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# JOINING OF ECONOMIC ENTITIES AS A POSSIBILITY OF SURVIVAL ON THE MODERN MARKET

## ABSTRACT

In today's global market, a major challenge for every economic entity is to be competitive and achieve its objectives. The method of survival shows that those companies with the lowest costs will survive and remain on the market. G. J. Stigler explained this technique on the market share of different sized companies in the steel industry in the United States. In his method he groups enterprises by size (small, medium and large). Historically, it is known that economic entities have been joining together since the Middle Ages. At that time, traders who formed associations were not engaged only in trade, but also in transportation and monetary activity. Economic entities are still joining together today, mostly in the form of a cooperative, cluster, cooperation, public private partnership or holding. The reason for that lies in the reduction of costs, risks and competition and the possibility of increasing the capacity of economic entities. Also, it should be noted that there is a synergy effect when economic entities join together. We are witnesses of many failed businesses, which did not respond to the economic crisis and the needs of the market.

The aim of this paper is to try to connect the technique of survival and joining of economic entities and show how a merger is one of the survival models that in conditions of economic crisis provides options to business entities. Only companies with the lowest costs and high-quality technology can survive and compete in today's market.

**Keywords:** Survival techniques, joining businesses, cooperatives, market share

## 1. Introduction

The globalization of markets and the growing competition that occurred at the end of the last century as well as the crisis that hit the global economy in the late 2000s and early 2010s have resulted in a reflection of the survival models of economic entities in the market. Changes in the economy, which were initiated and launched by modern information

and communication technology, are changing the overall business conditions. Models and methods of survival have their stronghold in interdisciplinarity. With the globalization and the development of IT, there was a further interweaving of various sciences, computer science, law, sociology, psychology and economics among others. In order to better understand the role of various sciences, it is necessary to consider the role of economy in all branches of

human activity. Economy (Greek Oikonomia; oikos - house, nomos - law, order custom management) in some way appears even in ancient times, and brings with it the merger as a model of growth that penetrates new markets. Smaller villages are involved in Polis (Greek Polis, self-governing units, town) and so begins the development of the modern civilized world. In the Neolithic period, more than 9,000 years ago, the predecessor of Homo sapiens (lat. wise man), better known as Cro-Magnon, realized that hunting in groups achieved significantly better results than hunting alone. Such groups led to the creation of the first tribes, and later states. Throughout history, man showed his aspiration to improve his primarily economic position. Conquering new areas and expansion of power and influence can be seen in today's context as opening up new markets and establishing market share. These conquests always carried risks, but also rewards. Throughout history the way to achieve conquests have changed, but the motives have remained the same.

Economic entities began to look in today's global market for ways to be and stay competitive and achieve set objectives. One of the objectives is how to win new markets and customers, but without losing the old markets and customers. Globalization led to market unification, so economic entities decided to unite. In order to effectively operate, it is necessary to systematically adapt to business conditions that define the technological factors and relationships that build a modern market. Historically, it is known that companies have been forming alliances since the Middle Ages. At that time, associated traders were not engaged only in trade but also transport and monetary activity. Economic entities today are often associated as clusters, cooperatives, public private partnerships, holdings, or they undertake mergers.

## 2. Research methodology

Changes which were driven by market globalization, and the world at large, have changed the terms of conducting business. Globalization was mostly initiated by the development of the IT sector, the rate of exchange of information, products and services availability from around the world, and quick and relatively cheap transport from all over the world to all corners of the globe. When trade on the global scale was slow and carried through certain traffic centers, today's possibilities were almost unthinkable: at any time of the day or night from any country to buy or sell any product. Such globalization, which has increased supply, has also led to the

deterioration of some economic entities. In their desire to keep up more easily with these conditions, economic entities began to connect, unite and work together to satisfy consumers' needs.

The research presented in this paper is based on secondary sources of information and knowledge. The methods used during the research were: the method of induction and deduction, the synthesis method, the method of analysis, the method of causal reasoning, the historical method, descriptive modeling, the classification method, the method of abstraction, generalization and specialization methods, the method of analogy, methods of composition, as well as other scientific methods.

## 3. Concept and models of association

Entrepreneurial association began in the Middle Ages. Craftsmen and merchants were joined in guilds. Given that associations date back to the Middle Ages and were kept to this day it can be concluded that they are of great importance for businesses. Some main features of the association of companies are:

- Joining with competitive companies
- Reduce operating costs and increase capacity (lower the number of machines, employees, etc.)
- The ability or capacity of product placement on foreign markets
- Expansion of the product range including new products and services

The overall result of the association of companies is the synergistic effect. The combined entities can work together to achieve more than the sum of the individual effects that accomplish acting separately. Synergistic effect can be expressed symbolically as " $2 + 2 = 5$ ". Associated businesses can use all their potential rationally and effectively, and create better conditions for further development (Karić, 2005: 19).

Forms of company associations are very diverse and can be divided as follows:

- According to intensity of engagement - cooperation and concentration
- According to similarity of the associations - homogeneous and heterogeneous associations
- According to duration of association - temporary and permanent association

- According to merger - national and international association
- According to number of associated businesses - narrow and wide association
- According to the mode of association - mergers and acquisitions

Cooperation is a milder form of association. Companies retain their full independence and associate for the purpose of business cooperation. The concentration is a solid form of association businesses. It includes various forms of merger of existing businesses in new, and with the merging companies can create homogeneous and heterogeneous concentration. Homogeneous concentration means linking businesses of the same activities, and heterogeneous refer to businesses of various activities. (Karić, 2005: 19, 20).

Practical experience confirms the economic theory that satisfaction of customers (consumers) and producers (suppliers) is the only reason for sales. These sales are achieved in accordance with the law of supply and demand at a price, quantity and quality that meets the needs of sellers and buyers. The above mentioned conditions have led to changes and new relationships on the market, of which the most important relate to:

- shorter product life,
- increasing insistence on post-sale services,
- strengthening global competition,
- international supply sources,
- cost-based strategy of relations with suppliers and
- strategy "guided by consumers" (Grbac, Meler, 2007: 39)

With changes of market relations, according to Pareto law, it is necessary to determine which 20% of consumers / customers, constitutes 80% of revenue / profit. (Grbac, Meler, 2007: 9) Financial analysis shows that, taking over consumers / customers compared to those relating on retention of existing, acquiring new can cost four to seven times more than retaining existing ones. Research results show Buckingham's points that there are seven reasons to divert one-off consumers / customers in life business partners – customers (Buckingham, 2011: 74):

1. it is not necessary to look for new customers,
2. sales increases,
3. strengthens the market position,

4. increases customer loyalty,
5. reduce business costs,
6. increases profit
7. increases the enjoyment and satisfaction of everyday work. (Buckingham, 2001: 11)

Changes and new relationships on market supported by Pareto's law and Buckingham's research are the result of increasing connectivity, mergers and acquisitions of companies.

### 3.1 Public-private partnership (PPP)

As one of the association models, just in order to survive and to provide certain services on the market, also worth mentioning is public-private partnership.

Public-private partnership is a business structure in which implementation and realization of infrastructure projects is based on a partnership between the private and public sector, i.e. private enterprises and public institutions. Each of these sectors is participating in the part where its action is most efficient (Mikić et al., 2011). The task of the private sector is to introduce innovation and financing. While one of the main tasks of the public sector is to meet the needs of users of public goods and services, to regulate the economic environment and take over those responsibilities that the private sector isn't able to take over. Combining the benefits of the public and private sector opens up new possibilities such as new investments, i.e. to attract investors, and avoid an increase in debt to finance objects of the partnership.

PPP revitalized as a result of over-indebtedness of the public sector in developed countries, in the mid-80s of the last century, when the pressure of public goods and services on the one hand and too little capacity in the traditional financing offer on the other hand, led to a large gap between supply and demand. This gap could neither be financed from the budget nor by direct borrowing because of previously mentioned indebtedness. The use for financing from the private sector emerged, which was seen as an opportunity (Juričić, 2011).

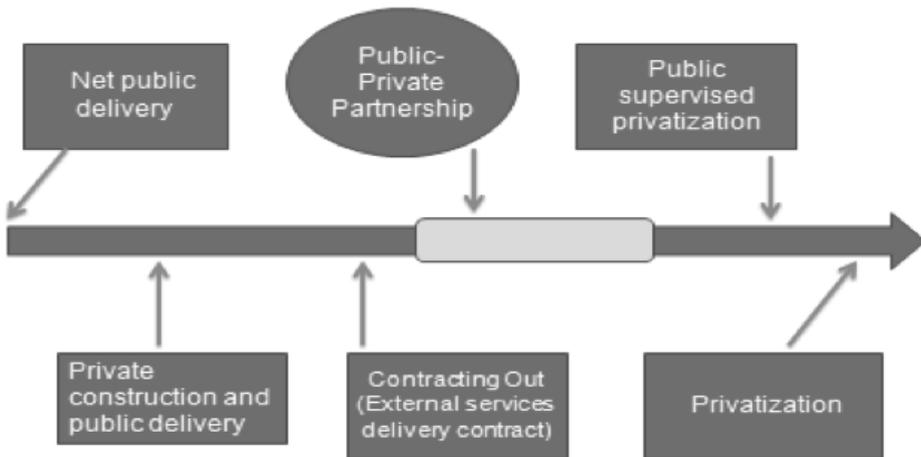
In developed countries many local associations of the private and public sector are present, such as, for example, the collection and disposal of waste in an appropriate manner. Such association has shown significantly reduced costs. The mentioned example of association is basis for more complex associa-

tions. It is important to note that the mentioned association is not a novelty and it goes back to the second half of the sixteenth century, when Europe was in need for mass transport of passengers and goods. The private impact on public infrastructure in the UK began in 1660 with the first associations of the private sector in road construction, and further development in construction of navigation routes and railways. Through history there are many examples of public-private partnerships, such as the first organized drinking water supply systems in 1782 when the brothers Perrier founded the company that was granted the concession to supply drinking water to Paris for 15 years (Abuyn, 1999), up to the construction of the Suez Canal. Public-private partnership is a very important model with which it is possible to achieve some new successful entrepreneurial ventures. In Croatia, there are many examples in the public-private sector because the public sector is not able to finance infrastructure projects and public services, and involves use of private funds. In Croatia, public private partnerships are present in the field of education, science, construction of facilities (sports halls, housing, schools, etc.). It can be concluded that the ultimate goal of

the public-private sector is to combine knowledge, skills and capital in order to, with the least risk and costs as possible, achieve objectives, and meet the needs of the population. It is certainly very important to educate both the private and public sector, to be able to increase the number of public-private projects.

Klijn and Teisman (Osborne, 2000) are trying to define the public-private partnership in a way that it represents the contradictions to contracting out (CO) cooperation and privatization. They think that, in practice, often public-private partnership is identified with privatization. Privatization is one-off and irreversible transfer of rights on delivery of public services to the private sector. While the main feature of the contracting out relationship between the public sector and the private is that the public sector defines the problem, the standard services solution of problems and the private sector strives to deliver the service, most often at lower costs. In a public-private partnership, the important relationship is transparency and trust. The added value can be produced only in an atmosphere of cooperation (Juričić, 2011).

Chart 1 Display of public-private partnership



Source: According to Juričić, D. (2011). *Osnove javno privatnog partnerstva i projektnog financiranja*. Zagreb: RRIF

From the graph it can be concluded that the public-private partnership does not represent the CO (Contracting Out) cooperation method and also it is not privatization. In the literature, there is no unambiguous definition of public-private partnerships, so according to the author Yescombe, the

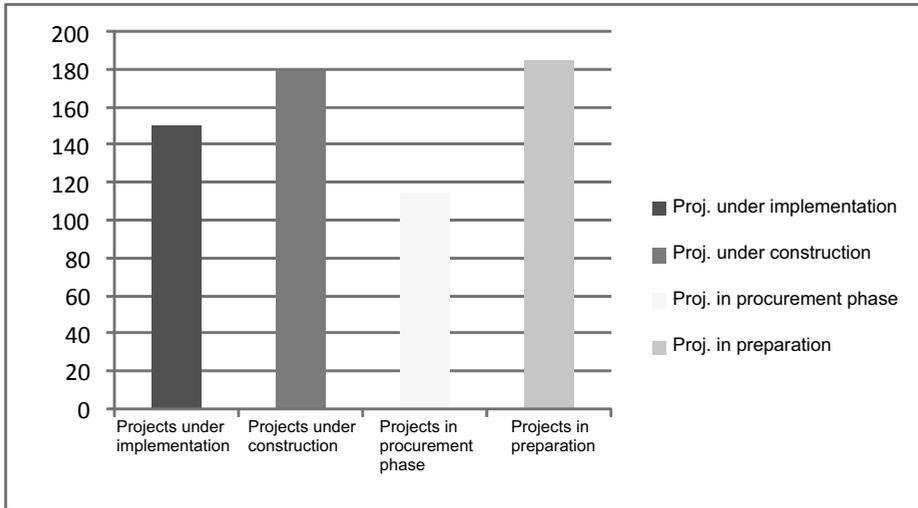
term public-private partnership has its roots in the United States, referring primarily to the joint financing of educational programs, and in the 1950s, it referred to the public-private joint ventures in urban renewal (Yescombe, 2010) Through those facts about the public private sector it may

be concluded that the merger has positive characteristics.

The total market value of public-private projects in operational implementation in Croatia (projects in

implementation projects in the construction phase) is 330 million euros. With projects in the stage of procurement and preparation, the market value amounts to 628 million euros.

**Chart 2 Value of PPP projects in millions of euros**



Source: According to the Agency for Investment and Competitiveness<sup>1</sup>, Available at: [www.aik-invest.hr](http://www.aik-invest.hr)

From the chart Value of PPP in million euros it is evident that projects under preparation are the most common, and they are closely followed by projects under construction. The smallest, but not negligible values are projects in the stage of procurement.

**Table 1 Structure of project by sector**

CULTURE	3.48%
SPORT OBJECTS	8.97%
EDUCATION	10.04%
JUSTICE	17.18%
TRAFFIC	20.30%
HEALTH CARE	39.01%
PUBLIC ADMINISTRATION	0.12%
ENERGY EFFICIENCY	0.30%

Source: Authors, according to the Agency for Investment and Competitiveness<sup>2</sup>

Table 1 shows the public-private partnership market structure of projects in the stages of preparation, procurement and implementation. The largest volume of investments (39%) is related to health care (CHC Rijeka, and hospitals in Popovača and Varaždin). The transport sector accounts for 20% and this is mainly due to investment in the new passenger terminal at Zagreb airport. The education sector participates with 10% (school projects in Istria County, Varaždin County and Koprivnica Križevci County). Sports infrastructure facilities participate with 9%, in implementing while the remainder (<1%) relates to projects of lesser value primarily from the sectors of energy efficiency (public lighting).

### 3.2 The consortium

The consortium is a contractual association of individuals or companies, especially banks, in order to jointly fund or execute transactions in which partners (Consort) mutually share risks and profits. Consortia are usually established for: co-administration of larger loans (consortium loans), sale of securities, executing larger investment projects in the country or abroad, establishment of new com-

panies, execution of orders, joint procurement, resale and others. All such transactions are called consortium activities (Mikić et al., 2011: 409). The basic principles of the consortium are:

- 1) voluntary approach
- 2) the right to manage, control and decision-making
- 3) a common goal
- 4) investment capital
- 5) participation in the distribution of profit or loss
- 6) limited solidarity

Basic consortium contracts regulate all the rights and obligations of members: division of work, deadlines for execution, share costs, decision-making in the consortium, responsibility for work failure, right of recourse and others. Consortiums may agree between themselves to appoint someone as a leader and authorize him to represent the consortium in relation to third parties, but in relation to the investor they generally act as solidarity creditors or solidarity debtors. A consortium can be temporary (appropriate for realization of certain work) or permanent (for multiple-joint participation members in collective investment undertakings). According to possibility of accession of new members, the consortium can be open or closed<sup>3</sup> (Ivanković, 2014).

### 3.3 Cluster

Clusters are legal entities which include geographically related companies, suppliers, service providers, both within the sector and related institutions. They compete, but also cooperate. It is an organization that is based on network relationships, characterized by decentralization, flexibility and simultaneous implementation of multiple strategies. It is a system of interconnected organizational units (businesses) and their interactions are based on trust and the flow of knowledge. Cluster associations are formal networks or entities that bring together multiple clusters in promoting common interests. Cluster initiatives are organized efforts aimed at increasing the growth of competitiveness clusters in the region. (Lindqvist et al., 2013: 1)

Benefits of association in clusters, according to Cluster development strategy in Croatia (2011: 4):

- 1) strengthening of enterprises competitiveness
- 2) strengthening the competitiveness of Croatian regions

- 3) improving the structure of economic activities (new technology, restructuring)
- 4) networking of public, business and scientific-research sectors

Cluster as a concept has become a central idea in economic development and competitiveness of mid-last decade in the last century and has become generally accepted in economic policy development. During the last ten years, cluster initiatives have been accepted in transition countries. Clusters can be seen as horizontal (where all partners are on same level in the creation of added value), as well as vertical (where the partners are a pyramidal arranged group in a network of suppliers), regional (economic partners in a particular geographical area) clusters in a particular industry. Clusters in their operations mimic large multinational companies. For each economic entity it is easier to do business if it is in a cluster, and entrepreneurs find the following benefits of participating in the cluster:

- 1) securing new markets
- 2) easier access to new markets
- 3) better personal contact with potential buyers
- 4) strengthen relationships with customers and suppliers
- 5) the exchange of knowledge and experience (easier access to "know-how")

In Western Europe, the clusters are associated with rapidly growing industries, the reason for this lies in the fact that ten emerging industries:

- cover more than 45 million employees in Europe, which corresponds to 22% of all European employment and 35% of the European payroll.
- register levels of average wage and value added that are at €30,000 and €76,000 per employee significantly higher than for the economy as a whole, which averages €23,000 and €62,000 respectively.
- individually outperform the average of all traded industries either in terms of dynamism (growth), productivity, or both.

The European hotspots of emerging industries

- include 44 regions that score high on a combination of emerging industry performance metrics.

- account for 22% of Europe's population, 28% of its employment, and 37% of its total GDP.
- are located either in a narrow stretch from Southern Germany to the Benelux and South-western England, a Baltic Sea Region corridor from Denmark and the Swedish west coast to Stockholm and Southern Finland, or selected capital regions in other parts of Europe.
- perform more strongly on a wide range of economic performance indicators, especially those related to innovation, than the average European region.

#### Emerging industries at a glance:

- 1) Advanced Packaging is an increasingly important input to many other activities, from food processing to automotive supply chains.
- 2) Biopharmaceuticals form the scientific basis of the Life Science industries and employ some of the most educated and productive employees.
- 3) Blue Growth Industries has been the focus of European policy in the last several years and is an area where interesting new islands of activity might emerge.
- 4) Creative Industries is the key sector in the future European economy and has been growing faster than any emerging industry in the past two decades.
- 5) Digital Industries cover the key parts of the ICT economy: computer hardware, software, e-commerce and wireless services.
- 6) Environmental Industries cut through all sectors of the economy as the need for more sustainable operations is realized increasingly more and thus have a high growth potential.
- 7) Experience Industries cover creation and consumption of experiences and are composed of millions of SME's at the intersection of arts and business.
- 8) Logistical Services are a key service sector in the modern economy and are among the leaders in job creation.

- 9) Medical Devices are another core part of the Life Sciences industry and are also connected to large and growing employment in local health care services.
- 10) Mobility Technologies are a core part of the European manufacturing industry and despite suffering during the recent crisis they are a clear focus for Europe's strategy to re-industrialize.<sup>4</sup> (Ketels, 2014: 4)

#### 3.4 Cooperative

The beginnings of cooperatives date back to the distant past and can be found at a time when the family was the first form of joint economic and community life, that is home cooperatives. After the collapse of feudalism, social change and development of economy and industry, home cooperatives as such failed. In the second half of the 19th century, farmers and workers united into cooperatives to protect their position and interests in the rapid development of industry and the market economy. Different types of cooperatives and associations are developing in all European countries (Mataga, 1995).

Proof that cooperatives have a lot of meaning is the existence of the ICA (International Cooperative Alliance). The International Co-operative Alliance (ICA) was founded in London on August 19th 1895. The International Co-operative Alliance - ICA is an independent organization that directly represents about 715 million people - brings together 234 members - cooperatives from 94 countries worldwide, including the Republic of Croatia, through the Croatian Cooperative Union. The main goal of the ICA - is promotion and protection of cooperative values and principles around the world. The headquarters of ICA is in Geneva, and regional offices cover an area of Europe, USA, Africa, Asia and the Pacific (Borbaš et al., 2003).

The cooperative movement has a long tradition in Croatia. The first Trades and Crafts Cooperative was established in 1866 in Đurđevac. That same year a clerical cooperative was founded in Zagreb and later in other cities. The development of these cooperatives was a powerful impetus to the development of agricultural cooperatives. In the late 19th and early 20th century, various forms of cooperatives developed (Croatian Peasant cooperatives, economic cooperatives, agricultural cooperatives,

etc.). At that time, in the area of today's Croatia more than 1,500 cooperatives operated with about 250,000 members.

According to the Law on Cooperatives (OG 34/11, 125/13, 76/14), the cooperative is a voluntary, open, independent and autonomous society governed by its members, and their work and other activities or use of its services, on the basis of unity and mutual help generate, enhance and protect their individual and collective economic, social, educational, cultural and other needs and interests and achieve the goals for which the cooperative was established. The cooperative is based on cooperative values: self-help, responsibility, democracy, equality, equity and solidarity and moral values of honesty, openness, social responsibility and caring for others. The cooperative regulates the relationship among its members with cooperative principles:

- Voluntary and open membership - membership in the association is voluntary and open to all people who use its products and services.
- Control of operations by members – the cooperative is a democratic society whose work is controlled by its members who actively participate in the creation of policies and decision-making.
- Economic participation member's cooperative and distribution - duty of members of the cooperative, according to their interests and abilities, participation in the work and contribution to the development of cooperatives. Members of the cooperative distribute profits for one or more of the following purposes; development of cooperatives, increase reserves, to members - proportion to business with the cooperative and to support other activities of the cooperative.
- Autonomy and independence - as an autonomous and independent legal entity cooperative in legal transactions with other legal entities and state authorities rely on work of its members and cooperative resources.
- Education, training and information for members of the cooperative – the cooperative carries out education and training of their members, elected representatives, managers

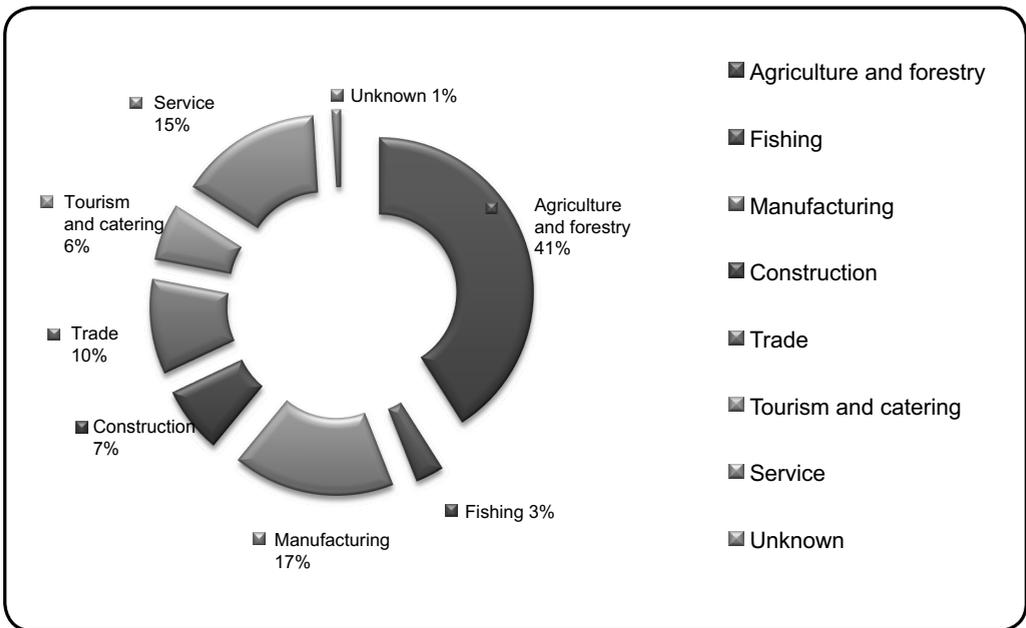
and employees to contribute to the development of their cooperative.

- Cooperation among Cooperatives – the cooperative serves their members most effectively and strengthens the cooperative system of coordination and cooperation at the local, regional, national and international levels.
- Caring for the community – the cooperative operates in a way that it contributes to sustainable development of the environment and local community.

The above concept of cooperatives and those principles with which the cooperative must comply are determined by the Law on cooperative. There are different definitions in different literatures about the cooperative. The cooperative is an organizational form of manufacturer's association, it is a voluntary organization. Cooperatives are special legally regulated commercial organizations. They can be a manufacturing, consumer, purchase and sales, savings and credit and other types of organizations. They are established in order to protect their members from market dominance of large companies and banks, to promote cooperation, solidarity and common interests of membership (Mikić et al., 2011: 1031). Cooperatives in the economic sense try to make every man owner, try to improve their economy, develop savings and sense of responsibility that is associated with ownership, try to make people neighbors who work on their own, but also for the common good, try to teach and educate their management organization.

The theory of modern cooperatives as an important determinant of the cooperative alleges the so called principle of equivalence, according to which: people who invest in cooperative capital and manage it, are also its business partners or employees. Therefore, holders of cooperatives are economic organizations who are their members. Members regularly enter into certain business relationships with cooperatives as suppliers or consumers, while the productive workers cooperative is a border form of cooperative organization in which workers are incorporated into a joint venture (Mataga, 2005).

Chart 3 The percentage of cooperatives in 2015



Source: According to *Godišnje izvješće o stanju zadružnog poduzetništva za 2015. godinu*, Croatian Centre for Cooperative Entrepreneurship<sup>5</sup>

Cooperatives are spread across all economic sectors, and most of them, 5,310, belong to the sector of agriculture and forestry, and the smallest number of cooperatives, 42 of them, are located in the fisheries sector as can be seen in Chart 3. Ten cooperatives did not provide complete documentation therefore it was not possible to classify them according to certain categories, and they are kept under the category of unknown. Also, 199 cooperatives belong under the category of services which were based on a number of different activities listed under the common category of services that includes administrative and support services, health care and social welfare, financial and insurance activities, information and communication, public administration and defense, compulsory social security, education, real estate, transportation and warehousing, mining and quarrying, professional, scientific and technical activities, arts, entertainment and recreation and other service activities, according to the Annual report on the state of cooperative business in 2015 (2016, a).

Table 2 Number of cooperatives 2011-2015

Year	Number of cooperatives	Chain index	Base index (2011)
2011	2,060		
2012	1,069	51.89%	51.89%
2013	1,169	109.35%	56.75%
2014	1,255	107.36%	60.92%
2015	1,302	103.75%	63.20%

Source: *Work of the authors*

Table 2 shows the movement of the percentage change in the number of cooperatives in the period from 2011 to 2015. In 2011, the highest number of cooperatives was 2,060, but already in next year that number was halved, and so far has not come back to the old number, although a positive trend from 2013 is noticeable.

**Table 3 Number of employees in cooperatives 2011-2015**

Year	Number of employees in cooperatives	Chain index	Base index (2011)
2011	2,663		
2012	2,692	101.09%	130.68%
2013	2,715	100.85%	131.80%
2014	2,730	100.55%	132.52%
2015	2,744	100.51%	133.20%

Source: Work of the authors

According to records of cooperatives and cooperative unions, Croatian Centre for Cooperative Entrepreneurship<sup>6</sup> on 31.12.2015 recorded 1,302 active cooperatives in the Republic of Croatia. Cooperatives in Croatia gather a total of 21,462 cooperative members and employ 2,744 people, as can be seen from Table 3, according to the Annual report on the state of cooperative business in 2015 (2016, b).

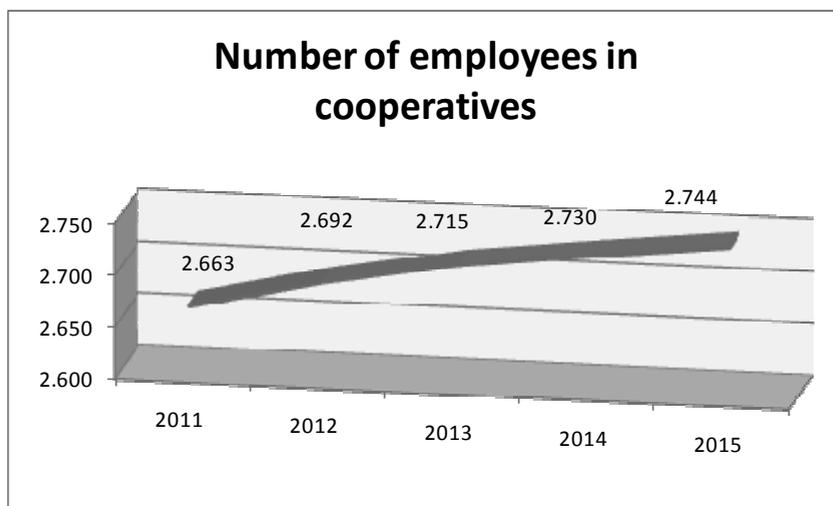
**Table 4 Average number of employees in cooperatives 2011-2015**

Year	Average number of employees in cooperatives	Chain index	Base index (2011)
2011	1.29		
2012	2.52	194.80%	0.12%
2013	2.32	92.23%	0.11%
2014	2.18	93.66%	0.11%
2015	2.11	96.88%	0.10%

Source: Work of the authors

Table 4 shows the average number of employees in cooperatives. Unfortunately, the average number of employed is decreasing, but that is the result of a larger number of newly opened cooperatives rather than the number of newly employed in cooperatives. The trend in number of employees is visible in Chart 4.

**Chart 4 Trends of employment**



Source: Work of the authors

By observing the number of employees in cooperatives by age, Chart 4, a positive trend of continuous growth in number of employees in cooperatives is

visible. On average annual basis cooperatives employ 16 people. The number may seem small, but the trend is stable.

**Table 5 Number of cooperatives, cooperative members and employees by county**

County	Number of cooperatives	Number of cooperative members	Average number of cooperative members	Number of employees	Average number of employees
Bjelovar-Bilogora	77	668	8.68	170	2.21
Brod-Posavina	31	324	10.45	177	5.71
Dubrovnik-Neretva	56	2,075	37.05	137	2.45
Istria	117	2,893	24.73	113	0.97
Karlovac	39	2,179	55.87	65	1.67
Koprivnica-Križevci	54	543	10.06	41	0.76
Krapina-Zagorje	69	719	10.42	145	2.10
Lika-Senj	22	725	32.95	143	6.50
Međimurje	20	223	11.15	24	1.20
Osijek-Baranja	14	234	16.71	99	7.07
Požega-Slavonia	128	1,529	11.95	300	2.34
Primorje-Gorski Kotar	13	111	8.54	12	0.92
Šibenik-Knin	44	716	16.27	138	3.14
Sisak-Moslavina	49	671	13.69	48	0.98
Split-Dalmatia	198	3,109	15.70	289	1.46
Varaždin	73	793	10.86	132	1.81
Virovitica-Podravina	29	345	11.90	42	1.45
Vukovar-Srijem	49	389	7.94	78	1.59
Zadar	88	1,080	12.27	306	3.48
Zagreb County	88	1,536	17.45	234	2.66
City of Zagreb	44	600	13.64	51	1.16
Total:	1,302	21,462	16.48	2,744	2.11

Source: According to *Godišnje izvješće o stanju zadružnog poduzetništva za 2015 godinu*, Croatian Centre for Cooperative Entrepreneurship<sup>7</sup>

The number of cooperatives, cooperative members and employees by county is shown in Table 5. Per number of cooperative far most notable is the Split-Dalmatia County. The number of employees in cooperatives is the highest in the Vukovar-Srijem County, where there are 306 employees and in the Osijek-Baranja County, where there are 300 employees. An interesting fact is that in the Vukovar-Srijem County, there were 88 cooperatives, half less than in the Split-Dalmatia County, where there were 198. For the same two counties, the interesting fact is that the Vukovar-Srijem County has 1,080 cooperative members while in Split and Dalmatia Coun-

ty there are 3,109 cooperative members. Međimurje and Krapina-Zagorje County stand out by far the largest number of employees per cooperative 7.07 in the Međimurje County and 6.50 in the Krapina-Zagorje County. At the same time the Međimurje and the Krapina-Zagorje County are at the bottom by the number of cooperatives, 14 in the Međimurje and 22 in the Krapina-Zagorje County.

**Table 6 Income by cooperative members and employees in 2014**

Cooperatives by sector		Revenues in 2014	The share in total revenue	Number of cooperative members	Revenue per cooperative members	Number of employees on 31.12.2014	Revenue per employee
1.	Agriculture and forestry	840,903,008.00 HRK	52.44%	7,925	106,107.64 HRK	1,263	665,798.11 HRK
2.	Fishing	261,551,618.00 HRK	16.31%	640	408,674.40 HRK	150	1,743,677.45 HRK
3.	Manufacturing	180,674,362.00 HRK	11.27%	2,994	60,345.48 HRK	406	445,010.74 HRK
4.	Construction	76,393,141.00 HRK	4.76%	1,277	59,822.35 HRK	122	626,173.29 HRK
5.	Trade	135,848,444.00 HRK	8.47%	2,252	60,323.47 HRK	365	372,187.52 HRK
6.	Tourism and catering	17,940,914.00 HRK	1.12%	634	28,297.97 HRK	91	197,152.90 HRK
7.	Service	90,100,665.00 HRK	5.62%	4,406	20,449.54 HRK	319	282,447.23 HRK
8.	Unknown	0.00 HRK	-	64	-	0	-
Total:		1,603,412,152.00 HRK	100.00%	20,192.00		2,716.00	

Source: Author's calculations based on data from *Godišnje izvješće o stanju zadružnog poduzetništva za 2014 i 2015 godinu*, 'Croatian Centre for Cooperative Entrepreneurship'<sup>89</sup>

The largest revenue in 2014 was achieved in the Agriculture sector and forestry 840,903,008.00 in that sector there were 7,925 cooperative members and the largest number of employees 1,263 which makes the average revenue per employee 665,798.11 HRK. The fishing sector has almost the lowest number of its members 640 and the minimum number of employees in cooperatives 150, but has the highest revenue per employee of 1,743,677.45 HRK. Some cooperatives did not deliver complete documentation so it was not possible to classify them according to fixed categories. They are classified under the category of unknown. According to the Annual report on the state of co-operative business in 2015 (2016, c), category services include cooperatives with a large number of different activities.

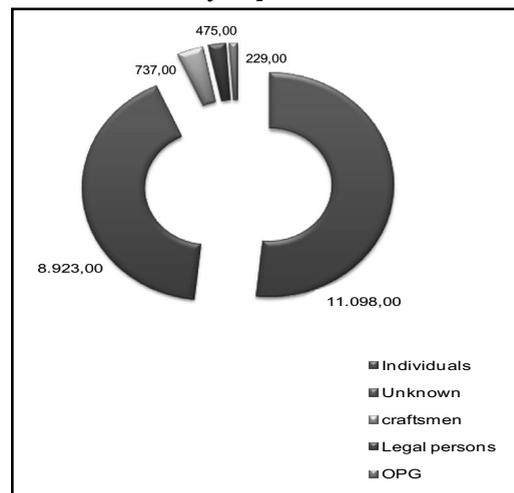
**Table 7 Structure of cooperative members in 2015**

Description	Number of cooperative members in 2015	Share
Individuals	11,098.00	51.71%
Unknown	8,923.00	41.58%
Craftsmen	737.00	3.43%
Legal persons	475.00	2.21%
Family farm	229.00	1.07%
Total:	21,462.00	100.00%

Source: Work of the authors

Table 7 and Chart 5 show the structure and legal form of cooperative members in 2015. The largest number of cooperative members are individuals, but due to a very large share (41.58%) of those cooperative members who have not submitted all the required documents it is impossible to determine the right structure, and to process the received data. Accordingly, the lowest number in member's structure are family farms.

**Chart 5 Structure of cooperative members in 2015**



Source: Work of the authors

**Table 8 Number of cooperative members and employees by sector in 2015**

Cooperatives by sector		Number of cooperative members	Number of employees	Number of self-employed cooperative members (ECM)	Share ECM
1.	Agriculture and forestry	8,061	1,240	170	13.71%
2.	Fishing	645	157	32	20.38%
3.	Manufacturing	3,100	451	82	18.18%
4.	Construction	1,365	135	17	12.59%
5.	Trade	2,281	344	59	17.15%
6.	Tourism and catering	656	93	16	17.20%
7.	Service	5,283	324	34	10.49%
8.	Unknown	71	0	0	-
	Total	21,462	2,744	410	

Source: Work of the authors

The total number of employees in cooperatives on 31.12.2015 amounted to 2,744 persons of whom 410 are self-employed cooperative members and 2,334 other employees as visible in Table 8.

### 3.5 Business combinations (mergers)

Business combinations imply any connection of two or more businesses into a single business entity, or any subordination of one business entity to another (Orsag, 1996a: 17). Business combinations are possible too, for easier viewing, grouped as follows:

1. Alliance (unions) companies
2. Acquisitions
3. Holdings (Orsag, 1996b: 20)

Business combinations are also found under the acronym M & A (Eng. mergers and acquisitions). When speaking about alliances or associations of companies, it can be said that this is an informal form of business combination. The reason is because when entering into alliance, a new formal form of company is not formed. That is the guideline that makes it relatively easy to end cooperation (Orsag, 1996c: 21). The term acquisitions include acquisition, merger and consolidation. In mergers and consolidation, two or more companies merge to create a new one (fusion) or combine into one (consolidation) company. The acquisition means buying (Bruner, 2005: 1) shares or assets of one business entity by another, and thus that company is annexed. Holding includes the ac-

quisition shares or units that provide control of other businesses. The synergistic effect is the main reason for the merger of business entities. Their combined value is greater than the sum of their individual values. According to Ali Yrkkö, reasons for a merger can be divided into microeconomic and macroeconomic. When numerous microeconomic reasons are viewed of the business combination or merger, some stand out, which are the result of detailed analysis and planning, such as increasing sales, improving management, tax reasons, stability, and diversification. In addition to these planned reasons, there can also appear unplanned reasons such as the agreement of the owner about mergers, acquisitions or the desire of managers for rapid promotion on the managerial ladder (Bahtijarević, 1996: 234). Macroeconomic reasons for business combinations (mergers) are economic crisis and recession. Historically, mergers and acquisitions occur in cycles. Cycles started with the beginning of a high rate of economic growth and general optimism of investors in the financial market. Also great technological advances have followed the beginning of the merger cycle. These technological advances have enabled the progressive growth of certain industries. With technological advances, the beginning of the cycle was accompanied by positive political or legislative decisions (Bučanac, 2009).

### 3.6 Holding

Holding can be defined in the following ways:

- As a company that has share in property of another company (owned shares)

- Company that has a majority stake in shares of other companies and gains control over the company (Karić, 2005: 20)
- market activities
- energy activities

It is believed that a holding company is justified if its management has the financial, managerial and marketing power of decision-making for a number of subordinate enterprises.

Holding according to Mikić et al. (2011) is in a broad sense every company that holds shares of other companies. In a narrow sense, it is the company that holds shares of other companies in that quality and quantity that this company can be considered subordinate. A society that is formed solely to invest in securities of other companies and maintain control of that entity is called a pure holding company.

In the world there are groups of companies such as the Rockefeller, Mellon, Hanna-Cleveland, Rothschild, Schneider, and Krupp. In Croatia, the most famous is Zagreb Holding Ltd. which was established in 2007 according to the Companies Act and it is 100 per cent owned by the City of Zagreb. It consists of 17 subsidiaries that perform activities of former city enterprises. Also it is owner of seven companies and one institution, and the total number of employees is approximately 11,000. Activities of the company are grouped into four business areas:

- municipal services
- transport activities

#### 4. Method of survival or survival technique

The survival technique was developed by the American economist George Joseph Stigler (1958: 54-71). He was a university professor, a member of the Chicago School, and a prominent researcher of microeconomics. For his work he was awarded with a Nobel Prize in 1982 for creative analysis of industrial structures, functioning of markets, causes and consequences of government intervention to individual economic segments. He developed the so called Stigler's law of elasticity of supply and demand, which showed that the curves of supply and demand are inelastic (Mikić, 2011: 887). Stigler's survival techniques are based or founded on Darwin's doctrine of survival of the fittest. The method implies that only companies with the lowest cost can survive in the market. The technique of survival is shown on the example of various size enterprises in the steel industry of the United States. Companies or plants are classified in categories based on size and proportion in sales production for each group over time is calculated. If research shows that a certain group's share is declining, it brings to conclusion that the size is inefficient, i.e. that high costs are present. The classification groups are based on company size or capacity of the company and number of employees.

Table 9 Market share of companies of various sizes in the American steel industry

Groups (classification criteria, the percentage of capacity of the industry)		Market share over time; (Percentage of industrial production)		
		1930	1938	1951
small size	under 0.5	7.16	6.11	4.65
	0.5-1	5.94	5.08	5.37
	1-2.5	13.17	8.3	9.07
	2.5-5	10.64	16.59	22.21
medium size	5.0-10	11.18	14.03	8.12
	10-25	13.24	13.99	16.1
large size	above 25	38.67	35.91	34.5

Source: Stigler, G. J. (1958), "The Economies of Scale", *The Journal of Law and Economics*, Vol. 1, No. 1, pp. 54-71.

Based on the data from the table, Stigler concluded that during the period of two decades of his study, the share of small and large companies in the steel industry of the United States steadily declined. From the above facts Stigler concluded that the small and large enterprises are inefficient and that the main problem is the presence of high costs. While medium-sized companies have increased or maintained market share, i.e. medium-sized enterprises are the optimal size of the company for the steel industry (Koutsoyiannis, 1996: 147). The technique of survival is characterized as one of the simplest models, but there are also some disadvantages, because it is based on the following assumptions:

- Companies want to achieve the same objectives
- Operating on the market in similar environments
- That factor prices and technology do not change
- There are no secret agreements.

It can be concluded that it is not enough to observe costs of production, but that consideration should be given to changes in technology, price factors, targets companies etc. Since the Marketplace of economic entities increased with connectivity, mergers and joining, and the survival technique is based on the survival of the fittest (those with the largest share of the market), this particular market share is a direct link and justifies each merger, association, cooperative and connections.

## 5. Conclusion

The focus of this paper is on cooperatives as a form of connection, association and joint action on the market because through history that model has appeared on the Croatian territory. As one of the simplest models of association, cooperatives are regulated by the Law on Cooperatives, and through their activity in the market sales and purchases are enabled. In addition to cooperatives, other forms of

association and connection are theoretically analyzed. It has been shown for all the discussed forms that interconnection, association and merging of economic entities has occurred throughout history, and it is a natural cycle of business. In conditions of economic crisis and recession, this phenomenon of interconnection, merger and acquisition enables the survival and further growth and development of industry and economy at large. Clustering as a model of collaboration and performance in the market became a central idea in economic development and competitiveness in the mid-1990s. In Western Europe, clusters are associated with rapidly growing industries and as such present a preferred form of association. Business combination or mergers have their stronghold in the general macroeconomic conditions of global markets. All previously noted demonstrates that joining is one of the survival models in conditions of economic crisis that provides options to business entities. Stigler's theory of survival, which is based on the share in a sector, shows how joining together in various forms increases market share, facilitates operations, reduce costs, and leads to faster growth and development of associated businesses. This paper aimed to discuss the problems and concerns regarding Stigler's model of survival and integration, mergers and acquisitions of companies. However, Stigler's method of survival should be seen in a broader context, as the originally specified method does not assume important factors such as existence of collusion, different business environments and a variety of input prices. Precisely these factors are reasons for joining, mergers and acquisitions of companies.

In today's conditions of crisis, with keen competition, high production costs and the way the market operates, the need for joining unavoidably arises. Joining together can occur in various forms, such as those mentioned in the paper. The previous view proved theoretically as well as numerically the feasibility of association, and offered an answer to the majority of the global problems faced by both small economies as well as large enterprises.

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## **UDRUŽIVANJE GOSPODARSKIH SUBJEKATA KAO MOGUĆNOST OPSTANKA NA SUVREMENOM TRŽIŠTU**

### **SAŽETAK**

Na današnjem globalnom tržištu velik je izazov za svaki gospodarski subjekt biti konkurentan i ostvarivati postavljene ciljeve. Metoda preživljavanja pokazuje da će ona poduzeća koja imaju najmanje troškove preživjeti, odnosno opstati na tržištu. G. J. Stigler je navedenu tehniku objasnio na tržišnom udjelu različitih veličina poduzeća u čeličnoj industriji SAD-a. U svojoj metodi grupira poduzeća po veličini (mala, srednja i velika). Gledajući kroz povijest, poznato je da su se poduzeća, već od srednjega vijeka, udruživala. U to doba, udruženi se trgovci nisu bavili samo trgovinom, već i prijevozom te novčarskom djelatnošću. Gospodarski se subjekti povezuju i danas najčešće u obliku zadruga, klastera, javno-privatnoga partnerstva, konzorcija i holdinga. Razlog tomu jest smanjenje troškova, rizika i konkurencije te mogućnost povećanja kapaciteta gospodarskih subjekata. Potrebno je napomenuti kako postoji sinergijski učinak prilikom udruživanja gospodarskih subjekata. Svjedoci smo mnogih propalih gospodarskih subjekata koji nisu odgovorili na ekonomsku krizu, odnosno na potrebe tržišta.

Cilj je rada povezati tehniku preživljavanja i udruživanja gospodarskih subjekata te prikazati kako je udruživanje jedan od modela preživljavanja koji u uvjetima gospodarske krize daju mogućnosti gospodarskim subjektima. Samo poduzeća s najnižim troškovima i kvalitetnom tehnologijom mogu opstati i konkurirati na današnjem tržištu.

**Ključne riječi:** tehnika preživljavanja, udruživanje gospodarskih subjekata, zadruga, tržišni udio