Trust as a context for knowledge flows in co-opetition

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Abstract: *Market circumstances related to changes of business environment resulted in the need to find new ways to engage in competitive struggle by companies. This has led to the emergence of cases of establishing cooperation between competitors, the so-called co-opetition. Such cooperation is consistent with the network approach, and one of its key problems are flows of knowledge within it. The aim of this paper is therefore an attempt to establish, basing on critical analysis of literature, theoretical framework of conditions for forming a frame of basic conditions for exchange of knowledge in the case of co-operation of competitors.*

Key words: co-opetition, knowledge, trust, network, value.

1. Introduction

The flows of knowledge between the cooperating partners are an essential element for successful realization of their common goal. This common goal is expressed in the benefits achieved in cooperation. Discussion of this problem in the context of the cooperation of competitors is justified for the following reasons:

- sharing knowledge is a key aspect of the cooperation of partners, allowing to generate the expected value for the participants of the network, and for the final beneficiaries of this value (customers);
- co-opetition is a special case of networking in which there are flows of knowledge; discussion of conditions that provide the context of knowledge transfer in this system is important for this reason, that in this case does not have to deal with representatives of complementary resources, but with competitors;

- literature allows the author to trace the threads in issue of knowledge sharing between cooperating partners, description of the nature of co-opetition, and, therefore, to draw certain generalizations at the interface between these subject areas;
- literature in most cases discusses major issues of networking organizations independently of co-opetition.

It can be also specified that in the case of co-opetition the type of relationship constitutes expressed confidence between partners as a major determinant of knowledge sharing between them. This factor substantially, as it seems, influences the ability to create value in the system (Osarenkhoe 2010, 202). So this issue affects also the problem of continuation of cooperation between competitors. Gained experience with this type of cooperation will affect on the possibility of concluding a new agreement in the future.

2. Literature review

As indicated in the introduction, the problem discussed is located at the crossroads of several major theoretical areas. The first main group of problems is the subject of network organizations. World literature in this theme focuses on several threads. It points to a possible approach to understanding the concept of the network. This phenomenon can be interpreted in terms of behavioral and strategic issues, or in the context of adaptability and flexibility (Alstyne 1997, 90).

Especially discussing the network organization according to the criterion of strategic management makes problems in interpretation of this concept. Researchers in many ways define the nature of cooperation between partners. Once it is defined by a long-term or short time relations, sometimes, in turn, as, for example, by formal or non-formal relations. The diversity of characteristics of partners cooperation has led to distinctions in network organizations of special case: virtual organizations. They are characterized by short-term horizon of cooperation, primarily related to the realization of a particular purpose, and the low degree of formalization of cooperation (Walters and Buchanan 2001, 818-834). Today, as defined virtual organizations is also associated with a high level of using IT tools (Symon 2000, 389-414).

Addition authors indicate the possibility of interpreting the network as structure, processes and objectives and emphasize the role of the so-called network agents/ participants (Bernecker 2004, 77-78). This in turn leads to discuss issues of maintaining the autonomy within the network by partners and problems of opportunities to participate in value creation in the network (Child and others 2003, 25).

Networking is discussed also in the problem of knowledge management. This issue is referenced primarily to the principles of cooperation agreed between the partners, indicating that high levels of centralization and formalization of cooperation impede the knowledge flows within network (Mudambi and Navarra 2004, 387).

Issue integrating problems of network structure and knowledge management within it is problem of its architecture. Location of operators (central or at the edge of the network), the effect of autonomy within it, the effect of structural equivalence and network density affect flows of knowledge in the organizational structure (Gnyawali and Madhavan 2001, 431-445).

The second major problem is a matter of co-opetition. Its essence is discussed on the basis of the cooperation of competitors (Le Tourneau 2004, 81-83, and S. Ganguli 2007, 6-16).

Nature of the relationship maintained between the cooperating partners is, in turn, the object of further analysis of the literature (Kenworthy 1996, 51-58), also pointing to the benefits generated by this collaboration (Walley 2007, 11-31). Descriptions of cooperation between competitors in the literature seem to emphasize similar aspects of the issues discussed at the case of network organizations created by companies with complementary resources. However, it is emphasized in case of co-opetition the role of trust between partners (Padula and Dagnino 2007, 32-52).

Another problem with the cooperation between competitors, which can be found in the literature is a question of the nature of the relationship between them. Reference is made to present not only the cases of direct relationships, but indirect relationships between competitors as well. In this context relates to the cooperation of producers of hardware (mechanical and electronic computer components). Each individual works with the same producers of software (software). This situation means that there is no direct cooperation between competitors in the market for hardware and software. At the same time working with companies offering complementary goods in both markets and implemented specific solutions. Enterprises allowing and persistence in this type of relationship indicates that they are probably benefit from it, also trust that none of the partners in this complex system will not change the rules of the game (Zineldin 2004, 780-790).

Same problem of trust in the management literature is more than ten years one of the major issues associated with many aspects of the organization. It is discussed in the context of the ability to achieve the desired objectives, organizational behavior, organizational commitment, or satisfaction with the cooperation achieved between the partners (Palanski and others 2011, 204-205). In this way, the problem of the trust is a part of a wider problem of network organizations, emphasizing the relationships between the partners and their objectives.

Issue of trust is particularly important in the case of business cooperation (business networks). As part of this collaboration comes to the exchange of knowledge between organizations, which is used for creating new resources, and is used in innovative activity in enterprises. Therefore the partners perceive each other as a potential source of knowledge. This makes the need to be developed within a cooperation a framework for the exchange of knowledge, giving partners a sense of interests security (Cantner and Joel 2011, 37-39).

3. Problems of trust and knowledge spread in case of co-opetition.

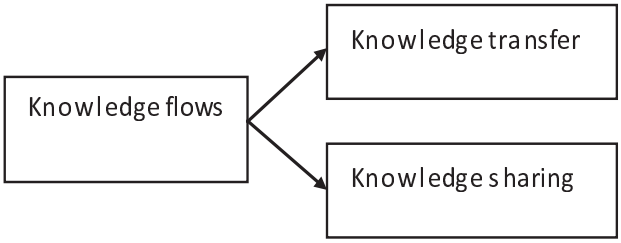
Sharing of knowledge can be understood as planned, formalized and directional process of knowledge flow. This means, that specified in this movement is who to whom and in what order shares specific knowledge (and hence is also defined what is the area of knowledge.) This type of knowledge transfer is also referred to the transfer.

Thus, the transfer of knowledge can be defined as the intentional communication of knowledge between individuals, groups,

organizations, resulting in understanding knowledge in an appropriate manner, the ability to exploit and use it. This definition indicates that the transfer is to use the knowledge transmitted by the receiving entity.

The opposite of knowledge transfer is the sharing of knowledge. It is the flow of knowledge, uninitialized for a specific purpose, and therefore runs in many directions and is informal (Lindsey 2006, 498). This informal nature of knowledge sharing is also apparent from the assumption that it is a process which takes place between people, and thus remaining in close connection with social relations. The transfer of knowledge may also take place between groups and between the organization and its environment, and an important element of knowledge transfer is to create a knowledge base for product s/ services, or ongoing processes (McKinnell Jacobson 2006, 507).

Figure 1. *Types of knowledge flows.*



Considering the conditions of knowledge transfer, we can point to three main groups. These are factors related to the essence of knowledge, motivational factors and factors related to the process of communication. Among the first group (knowledge-related factors) indicate the nature of the relationship between the parties to the transfer (if they are close and frequent it will support the same transfer); understanding by both partners as the knowledge was exactly created, what is its meaning and how it is used, in turn, it affects on reducing potential confusion and misunderstanding in the transfer of knowledge; similarity shared by both sides of transfer values, norms, professed philosophy, problem-solving approach is also favored protection to the transfer; the so-called level of observability of knowledge (expressed in ease of perception and understanding of different aspects related to its use) - the higher the better from the standpoint of its possible transfer, as well as the ability to acquire knowledge by the person receiving it, which has been linked to assessment of the value of knowledge and its sources. The second group of factors affecting the transfer of knowledge related to internal and external motivation in the transfer process; internal motivation is associated with a feeling players transfer their own benefit, and external motivation is associated with the linkage results of the transfer of mines. with the appropriate choice of employees in this process, or a system of awards within the organization, whether the assessment work. Group of factors related to the process of communicating involves a number of determinants of this process, but come to the fore the problems with the assessment of the reliability of sources of knowledge, or competence in decoding received messages (the process of assimilation and understanding of their content) (King 2006, 539-540).

In case of transfer of knowledge between enterprises is reflected also the problem of dissemination of knowledge that can be used by another organization contrary to the intentions of the transfer. This problem, moreover, also applies to the dissemination of knowledge in the products / services and

organizational solutions. Expressed knowledge in such way may be subject to imitation by competitors and its employees, or can go with employees to the competition (Bishara 2006, 287). But relations between the organization and its environment are crucial for its success on the market, so the transfer of knowledge in this approach is attractive, even taking into account all the risks.

However, in order to minimize the risks there are taken various attempts to protecting key resources of knowledge in the organization.

The companies therefore often takes the appropriate action on the part of knowledge, which should according to the operator to be protected. These activities may have various goals, among them stands out above all: protect its own interests, the fight against competitors, or raise the company's reputation. The reference to the problem of knowledge to be protected due to criterion of its availability and identify opportunities to use it. In this case, we can distinguish the following types of knowledge: fully accessible (ie free), explicit protected; classified knowledge (not available) (Kotarba 2001).

Free knowledge is a concept that does not require special discussion. It is this knowledge that is widely available in all kinds of publications, a general or specific, which may be used by any entity interested in using it. Explicit knowledge protected and classified knowledge are a group of protected knowledge in the enterprise, the proportion of their resources is closely related (for example, patent is related to know-how). Explicit knowledge is protected by the knowledge that at the time and in a given territory shall be subject to legal protection for a specific organization. Itself of its content is accessible to others, however, the possibility of its possible use in order to economically dependent on obtaining consent. Knowledge is concealed, in turn, undisclosed information to the environment concerning the technologies, technical and organizational solutions, or trade secret information. Their use is under strict confidentiality procedures, and any manifestation thereof requires the approval of key decision-makers (Kotarba 2001).

Actions taken in the sphere of knowledge in the company are derived from the current strategy of the organization. This in turn depends on the company's market position and how to implement the competitive struggle. You can include recall of knowledge management strategies for offensive(characteristic, they are primarily for market leading companies that have extensive research and development base, and applying broad knowledge of security tools); defensive strategy to protect the knowledge (specific to companies who follow the market leader, it is focused on protecting their own knowledge, but also includes obstruction of competition to protect its knowledge); or imitation strategy (the company waits until a competitor enters the protected knowledge of the time in the knowledge-free, and you can use it) (Żurawowicz 2009).

It should also be noted that the knowledge of the protected businesses may contribute to increase the profitability of the organization and its development (Gupta and Govindarahan 2011, 473). Knowledge itself can be protected form as the subject of the license granted to another entity, or a major contributory factor to bind to each other suppliers. You can also say that a specific procedure to take action to protect the legal level of knowledge can lead to competitive

advantage and in this context, eliminating the cost of a possible fight market. So it is a way to protect the benefits that the company will be achieved with the use of this knowledge (Kluczewska-Strojny and Strojny 2008).

Implementation of protection of knowledge in the enterprise may also be associated with many other benefits. The company with the knowledge of the protected reaches a certain stabilization of the market, which translates to, inter alia, the possibility of pricing. This is because the conclusion of the unique features of the product allows an organization to create a niche market and clinging to its portfolio of clients. Such conduct also affects the public relations company and its products. Applying for legal protection of the solutions worked out also makes the company becomes known in the domestic market and foreign, which also has a bearing on its visibility, but also the potential for expansion into other geographic markets through collaboration with entities that are interested in using the protected intellectual property of the company (Kotarba 2008).

The issues of knowledge flows and its protection are dependent on the structure of the system of cooperating companies. In the case of co-opetition there are mainly two competitors, and these issues can be considered only in relation between them. However, this problem can be considered in assumption that each of them also works with its cooperators. In this case the system is complicated, and the same problem of knowledge flows between the actors is also more complex.

Describing the problem, therefore, the diffusion of knowledge in the network it can not pass by parameters of that structure. Referring to the issue there can be proposed a description of this phenomenon based on the so-called effects created for the flow of knowledge by distinguishing features of the network structure: centralization of the network effect, the effect of structural autonomy, the effect of structural equivalence and the effect of network density (Gnyawali and Madhavan, 431-445).

The effect of the level of centralization of the network means the extent to which a key participant in the network has a strategic position in the system with important links with other. Its position allows him access to external assets such as technology, money, skilled staff, which acquires by and from related organizations. Organization with a central position in the network system can also gain thanks to links with other actors information that comes to him faster than to other network participants with a more peripheral position in the network of relationships between companies. Centrally located in the system network also translates into the possibility of using the occasion (including the rapid acquisition of information and access to resources), therefore, an organization having such status it benefits from the asymmetry of resources (Weerts 2005, 25) (specifically with the informational asymmetry) (Szumilak, 2009, 9-15).

The effects of structural autonomy and structural equivalence is based on the characteristics of the organization's architecture links with other participants in the network. The first of these is expressed in the absence of direct links between two network operators, that are related only indirectly through a third entity with which each of them has direct relationships. This situation is called a structural hole, from which an intermediate organization between two other derives from the fact that the benefits. These benefits are

deposited on the more effective and efficient movement of assets and information from the network in relation to the intermediary actor, at the same time, this translates into his status in the network (due to the emerging asymmetry of resources). Thanks to its position intermediate organization can control the flow of resources, to have faster access to information and have access to a broad base of assets (Gnyawali and Madhavan, 431-445). The effect of structural equivalence is, in turn, the existence of the network operators that have a similar architecture of relationships with other actors, though not themselves be related. Therefore, any network profiles of these entities are very similar, and this is due to two reasons. From the standpoint of socialization processes, we can conclude that these entities interact with similar actors in a similar way, which translates into similar attitudes and behavior of participants in these relationships and use resources. There is a symbolic explanation, arguing for the fact that operators in terms of equivalent positions in the structure of networks imitate each other. Since they have access to similar assets, information, and have a similar position in the network, it can be indicated, therefore, the symmetry of their profiles and the symmetry of the resources (Straub and others 2008).

The effect of network density is expressed in the extent of links between network participants. High network density is conducive to facilitating the flow of knowledge and other resources through many connections between the actors and drawn up routine in this field. It also allows for easier developing networks of trust among actors, shared norms, patterns of behavior. It is also easier to draw the consequences to entities that do not apply to disseminate the functioning of the network. It should also go out that due to the high density of the network it will be neutralized the effect of the asymmetry resulting from the centralization of resource networks, enhances the effect of structural autonomy (the company benefiting from this effect will continue to receive them, or even expand these benefits, as it will be able to direct part of the existing relationship for the intermediate - without losing what it achieves through-opt for direct relationships with new actors). Finally, the high density of the network will increase cohesion (representing the network operators are preventing their separation) - finally, the high density of the network will increase cohesion (representing the network operators are preventing their separation) (Gnyawali and Madhavan, 431-445).

Transfer of knowledge, in accordance with what has been said, manifested in changes in knowledge or performance of the beneficiary of this process. Scientific publications in this field clearly shows that organizations implementing the transfer of knowledge to function more effectively and more efficiently than the actors do not participate in the process, or from those members of the network who are in that respect ill-prepared (Kagami 2006, 87-106).

Researchers suggest that a key problem for knowledge transfer in the network structure is the issue of social capital (Tallman and others 2004, 259). Social capital is defined as the totality of resources available through the network of relationships between individuals or organizations (Bratnicki 1999, 14-16). It should be noted that social capital is based on formal agreements between them and mutual trust created in time. Social capital in this

sense can be characterized by three dimensions (Kagami 2006, 87-106):

- structural design including the relationship between the participants in the network, and that this dimension can be described in terms of three perspectives: relationships, configuration and stability; issue of the relationship refers to way of the links between network participants, which are regarded as the basis for creating an exchange between actors (Singh 2005, 757); network configuration refers to issues related to the form of structure - whether it is a intracorporation network or network of independent organizations (In the second case the transfer of knowledge may be hindered by existing organizational boundaries); stability of the network, in turn, affects the possibility of development of social capital between organizations: the network is more stable, that is, they are less likely to exchange warehouse operators forming it, the stronger bonds are formed over time between them;
- cognitive dimension, which refers to a common understanding of certain issues between the participants in the network; it is described by the shared goals among the network operators and network culture; issue of cognitive dimension relate to the problem so as the transfer of knowledge between network operators can point to success of the entire system (Lin and Chen 2006, 160);
- relational dimension, based on the role of direct links between network participants and outcomes for individual participants in the network; this dimension is described by the level of identification of the applicant under these relations, standards, and above all trust, understood as a critical factor in the transfer of knowledge between the actors of the network; must also be noted that trust in the network has its own institutional reference: the fact that an organization is part of the network, means for the other participants in this network that he is worthy of trust.

In this way, in this paper were sketched out the main determinants of the flow of knowledge in business cooperation. Now it will focus on trust as a foundation of knowledge sharing between cooperating competitors.

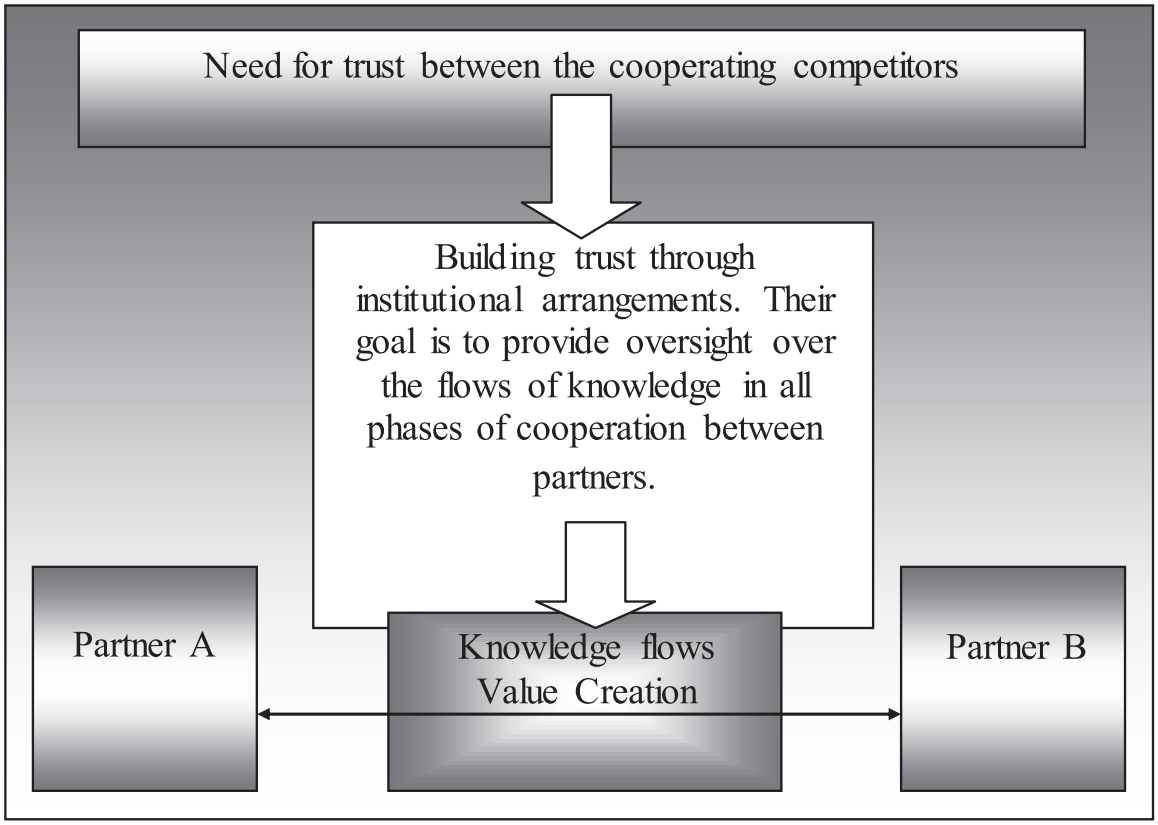
Co-opetition requires the involvement of partners, it is therefore not easy to decide to participate in this kind of interorganizational relationship. This is because the exchange in that the system and the satisfaction achieved with the implementation of pursued objectives must be bilateral / multilateral. Therefore, it can be distinguished a necessary condition, whose fulfillment is necessary for the establishment of the connection between companies and proper functioning of the system: reference expected benefits by all cooperating partners (Zineldin 2004, 780). This can be achieved if the partners believe that they are trustworthy to each other, and in cooperation (Krishnan and others 2006, 894-917):

- carry out the promise;
- act with integrity;
- show good will to each other.

This guideline suggests that companies seeking to socialize such type of cooperation should meet two requirements. First, it should have appropriate incentives; and secondly, to plan in detail all aspects of functioning in these conditions. Such arrangements

between the partners is often achieved through arduous and lengthy negotiations, which aim is the basis for determining the functioning of competitor's relationship (Le Tourneau 2004, 81).

***Figure 2**. Background to the problem of trust for the knowledge flows in co-opetition*



When the co-operation between competitors is taken, it becomes important to control the exchange process, that each partner has a guarantee to achieve the agreed terms. The most important is the question of achieving the overall settlement of a synergistic effect (fulfill the purpose for which the cooperation was established, and whose the partner alone would not be able to achieve, while, as already mentioned, there is the individual satisfaction of partners) (Martinez-Sanchez and others 2010, s. 6).

Another important factor in the success of co-opetition (in addition to the preparation and control) is a question of partnership, which should characterize a true commitment.

Evaluation of this partnership can be made by examining aspects such as (Zineldin 2004, 780):

- the ability to share knowledge,
- the existing system of communication between partners,
- functioning, or problem-solving mechanisms.

The main problem in co-operation of market competitors is therefore their level of mutual

trust, which covers the operating principles described above in that system. The fear that one partner uses the other is natural, however, should not be a guiding force for

cooperation. The problem of cheating partner may involve the use of acquired knowledge in a particular area from a second one (it would mean that only one of the partners would benefit significantly).

Creating a trust between the cooperating competitors is therefore a process, which begins when the decision on cooperation is taken. The most important aspect here is to agree the principles on which the companies will cooperate . From this point of view, it's important to specify at the beginning of cooperation all potentially problematic issues, especially those that can give rise to much controversy.

The dosage is, therefore, set the dimensions of cooperation to support trust between partners. These include reliability (reflecting the promises made by the partners); openness (promoting innovation and fair action); competences (the abilities of partners to make the right decisions and proper operation); and care (lack of detriment to a partner and show good will) (Mishra 1996, 261-287).

In a next step, the formation of trust takes place in the process of the implementation of cooperation and its control. Confidence is the belief that cooperation will be well-arranged and will be successful. So it is a sensation associated primarily with certain degree of certainty that the partners do not use their weaknesses (Dyer and Chu 2000, 259-285).

This does not mean that the problems that may arise during the implementation of projects can be omitted. It becomes necessary therefore to create a security system, to prevent potential fraud committed by partner, preferably already at the stage of resolving the current dispute. Such approach to functioning in the coditions of cooperation will help prevent the spread of the core competencies and achieving network success (Swaminathan and Moorman 2009, s. 52).

Such a dynamic approach to the development of trust makes it also indicates the attributes of the relationship formed the basis for it. Stands out in this case, a presumption of good faith, that feeling of being involved in activities that lead to benefits and minimize risks; belief in the competence of partner (expressing a feeling that the partner is able to fulfill the promises made); credibility, which is continuous interaction between the partners that allow them to feel confident about maintaining the goodwill and competence of partner (Dervitsiotis 2006, 795-810).

4. Conclusions and implications

Building trust in a co-opetition is a dynamic process, associated with the entire duration of this type of network cooperation. It is expressed by framework for the exchange of knowledge between partners (Dabouob 2002, 40-42). The main anxiety of cooperating partners, and therefore the main task that they face in the process of creating trust, is to provide condidtions to achieve the intended benefits. This means that they maintain their position in the system of cooperation based on assets held by them, particularly those of an intangible.

Making these assumptions it can be said, that essential issue for the flows of knowledge in co-opetition becomes a matter of institutionalized mechanisms to create trust between partners. It turns out that they need to formalize from the very beginning. In accordance with the existing research, high level of formalization in systems of cooperating enterprises makes difficult the diffusion

of knowledge between partners (Inkpen and Tang 2005, 150).

It seems that future research should focus on the relationship between the level of formalization and the efficiency of knowledge spread in situation of co-opetition in the context of achieving the desired benefits for the partners. It is very important issue, because in the case of cooperating competitors there will always be formal restrictions to allow the surveillance of selected areas of cooperation and will appear the problem of its effectiveness.

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