW price)	% (in material)
Value of material	112.38	74%	100%
- Material with preferential origin	106.90	71%	
EU preferential origin	83.34	55%	74%
RS preferential origin	23.56	16%	21%
- Material without preferential origin	5.48	4%	5%
Labour, profit and others	39.12	26%	
EXW price at WBC »X«	151.50	100%	
Transport, insurance and other costs	3.50		
CIP consignee WBC	155.00		

Table 4. The structure of EXW and CIP export price of deep freezers.
Source: own calculations of company's data.
Note: RS – Republic of Serbia.

This is because during the production of these two products more materials with preferential origin than with non-preferential origin are used – 95 % and 75 % respectively

(the necessary condition is 50 % of the total value of the used materials), less than 40 % of materials without origin are used – 4 % and 20 %, respectively, and, according to company's data, less than 10 % of materials without origin from the same tariff number as the products are used (2 % and 5 %, respectively).

	Euros	% (in EXW price)	% (in material)
Value of material	98.28	81%	100%
- Material with preferential origin	74.31	61%	
EU preferential origin	56.38	46%	57%
RS preferential origin	17.93	15%	18%
- Material without preferential origin	23.97	20%	24%
Labour, profit and others	23.22	19%	
EXW price at WBC »X«	121.50	100%	
Transport, insurance and other costs	4.50		
CIP consignee in the EU country	126.00		

Table 5. The structure of EXW and CIP export price of refrigerators.
Source: own calculations of company's data.
Note: RS – Republic of Serbia.

When studying the exports of the Serbian subsidiary of household appliance producer, it can be concluded that, from 1st February 2010 onwards, when the Interim Agreement between EU and Serbia on trade and trade related matters entered into force [37], the conditions for the Serbian products to acquire the status of preferential origin (the importing country is exempted from the import tariffs on the basis of the movement certificate EUR.1 or on the basis of the statement on the invoice) are fulfilled, not only for member states of EU and EFTA, but also for member states of CEFTA 2006 and Turkey.

In the present situation, this subsidiary uses mainly materials with the European origin (50 %) for its production, whilst the share of materials from Serbia amounts to approximately 15 %. It is obvious from Table 6 that from the perspective of present position in the market, and before the Interim Agreement between EU and Serbia has entered into force, the subsidiary had to bear extremely high tariff costs on all of the WBCs markets, where the actual sales potential is the highest.

Before the above-mentioned agreement has entered into force, for the local subsidiary of a Slovenian firm high customs expenses per year had been incurred and this amount did not include the possible savings, if it could import raw materials from the CEFTA 2006, EFTA and Turkey, instead from China, South Korea and other countries. If these funds were invested in product and technological development, they would result in production increase, decreased production expenses, cheaper products, and better position for the firm vis-à-vis European competitors. From the documentation performance point of view regarding the import process, this subsidiary implemented "customs procedures with an

economic impact"[9] which allow for refunding the duties that were paid on imports of goods once these goods have been exported.

	Quantity (pcs)	Value (Euros)	Tariff costs (Euros)	Export price (Euros)	Tariff costs per piece (Euros)	Tariff (%)
Bosnia and Herzegovina	25257	3.518.470	351.847	139.00	13.9	10.0
Croatia	30444	4.255.390	313.998	140.00	10.3	7.4
Kosovo	7151	1.082.650	108.265	151.00	15.1	10.0
Macedonia	4218	628.540	33.861	149.00	8.0	5.4
Montenegro	5278	710.296	69.531	135.00	13.2	9.8
Average export price				142.80		
Average tariff costs per unit					12.1	
Average tariff						8.5
Moldova	38	7.073	379	186	10.0	5.4
Turkey	1036	156.623	3.461	151	3.3	2.2

Table 6. Company's exports and tariffs in selected WBCs, Moldova and Turkey.
Sources: [38] and own calculations.

Consequently, subsidiary avoided payment of import duties for materials from third countries. The calculations show that a greater part of the tariff costs belong to import tariffs for products sold to other WBCs. After the agreement has entered into force, the products being sold to Croatia are cheaper, on average, by approximately 10 €, whilst the products being sold to Bosnia and Herzegovina, and Kosovo are cheaper, on average, by about 14 € and 15 €, respectively. According to the company's estimation of yearly sales volume to other WBCs, the absolute figure for additional costs regarding import duties had amounted to 1.000.000 € per year. This amount is considerably higher than the cumulative amount of additional costs regarding import tariffs for materials being used in the production of products for the Serbian market (the cost of import tariff amounted, on average, to 6 €/product unit).

On the basis of these calculations subsidiary has developed three business scenarios in relation to its eligibility for using origin of goods in its import/export transactions:

1. In the period until the bilateral acceptance of SAA between EU-Serbia, the subsidiary postponed the payment of import duties in the import transactions, on the basis of the duty relief scheme "customs procedures with an economic impact". In the export

[9] Specific form of customs duty relief known as 'drawback' allows to companies to refund the import duties once the goods have been exported [39].

transactions with other WBCs, however, subsidiary paid, on average, 12.1 € tariff duty/product unit, since it did not comply with the conditions for issuing the Movement Certificate EUR.1.

2. In the period after the acceptance of SAA between EU and Serbia, the subsidiary abandons the scheme "customs procedures with an economic impact" in its import transactions and pays import tariff duties on materials to be used in production in the Serbian subsidiary (the average import tariff duty for Serbian market amounts to 5.6 %), whilst in export transactions with other WBCs, it issues the Movement Certificate EUR.1.
3. In the period after the possible enforcement of SAP+ diagonal cumulation of origin the subsidiary would postpone the payment of import tariff duties (only for materials without origin and not for all imported materials), whilst in export transactions to the countries of SAP+ diagonal cumulation of origin (despite Article 15 of the Protocol on origin [36]) it would issue Movement Certificate EUR.1. If the origin of those materials, used in production in the Serbian subsidiary, would be exclusively from the EU, Serbia and other countries of the SAP+ diagonal cumulation of origin, the subsidiary would not pay the tariff duties, neither on these materials nor for final products being exported to the countries of this cumulation zone.

4. Discussion of research results

Our empirical research has shown that the volume of actual trade between the EU and prospective partner countries in the SAP+ diagonal cumulation of origin zone is comparable with the volume of actual trade between the EU and its main trading partners. However, the share of the WBCs and Turkey in the whole of the EU's extra trade is moderate, in spite of existing FTAs (SAAs) between the EU and CEFTA 2006 member countries, and the customs union between the EU and Turkey (see Table 1). The share of the WBCs' trade with the prospective SAP+ diagonal cumulation of origin zone is much higher, whereby the trade of WBCs with EFTA and Turkey lags behind the trade of WBCs with the EU-27, considerably (see Table 2). One reason for such a situation undoubtedly relates to the fact that WBCs are not part of the proper diagonal cumulation zone, which would take into consideration geographically dispersed value-chain activities and would enable less costly trade inside broader region of the WBCs, EU, EFTA and Turkey. WBCs have been under-performing relative to their potential with respect to the magnitude and quality of trade flows with the EU, and intra-regionally as well. WBCs' trade is characterized by a low share of intra-industry trade and specialization in unskilled labour and natural resource intensive industries with low technological inputs. The rules of origin, allowing only for bilateral cumulation of origin in trade with the EU, offers limited advantages for firms from the WBCs and discourages intra-regional trade. According to the trade flows analysis [28], that has shown the limited trade relations between the WBCs and the potential partners in the Mediterranean, the long-term trade effects of the decision of Euro-Med trade ministers to include WBCs into the PEM diagonal cumulation of origin are, however, questionable.

Our case study analysis has shown that the subsidiary of the Slovenian household appliance producer in Serbia was, before the Interim Agreement has entered into force, confronted with additional costs regarding levied customs duties during the processes of sourcing and selling its products within the broader region. It is evident from various sources (see [28]) that comprehensive difficulties existed for exporters from the EU to the WBCs. These studies show that when the exported products mostly contained components or raw materials originating from EFTA countries they could not benefit from the status of preferential origin at the WBCs' markets. Such a situation also complicated the firm's foreign direct investment decisions as it was difficult to assess whether a specific location truly offers adequate institutional advantages as a main argument for investment. The discussed subsidiary has elaborated three possible business scenarios in relation to its import and export operational procedures. Implementation of the third discussed scenario is obviously the best option for cost optimization of the firm's value chain activities.

In regard to those EU companies already operating in the WBCs, SAP+ diagonal cumulation of origin would result in a simplification of those procedures relating to the determination of origin of goods and a simplification of trade operations because of the extended possibilities regarding usage of materials, and the possibilities of preferential treatment for goods. This would lead to reduced costs and lower prices, which would finally result in improved business performance. This zone of cumulation would also increase the attractiveness of the region as an export destination and as a location for FDI and, at the same time, it would encourage companies from the WBCs to develop mutual production links and other complex types of cooperation among firms, leading towards a higher potential for trade and investment at an international level.

5. Conclusions

The rapid growth of number and variety of free trade agreements (FTAs) lead to a "spaghetti bowl" phenomenon [14], where crisscrossing RoO impose higher transaction costs to industries and distort trade and investment flows. Such situation has called for more systematic approach towards projecting company's global value chain activities.

The research in our paper is based on the institutional perspective of international business strategy: while projecting their global value chain activities, companies should consider available institutional incentives for international trade and business promotion. Due to dynamic and transitional nature of such incentives – they may be introduced for a limited time period, and after their purposes have been achieved, they may be changed or abolished – the companies have to be constantly informed of changes in this field. Changing contextual circumstances are thus part of companies' business reality, which forces them to often change their strategies in the midst of their implementation because the institutional rules of the game have been changed either by a host country government, or by supranational institutions. Dynamic capabilities are seen as process embedded in firms, and, thus, a firm will be able to take advantage of, for example, opportunities of offered duty reductions, if managers will be able to align their firm operational processes and procedures

in a way, that the firm will be awarded a status of eligible beneficiary of such institutional incentives. With the aim of using FTAs to their benefit and to establish new competitive advantages, companies should assure trade intelligence database and perform origin management. The integration of trade intelligence in the Enterprise Resource Planning system increases the transparency of the decision-making process regarding origin issues and enables companies to successfully claim preferential origin and sustain, review, and audit preferential claims.

At its conceptual level, the cumulation of origin institutional incentive mechanism is seen as a comprehensive framework for promoting a dynamic growth of trade flows among signatory countries. The mechanism is viewed also as a driver of transaction cost lowering, which may be achieved through a proper spatial configuration of MNEs' operations for product component assembly inside the diagonal cumulation zone [4, 5]. Our research has revealed also some drawbacks of such incentive tool that do not fully support our first hypothesis: the partial implementation of this incentive mechanism (bilateral cumulation of origin between EU and WBCs and prospective inclusion of WBCs into Pan-Euro-Med diagonal cumulation of origin) does not contribute to the optimal business performance of the companies in the region and does not have considerable effects on the trade growth within the region.

Based on the empirical validation of the benefits of the proposed SAP+ diagonal cumulation of origin mechanism and by simulating different scenarios on companies' dealing with existent RoO and their effects on the transaction cost structure, we concluded that diagonal cumulation of origin is an important institutional incentive mechanism that drives firm transaction cost optimization when it is considered in relation to the proper spatial configuration of the global value chain activities. To achieve this, the company has to conduct the origin management. Thus, our second hypothesis was fully supported.

Despite the limitations of the empirical research on a case study of one company in a household appliance production industry and with a company's specific heritage of its cost structure, market position and a portfolio of international operations, our study offers several issues that have important implications for policy makers, managers, and for future academic research.

To optimize their value adding activities and improve competitiveness, managers should seek to develop a proper understanding of existing institutional mechanisms (barriers, restrictions, and incentives) as a starting point in developing their firm internationalization strategy for the selected country markets [5]. In this process, they should consider strategic options that would enable their firms to optimize their goods flows, properly align the value-adding processes, and cost structure of their products in a broader geographic and institutional setting. With properly designed strategies, firms may comply with existing institutional barriers to international trade, and take, at the same time, advantage of institutional incentive mechanisms (import duty allowances, etc.) that are offered by local or supranational institutional actors.

Managers should be alert on changes in institutional framework of the EU (and of other regional economic integrations) in order to timely assess the implications of such

institutional change for strategies and performance of their firms. Then they have to act accordingly with the aim to take advantage of offered incentives that may improve the business performance of their firms in selected foreign countries. With proper configuration of the value adding processes in their supply chains, managers can improve business performance of their firms by reaping additional cost savings in their cross-border goods flows and transactions. During this process, both objective and experiential knowledge are required by a firm in order to develop a proper organizational context, i. e. transform its strategic decisions into efficient operational procedures, activities, and routines in such a way that it would comply with the prescribed institutional requirements (formal condition) for achieving the status of eligible entity for utilizing available institutional incentives. The consideration of such requirements should be made very early in the business process planning, preferably during the phase of a firm's international expansion strategy formation, in order to properly integrate them with its foreign market entry mode decisions and with its evolving operational business framework (organization, processes, etc.). The firm's direct exposure to local institutional context should provide managers with relevant experiential knowledge for developing and cultivating relationships with key partners in its supply-chain network and framing a consistent and efficient international assembly network. This effort should lead toward the providing of such flows of supplied components and semi-finished assemblies that will enable the firm to comply with all required formal provisions, prescribed by the institutional incentive package.

Further research could address the feasibility and costs of tracking of origin of goods for a firm, in comparison to the effects of the incentive mechanism presented in the paper, which would allow for obtaining an insight into 'the whole picture' regarding its benefits for a specific firm. Also a detailed comparative analysis of different cost structures of firms operating in different industries might reveal the effects of the transaction cost lowering on their overall business performance. Such analyses may also show the relative strategic importance of firm's operations adjusting with the RoO in comparison with other strategic options (outsourcing, licensing, etc.). A more longitudinal study would be also useful in order to check the effects of discussed incentive mechanism from a dynamic perspective and firms' market knowledge accumulation.

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