

The Company as an Innovation Niche: Towards a Sustainable Food System in Bulgaria

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Abstract. This case study presents a thriving Bulgarian food company (Harmonica) as a successful example of ongoing transformations in the national food system. Starting out as a small organic yogurt brand, the company has developed into a transnational corporation operating in over 20 countries in Europe, Asia and the Middle East. I offer a social-technical interpretation of economic value chains approaches to describe the process of creating new food production and consumption practices. Co Viewing environmental, social and technological issues through the competences of the actors involved in a start-up business, provides an example of a company that generates economic value, but also re-invents traditional food technologies and tastes, thus demonstrating the embeddedness (Granovetter 1985) of the food chain transformation in the local political, social, economical, technological and environmental context. Surprisingly, sustainable values are seen only as a necessary, but not sufficient condition for the innovation process. The re-construction and re-invention of traditional food tastes (on the demand side) coupled with applying traditional craft technologies (on the supply side) gained much more significance in changing social practices, thus fostering innovations and entrepreneurship not only in the food sector. The main reservoir for sustainable innovations is new combinations (relations) of existing competences and their faster utilization within the value chains.

Keywords: sustainability transition, value chains, organic food industry, innovations

1 Introduction

In recent years, sustainable transition studies have become a broad interdisciplinary field incorporating science and technology studies, sociology, political science, economics, geography, management, and history. The efforts of the scientific community are gradually moving towards improving policies and decision-making and supporting practitioners in the pursuit of incremental change (learning by doing) in the field of sustainable entrepreneurship.

I offer a sociological view of the predominant economic perspective on processes of value chain creation seen mainly as a competitive advantage in the global economy in order to gain a deeper understanding of emerging new forms of production and consumption and develop a possible model (prescriptive) for the development of sustainable innovations and entrepreneurship. Opening the “black box” of innovative practices based on the strong normative (environmental) values of the actors involved seems to be the key to redefining the relationship between culture and nature. In

general, it is assumed that social capital, understood as the ability to mobilize the various competences of the actors (internal perspective) and client-oriented experiences (external perspective) drive the value creation process. Thus, my hypothesis is that new technical (scientific) inventions are not the main reservoir for sustainable innovations (Schumpeter, 1954), but rather new combinations of existing knowledge and skills and their faster utilization in the value chains.

This case study presents a successful Bulgarian food company (Harmonica) as an example of the ongoing transformation of the national food system, which originated as a small organic yogurt brand but has since developed into a transnational business operating in over 20 countries in Europe, Asia and the Middle East.

2 Theoretical Approach

2.1 The Niche Formation

As one of the prominent theories in contemporary sustainable transition debates, the multi-level perspective approach (MLP) (Geels, 2002; Smith et al., 2005; Geels et al., 2016) is a good starting point for theoretical extension.

The MLP approach differentiates three main levels of analysis: landscape developments, socio-technical regimes and niches. Thus, transitions take place when coupling occurs between landscape pressure, niche-innovations and regime responses to these. Central actors in this process are incumbents from the socio-technical regime and newcomers from other regimes or niche-innovators. The socio-technical regimes are perceived as a central unit of analysis, in view of the embeddedness of technologies and firms within the socio-economic context (Smith et al., 2005). In our view, more attention should be paid to the processes of “niche-in-the-making” (Paschen et al. in El Bilali 2019) and interactions between different actors. Thus, opening the “black box” of niche formation and early-stage developments could bring better understanding of the complex processes of sustainable transitions.

Thus, by the end of the 1990s the strategic niche management approach (SNM) was developed as a research model (Kemp et al. 1998; Weber et al. 1999) “*to import insights from constructivist science and technology studies into evolutionary economics as developed by Nelson and Winter (1982) and Dosi (1982)*” (Schot & Geels 2008: 539) and later as a policy approach aimed at managing “(1) *socially desirable innovations serving long-term goals such as sustainability, (2) radical novelties that face a mismatch with regard to existing infrastructure, user practices, regulations, etc.*”(ibid.) within so-called niches.

Hence, SNM is defined as ‘the creation, development and controlled phase out of protected spaces for the development and use of promising technologies by means of experimentation, with the aim of (1) learning about the desirability of the new

technology and (2) enhancing the rate of application of the new technology' (Kemp et al. 1998: 186). Weber et al. (1999: 17) summarized three key processes in niche formation:

- coupling of expectations;
- learning about problems, needs and potentialities; and
- network formation.

Starting from the question, how technological regime shifts occur, Kemp et al. (1998) provide historical evidence that “entrepreneurs/system builders and niches play an important role in the transition process” (ibid.: 183). They conclude that niches are crucial for the development of a new regime. Without a niche the entrepreneurs/system builders won't be able to innovate. The general understanding is that niche formation is coupled with certain policies to deal with different barriers during the process. Thus, the “niche” is seen as an interactive space outside any particular organization—a meso level, which even needs governmental support and top-down navigation. Nonetheless, the authors admit that there are some open questions and risks that should be taken into account with strategic niche formation. Certainly, the approach is useful but in our view it does not stress enough the incentives and certainly the stakes in terms of agency and the “leadership” within that process.

Thus, we need again to go back to the roots – the entrepreneur as a central figure (Schumpeter 1912)—and acknowledge that the “right” place where innovation occurs is the company (the micro level). The role of innovator-entrepreneurs in combining all necessary types of knowledge, skills, resources and capabilities (Fagerberg et al.) is crucial in terms of the question of leadership and system change. Of course, focusing on the micro level we do not want to juxtapose the different levels. The interplay between companies and different networks of innovators in terms of developing strong and weak ties (Granovetter 1985) has already been analyzed and belongs to the “standard” view of the systemic nature of innovations. Instead, we would like to shed light on the process of innovation in relation to the process of business development as Schumpeter (1934) differentiates in terms of:

1. The discovery of a new source of raw materials or semi-finished products
2. Creating a new product or giving a new quality to a product
3. The introduction of a new way of production
4. The creation of new markets
5. The creation of a new organizational form and / or the acquisition of a leading (monopoly) market position.

Thus, we would like to focus on the process of value creation instead of solely on innovation considering it as an outcome of this process.

2.2 The Value Chains Approach

The concept of value chains originated in the field of business management. Introduced in 1985 by Michael Porter in his book *Competitive Advantage: Creating and Sustaining Superior Performance* (Porter 1985), it is based on the idea of the procedural nature of the business organization. Each company builds a specific system in which, in order to create and place on the market a product or service in return for a certain value (price), it must invest and acquire certain resources (money, labor, materials, machinery, etc.) and transform and process them to the final outcome. How well this chain functions and is organized determines how profitable a business is, how efficiently it works and what levels of profit and return are achieved.

Porter (1985) categorizes the types of activities that characterize value chains in order to give the company a competitive advantage. The interesting thing in this case is that the secondary activities proposed by him include human resource management and technological development, unlike, for example, logistics, marketing and sales—mentioned as primary. This demonstrates the main disadvantage of the concept that the (added) value is understood only in terms of the capitalized (financial) one. Accordingly, the last three areas have an advantage because, at first glance, their financial result is utilized more directly. Therefore, a broader understanding of value—not only in quantitative, purely economic indicators (profit, efficiency, etc.), but its inclusion and expansion with other (quantitative and qualitative) dimensions such as technological, environmental, and social factors - offers an opportunity for new ways of analysis and management of entrepreneurial endeavours.

2.3 The Value Capture vs. Value Creation Process

One possible direction proposed by Gereffi et al. (2005) concentrates on the global production and consumption patterns in different economic sectors. The approach looks at the value process in macroeconomic terms by postulating production-driven and consumer-driven value-added commodity chains (Gereffi, 1999). Global value chains consist of a set of inter-organizational networks grouped around a single product or service, connecting households, businesses and countries in a global economy. These networks are situation-specific, socially constructed and locally integrated, emphasizing the social inclusion of the economic organization. The specific segments in each chain are represented as nodes in a network. Each subsequent node in the chain includes the acquisition and/or organization of contributions (raw materials or semi-finished products), labor, transport, distribution and consumption. Chains are characterized by four main dimensions: an input-output structure (various value-added capacities, whether tangible or intangible), connecting actors in a given industry or related industries; territorially attached activities; management structure, determining

the flow, speed and direction of movement of goods, capital, resources, etc.; institutional framework (political regimes, formal and informal “rules of the game”) in a national and international context.

In practice, however, Gereffi focuses on only one of his analytical dimensions, namely the management structure of commodity chains, i.e. on the final product, with a partial exception in the input-output interactions in its analysis of the footwear and textile industries. On this basis, he derives two ideal types of value-added chains: production-driven and consumer-driven commodity chains. Based on the sectoral organization of production, he postulated that the first type of integrated production systems were typical of multinational companies in such capital- and technology-intensive sectors as automotive, computer hardware, semiconductor, aircraft, power generation and other heavy electronic equipment. Corporate power in these systems is seen through the prism of vertical exercise from headquarters to divisions, with the value produced “flowing” in the opposite direction. The other ideal type of 'consumer-driven commodity chains' demonstrates that there are 'non-factory producers' who organize the global production process on the basis of consumer control, mainly through brand names and distribution networks.

This approach is important because it takes into account the global division of labor within the sectoral specialization of a particular national economy and the ways in which it “connects” with the world economy by identifying several different strategies for catching up industrialization. At the same time, Gereffi acknowledges that none of the countries surveyed follows exactly the same path. The interaction among geopolitical factors, cultural heritage, existing political regimes, government policy, local institutions and structures, etc. creates unique paths for development.

In sum, the global value chain approach seems to be more interested in the utilization of the end product/commodity within the global networks of different economic sectors and the control that global players exercise on its distribution. Thus, this approach is more relevant in explaining well-established industries and their global structural organization more in terms of value capture/distributions than value creation. It seems to be understood and described more as a linear process from product or service development through production, marketing, sales and distribution. In this way the strategy of the companies is to concentrate on what they have done, to analyze backwards and improve the process to find one “optimal” way of doing things. Thus, the industrial age value chain even at the level of management focuses more on value capture rather than value creation:

“More than 80 percent of our management tools, systems, and techniques are for value-capture efforts, not for value creation; this includes techniques such as total quality management (TQM), enterprise resource planning (ERP), Six Sigma, Lean Startup, and Agile Systems. These tools are valuable for keeping an enterprise

running smoothly. But we should be focusing on value creation rather than value capture alone.” (Mootee 2013: 59)

Kaplan and Norton (2004) conclude that companies pay more attention to the past and what they have as tangible assets and less to the intangibles, which actually determine what they have to do now and in the future.

“That’s why there’s been little emphasis on managing intangible assets. However, they’re the resources that make up the foundation for tomorrow’s financial success. Before we go further, let’s understand what we mean by an intangible asset. It can be the knowledge that exists in an organization to create differential advantage — and to satisfy customer needs. Intangible assets consist of things like employee capabilities, databases, information systems, customer relationships, quality, responsiveness, and products or services. Generally, a company’s intangible assets account for 75 percent or more of its market value. Conversely, its tangible assets represent less than 25 percent.” (ibid.)

2.4 The Value Creation Process

The value creation process within the company is already identified as a practice that brings additional competitive advantage. The difference between the optimizing and innovative companies has been studied (Lazonick 2004). The “resource-based” approaches to the company’s management have been taught in business schools since the 1980s. Following newly adopted Design thinking approaches (Mootee 2013) and Porter's (1985) internal and external perspective for innovation strategy in companies I propose the following analytical schema in addition to the SNM approach:

1. **Coupling of competences** (internal process perspective) – connect (team) knowledge, skills, competences to value creation process. I categorize the following 5 general competences (Ivanov, Varbanova 2016, Varbanova 2019):
 - Entrepreneurial
 - Craft (technical, sector specific)
 - Human-centered (client-oriented)
 - Process-oriented (technological)
 - Organizational (logistical)

Thus, in respect to Schumpeter (1954), as already mentioned, the leadership in the value creation process is directly connected to the entrepreneurial capabilities of the company’s management and its competences to identify innovation possibilities. Schumpeter stresses overcoming social and even psychological barriers towards innovation as a main prerequisite in process formation.

2. **Customer value identification** (external process perspective) – connect (user) experiences to value creation. To this second dimension, again Schumpeter

(ibid.) points out the need for a suitable environment to meet the needs of the customers/users.

3. **Experimenting** (prototyping and testing) – connect (internal) knowledge and (external) experience to value and prove value creation usefulness. This phase is an important step in value creation process. Design thinking methodology emphasizes its importance and “fail fast” strategy. Prototyping and testing should be timely and costs restricted.
4. **Network formation** (scaling up) – evolve value creation process and expand to others.

This final point is the most important step in securing success of the innovation. As Schumpeter (ibid.) already recognized, without the encouragement of other entrepreneurs to take the risk and lead them along the new path there can be no change.

3 Case Study of Transforming the Bulgarian Food System

In the framework of this article, a case study will be presented as an example for reconstructing the process of value creation in the field of sustainable development. The company in question is in the Bulgarian food sector and a pioneer in organic food production. The case study is part of a broader ongoing research project that combines both quantitative and qualitative methods of analysis. Media publications, interviews and other publicly available sources in the field of eco-entrepreneurship in recent years are analyzed. Mapping of the eco-entrepreneurial ecosystem was carried out with the aim of maximum coverage of eco-entrepreneurs in the country. The decision to present the case is based on its importance for the food industry itself and its successful expansion.

3.1 Background

The founders of the company are Lyubomir Nokov, his wife—former Bulgarian tennis player Magdalena Maleeva, and Metodi Metodiev. The company, Harmonica, was founded in 2008 and started with the production of organic milk and yogurt. The story begins in 2004 or 2005, when Bulgarian farmers were trained and supported to move to organic production under a project of the Biouniverse Foundation, supported by a Swiss donor program. Two of the farmers at a dairy farm near Troyan (electrical engineers by education, but hereditary breeders) had graduated from the project and produced bio-yogurt, which they sold in Sofia. Interested in the product, which at that time few Bulgarians were aware of, the founders of Harmonica out of curiosity and as customers visited the dairy farm and became acquainted with the production process of Bulgarian organic yogurt.

3.2 Coupling of Competences

Nokov remembers:

“I was very sceptical and I said it was absurd in Bulgaria, we had never heard of anything organic and suddenly we decided to go and see it on the spot and got in the car, went to a farm and found it through Google Maps...just as customers. And we went to the farm and a breeder, I now know that he is a breeder, then I did not know what he was, he came and said: please come out now we will milk them and they are worried when there are outsiders. And we were impressed that the farm was super clean, without any such unpleasant ... and we went out and met them the next day, we talked a lot and then we became friends with the farmers and gradually decided to help them just to have the milk, because they were in a situation where they had done everything, but there was no market, simply because no one knew what it was all about.” (in-depth interview with L. Nokov, 2018)

It turns out that the organization of the production itself is a complex task. Adhering to environmental standards is an important frame in the value creation process, from the natural resources (grazing, straw, cows, milk) to the final product (yoghurt). This rather short chain requires actually quite complex capital and labor-intensive decision-making with practical application of specific know-how. The prerequisites were there. The farmers' electrical engineering education is an indicator of process-oriented (technological) and organizational (logistical) competences and the hereditary experience in animal husbandry sets the normative (environmental) framework, but also of course the specific craft competences. The animals are not just a resource; they have a certain inherited attitude. They even dictate the situation: "Please come out, because they are worried about outsiders," says the farmer. There is an attitude in which the farmers have become spokesmen for the interests of non-humans. On the other hand, it is noticeable that there is a combination of the industrial (modern) paradigm with the traditional (livestock) one. The dairy farm is well organized and clean, the processes are structured and the environment is protected. At the same time within the value creation process the human-human interaction seems essential, that invisible, social bond, when the actors in their reconstruction of past events point out: "The next day we met, we talked a lot and then we became friends" (ibid.).

3.3 Customer Value Identification

As we see in this case, in the process of value creation, it is not simply a matter of economic interests and rationality—the *homo oeconomicus*, who is cold, calculating gains and profits. They are preceded by (social) accumulations, but also by the practical mastery of a certain matter (know-how) in this case, organic animal husbandry. It turns out that in the specific Bulgarian context as the farmers started in

2004 this was not enough. Without the external perspective, the value proposition to the potential costumers, there could be no viable solution. Here, our actors are testing and proposing an additional value chain, which is not just a matter of finding a market for this quality and environmentally friendly product: "...It was a bit of a coincidence, and then we decided to just help them get into the shops and such a good product, if they sell it in two shops in Sofia the work is done. It was not so easy. At one point, together with a friend of mine, who was in the food industry, with whom I discussed everything at the time, I decided to take this work more seriously, to take up marketing, then it turned out that we had to also take over the production part" (ibid.).

Our actors added their client-oriented perspective to the puzzle, but also in terms of food production, opening their own dairy: "...Then in 2008 we must have opened this small dairy here near Sofia, in Malo Buchino, and step by step something began to develop, i.e. from the idea of just having it on the market, to help them, because they couldn't do everything bio... certification consultants... everything was very difficult for them, there was no way it could be sustainable and it took years, after we left, by beginning to utilize the milk and to sustain the whole undertaking"(ibid.).

It turns out that they were "forced" to do so, "because we had a lot of milk left from the farms, which we could not sell" (ibid.). Thus, the utilization of the added value, combined with the normative (ecological) attitude, acts as an accelerator in the prototyping phase of the value creation process. And although the production of yoghurt itself still ran at a loss, the actors continued with the idea of a second product (test and prototype) for the remaining milk: "...And we decided to build a cheese plant in our dairy to use the rest of the milk. We urgently needed a partner in cheese-making and we found a very decent one, in Saedinie, and that helped a lot, because suddenly we had a second product. We had to deal with a very difficult situation and then we decided that this is a very good way to develop, one that would engage many more people and give us access to much more knowledge and experience" (ibid.). Thus, even in the phase of testing we see that this is not a linear process. Network formation and value chain organization is an open process, with additional competences brought into it from "outsiders".

3.4 Experimenting

In the initial phase of testing and prototyping the social aspect provides the glue for the connections running through the economic, technological and organizational logic. The flow of know-how and competences seems to be crucial for sustaining the value process, when the whole endeavour is operating at a loss economically. Thus, in the beginning the idea was to support the development of a product—organic yogurt; but in the partner network the need soon crystallized (from the customer point of view) to enter production, even though the competencies of the founders were more in sales

and marketing. Market logic (working at a loss) and the normative principle of recovery (a surplus of ecologically pure fresh milk) led to the search for a partner with additional (technical/craft) competencies (in cheese-making). Thus, the network grew: “In the beginning we thought we would make yoghurt, we never thought of doing anything more, let alone a brand or a portfolio, etc., but we actually saw that we could create a network that would allow many more farmers to switch to organic production. We gave up on the idea of building a cheese plant. It made no sense. It would be neither better nor cheaper. Instead, we started to develop this network, in fact from different farmers, partners, technologists, nutritionists, all kinds of people” (ibid.).

3.5 Network Formation

At a certain point the value chain creation expanded, and the local value network began to be integrated into global production networks through global retail chains entering the Bulgarian market (2009)—“Billa”, “Piccadilly”, etc., with their European headquarters understood that there would be growing interest in organic products. Starting something completely new, even without the necessary capacity to meet demand from the market, the actors created a new model for outsourced production, which became the basis for the development of “Bio Bulgaria”—a business that in 2019 generated BGN 8 million revenue: “We have tried to work without unnecessary investments and to use facilities that already exist. It is also good for business from an environmental point of view. If there are dairies with free capacity, we would not invest in cheese production” (Interview with *Forbes Bulgaria*, 2020, in Bulgarian).

3.6 Continuing Innovation—the Taste of Food is Leading

It turns out that by imposing this way of working, in which Harmonica was responsible for the quality of the final product, although the ownership is different, thus building a value chain that operationalized not only pure ecological production, but also a socially constructed concept of taste: “At one point we stopped emphasizing organic, organic became the mandatory minimum, we wanted Harmonica to mean much more, i.e. bio is one of the characteristics, it is our leading one, but we want Harmonica to mean many more things, to mean good taste, tradition, ... care for quality.” And the definition of good taste is “when you eat something, you want to eat it again...” (in-depth interview), i.e., something that is recognizable and considered traditionally authentic is sought.

All this allowed them a lot of flexibility and the opportunity to experiment. The positive experience with yogurt, which has the taste from the past, was transferred to *boza* (a traditional beverage produced from rye). It took two years to test recipes. Nokov went around the producers of *boza* and asked how to make *boza* with sugar and fermentation in a bottle, as it used to be made in the past. They told him it was

impossible, caps would explode, it would spoil. The status quo has imposed a cheap product with sugar substitutes and without fermentation. He continued to look for variants, even when his *boza*, instead of fermenting, stratified and congealed. “We made a difficult decision not to stop, even though angry people called every day that the *boza* didn't look like anything. But we could not solve the problem without working. If we had stopped, this product would have disappeared. It finally became fantastic.” (Forbes Bulgaria 2020).

3.7 Symbolic (Normative) Innovation—the Name Debate

The three founders had a discussion about what to call the yoghurt because when they started it was not yet known which word would work well in Bulgaria. In English-speaking countries, these products are called organic; in Germany and France they use bio or even eco. “Actually, we chose to call yogurt bio, it wasn't approved then, and people called us. You made a big mistake, you named organic bio and everyone will think it's GMO, because they'll think about biotechnology.” From the very beginning they opened their own small store for organic food—gradually other producers and mostly traders importing organic products appeared and the shelves began to fill up. The store served as a showcase for the new market niche and gave direct access to customers, thus providing the necessary feedback. They opened two more organic stores and stopped at three. The path had already been paved in Sofia. Many seemingly impossible things began to happen because of the way the brand was managed. Small shops, hotels, restaurants and cafes started to stock up on organic products. “It was also our idea - to show that quality food can go anywhere. We wanted more farmers to be certified for organic production and to attract more producers to see the meaning in organic products,” says Nokov (ibid.).

3.8 Constant Innovations to Stay Independent and Competitive

A very important principle of independence gradually crystallized in the company's commercial policy if distribution through the big retailers becomes a large percentage of the business, efforts were made to develop alternative distribution channels. Enter the then new field of online commerce. Direct deliveries are “a very important part of the whole chain because of the direct contact with customers and the knowledge they give about the market” (ibid.). Exports are another channel of independence that provides support to more farmers. All the while, decisions are not based on trends and fashions or the way the “big ones” fit, but everything is tested in practice. What is gradually becoming mainstream for retail chains—shortening supply chains, promoting local production and more—is already successfully practiced by the innovative company “Bio Bulgaria”, owner of the brand Harmonica: “Now we are increasing the range across the board all the time and ... we want to work more with...we want to do

two things, one is to find a way to work with smaller producers with more specific products that are seasonal, that are very small in capacity, insufficient for stores and that's why we developed a system for direct deliveries, a box of Harmonica, where we can work with a small seasonal producer." It takes time to find out what products to include in international exhibitions, because yogurt and *boza* are impossible to export. However, waffles are in greater demand from customers in the Middle East and Europe. Bio Bulgaria sells waffles in Italy and Spain under the logo of a well-known brand on the local market.

3.9 Competition and Followers—a Criterion for Successful Innovation

"Our goal is to lead the way and let others start doing good things ... by coming in with a good waffle and others starting to make good waffles. If everyone starts doing things the way we do, it will be great... We will not stand alone on the shelf and it will become clear why we are more expensive" (in-depth interview). The perception of the evolving market is again counterintuitive, not to look for the lowest price, but to make the price (value) an indicator of quality. Thus, successful innovations, as well as discoveries, find their "imitators" and through competition in the newly created markets needs are satisfied and continuing ways to meet needs are improved and further developed in the most effective way.

4 Conclusion

This paper offers an attempt to broaden the theoretical perspective of, on the one hand, economic approaches dealing with value chain creation and, on the other hand, socio-technical approaches providing useful tools for innovation processes in the niche formation phase. A case study of the transformation of the food system in Bulgaria showed that the innovation process within a new (start-up) business could be seen as part of value chain creation as long as the company is preoccupied not with optimizing activities (improving effectiveness) but rather with improving its own resources. Another important insight is that the external (client-oriented) perspective of the value creation process in terms of fast prototyping and testing of proposed solutions is essential to their implementation. Specifically for the transformation of the food system in Bulgaria it turned out that the strong sustainable (normative) orientation of the actors involved did not match with what was demanded on the market. This was not a barrier for innovation; on the contrary, organic food production re-discovered traditional tastes (on the demand side) and re-invented traditional craft production (on the supply side). This re-construction and re-invention of production and consumption practices gained much more significance in the process of social change, thus fostering innovations and

entrepreneurship not only in the food sector. The main reservoir for (sustainable) innovations in the food sector is rather new combinations (relations) of existing competences and their faster utilization within newly created value chains.

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