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VERTICAL AGREEMENTS ON DIGITAL MARKETS

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Abstract. *Introduction: Moldovan competition regulations have been modernized in 2012 in the spirit of European directives. However, European entrepreneurial experience, competitive culture, and case law in the field of competition rules' enforcement are far above. The absence of an extensive experience in this field leads often to confusion about the practical application of competition rules, and the risk exists that pro-competitive economic behaviour is wrongly blamed as an anti-competitive practice. Vertical restraints may be often identified in business contracts with vertical structures, such as supply, distribution, franchising, and agency agreements, whether such contracts are implemented in traditional or digital markets. Digitization and innovative technological solutions have substantially changed the production and distribution chain of goods and services. A good example in this sense is the book market where digitization has had a sensational effect on competition. The launch of the Kindle by Amazon in 2007 has shaken the market for e-books traded online, leading to settlements between major book publishers and e-book distributors agreeing on parity obligations, which have raised competition concerns with authorities in several countries. Agreements between print, e-book, and audio-book publishers and their distributors (Amazon, Apple) have been subject to competition investigations by US and EU competition authorities, as well as by the European Commission, where potentially anticompetitive vertical restraints have been identified.*
Aim: This article aims to investigate the boundaries between the legal and economic essence of vertical restraints; the benefits that such restraints may have over the competition and the impact of digitalization on the firms' behaviour when agreeing on vertical restraints in their new business models.
Method: To study the subject approached in this article, the following research methods were applied, such as analysis and synthesis of conceptual approaches to the use of vertical restraints in the digital economy, to elucidate the factors influencing the firms to use vertical restraints in their business activity and to formulate conclusions and own opinions about how the digitalization influenced the competitive assessment of vertical restraints.
Findings: Vertical restraints are not always a peril for competition, and their primary purpose is to remove market failures such as double marginalization, free riding, information asymmetries, or the risk of not recovering significant investments. They may have a pro-competitive effect, but sometimes it is impossible for businesses to clearly determine the limit beyond which they cannot agree upon vertical restrictions in their contracts.
A proper understanding of vertical restraints, their necessity, and how they "behave" in the digital world can help entrepreneurs to use them rationally, leading to efficiency gains for both new business models and society at large. At the same time, national competition rules are to provide the necessary protection of markets and consumers from anti-competitive vertical restraints.

Key words: *vertical agreement, vertical restraint, anti-competitive behavior, digital markets*

JEL CLASSIFICATION: D41, K21.

INTRODUCTION

Almost ten years have passed since the Moldovan Competition Law was passed, but many of its concepts remain misunderstood by practitioners to this day. The Competition Council's experience since its establishment includes all types of competition infringements: the Council has investigated horizontal agreements and concerted practices in various markets, abuses of dominant position, and anti-competitive actions by public authorities. As regards vertical agreements, the Council's experience is more modest. One of the most complex cases of competition investigation involving vertical agreements was carried out in 2015-2018 when the Competition Council examined alleged

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anti-competitive vertical agreements in relations between supermarket chains and their suppliers. The investigation was concluded without finding any infringement and without any sanctioning decision, either due to the commitments proposed made the supermarket chains involved in the investigation or by finding no signs of violation of the Competition Law by other chains (Decision No. DA-3/15-28, 2018). The case referred to above was illustrative in highlighting the absence among businesses of a common understanding of vertical agreements' essence and where they might affect competition.

The rapid changes occurring in legal and economic relationships due to digitization and new digital business models make the correct understanding of vertical agreements even more pressing at the national level. Product suppliers could prohibit distributors with whom they collaborate from distributing their products on online platforms; producers could prohibit software developers from collaborating with other manufacturers; digital content publishers could require distributors to sell exclusively through certain app stores; digital content distributors could require publishers to lower prices as soon as they offer more favourable terms to competing distributors. These restrictions need to be considered by businesses before implementation to prevent potential consumer harm.

Competition Law defines vertical agreements as one of the forms that anti-competitive agreements may take, leading to confusion that such agreements might be illegal *per se*. Vertical agreements are indeed restrictions on contractual freedom, but they do not necessarily restrict competition; on the contrary, they may be necessary for the benefit of final consumers. Analyzing the actual or potential effects of a vertical agreement should become an economic prerogative for businesses using vertical contractual structures so that they can argue the necessity of vertical restraints for efficiency gains. Because "not every restriction on conduct is a restriction of competition, let alone a significant restriction of competition" (Niels et al, 2011).

The rapid digitization of the economy has increased the interest of competition authorities in other countries, including the European Commission, in vertical restraints used by businesses in the online environment. This has served as one of the main reasons why the European Commission is reviewing its regulations and recommendations on the application of vertical restraints by firms, resulting in the recent communication of new Guidelines on Vertical Restraints (Guidelines, 2022), in which vertical restraints used on digital platforms represents one of a subject of interest.

As a result, the issue proposed for research in this article is defined as follows:

(1) What are vertical agreements, how can they be classified?

(2) What is the economic necessity of vertical agreements and what is their danger for competition?

(3) What are the anti-competitive vertical agreements identified by competition authorities worldwide in digital markets? What is the specificity of anticompetitive vertical agreements identified in digital markets? Is it necessary to amend the Moldovan Competition Law to deal with the specificities of digital markets?

METHODOLOGY

To answer the above questions, we set out to review the economic doctrine and articles of scholars in the field who have investigated various aspects of vertical agreements, including in digital markets. We also analysed existing judicial practice in countries where competition rules, including those prohibiting anti-competitive practices through vertical agreements, originated to better understand the purpose protected by these rules. We then analyse the recent experience of competition authorities around the world in investigating vertical agreements in digital markets to

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determine whether there are any peculiarities of such agreements in these markets. Based on the peculiarities identified, we determine whether the current rules contained in the Competition Law and the regulations for their enforcement are sufficient to prevent, identify or counteract anti-competitive vertical agreements in digital markets.

1. Definition of vertical agreements

Vertically structured contracts are one of the essential elements of the national economy and of the market mechanism. The Moldovan market abounds in supply, distribution, agency and franchising contracts. With their help, products reach the final consumer, going through the entire value chain by means of agreements between enterprises at different levels.

Often in vertically constructed contracts, the parties agree on restrictions on the resale price of the products, the territory, and customers to which the products may be supplied or resold during the term of the contract or even after its expiry, the sources of supply from which distributors may purchase the products or services necessary to carry out the resale, etc. These restrictions are referred to in competition jargon as 'vertical agreements' or 'vertical restraints. Moldovan Competition Law uses the term 'agreements', even though the term 'restriction' is more precise in defining the restrictive nature of these arrangements.

In the literature, vertical agreements are defined as "an alliance in which the common purpose of the parties is to increase joint profits and reduce prices for the benefit of consumers" (Hovenkamp, 2017). In most cases it is considered that the joint efforts of the supplier and the distributor in bringing products or services to the market ultimately benefit the consumer. At the same time, the specificity of vertical agreements allows participating undertakings to form commercial alliances to strengthen their positions and increase their ability to compete in different markets.

Definitions of vertical agreements can also be found in the legal regulations. Article 4 of the Moldovan Competition Law (2012) defines vertical agreements as "an agreement or concerted practice agreed between two or more undertakings each operating, for the purposes of the agreement or concerted practice, at different levels of the production or distribution process, relating to the conditions under which the parties may purchase, sell or resell certain products". The definition is identical to the one contained in Article 1(1)(a) of Regulation (EU) 2022/720.

From the above definition, the main element of vertical agreements that distinguishes them from horizontal agreements is that the parties to a vertical agreement act at different levels of the distribution chain (as opposed to horizontal agreements where the parties are competitors). As a result, vertical agreements presuppose the existence of two different markets in which the parties to the agreement participate, namely:

(i) *the upstream market*, where the manufacturer competes with undertakings producing products substitutable for the manufacturer's products, and

(ii) *the downstream market*, where the distributor competes with other undertakings distributing products substitutable for the distributed products.

Value chains can be of varying complexity, allowing for a multitude of vertical business interactions between different participants.

An understanding of the specifics of vertical agreements will not be complete without a comparison with the other type of agreements covered by the Competition Law, namely horizontal agreements. Horizontal agreements are made between two or more undertakings operating on the market at the same level. It has been pointed out in the literature that "[T]he conceptual distinction

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between a horizontal and a vertical agreement is a significant one. Competitors meeting to discuss market prices raises considerable concerns. In contrast, meetings between a supplier and a distributor, who are necessary parties to a sales contract, are less suspicious, and they discuss prices all the time. As a result, in competition investigations of vertical restraints, the focus will be on evidence relating to the content of the agreement, whereas horizontal agreements focus on the very fact of the existence of the agreement." (Hovenkamp, 2017)

An important element inherent in vertical agreements, and their specificity as an agreement between non-competitors, including in digital markets, is the competition that they may affect. In analyzing vertical agreements it is essential to bear in mind the distinction between inter-brand competition and intra-brand competition. The competition that occurs in the upstream market is called inter-brand competition because it occurs between different producers, whose products are predominantly identified with the use of specific brands. Competition in the downstream market between distributors selling the same manufacturer's products is called intra-brand competition.

It is generally accepted that reduced intra-brand competition (between distributors of the same manufacturer) is less harmful to competition and less likely to harm consumers, especially if there is strong inter-brand competition (between different manufacturers of substitutable products). There is also less likelihood of anti-competitive vertical agreements reducing intra-brand competition. Manufacturers have no incentive to limit price competition between their own distributors, except where such a limitation would be the only way to encourage distributors to offer ancillary services or to invest in promotional activities, which would bring more benefits to consumers than limiting the possibility of price reductions. This is one of the reasons why intra-brand competition restrictions are pro-competitive.

On the other hand, reduced inter-brand competition is considered to have a stronger impact on consumer welfare. If the parties' agreements reduce competition between different manufacturers' brands, they will not be encouraged to make efforts to improve their products and equip them with features that would best meet consumer preferences. Secondly, by reducing competition between them, producers will not compete by guaranteeing the lowest price for the consumer.

As a result, **the agreement between an independent upstream company and an independent downstream company in the value chain is called a vertical agreement**.

For the purposes of competition law, and to avoid confusion between agreements and contracts for civil law purposes, it is recommended to use the term 'vertical restraint' and not 'vertical agreement', which in fact reflects the essence of a vertical agreement to restrict the contractual freedom of one of the parties.

2. Classification of vertical agreements

The case law and economic literature classify the vertical restraints according to different criteria. For the purposes of this article, we will analyze the classifications that have been reflected in the legislation of the Republic of Moldova and the practice of applying national competition rules, inspired by European case law.

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(1) Price and non-price vertical restraints

Depending on the criterion underlying their determination, vertical restraints can be categorised into price and non-price vertical restraints.

Price vertical restraints relate to the resale price of products and services and are applied in the downstream market, restricting the ability of the distributor to freely set the resale price, irrespective of the interests of the supplier. This category includes resale price maintenance, non-linear pricing, quantity forcing.

Vertical non-price restraints are imposed on the upstream market or imposed on the downstream market and are not related to price, but to other conditions for the marketing of contract products and services. The most common non-price restrictions are exclusive distribution systems, selective distribution, non-compete obligations, or tying.

(2) Hard-core, individually or block exempted and de minimis vertical restraints

This classification is made based on the degree of danger to competition presented by the specific vertical restraint. Thus, depending on the degree of danger, vertical restraints can be classified as (a) hard-core restraints, (b) individually exempted restraints, (c) block-exempted restraints, and (d) de minimis restraints.

(a) The highest degree of danger to the competition may exist when the parties agree on *hard-core vertical restraints*, which are sanctioned by law and cannot be exempted. They are prohibited to protect free price competition between distributors for the benefit of final consumers and guaranteeing the unrestricted right of consumers to purchase goods and services according to their needs. When hard-core vertical restraints are under investigation, the competition authority will consider it more beneficial for the market to sanction the undertakings involved in order to prevent future similar behaviours.

The following vertical restriction is considered hard-core and anti-competitive:

(i) resale price maintenance;
(ii) prohibition to sell to any customer if the customer's request came without an invitation from the distributors (passive sales). The distributor must be free to respond to requests from buyers of products or services, including with the use of the Internet.
(iii) the use of a selective distribution system where distributors are prohibited from active or passive sales to final consumers or other authorized distributors.
(iv) a prohibition on the manufacturer procuring spare parts for its own products from selling such parts to end users or independent repairers.

(b) Certain anti-competitive vertical agreements may benefit from the *individual exemption* if they create efficiencies that outweigh the losses incurred by the anti-competitive effect. Vertical restraints include:

(i) non-compete obligation whereby distributors undertake to resell only the supplier's products with a term exceeding 5 years;
(ii) vertical agreements, which are not hardcore agreements, but where the parties' share of the relevant market exceeds 30%.

To benefit from the individual exemption, the undertakings involved in the above agreements must demonstrate by conclusive evidence the efficiency-enhancing criteria of the agreements, namely that:

- the vertical restraint applied contributes to improving the production or distribution of products or to promoting technical or economic progress;

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- the vertical restraint ensures that consumers receive a fair share of the resulting benefit;
- it does not impose on the undertakings concerned restrictions that are not indispensable to the attainment of the objectives referred to above;
- does not afford the undertaking the possibility of eliminating competition in respect of a significant part of the products in question.

(c) Vertical restraints that may be *block exempted* are deemed to be pro-competitive, subject to certain conditions. These categories of vertical restraints are: exclusive distribution, selective distribution, recommended pricing, single branding agreements, franchising, exclusive supply agreements, upfront access royalties, category management agreements, tying agreements, resale price recommendation agreements, or maximum resale price maintenance agreements.

One of the basic criteria to benefit from the block exemption is the economic power the parties have. Thus, the vertical restraints listed above are considered block exempted if the parties to the agreement have shares of the relevant markets below 30%.

(d) Vertical restraints that are found in agreements between undertakings with insignificant economic power are considered *de minimis*, do not raise a risk to competition, and are therefore not subject to legal sanctions under the Competition Law. Undertakings participating in a vertical agreement are deemed to have insignificant economic power if the market shares of each undertaking participating in the agreement do not exceed 15% in any of the relevant affected markets.

The de minimis exception does not apply to hardcore vertical restraints, which will be sanctionable irrespective of the market share held by the participating undertakings.

In the literature reviewed, we did not find a classification of vertical restraints according to the distribution channels used: online or offline. Essentially, vertical restraints can be used in any medium of business collaboration, so for the purposes of this article, the classification of vertical restraints presented above is also valid for vertical collaboration in digital markets.

3. Economic reasons for vertical restraints

According to the generally accepted view in economic and competition law doctrine, vertical agreements between non-competitors, are less dangerous than horizontal agreements, between competitors (Guidelines, 2022). Vertical agreements do not in all cases have anti-competitive motives. Nor do vertical agreements always have negative effects on consumers. On the contrary, economic theory has shown that vertical agreements often contribute to advanced efficiency and consumer welfare. This is due to the complementary nature of the activities carried out by the parties to a vertical agreement, which generally implies that pro-competitive actions by one party to the agreement will benefit the other party and ultimately benefit consumers (Niels, 2011).

The study of vertical agreements has led to controversial discussions in literature as to whether such restrictions should be prohibited by competition rules. According to Cunningham (2011), since 1970, economists have developed in-depth theoretical analyses with empirical results concerning vertical agreements. The economic literature has also identified a wide variety of circumstances in which the efficiency-enhancing arguments advanced by parties to vertical agreements have not held up. However, many economists will agree that vertical restraints generally serve the purpose of making the distribution of goods more efficient, and that they raise concerns only when intra-market competition is insufficient.

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Vertical agreements are generally considered 'good' or pro-competitive, provided that they do not restrict competition and their effects enhance consumer welfare. Vertical agreements are considered "bad" or anti-competitive when they cause or are likely to cause effects that are undesirable for a market economy, such as collusion, foreclosure, or the creation of barriers to entry.

Vertical agreements may be anti-competitive but still show efficiencies. For this reason, the analysis of the competitive effects of vertical agreements needs to be carried out with an detailed assessment of all market conditions facing the undertakings in each individual case. Such imprecise characteristics are the main reason for the controversial opinion regarding the initiatives for vertical agreements regulation.

The literature reviewed states that the main reason firms use vertical restraints is to eliminate market failures. The term "market failure" is used to refer to a situation where the market cannot allocate resources efficiently on its own and the "invisible hand" does not work properly for various reasons, which prevents an efficient allocation of resources (Cunningham, 2011).

Examples of market imperfections or failures leading to inefficient allocation of resources include natural monopoly, imperfect competition, information asymmetry and externalities (Lines et al, 2006), which can be addressed by various measures, including contracts between firms.

In the following, we will discuss in more detail the market failures that are solved by firms using vertical restraints, namely externalities, information asymmetries, and the hold-up problem.

(1) Internalization of externalities using vertical restraints

As defined by the OECD Glossary, externalities refer to situations where the effect of the production or consumption of goods and services imposes costs or benefits on others that are not reflected in the prices charged for the goods and services provided. In a contract with a vertical construction, such as a supply or distribution agreement, externalities can occur in both the vertical and horizontal chains.

Externalities along the vertical chain assumes that the actions of the firm operating at one level can benefit the firm at the other level. They arise because decisions and actions taken at different levels of the production or distribution chain determine aspects of the sale of goods, such as price, quality, related services, and marketing, which affect not only the firm making the decisions but also other firms at other levels of the production or distribution chain (O'Brien, 2020).

Because of the existence of vertical externalities, the distributor may not fully benefit from its efforts to increase sales (on the downstream market), as some of the benefits may accrue to the supplier (on the upstream market). Thus, in relation to the supplier, this will be a positive externalization, as the supplier's profit will increase due to the distributor's efforts on the downstream market, on resale. Conversely, outsourcing may be negative for the supplier if the distributor shows higher resale prices or does not put sufficient effort into selling the products. As a result, the supplier's profit will decrease due to actions or inactions taken by the distributor on the downstream resale market.

One of the vertical externalities frequently encountered in contracts with vertical structures is *double (or multiple) marginalization*. Double marginalization is the route taken by final products from the producer to the final consumer through a few intermediaries eager to earn revenues above marginal costs (Verouden, 2008).

For the first time, the issue of double marginalization in economics was debated by Antoine Augustine Cournot (1801-1876). Cournot studied price competition between two producers (U1 and U2) of complementary products needed to produce brass from an equal quantity of copper and zinc.

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Cournot showed, that the sum of U1 and U2 prices is higher than the price a monopolist selling both products would charge (Alexandrov et al, 2018).

In another economic model, presented by Vincent Verouden (2008), double marginalization in vertically constructed contracts between independent firms is analysed.

Thus, according to the model, $D(p)$ denotes the market demand as a function of the resale price p. It is assumed that the marginal cost of production is c and that the distributor only bears the cost of paying the wholesale price p_w which it pays to the supplier. It is assumed that the manufacturer supplies the distributor with the product at the same price p_w and that the distributor can independently determine the resale price p. For a given wholesale price, the distributor will set a resale price that maximizes its profit $(p- p_w)D(p)$, i.e. it will charge a monopoly price $p^m (.)$, which is a function of the wholesale price p_w. To be profitable, the supplier will set a wholesale price that exceeds the marginal cost of production: $p_w > c$.

At the same time, due to the existence of two successive marginal indicators ($p > p_w$ and $p_w > c$), the final resale price will be too high from the point of view of the whole vertical structure: the resale price is $p^m(p_w)$, where p_w is the optimal price from the supplier's perspective, instead of $p^m(c)$, which would have been more correct, since c is the marginal cost of the whole vertical structure. The price distortion arises because the distributor in setting the resale price does not consider the effect it will have on the supplier's profit; nor does the supplier take into account the profit that will accrue to the distributor (Verouden, 2008).

Thus, double marginalization occurs when the resale price charged on the upstream market exceeds the marginal cost incurred when buying the product on the downstream market. Double marginalization can be avoided by vertically integrating the factors of production, supply, and distribution under common corporate control (as indicated in the Cournot model), or by using vertical price-based restraints. Some examples of vertical restraints that can address the problem of double marginalization in the vertical structure can be found below:

- resale price maintenance: the supplier can apply resale price maintenance by setting the resale price at $p= p^m (c)$.
- applying the non-linear price, consisting of two parts: a fixed, invariable part representing the marginal wholesale price equal to the marginal costs (c), and the second part - a flat-rate charge, the size of which will depend on the quantity of product purchased by the distributor. By this the distributor will get the full benefit of the vertical structure for each additional product sold.
- quantity forcing, whereby the supplier sets the price depending on the quantity of product bought by the distributor, setting mandatory minimum thresholds to be met by the distributor.
- all units' discount: the distributor receives a discount on the wholesale price for each unit of the product purchased if the distributor buys a certain quantity of product;
- take-or-pay clauses: unconditional obligations to buy products or services from a supplier at a certain point in the future, and in case of non-performance - to pay a penalty that would cover the supplier's losses.

According to Verouden, these resale price control methods lead to lower resale prices, increase profits for the entire vertical, and increase consumer surplus while overcoming the problem of double marginalization

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In addition to vertical externalization, horizontal externalization can occur in vertical contractual constructions. According to the Guidelines, horizontal externalization may arise between distributors operating in the same market where a distributor is not able to fully reap the benefits of its sales efforts.

An example of negative horizontal externalization is *free riding*. In digital economy, free riding can occur between online and offline sales channels and in both directions. For example, customers may visit a traditional shop to test goods or services or to obtain other useful information on which to base their purchasing decision but then order the product online from another retailer. On the other hand, in the pre-purchase phase, customers may collect information from an online shop and then visit a traditional shop, using the information collected online to select and test certain goods or services and eventually purchase the product offline.

The problem of free-riding in vertical contractual structures can exist either on the upstream market, where the producer's competitors may unduly benefit from investments in the vertical structure, or on the downstream - where the distributor's competitors unduly benefit from the investments. Broadly speaking, the free-rider effect can be explained by the fact that the efforts made by the producer or distributor create benefits for companies that have not made such efforts.

Free-riding along the manufacturer's (supplier's) supply side can occur when the manufacturer (supplier) promotes the distribution of its products and invests in distribution channels: it provides training to distributors and sales staff and invests in the image and operating conditions of retail outlets. The value of such investments is diminished if the manufacturer's (supplier's) competitors benefit from the conditions thus created without making any contribution. To prevent this, suppliers may impose vertical restraints on distributors in the form of non-compete obligations, through exclusive sourcing or single branding obligations.

Free riding on the distributor's side can be destructive to both the vertical structure and consumer welfare. The most common scenario is the unwarranted reaping by low-cost or online retailers of the benefits of services provided in the distribution network, such as merchandise demonstration and testing services by trained staff of offline shops or online platforms offering pre-sales services.

In addition to the above, some distributors invest in enhancing their long-standing reputation with consumers by offering quality guarantees for the products they sell. They invest in promoting the manufacturer's brand, especially when selling luxury or prestigious products. Distributors who do not offer such guarantees, and do not invest in brand promotion, may benefit from the effort.

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To encourage distributors to invest in pre- and after-sales services as well as in promoting the supplier's brand, suppliers could agree in distribution contracts on vertical restrictions that would remove price reductions, such as imposing maximum or recommended resale prices, or restrict the supply of products only to distributors offering distribution services. Selective or exclusive distribution systems may be used for this purpose.

(2) Information asymmetries

Another market failure that can be addressed by vertical restraints is information asymmetries. Asymmetric information arises when the firm operating in one market channel has more information

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than the other firm, operating in another market channel. Information asymmetry can lead to the misallocation of resources because of inefficient decision-making.

Information asymmetry occurs particularly in markets with imperfect information where differentiated products exist. Also, certain types of information may remain incomplete or imperfect, creating information difficulties between suppliers and distributors.

The existence of information asymmetry could hinder the market entry of new firms or the introduction of new products or services. When suppliers launch new products, distributors often have less information than the supplier about the likelihood of the new product being successful and may therefore build up stocks of these products at a lower than optimal level. By placing the risk of failure of new product launches on distributors, there is a risk that distributors may not have the incentive to invest in promoting new products in their distribution network, as the costs of promotion may be sunk.

To overcome this market failure, the distributor could require the supplier to pay a fee for access to its distribution network (entry bonuses, maintenance fees, payments for access to promotional campaigns). By paying the royalty, the supplier is given access to the distributor's distribution network and to the distributor's services to promote and stimulate sales of the product. On the other hand, the distributor assumes the risk of bearing the sunk costs of promoting the supplier's products if the supplier's product is not successful. As a result, access fees would increase competition for access to the distributor's network between suppliers and the distributor may be given advance notice of which products are likely to be successful, as a supplier will only agree to pay the initial access fee if it considers that there is a low probability of failure in relation to the launch of that product.

(3) "Hold-up" problem

The "hold-up" problem, also called the prisoner's dilemma, is another market failure that can be addressed by vertical restraints and may arise in the case of specific investments made by the manufacturer or distributor in specialized or customer-specific products or services. In such contracts, the investing firm becomes to some extent a prisoner of the other party, thus creating an imbalance of bargaining power. Because of this imbalance, and the fear of not being able to recoup their investment, companies may be less interested in investing in new products and complex markets, to the detriment of the economy and consumers (Peeperkorn, 1998).

The "hold-up" problem arises in the case of significant sunk investments borne by only one party. These investments are long-term and cannot be recovered in the short term. The investment is also asymmetric, i.e. the collaboration implies that one party invests more than the other.

To remove or prevent the risk of hold-up, the parties may agree on a vertical restraint, such as a non-compete clause, or on exclusive distribution or supply for the time necessary to recoup the investment.

As can be seen from the examples described above, vertical agreements are designed to address problems that arise when companies operating at different levels of the supply chain collaborate and are not necessarily illegal or anti-competitive. Behind vertical agreements lie economic arguments that can justify them, solving market failures, and ensuring efficient allocation of resources. Vertical restraints can thus ensure efficiency gains, and companies must be prepared to identify and argue them.

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4. Vertical agreements identified on digital markets

The reviewed economic literature suggests the common understanding of the economic framework to assess the competitive effects of vertical agreements, which is used by competition authorities in both traditional and digital markets. Some authors point out that "[T]he advent of the digital age has not changed the economic concepts that have been developed since Adam Smith's Wealth of Nations, which make clear the role of contracts in the allocation of goods and resources in the economy (O'Brien, 2020).

In another vein, O'Brien, "[W]hile e-commerce has not created new economic constructs, there is little doubt that certain characteristic features of the digital sector (such as economies of scale, network effects), which may affect the conclusions of an economic analysis, have become more salient. These features can only indicate the greater or lesser likelihood of specific vertical restraints to harm competition, depending on the circumstances." However, it is worth considering that new technologies and the spread of the Internet, the expansion of e-commerce, new algorithmic applications, data and artificial intelligence have raised new questions about the application of vertical restraints in the digital environment, as well as concerns about the emergence of new vertical anti-competitive behaviour.

In this section, the aim is to analyse the most recent cases investigated by competition authorities in European countries, as well as by the European Commission, concerning vertical restraints used by companies in digital markets. The aim of this section is to identify whether there are any specific features or risks that vertical restraints present when applied online or through digital tools.

In analysing recent European practice, we have identified the following vertical restraints used in digital markets that have created competition concerns:

(1) Parity obligation or most-favoured-nation clause (in the online books market, online hotel booking services market, private car insurance market);
(2) Restrictions on the use of online marketplaces (beauty and perfumery market);
(3) Dual pricing in online and offline markets (market for garden tools, market for household appliances, market for toys);
(4) Imposition of resale prices (market for electronic, electrical and musical instruments).

The practices identified do not represent an exhaustive list of vertical restraints that can be found in the relationship between producers and distributors operating online, or in the relationship between them and the digital platforms that mediate their interaction. All types of vertical restraints analysed and investigated so far in offline business practices can also be found in the online environment.

In the following we present the main features of the restrictive practices identified, specifying the risks for competition, the efficiencies, as outlined in the Guidelines. We will also focus on cases investigated by European competition authorities in digital markets with regard to vertical restraints.

(1) Parity obligation or most-favoured-nation clause in online markets

One of the vertical restraints encountered in digital markets and which are under the scrutiny of competition authorities are parity obligations, also known as most-favoured-nation clauses.

This clause obliges the seller to offer terms of sale to the buyer that are no less favourable than the terms offered by the seller to other buyers. The conditions of sale subject to the parity obligation may relate to prices, stocks, availability or any other contractual conditions relating to the sale of products.

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Looking at European practice, we can see that competition authorities have identified parity obligations in agreements between online intermediary service providers (digital platforms or price comparison services) and businesses selling or displaying their products through them.

Competition enforcement practice around the world reveals the following cases of investigation of most-favoured-nation clauses in digital markets:

- Parity obligations imposed by Booking.com, Expendia on hotels: Authorities in France, Italy and Spain have accepted commitments proposed by travel agents to replace the extensive parity clauses they were applying with limited parity clauses. By such clauses, the agencies required the hotels to offer them equally favourable conditions compared to the conditions the hotels offered through their own direct sales channels (Decision No. 15-D-06, 2015 (France), Decision of 2015 (Italy), Decision 596/013, 2015 (Sweden)).

The German competition authority, however, has adopted a different strategy, banning both the extended and restricted parity clauses proposed by HMS and Booking.com as a commitment (Decision B 9-66/10, 2013, Decision B9-121/13, 2015 (Germany)).

- Parity obligations imposed by Amazon.com on e-book editors: The basis of the Commission's preliminary assessment was that Amazon included parity clauses in its contracts with e-book providers. Under the parity clause, Amazon required e-book providers to inform Amazon of the more favourable terms that book providers offer on any other platform and offer Amazon terms of sale that depend on the terms offered on another e-book marketing platform.

Amazon proposed commitments, undertaking to waive parity obligations (Decision AT.40153, 2017 (European Commission)).

- Resale price parity obligations applied by Apple on the iBookstore: The Commission has investigated Apple and a number of international e-book publishers in relation to parity obligations introduced by Apple into its contracts for the sale of books through the iBookstore after it switched from a wholesale to an agency model. The Commission was concerned that these agreements were part of a strategy to increase e-book prices. The case was settled with undertakings, including a commitment from Apple not to apply any retail price parity obligations in agreements with retailers or e-book publishers for a period of five years (Case AT.39847, 2017).

An important criterion underlying the competition authorities' decisions in the above-mentioned parity obligations cases was the economic power of the platforms involved. Thus in all cases the platforms involved (Booking.com, Amazon, Apple) had shares of more than 30% in the relevant markets under investigation, which made it impossible to exempt these agreements. The competition authorities' concerns in the above cases were due to the following risks to competition created by the parity obligations applied:

(a) reduced interest for companies selling their products or services through platforms (hotels, book publishers, insurance companies) to support and invest in new and innovative alternative business models;

(b) reducing the possibility and interest of competitors of platforms to develop and differentiate their offerings through such business models;

(c) strengthening the economic position of platforms by ensuring that they have access to the best sales conditions.

From the analysed decisions, it can be seen that competition authorities in their investigations distinguish between (a) narrow parity obligations and (b) broad parity obligations. The distinction is

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of practical importance, as a narrow parity obligation is considered to have less potential to affect competition than an extended one.

Thus, the narrow parity obligation relates to the sales conditions offered in the direct sales channels, and the extended ones - to the sales conditions offered in all other sales channels.

Extended parity obligations. Businesses that choose to sell their products via online platforms often use multiple platforms to reach their consumers. The use of multiple online platforms by businesses selling products may increase the share of total demand for such services that is affected by a platform's parity obligations. The use of a single platform by end consumers may mean that each online platform controls access to a distinct group of end users. This may increase the bargaining power of the platform and its ability to impose parity obligations on the retail sale of products.

Online platforms are often characterised by significant barriers to entry and expansion, which can exacerbate the negative effects of retail parity obligations on platform retailing. These markets often exhibit positive spill-over effects: new or smaller platforms may face difficulties in attracting customers as these platforms offer access to an insufficient number of end-users. Where end-users are end-consumers, brand loyalty, the use of a single platform and strategies to create a dependency on existing platforms may in turn create a number of barriers to entry.

The *narrow parity obligation* used by the online platform means that the company wishing to sell its products through this platform undertakes not to offer more favourable prices and conditions of sale through the direct sales channels of these companies. In principle, the obligations of limited parity do not limit the ability of a business seller to offer more favourable prices or conditions through other online platforms. As a result, such a parity obligation is less dangerous for competition.

However, in certain circumstances, in particular where the number of online platforms is limited, narrow parity obligations may affect the incentives of the selling firm to pass on price changes to intermediary services in their retail prices. This may lead to a dampening of competition between online platforms, which is similar to the effect of extended parity obligations.

The authorities' decisions under review also highlight that parity obligations can also have positive effects on competition. First, such clauses may be pro-competitive in that they may lead to the lowest possible retail price for the product. The clause offers the possibility to reduce negotiation costs, market research costs to check whether the best possible price or sales conditions are offered.

(2) Restrictions on the use of online marketplaces

Online marketplaces are an important sales channel for traders, giving them access to a large number of consumers. Selling products through online sales channels allows traders to start selling with lower initial investments.

Vertical restraints in the form of prohibiting retailers from reselling products purchased using online marketplaces may be included in contracts for the supply of products.

For the first time, restrictions on sales through online channels were examined by the European Court of Justice in the Pierre Fabre judgment. Members of Pierre Fabre's selective distribution system were required to sell cosmetics and personal care products only in traditional shops and in the presence of a qualified pharmacist.

In its judgment, the Court held that a general and absolute ban on sales through online internet channels in the context of a selective distribution network constitutes a restriction of competition by object. In the Court's view, such a prohibition "appreciably reduces the ability of an authorised distributor to sell contract products to customers outside its contract territory or area of activity. It is therefore liable to restrict competition on that market" (Case C-439/09, 2011).

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The Court also held that the restriction in question could not be justified on grounds of public health and safety and that maintaining a prestigious image could not be qualified as a legitimate objective of restricting competition. A general ban on the internet as a medium of commerce functions as a limitation on active and passive sales and cannot be admitted or exempted.

The imposition of such restrictions can be efficiency-enhancing and therefore beneficial to competition by providing the following advantages to the supplier, which ultimately benefit the distributor as well as the consumer, as they ensure the protection of the image and reputation of the supplier's brand, ensure the provision of high-quality pre- and post-sales services, and deter and reduce the risk of the sale of counterfeit products.

The main risk to competition arising from restrictions on the use of online marketplaces is the reduction of intra-brand competition at the distribution level. Thus, some distributors, who use online sales channels to identify buyers, may be deprived of such an opportunity, i.e. not be able to participate in exerting competitive pressure on other authorized distributors.

(3) Application of dual pricing systems

The application of dual pricing involves requiring the buyer to pay a different wholesale price for products sold online than for those sold offline.

Among the first cases involving dual pricing schemes to come under the scrutiny of competition authorities is the practice of the German competition authority, which in 2013 investigated the discount schemes applied by Gardena and Bosch Siemens Hausgerate. Gardena offered rebates to its distributors, which were calculated according to the distribution channel used. The German competition authority found that Gardena's staggered rebate scheme was structured in such a way that only distributors selling through traditional shops could benefit from the full rebate. Similarly, Bosch's rebate scheme disadvantaged dealers who used hybrid marketing channels compared to those who sold household appliances exclusively through traditional offline shops. In both cases the Authority concluded that the rebate schemes were vertically anti-competitive restrictions and the investigation concluded with Gardena and Bosch offering commitments to remove any discriminatory elements in their rebate schemes (Decision No. B5-144/13 (Gardena, Germany); Decision No. B7-11/13 (Bosch Siemens Hausgerate, Germany)).

Another case investigating dual pricing schemes took place in France in the Lego case. This company implemented a discount policy that actually disadvantaged its online distributors. Lego's discount policy involved offering additional discounts to distributors selling through traditional stores to compensate them for certain investments, such as additional investment in shelf space. In doing so, the French authority found that Lego essentially charged a better selling price to offline or hybrid distributors compared to purely online distributors. The Authority concluded that this vertical agreement was likely to have anti-competitive effects because by disadvantaging online distributors, Lego contributed to reducing the competitive pressure they could exert on offline or hybrid distributors. Following the preliminary findings of the franchising authority, Lego submitted commitments, agreeing to modify its rebate scheme (Decision No. 21-D-02 (Lego, France).).

Thus, as can be seen from the cases cited, the application of dual pricing schemes in the online environment may incentivise or reward an appropriate level of investment in online or offline sales channels. This is in particular possible when the wholesale price differential is reasonably related to the differences in investment and costs incurred by the buyer in making sales through each channel. Similarly, the supplier may charge a different wholesale price for products to be sold through a

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combination of offline and online channels if the price difference takes into account the investment or costs related to this type of distribution.

However, where the wholesale price differential has the object of preventing the effective use of the internet by the buyer to sell the contract goods or services to certain geographic areas, or to certain buyers, such a restriction may affect competition. This would be possible, for example, where the wholesale price differential makes online selling unprofitable or where the dual pricing system is used to limit the quantity of products made available to the buyer for sale online.

(4) Resale price maintenance

Resale price maintenance represents one of the most discussed vertical restraints. With the primary purpose of eliminating double or multiple marginalization, this restriction can have serious repercussions on competition, which is why competition authorities are vigilant in detecting them.

The European practice of examining cases concerning the application of resale price maintenance in online markets, reveals the following cases.

In 2018, the European Commission concluded its investigation into consumer electronics manufacturers Asus, Denon & Marantz, Philips, and Pioneer, imposing a total fine of €111 million. The Commission found that the companies had limited price competition between distributors "by restricting the ability of online retailers to set their own resale prices for widely used consumer electronics products such as kitchen appliances, notebooks, and hi-fi products", leading to an increase in consumer prices. The use of algorithms to implement and enforce resale pricing practices was a central element of the Commission's analysis. As the Commission explained at the time of the opening of the investigation, "the effect of these price restrictions may be aggravated by the use by several online retailers of pricing software that automatically adjusts resale prices to those of their main competitors. It is, therefore, possible that the alleged infringement had a wider impact on overall online prices for the consumer electronics products in question." (Commission Communication, 2017).

In European countries, attention is also drawn to the imposition of resale prices in the online space. For example, the UK competition authority has fined a supplier of commercial refrigeration equipment over £2 million (Decision No. CE/9856-14 (ITW Limited, UK)) and a manufacturer of bathroom accessories over £780,000 (Decision No. CE/9857-14 (Ultra, UK)) for preventing retailers from advertising or selling products online below a certain price. The competition authority found that these practices essentially restricted retailers' freedom to set the price for online sales individually and therefore amounted to an illegal resale price maintenance clause.

In 2017, the UK Authority fined a supplier of domestic light fittings £2.7 million for dictating the minimum prices at which its distributors could sell products online (Decision No. 50343 (National Lighting Company Limited, UK)). National Lighting Company's agreements with its distributors prevented the sale of its Endon and Saxby brands below a certain minimum at the resale level.

Other cases examined by the UK competition authority concerning resale price maintenance include:

- imposing a fine of £3.7 million on digital piano and keyboard supplier Casio for imposing online resale prices over a five-year period from February 2013 to April 2018;
- imposing a fine of £4.5 million on guitar manufacturer Fender Musical Instruments Europe Limited and its US parent company, Fender Musical Instruments Corporation.
- fining Roland, a supplier of electronic drum kits, and Korg, a supplier of synthesizers and high-tech musical equipment, £4 million and £1.5 million respectively.

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Thus, resale price maintenance is a hardcore restriction and involves agreements whose direct or indirect object is to restrict the distributor's ability to determine its resale price, including those which set a fixed or minimum selling price that the buyer is obliged to charge. Analysing the decisions of the competition authorities mentioned above, one can see the facilitating effect that the online environment, the Internet and artificial intelligence algorithms have on this restriction. With their help, firms can implement and supervise systems of imposing and maintaining resale prices, which is essential for such an anti-competitive practice to succeed.

As a result, the online environment and artificial intelligence algorithms may increase the risks to competition traditionally posed by resale price maintenance, including:

- facilitating collusion between firms by increasing price transparency in the market, which makes it easier to detect the collusive equilibrium breaker by reducing prices;
- mitigating competition between producers and/or between distributors, in particular where producers use the same distributors for their products and the restriction is applied by all or many of them;
- preventing competition between distributors by preventing the emergence or expansion of new, more efficient forms of distribution, thereby reducing innovation in distribution;
- foreclosing smaller competitors;
- elimination of intra-brand price competition by preventing some or all distributors from reducing their selling price for the brand in question, leading to an increase in the price for that brand.

CONCLUSIONS

As a result of the research carried out in this article, the conclusions are as follows:

1. A vertical agreement is the agreement between an independent upstream undertaking and an independent downstream undertaking. For the purposes of the Competition Law, and to avoid confusion between agreements and contracts for civil law purposes, it is recommended to use the term 'vertical restraint' and not 'vertical agreement', which in fact reflects the essence of a vertical agreement to restrict the contractual freedom of one of the parties. There is no separate definition for agreements concluded in digital markets.

2. There are several criteria for classifying vertical agreements. The economic literature prefers the classification according to the price criterion, thus classifying vertical agreements into the price (resale price maintenance, price parity obligations, dual pricing systems), and nonprice vertical agreements (exclusive distribution, selective distribution, non-compete obligation, exclusive supply, etc.).

In the legal literature, more emphasis is placed on the criterion of the threat to competition posed by the vertical agreement, according to which vertical agreements can be classified into hard-core vertical agreements, individually exempted agreements, block exempted agreements and agreements of minor importance.

No distinct classification of vertical agreements has been identified based on the environment in which the vertical collaboration of undertakings takes place. Thus, the same classifications will apply to vertical agreements used in the online space.

3. The issue of the harmfulness of vertical agreements is extensively debated in the literature. There is a distinction between the Chicago school and European competition law enforcement doctrine. Thus, according to the Chicago school, vertical agreements must be presumed lawful, if it is not shown otherwise. The European doctrine, however, prefers a more pragmatic approach, arguing for the need to analyse vertical agreements that restrict competition through the individual exemption criteria to determine whether the efficiencies outweigh the threat to competition.

4. Vertical agreements are used for economic purposes necessary for undertakings, namely, to eliminate market failures. Most often, vertical agreements are established to prevent double marginalization, remove information asymmetry in the market, or address free-riding or significant sunk investments.

5. In the Republic of Moldova, we have not identified any cases of investigation of vertical restraints in digital markets. However, competition authorities around the world are targeting business practices carried out by companies in the online space or using digital tools. Practices involving vertical restraints and giving rise to competition concerns, detected in digital markets and committed with the help of digital tools, are the most favoured nation clause applied by digital platforms towards customers selling their goods or services through the platform; prohibition of online sales; application of dual pricing systems; resale price maintenance; exclusivity clauses.

From the European judicial practice and the European countries analysed, it appears that competition authorities when investigating vertical restraints have used the same investigative tools used in traditional markets. The regulatory framework available to European authorities is sufficient to prevent and remedy anti-competitive practices committed with the use of vertical restraints by undertakings.

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