

# Study of supply trends in digital markets and recommendations for small and medium enterprises (SMEs)

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# List of Abbreviations

**AI** – Artificial Intelligence

**B2B** – Business to Business

**B2C** – Business to Consumer

**CRM** – Customer Relationship Management

**DTL** – Distributed ledger technologies

**ERP** – Enterprise resource planning

**IoT** – Internet of Things

**SaaS** – Software as a Service

**SEO** - Search engine optimization

**SME** – Small and Medium Enterprises

**PWA** – Progressive Web Application

**USA** – United States of America

**VR** – Virtual Reality

## Executive Summary

This study, prepared by the Sociedade Portuguesa de Inovação (SPI), aimed to present the main trends in digital markets and recommendations to small and medium enterprises (SMEs), in order to create a knowledge base on strategies and the main advantages and disadvantages of joining an e-marketplace. Initially, information was collected about the current landscape of e-marketplaces in terms of technology, market conditions and sales in recent years. Subsequently, the top 10 trends in e-commerce and e-marketplaces applied to the agri-food sector were analysed. These trends, albeit at a macro level, present important insights aimed at preparing SMEs for what technological advances, consumer behaviour and digital market movements can generate. After describing in summary tables, the 10 main trends in e-commerce, the impacts of these trends on the agri-food sector were also analysed. Among such impacts, there is the importance of the availability of products and the need for efficient delivery, often being fresh food or more immediate consumption goods. Moreover, an ERP system integrated with e-commerce is also considered as a competitive advantage, because when joining the digital market, many impacts are registered in the regular operation systems of the organisations. In addition, the issue of regulatory barriers is also noteworthy, as it is the basic principle of joining cross-border digital markets.

Further, successful examples of e-marketplaces in the agri-food sector are referred as an inspiration to SMEs as to which trends and companies to follow over time, having Amazon as the most iconic case study. Opportunities for the food and beverage industry are still growing exponentially and can be almost limitless, but companies need to know how to take advantage of them. Other impacts include integrated purchases across multiple online and offline channels, such as the so-called Omnichannel trend, as well as the continuing relevance of logistics and supply chain changes to successful online sales. Recommendations were also subdivided into initial strategic decisions: what

is the online business model to adopt? Its own e-commerce or to enter an existing successful e-marketplace platform? This is one of the most important strategic decisions and is the first one that must be made after the decision to effectively join the digital market. The recommendations section is further subdivided into strategies and advantages for entering an established e-marketplace, such as Amazon, and also explores the specificities of marketing food products in this e-marketplace.

# 1.

## Introduction

The E-AGRO INNOVATION project, supported by COMPETE 2020 and promoted by ANIMAFORUM - Associação para o Desenvolvimento da Agro-Indústria, aims to foster digital presence and technological incorporation in business models of companies in the agri-food sector, in order to strengthen their competitiveness and enhance its export capacity through digital channels.

Indeed, in a global economic context in which adherence to the “digital revolution” is recognised as a critical factor for business competitiveness, it is important to create conditions and mechanisms that promote and contribute to the dynamics of digital transformation processes of the agri-food industry actors. To this end, it is absolutely essential for Small and Medium Enterprises (SMEs) to recognise the importance and potential benefits of adhering to this new reality, and to take advantage of the opportunities offered by a digital economy based on the provision of goods and services at a distance through communication networks, enabling business relations to be established between economic agents anywhere in the world.

In this context, the E-AGRO INNOVATION project aims at contributing to the consolidation of the digital transformation process of agri-food business models in Portugal by stimulating the establishment of stable, solid, lasting and growing business relationships in global markets, supported by online channels, strengthening the sector's responsiveness to competitiveness challenges.

Thus, bearing in mind the proposed overall objective, the E-AGRO INNOVATION project aims at the following strategic objectives:

1. Increase the knowledge and literacy of SMEs on the concept of digital economy, enhancing the production and sharing of information and

communication associated with this theme;

2. Support and promote the insertion of agri-food SMEs in the digital economy, through the adoption of Information and Communication Technologies (ICT), promoting organisational and marketing innovation;
3. Promote the internationalisation of the sector, oriented downstream of international value chains;
4. Promote an environment of cooperation among stakeholders at national level (companies, universities, technology centres, business associations, public bodies, among others) with a view to preparing the agri-food industry for the challenges and opportunities of the digital economy.

Based on the defined strategic objectives, the E-AGROINNOVATION project also defines the following operational objectives:

1. Motivate and sensitise industry entrepreneurs to the importance of designing and implementing digital channel strategies for managing markets, channels, products and customer segments;
2. Create conditions for the participation and optimisation of the presence of agri-food SMEs in e-marketplaces;
3. Contribute to digital literacy and skills by business owners and technical staff, including customer relationship management (CRM), social media marketing, content marketing, display advertising, mobile marketing, search engine optimisation (SEO) and Web Analytics, among others that enable them to implement processes associated with the digital economy and e-commerce;
4. Promote cooperation and alignment of solutions and projects of companies and technology start-ups with the needs of SMEs in the agri-food sector.

In this context, in order to achieve these objectives, the project defines an ambitious set of actions, among them is the elaboration of the following Studies:

- Study of mapping and characterisation of the main international e-marketplaces for the agri-food industry;
- Study of demand trends in digital markets and provide recommendations to small and medium enterprises (SMEs).

This document refers to the Study of supply trends in digital markets and recommendations to small and medium enterprises (SMEs).

The structure of this Study is as follows:

- Introduction;
- Framework;
- Trends in the evolution of digital markets;
- Analysis of the impacts of trends for the agri-food sector;
- Recommendations;
- Conclusion.

## 2.

# Framework

## *E-marketplaces: State of the art*

This chapter aims to outline the current state of world e-commerce with a special focus on e-marketplaces.

The term e-commerce is not exactly recent. Currently, e-commerce is already, in many sectors, a strong competitor to the so-called traditional commerce.

Although the biggest e-commerce boom has occurred in the last 10 to 15 years, its origin dates back to the last century<sup>1</sup>. First, with the creation of Amazon in 1995, and later with Google and Paypal launching their dedicated e-commerce platforms. Despite the exponential evolution that has been observed in recent times, e-commerce still has room for growth.

Among the various reasons for the evolution of e-commerce, there are: The emergence of e-marketplaces, the use of mobile devices as a means of shopping, the great evolution of digital marketing and advertising, and the introduction of new technologies that have completely changed the traditional mode of consumption.

Even though there are many retail stores that allow shopping through a website or mobile application softwares, the emergence and growth of e-marketplaces has completely changed the traditional mode of consumption by adding comfort, convenience and confidence to the purchase.

By accessing e-commerce platforms, consumers find a wide variety of offers giving them the chance to find the products that best suit their needs. Through these platforms, it is possible to compare prices and brands, read feedback from other consumers and often buy goods at lower prices than in traditional commerce.

The following are the main advantages and evolution of e-marketplaces in recent years:

### ■ *Mobile-friendly shopping*

One of the most important developments in e-commerce in recent years is the ability to search, compare, and buy from websites or applications via a smartphone or tablet. Mobile commerce or m-commerce, as it is also known, is used by the population who prefer to shop on the small screen. This type of commerce gives consumers the ability to shop anywhere in the world and at any time or place in their own way, without having to travel anywhere. Resulting from the mass use of smartphones, there was a boom in this type of commerce. The emergence of e-marketplace applications available for mobile phones made possible to increase interactivity and create greater buyer-seller proximity. Push notifications are an example, through which it is possible, in real time, for the seller to offer promotions in order to increase customer proximity. This can be pointed out as an advantage that this way of doing business has over e-commerce that is made using computers: In e-commerce this contact is not so immediate and is usually made through newsletters sent by e-mail.

### ■ *Marketing and digital promotion*

The evolution of e-commerce into a mobile-friendly era has also greatly changed the way companies relate to their customers. Most people, especially the younger ones, always have their mobile phones nearby, which makes them much more susceptible and always accessible to the work of marketers. As e-commerce evolves, the reach of advertising and marketing becomes somewhat limitless. Twitter's "buy now" button is described by companies as a great way to make consumers

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<sup>1</sup> <https://www.cbinsights.com/research-global-ecommerce>



aware of their products and attract them to buy. According to Accenture's Millennial Shopping Study, 89% of respondents assumed that having real-time access to product and offer information greatly influences their choices. In this regard, in recent years there has been a growing effort by the companies to change the way they market their products in order to adapt to new ways of doing business.

#### ■ **The era of the Internet of Things (IoT)**

Internet of things (IoT) is a term used to describe the combination of products, services and consumers. The paradigm shift to IoT is urgent and necessary to keep up with the pace of market development, either at the level of consumer expectations or at the level of consumer habits. It is estimated that by 2021, on average, around 70% of companies will use IoT-aligned strategies to improve their customers' consumer experience. Therefore, it is expected that the incorporation of this type of technology in business is inevitable. Some success factors of the implementation of IoT in e-business is the use and creation of intelligent warehouses and inventory management mechanisms on the entire value chain. There is a growing focus on personalising the consumer experience and investing in innovative delivery means, such as drones.

#### ■ **Local independence**

With the use of the internet as a sales channel, the boundaries are no longer clear and the limit of business-reach-out is now the world. Thus, it is understood that the future of e-marketplaces will involve a strategy that goes beyond land

borders, through some changes that will make all the difference, such as making various payment methods available to consumers. In order to facilitate this process, it is important to adapt the website for each target market, taking into account its specificities, such as the language and the availability of different products, not neglecting the market in question.

# 3.

## Trends on the evolution of digital markets

This chapter addresses trends in the evolution of digital markets through a general overview of all sectors of activity, as well as addressing the agri-food sector more specifically. Trends are presented in the form of summary sheets in order to facilitate understanding and to consolidate the most relevant information.

A series of trends in the evolution of digital markets were analysed in depth and the 10 most relevant for the Portuguese SMEs in the agri-food sector were finally selected.

In order to gather and collect information on the main trends of e-marketplaces in the agri-food sector at an international level, different data sources, forecasts and trends involving issues related to turnover, technological developments and changes in consumer behaviour, among others were mapped.

The process of data collection was based on two methods, the first was desk research, where information was collected from online databases and relevant sources, such as:

- Organisation for Economic Cooperation and Development (OECD);
- World Bank;
- European Commission (EC);
- Scientific and non-scientific journals and articles published in specialised conferences, such as: International Food and Agribusiness Management Review; Agribusiness Forum; Agribusiness Journal; Journal of International Food & Agribusiness Marketing; International Journal of Electronic Commerce; Electronic Commerce Research and Applications; Journal of Electronic Commerce Research, among others.

Another source of information was the direct consultation to experts, in key areas of consumer behaviour, marketing, agri-food sector and digital market.

The 10 most relevant selected trends were the following:

- **T1.** Personalised shopping experience
- **T2.** Constant improved logistics
- **T3.** Artificial Intelligence (AI)
- **T4.** Increased flow of B2B online business
- **T5.** Predominance of *e-marketplaces*
- **T6.** Mobile
- **T7.** Blockchain
- **T8.** Virtual Reality (VR)
- **T9.** Social Networks
- **T10.** Online shopping clubs.

These trends are described in the summary table as follows:

# T1. PERSONALISED SHOPPING EXPERIENCE

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Contemporary customers increasingly expect a personalised shopping experience. For this reason, personalisation will play a key role in e-commerce from 2020.

Using and analysing data in an effective way, can lead to hyper-personalisation in all aspects of the customer journey around the whole online shopping experience.

Creating a truly unique experience for every user will increasingly be a secret ingredient of the success of e-commerce platforms.

## APPLICATION

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<b>IoT and data mining</b>	The internet of things (IoT) will be the main vehicle in the strategy of personalising the consumer experience. By getting information from data shared between users' devices, companies can attract more customers and influence their purchasing decisions. In addition, it will also be possible to offer customised, value-added solutions to convey the message that the provider companies are always concerned with understanding the consumers and efficiently meeting their needs.
<b>Personalized marketing</b>	Among the main areas of application of technology aimed at personalising the shopping experience, targeted marketing is one of the most relevant. Customised marketing, if used correctly, can not only increase potential customer engagement, but it can also create new buying needs, drive new users and consumers, and build customer loyalty.

## POTENTIAL OF CONSOLIDATION

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- **Programmatic marketing and contextual ads**

Programmatic and contextual ads will increase in the upcoming years. Websites and social networks are already redesigning their promotional strategies to meet these trends. The new programmatic advertising trend uses data sets to decide the audience. These ads are delivered to the target audience based on consumption patterns and are redirected after a period of time to generate a higher return. In short, it's about attracting the right audience to the right ad at the right time.

- **Marketing automation**

Marketing automation means automating e-mail marketing and scheduling posts on social networks. It covers areas that include custom landing pages and easily accessible shopping carts. If properly implemented, automated marketing will allow:

- Send personalised e-mails to specific clients;
- Display new products and promotions according to visitor's purchase history;
- Customise store offerings for each customer, where recommendations are influenced by what customers click during their visit.

## T2. CONSTANT IMPROVED LOGISTICS



The transportation and logistics area have stagnated in recent years, despite some incremental changes, such as the offer of free delivery. Only in 2013, the idea of same-day delivery became popular. The increased investment in technology-intensive systems applied to logistics is one of the biggest trends in order to achieve e-commerce success in the coming years. As an example, Amazon began testing the delivery of goods through drones in the USA in 2019 and with the help of Google Maps, these drones can discover the shortest route to their destination.

### APPLICATION

<b>Cognitive supply chain management</b>	<p>Supply chain management plays a vital role in e-commerce. Because it is a complex area, it has been the target of technologies to promote its efficiency and optimise processes, establishing three future predictions on trends:</p> <ul style="list-style-type: none"><li>→ Automation - With regard to supply chain management, the consolidation of automation processes helps companies reduce labour costs and potential delays or logistics costs associated with route failures, among others;</li><li>→ Data sharing - Details such as stock availability, order shipping and customer information are now available at all stages of supply chain management;</li><li>→ Customer-centric process – By identifying customer trends, you can better understand their needs and adapt business and delivery models, such as including different delivery time possibilities of the products upon check-out.</li></ul>
<b>Intelligent warehouse and warehouse management</b>	<p>Smart warehouses can use IoT-based devices, and operations can be viewed in real time. IoT sensors and electronic labels make it easy to optimise inventory management in real time. Labels and GPS technology help manage the supply chain. In addition to identifying the location of the goods, these devices assist in real-time monitoring, decision-making and precise product management. Moreover, temperature and humidity monitoring sensors are used to trigger alarms whenever any product in the warehouse exceeds a certain level of temperature or humidity.</p>

### POTENTIAL OF CONSOLIDATION

- **The agri-food sector will increasingly require the optimization of logistics processes**

Logistics and the supply chain remain significant obstacles in creating lucrative supermarket e-commerce businesses, but the better availability of logistics infrastructure and systems integration and automation already allows same-day delivery. Thus, transforming the industry landscape and making the usual grocery and food purchases increasingly carried out over the internet.

## T3. ARTIFICIAL INTELLIGENCE (AI)

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Targeting and identifying patterns based on customer browsing history are huge challenges for e-commerce stores in terms of store automation and customisation. Smart algorithms are one of the key elements to address these challenges. According to Business Insider, retailers who implemented customisation strategies recorded sales gains of 6% to 10%. The accuracy of the information is strongly influenced by the quality and volume of the data collected; however, such a specification becomes a challenge for SMEs, which initially will not have a large volume of data to analyse. However, these companies can partner with vendors to solve this issue or join e-marketplaces that provide data about access to their products and consumer profiles.

### APPLICATION

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**Visual search  
instead of keyword  
planning**

AI-based technologies are helping marketers to implement the visual discovery of products. These technologies are replacing the use of search fields with keywords. Currently, the best examples are *Google Lens* and *Pinterest Lens*. Users need to keep the camera lens from the phone or *tablet* focused on the specific item, and the algorithm works alone to find this product on the internet. Implementing these AI-based visual surveys help companies make life easier for users. Therefore, the technology of e-commerce websites needs to be adapted for products to be classified in these listings, in order to achieve a greater coverage of users and consolidate a higher percentage of sales.

**ChatBot Assistance**

AI is also used in online customer support *chat* systems. Online *chats* are evolving through the use of machine learning algorithms to interact with human users, these being known as *chatbots*. By using *chatbot*, the company can reduce the effort of the support team, as AI-based *chatbot* can answer the most frequently asked questions and be available 24 hours and provide answers to customers in real time. Advanced *chatbots* can also trade prices and earn sales on competitors, based on user intent and minimum sales price set for a specific product or service.

### POTENTIAL OF CONSOLIDATION

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#### ■ New paradigm (no return)

Why is AI currently considered the main factor of digital transformation? AI can categorise goods automatically, improve photo quality by default, translate descriptions and list items, as well as chat through messages. In addition, in order to provide high quality services and enhance the customer experience, AI-based technologies can recommend items similar to those that the buyers research on and those that match their choice. Therefore, it is understood that AI can provide an e-commerce system with the ability to learn and improve automatically from the customers' preferences without the need to be reprogrammed.

## T4. INCREASED FLOW OF B2B ONLINE BUSINESS



Although less well known than the B2C, the B2B market will be one of the strongest trends in the coming years. The large volume and the high fragmentation characteristic of B2B environments, combined with the relative lack of competition of pure digital players, led to an exponential increase in opportunities. In fact, it is estimated that by 2020, B2B markets will be worth US\$6,7 trillion. The B2B market consists mainly of digital transactions between companies, including the sale of machinery and raw materials. Currently, many online companies already fall into the two categories, B2B and B2C, and do not need to have separate e-commerce sites to run both aspects of the business. As a result, these companies are betting even more on B2B, trying to alleviate many of the complexities that historically affect the nature of B2B business. In particular, younger generations are becoming experts in B2B trade and *branding* research – driving a more internet-oriented business approach.

### APPLICATIONS

<b>Facilitation and de-bureaucratisation of the B2B purchase process</b>	Changes and benefits of conducting <i>B2B</i> online businesses include price transparency and de-bureaucratisation of the purchasing process. Traditionally, companies hesitated to present online prices for various reasons, mainly due to competition and the consequent susceptibility to lower offline prices defined by competitors who accessed the price that had been disclosed. However, with advances in online gateways and orders, prices can be customised per customer after in-store login and even complemented by more detailed information available to specific customers to meet their needs.
<b>Information facilitated by the use of online platforms</b>	By creating their own e-marketplace, companies create a direct channel to interact with customers (B2B). In addition, B2B e-business enables companies to access and have their own customer databases, which are converted into valuable information to analyse and use in order to create more effective sales models.

### POTENTIAL OF CONSOLIDATION

#### ■ New paradigm

The B2B e-commerce trend affects all manufacturers, regardless of their position in the value chain. Manufacturers can no longer rely on phone/fax/email requests. As competition moves to online orders, manufacturers who do not operate through e-commerce are at a disadvantage unlike their competitors. The degree of pressure varies according to the market and the type of product.

Trends in customised solutions are increasingly sought after. For instance, the ability to offer a real-time shipping weight calculation in B2B e-commerce on the website gives the buyers the best shipping values on the spot.

## T5. PREDOMINANCE OF E-MARKETPLACES

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The evidence suggests that from 2020 the e-marketplace model continues to overcome the traditional e-commerce model. As one of the main reasons for such a trend is that e-marketplaces are better positioned to meet consumer needs by offering a wider range of products and services, as well as reduced prices. According to a recent study, growth in the e-marketplace economy is expected to double in the five-year period between 2017 and 2022, from US\$19 billion to US\$40 billion. Clearly, e-marketplaces represent the present and future of e-commerce.

### APPLICATIONS

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<b>Trust in transactions</b>	Larger e-marketplaces are able to inspire more confidence and consumer safety to enable purchases through sales channels, and verified, secure and already known payment systems.
<b>Comparison capacity</b>	Many customers compare prices of the same product between partners in the same e-marketplace to choose the one that best meets their expectations. Therefore, in addition to a better care with customer service, it is important to optimise the shopping experience as a whole, from the first click on the website to the after-sales.

### POTENTIAL OF CONSOLIDATION

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#### ■ Growing diversification of e-marketplace owners

In the coming years, the industry will see significant diversification in terms of business groups that dominate online markets. Research shows that as of 2018, 12% of retailers have launched their own e-marketplace and 32% have plans to launch one, with additional property benefits and data autonomy. For example, Las Dalias, a market in Ibiza that has existed since 1954, is well known for its hippie market, where customers can buy clothes, jewellery, crafts and the like. Recently, Las Dalias has created an e-marketplace to make available the products of all traders in the physical market throughout the year and with coverage to the entire European territory.

Therefore, the future of e-marketplaces also involves new business models that belong to a wide variety of organisations, public associations and even municipalities, which will open up even more industries and services to the advantages of the e-commerce model.

#### ■ Global reach

Operating on e-marketplaces rather than creating an e-commerce will be a guarantee of a rapid reach to the global market without boundaries. The creation of its own e-commerce implies a work of developing brands and markets, adapting languages and cultures, among others. E-marketplaces open doors to the world almost immediately, and it is even possible to test the product in the global market more easily.

## T6. MOBILE

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The number of smartphone owners continues to grow and will not stagnate in the coming years. E-marketplaces with perfect mobile design and associated applications are increasingly critical to the upcoming online competition. Another trend of software development, closely linked to a mobile interface, that will remain updated in 2020 is the progressive creation of internet applications. The technology called progressive web application (PWA) or progressive internet application works in any mobile browser and does not need to be downloaded to the device. The applications are called progressive because they combine the advantages of the mobile experience with the benefits of browser technology. At the same time, they are easier to develop and maintain compared to native or hybrid mobile applications.

### APPLICATIONS

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<b>PWA technology</b>	<p>PWAs is changing the coexistence of e-commerce and smartphones. Brands and retailers will start switching from websites and applications to the PWA standard - a hybrid between websites and applications that combines the advantages of each one and minimises the limitations. PWA features:</p> <ul style="list-style-type: none"><li>→ Loads 2 to 10 times faster than mobile websites;</li><li>→ It has offline capacity;</li><li>→ It can be added to the home screen without the need for updating;</li><li>→ Allows push notifications.</li></ul> <p>PWA works to transfer the workload to the device, rather than relying on the internet server for each page, layout, click and image, thus being possible to create a standard experience, regardless of browser, device type, and connection.</p>
<b>Offer of forecast technologies through mobile-generated data</b>	<p>Retailers have increasingly used analytics tools to produce technologies to personalise their content. This helps marketers to collect data and translate it to provide a personalised experience to site visitors. The use of predictive technologies can help improve business intelligence, reduce fraudulent activities, manage prices, promote discounts, among other measures.</p>

### POTENTIAL OF CONSOLIDATION

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#### ■ Accelerated growth

With the growing popularity of smartphones, the number of internet users through mobile devices is expected to grow by more than 4,78 billion by 2020, thus consolidating high-potential demand.

#### ■ Faster and more integrated payments: with just one click

Single-click payments have shown better membership rates among mobile consumers. After the customer's initial registration, there is no need to request information about postal addresses or payment methods. All this can be updated on the profile. After the first purchase is made, the payment methods will not need to be updated, as they can be selected to be registered in the system. In this way, purchases can be made much faster and from anywhere.



## T7. BLOCKCHAIN

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Distributed ledger technologies (DLT) - one of the main types of blockchain - are an evolution of the transaction technology system and has many applications. The DLT were initially introduced as a cryptocurrency system (digital currency), also called bitcoin, in 2008. DLT can be used to make all types of transactions and store any type of data and value information. DLT is characterised by being a digital database that uses encryption to bind and protect transactions or data entries, distributes data processing, so as to store them on a peer-to-peer distributed computer network used to validate and store transaction history and information. DLT functions as a decentralised digital institution to ensure trust between buyers and sellers or users, being able to provide an improved method for value transfer.

### APPLICATIONS

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#### Example of use

Open Bazaar is a peer to peer store where transactions are made through bitcoins (digital currencies). It is completely free for sellers and anyone can easily create a store even without programming knowledge. This model allows for more transparency in the use of e-commerce. In a simplified way, the buyer and seller do not need a transaction mediator. When an order is made, a payment authorisation window is created on the blockchain and displayed on the network. This happens again when the seller creates the product and sends it to the buyer, thus being able to generate a transparent and authentic process.

### POTENTIAL OF CONSOLIDATION

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- **Potential**

Blockchain technology is still in the early stages and the market is not immense, but blockchain-based applications seem promising enough to be mentioned. Blockchain-based e-commerce platforms and markets will increasingly appear, as well as inventory and payment management systems through digital currencies.
- **Benefits for the agri-food sector**

DLT provide a unique opportunity for the agri-food sector. The technology platform introduces a new standard that ensures greater security and confidence in digital transactions to lessen uncertainty among buyers and sellers. DLT also bring greater efficiency, transparency and traceability to online exchanges of information and payments and thus proves to be of great relevance to the agri-food sector, as well as for the entire global economy. Among the benefits generated by the DLT, there is the decrease in the number of intermediaries in transactions, as it allows direct exchanges between peers in a safe and reliable way, in order to promote greater efficiency throughout the supply chain. Through greater transparency and the highest quality promoted at all stages of transactions, DLT offer improvements in food safety and quality (such as more sustainable and healthy products) and call for greater consumer awareness.

## T8. VIRTUAL REALITY (VR)



Virtual reality (VR) technology has already become an alternative way to see the world, being able to offer users the unique opportunity to try products outside physical stores. Virtual reality is able to enhance the customer experience in the decision-making phase during purchases, helping its customers to make better choices by offering them virtual reality as an opportunity to interact with the product in a virtual way and demonstrate what the experience or appearance would be when using the products. .

### APPLICATIONS

<b>Examples of use on the electronic market</b>	Apple has launched an AR kit for its new iOS 11 operating system. In response to this, Google has launched AR Core for Android smartphones. The adoption of AR/RV-enabled smart devices will increase sharply and lead to a change in global e-commerce trends. For example, Ikea's new app allows users to view furniture in their homes using the mobile phone camera, providing a whole new experience.
<b>Purchases for the measurement of each consumer</b>	The Body Measurement App is a revolutionary way to measure a user's body while "experimenting" on online clothing. The VR application is a perfect solution to solve problems that arise when buying clothing over the internet. Users can try a product according to their measurements, and thus have a high value tool for decision making.
<b>Virtual product shelves</b>	Increased AR technology allows buyers the same experience they would have in physical stores. E-commerce retailers have used AR-based mobile applications to create product corridors, presenting a variety of them and simulating a real return to the supermarket. These product corridors are virtual simulations that can be projected on a customer's living room walls. Customers can click on the products for more information and then effectively purchase the items.

### POTENTIAL OF CONSOLIDATION

- **The future of online shopping is in reality increased**

A recent study by a start-up with a closed group of 560 people who had already experienced VR, at least once before the study, showed that 81% of respondents liked to try a VR platform, while 58% consider VR to be a major shift to e-commerce. When asked if they were interested in buying things in a VR world, 72% answered affirmatively. This data indicates the enormous potential of the technology-adept users who wish to adopt VR at its early stage, provided it meets their expectations.
- **Several possible uses**

VR technology can be useful not only for testing and experimenting with products, but also for example, telling the company's history and improving customer service by creating a channel of maximal proximity between company and consumer.

## T9. SOCIAL NETWORKS

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Buying directly through social networking applications is already a regular practice in China, where 55% of users of social media applications have admitted to securing goods or services from a mobile social networking application.

Private messaging services should also become a means for the marketing of online goods and services. WhatsApp, Snapchat and Facebook Messenger have recorded sales of around one billion euros. Additionally, a 2019 study showed that 84% of USA buyers said they had consulted at least one social network before making a purchase.

### APPLICATIONS

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<b>Embed social buttons on product pages</b>	The inclusion of buttons that target social networks on e-marketplace is extremely relevant to make life easier for consumers to search for more information about a particular brand. Facilitating the access with visible buttons and links to social networks ensures more opportunities for customers to interact with the brand.
<b>Selling posts</b>	Posts targeting sales on Instagram were released in 2018 and unintentionally changed the social media landscape in digital commerce. For example, an eco-friendly children's clothing company recorded a 25% increase in traffic and an 8% increase in revenues after using posts for purchases on Instagram. Shopping publications give brands the opportunity to show their store on the social network.

### POTENTIAL OF CONSOLIDATION

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- **The social network is more than a sales channel**

A study by Sprout Social revealed that 84,9% of consumers do not buy a product until they see it several times online. Thus, consumer loyalty is essential through the direct interaction supported by social networks. It is necessary that each company that wants to market its products on the internet identifies the channel that its potential consumers use and actively interacts with them seeking to establish a relationship of trust.
- **The era of social commerce**

The term "social commerce" is one of the trends that will have strong continuity and rise in the coming years when it comes to digital trade. Social trade is characterised as the sale of products directly through social media platforms. Sometimes called social shopping, social commerce is the combination of social networks and e-commerce and allows brands to optimise the purchasing process while increasing the effectiveness of social commerce. Some of the most common social trade resources include:

  - Purchase buttons in publications;
  - Ads on social networks, including links that direct to websites and the direct purchase page of the product in question;
  - Plug-ins and social trade applications.

## T10. ONLINE SHOPPING CLUBS

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A significant increase in subscription-based business models was recorded in 2019, a trend expected to continue to grow in the coming years in terms of digital trade. New digital commerce stores can also explore this market by replicating the same subscription-based model. They can thus obtain recurring sales monthly or annually.

### APPLICATIONS

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<b>Applicability is not new, but has gain scale</b>	The product subscription market has grown in recent years, with the emergence of numerous subscription platform companies. In January 2019, traffic to subscription services websites increased by 18%, compared to the previous year.
<b>Automatic and recurring payments</b>	With the creation of a subscription club, there is a certain guarantee and greater control in business revenue. This makes it easier and it becomes safer to invest in improvements and plan for the future of a company. The technology that supports this type of e-commerce is called SaaS - Software as a Service. SaaS is a global trend. In this format, companies that develop programs choose to charge a monthly fee for the use of their products, rather than selling a single installation. Thus, revenue tends to increase and customers also earn more practicality in their routines. Photoshop maker Adobe itself has migrated its software portfolio to an annual subscription format.

### POTENTIAL OF CONSOLIDATION

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- **Benefits**

Two main benefits are identified in the trend of purchasing clubs and subscriptions to products and services over the internet:

  - **Exclusivity:** They make your associates feel part of a community that has access to products that are not within everyone's reach. Here, you can find subscriptions to receive Premium beers (Have a Nice Beer), wines (Buywine), gourmet cafes (Clubcafe), among other products;
  - **Convenience:** Saves the time of the consumer in buying products that they need to purchase with frequency. Fresh and biological products (Home Bio), Contact Lenses (Eyepack), Diapers (NetDiapers), among others stand out.
- **Subscription websites as a marketing tool**

By bringing together a group of people around a certain common interest (products or services), and by concentrating offers from a particular segment of the market, subscription websites end up turning into authentic social networks, something very interesting for marketing in these channels. Many companies have used subscription websites as disclosure channels and even to test new products. Because they buy in significant quantity and they are able to create a continuous flow of orders, these websites can negotiate more favourable prices for their subscribers.

## 4.

# Analysis of the impacts of the trends to the agri-food sector

## Trends in the sector

The agri-food industry, due to the particularity of dealing with fresh and perishable products that need to be sold quickly in order to preserve the high quality that buyers expect and meet the regulatory demands, cannot be compared to other categories of digital commerce. While involving complex logistics processes and increasingly demanding consumers, agri-food digital commerce has also a number of advantages for producers and businesses.

Digital commerce is expected to grow by 18% in 2019 in the USA alone. This will result in a turnover that will exceed US\$ 19 billion by the end of the year.

Globally, online sales will account for 15-20% of total food and beverage industry sales by 2025: 10 times more than in 2016. Global digital food trade sales are expected to nearly triple by 2023 and can reach US\$ 321 billion and represent nearly 5% of total digital commerce revenue, according to the market research firm Packaged Facts.

Asia is expected to account for most of the absolute growth of digital commerce, mainly due to the rapid expansion of the Chinese market. China dominates the regional online shopping activity, not only due to the country's large urban population, but also to the rapidly expanding middle class. In addition, much of China's population has access to mobile devices and the ability to shop online, thanks to the country's cutting-edge position on technological and digital development.

By 2018, over 75% of digital food trade revenues were concentrated in five countries: China, the USA, Japan, the United Kingdom, and South Korea. In each of these countries, spending on online shopping is higher in bigger cities, where

many retailers have concentrated their stocking centres or home delivery services.

By 2023, demand growth in these countries will be driven by five characteristics:

1. Increasing the comfort of online shoppers when making routine purchases;
2. Increasing use of clubs and digital signatures - which can promote consumer loyalty and increase online sales;
3. Higher rate of broadband internet usage in rural and remote areas;
4. Increased acceptance and investment in home delivery, click and pickup services and new order fulfilment formats in an increasingly concentrated retail environment;
5. Data security enhancements for better consumer protection, while preserving personal information in online shopping.

The main impacts of e-commerce and e-marketplaces trends are described below.

### ■ Consumer behaviour

Consumer behaviour in the agri-food industry is changing, thanks to emerging digital commerce and technology advances.

Consumer awareness is growing and their preferences are shifting to a digitised and more selective approach to food choices.

Several trends have changed the increasingly integrated food industry at all levels, from restaurant recommendation applications to home kitchen assistance. The rise in online subscriptions and meal kits has been at the forefront of emerging developments, changing the industry's image in recent years. These advances have over time replaced the need for consumers to shop in physical supermarkets and have helped solve the meal planning dilemma for families with increasingly busy agendas.

The online shopping market has also continued to develop, with usage of mobile applications becoming increasingly common in the consumers' habits and homes.

#### ■ **The future of the agri-food industry: voice technology**

The food industry is constantly evolving to adapt to changing consumer needs.

The continuous consumer shift to online shopping is driving most of today's retail trends. A 2018 USA study found that 71% of grocery stores have already extended their physical store business to online stores.

The biggest challenge of digital commerce is not so much in the difficulty of meeting customer expectations, but in generating profit in the process. Retailers are absorbing the costs of rising customer expectations such as free shipping and immediate delivery. These services, as they are currently performed, are simply not sustainable in the long run.

#### ■ **Convenience and pre-cooked meals**

With growing trends to heighten convenience through take-out food, meal kits and ready-to-eat meals, grocery stores have seen increased competition from the food service industry. One of the challenges is that the supermarkets do not have the ability to deliver as fast as the food service because of the considerable collection and transportation costs. While restaurants benefit from opportunities like UberEats, grocery stores have not yet found an equivalent service for their digital market.

#### ■ **Mobile first**

In the United Kingdom, for example, in 2019, mobile transactions accounted for over 50% of total digital commerce transactions.

Traditional supermarkets that have joined the online market have been growing fast. In this sense, as consumers demand an ever faster, more direct and efficient shopping experience, companies need to constantly invest in innovation and in optimising product presentation, images, titles and product

descriptions in order to provide a much simpler, and mobile-friendly shopping experience.

It is well known that the vast majority of online grocery shoppers do not go to the details page to read all the information regarding the products. Instead, they simply add to the cart from the thumbnail image. Therefore, mobile-friendly images can further optimise the online shopping experience.

#### ■ **Focus on the availability of the products online**

Delivery within a few hours, as a rule, will require significant optimisation of supply channels.

Creating specific online replenishment strategies and daily performance monitoring already brings significant benefits to many supermarket brands in the digital market.

Digital commerce data analytics platforms provide access to daily stock data to enable brands to react instantly to any issues that ultimately lead to a lost sale for both the brand and retailer.

A clear focus on the products that drive these lost sales can not only result in significant availability improvements (in-store and online), but also reduce loss of sales, typically accounting for 3-5% of monthly turnover.

The ability to react quickly and innovate against such challenges can drive further business growth.

#### ■ **Regulatory barriers**

The food supply chain continues to require all participants to take strict measures to ensure food safety and quality. Given the potential consequences of delivering outdated or contaminated food and drinks to consumers, this is unlikely to change in the future.

It is noted that with the development of the circular economy, there are companies that have been striving to systematically reduce waste so as to reuse waste and reinsert it into the value chain itself. A good example of this is the use of beer grains to create livestock feed.

Today, customers demand ever faster deliveries. Big companies like Amazon and Google are already doing same-day deliveries to meet rising customer expectations.

#### ■ Efficiency is key

Each of these trends highlights the importance of efficiency in the food and beverage industry. The challenge is to maintain the accuracy of logistics information at all stages of the supply chain - difficult when dealing with information overload.

Another risk associated with information overload is the excess of inventory. Studies suggest that stocks are the most relevant aspect to consider when designing the optimal pricing strategy for the agri-food sector.

#### ■ ERP and e-commerce

Enterprise Resource Planning (ERP) systems are great time and information management tools. An ERP helps keep processes running smoothly, but it can also help improve companies' market position.

Integrating the existing ERP system into a digital commerce system allows the addition of essential product data in the e-store, such as current and even future stock levels.

#### ■ Success examples

When it comes to examples of e-marketplaces, Amazon has already entered the food and beverage chain. This sector is currently managed by the Amazon Fresh department, which is able to offer very short lead times (up to an hour later).

But it's not just the big companies that use advanced digital commerce tools to optimise their supply chain. Smaller organisations are also expanding their horizons and increasing sales worldwide with an integrated online store.

#### ■ Opportunities to the industry of food and beverage on the internet

E-commerce will change the traditional B2B business paradigm by allowing technology to be

incorporated into transactions and more transparency and comparability.

The USA B2B e-commerce market is expected to double in value by 2020, with a projection of US\$ 1 trillion.

#### ■ Grocery products are the e-commerce category with the highest growth rates

In the next decade, strong growth in digital food trade is expected. Digital food trade spending in the agri-food sector is estimated to reach US\$ 100 billion by 2022 globally. Additionally, more than 70% of the households in the USA will buy groceries online, according to a study by the Food Marketing Institute. These numbers are impressive considering that only about 30% of USA households purchased online in the year 2018.

Rapid growth has been driven by the innovation of digital commerce platforms such as Amazon, which has strengthened its position in the supermarket sector following the acquisition of Whole Foods.

This shift in consumer preferences to digital food trade will benefit brands that are better prepared. Thus, it is considered essential to have a solid digital commerce strategy to keep up with the fast pace of changes in consumer behaviour and technology base.

#### ■ Omnichannel grocery shopping

One of the biggest trends in the supermarket sector is the focus on omnichannel shopping, due to the growing demand for comfort and convenience for consumers. The company that offers the most convenient option will be in a better position to take advantage of the booming digital commerce market.

Digital experiments will make it easier for customers to search, find and buy the brand of food they want. This can take the form of simplified in-store experiences such as Amazon Go stores (Amazon Physical Store pilot experience), or through a more complete and convenient experience such as Walmart's Click & Collect.

Features on platforms such as Amazon's Subscribe & Save offer the opportunity to create

recurring sales for common home products and offer an additional level of convenience for consumers to save time on recurring purchases. Omnichannel shopping allows retailers to offer more personalised shopping experiences. Such omnichannel tools are also capable of generating data about consumer preferences and behaviour, as well as building customer loyalty.

#### ■ **Logistics and changes in the supply chain**

The biggest obstacle or challenge to digital food trade is still related to logistics.

Solving this problem requires grocery stores and digital commerce platforms to optimise supply chain management globally, to minimise distance and time “from field to table” while also reducing food waste.

Ensuring food quality and safety is one of the industry's key challenges, which must be a priority in the overall business strategy. One possible solution to quality assurance would be to increase the amount of cold storage facilities in the vicinity of major urban centres and target markets. Bringing the product closer to the consumer will help reduce food waste. It will also guarantee the quality of fresh and frozen products.

For example, Amazon recently announced the goal of delivering non-food products within a day, and said drone delivery could soon be a reality. Target has also announced guaranteed flat-rate same-day delivery to customers in 47 USA states.

Reduced delivery times will also help reduce food waste and increase efficiency.

Identifying new market trends can offer unique investment opportunities and help brands to maximise their profits.

#### ■ **The raise of e-commerce brings new demands**

As consumers' lifestyles and demand for food change, packaging must also change. There is a growing need for packaging that maintains product image and quality over the period between the warehouse and consumers' homes. This is made even more difficult as concerns

about packaging volume and their impact on the environment are increasing.

The relationship between digital commerce and the packaging industry creates a number of challenges, many of which may not be immediately transparent. Products ordered must be in the same packaging as shown online. Studies indicate that if consumers find that packaging does not live up to the expectations and brand image, their trust in the brand may decrease.



# 5.

## Recommendations

### Initial strategic decisions

Selling agri-food products online is still a big challenge for producers and industries. While creating a well-designed, eye-catching website is challenging in itself, ensuring that (usually perishable) products arrive with a reliable look and taste is actually the biggest challenge.

According to the Expert Rick d'Ambrosio, director of e-commerce and digital marketing at Agribeef (USA), a company's initial grand decision regarding digital commerce is:

**Create your own e-commerce or place your products in an established e-marketplace.**

In order to assist in the strategic decision-making process about entering digital commerce, three general recommendations (regardless of the digital market model to be adhered to) are presented below.

**1. Offering a differentiating element:** One approach that is most successful for any business entering digital commerce is to create something new, or to offer some kind of differentiation from what is currently offered in other platforms. When it comes to digital commerce, in-depth market research is even easier to accomplish, as information is usually available, easily accessible and very transparent.

**2. Understand what is needed to deliver the product in a timely manner:** Knowing all stages of the supply chain and optimising product management through the digitisation and information flow process will ensure an advantage in e-commerce; not only deliver on time due to the perishability of the products, but also to ensure innovation associated with this aspect. Key trends to consider when it comes to logistics and delivery include same-day delivery,

scheduled delivery, and delivery to distant locations within 72 hours.

The ability to respond to an order and ship it immediately (with delicate fresh products) is an advantage in the digital market for agri-food products.

For an agri-food e-commerce to be successful, it is essential to develop a shipping system - including speed, temperature and cost - that fits the type of product. "The care and logistics of perishable products is probably the most important aspect of the digital food business" according to expert Rick d'Ambrosio. It is vital to manage customer expectations by conveying information about when orders will be shipped and when they might be received.

**3. Products have to be easy to find and the buying process quick to complete:** There are different ways to present products in online stores: innovative, designed to mimic the physical store experience or grouped by categories and making it easy to find them, including having a search box at the top of each page. Product image and description are also key. High quality photographs are a major consumer concern, especially in adapting smaller images when viewed on smartphones.

### How to start operating in an e-marketplace: The universe of Amazon

As noted earlier, one of the biggest decisions a company should make about entering the digital market is whether to make an investment in consolidating a private label e-commerce website or whether to include their products in already consolidated e-marketplaces.

With regard to the largest global e-marketplace, Amazon has seen an ever-increasing growth in sales of agri-food products. For this reason, here are some questions to consider when deciding to work with Amazon:

### ■ Amazon is the world's online retail leader

Amazon has changed the digital retail image and societal consumption habits of recent years, with even greater relevance in the USA. In 2017, Amazon's share of all USA digital commerce sales was 44%. This represents 4% of all sales in the USA retail sector.

If Amazon's acquisition of Whole Foods is not sufficient proof of its commitment to the agri-food sector, initiatives such as Amazon Go, Amazon Fresh, Prime Pantry and Prime Now certainly are. These services, in addition to adding value, are also helping to redefine it. By adopting this e-marketplace as an online sales channel, any company is directly linked to the largest and most innovative global digital marketplace, allowing close follow ups and guidance about new developments in the agri-food sector.

### ■ The range and traffic of Amazon has no comparison

When it comes to online traffic in the retail sector, Amazon leads the way with about 200 million unique users every month in the USA alone.

Amazon is also a great platform for paid media and, similar to other channels, provides several ways to display product listings.

Sellers can pay to promote their products through sponsored ads, which can be targeted by keywords and topics. Other ways to promote include product giveaways, discounts, and the placement of "lightning offers" from Amazon.

### ■ The intention of buying is high on Amazon

The significant amount of research conducted on Amazon is due to the information, images, videos, frequently asked questions, and fairly complete product descriptions on its pages.

Amazon product pages provide good testing environments before a company invests in setting-up its own e-commerce website.

It should also be noted that a presence on Amazon is an interesting addition to companies that already operate with physical stores, as consumers often search for products online

before heading to a physical location (mainly to buy new or more expensive items). The opposite also occurs where consumers often search the store and then shop online at their convenience.

### ■ An initial minimum investment is needed to sell agri-food products on Amazon

As an Amazon vendor, the company gets access to Amazon's platform to publish all their products for a relatively small investment.

A professional seller account costs US\$ 39,99 per month, plus variable selling rates. Noteworthy, being registered as a professional seller is one of the criteria for selling in certain categories, including "Grocery and Gourmet Food". Moreover, professional vendor has access to many advantages such as market reports and superior placement on product detail pages.

The alternative option is an individual account, where sellers pay US\$ 0,99 per item sold plus additional variable selling fees. This type of account is best suited for enthusiasts who want to try out how the platform works experimentally and in specific categories. Individual sellers can sell in 20 of 30 Amazon categories.

It should also be considered that some initial investment may be required to optimise product packaging when it starts operating in the digital market.

Many food and beverage brands eventually adapt the shape, size and portions of packaging to better serve online consumers. You can also choose Amazon's business model that includes Amazon Prime, where one of the challenges will be to maintain profits by offering free deliveries to consumers.

### ■ Amazon holds several delivery and stocking mechanisms

Food sales on Amazon can take different forms due to the wide variety of distribution models available, namely:

#### → Responsibility of Amazon

Also called the Amazon Fulfilled Network (AFN), AFN vendors have the benefit and peace of mind

that Amazon is in charge of the entire distribution process.

AFN sellers can offer Amazon Prime, which adds an element of reliability and short lead times that consumers appreciate.

The algorithms tend to favour Amazon AFN listings. Still, there are storage fees charged monthly for product volume. Also note that vendors are encouraged to send to multiple call centres. Additionally, sellers must comply with Amazon's packaging requirements, which may be restrictive by category.

Finally, AFN is a good choice for companies that sell many products in a short period of time. Without AFN, managing the logistics required to run this type of business requires a lot of overhead administration, including personnel and logistics costs.

#### → **Responsibility of the vendor**

Also called the Merchant Fulfilled Network (MFN), MFN vendors manage all logistics and after sales services. This may be interesting for companies aiming to customise handwritten deliveries, special packaging, and more.

The company also maintains control over all product handling from the warehouse up to the delivery to customers, thus offering greater safety and less risk of damage.

If the company has storage space and manpower available to efficiently fulfil orders, MFN may be a more economical model than AFN. MFN vendors will always be in competition with AFN vendors, and at a certain disadvantage due to the system's own algorithms.

One of the risks associated with MFN is that sales can increase rapidly and exponentially, without the company being prepared to respond to increased demand in a timely manner, which can lead to problems with lead times and consequently customer dissatisfaction.

#### → **Prime under the responsibility of the vendor**

Introduced in 2015, it is a way for MFN sellers to benefit from prime status, previously only available to AFN sellers.

Prime sellers under seller responsibility have the benefit of offering Amazon Prime to their consumers, giving them access to the programme's 100 million subscribers. Costs to meet obligations to deliver within two days in prime mode may be high and need to be considered strategically. Adjusting regional settings (defining where the supplier can guarantee delivery within two days) may alleviate this issue, although such an approach may raise some doubts about the reliability of the prime seal.

Sellers must complete a trial period of between 5 and 90 days, during which time they must adhere to strict performance metrics. Only then will they become eligible for the Prime programme under the responsibility of the seller. Metrics include data on shipments delivered within and after deadlines and cancellation fees. Sellers are subject to Amazon's terms on aspects such as refunds and returns, but also have more control over the physical process of these items. Prime under seller responsibility is a good choice for companies that want to invest on the benefits of being a Prime seal seller and have the ability to absorb higher shipping costs but do not need Amazon's help with storage and delivery.

#### → **Vendor Central**

A fourth vendor option is through Amazon's vendor program called Vendor Central. Being an Amazon supplier is different from being a seller and is much more like a traditional supplier / retailer partnership. In this model, Amazon is a customer and buys products in retail markets. Products sold by this model are those Amazon includes in its Fresh, Prime Pantry, Prime Now, and Dash Button programs. Sellers cannot participate in these programs. As suppliers may only trade in this mode at the invitation of Amazon, this option should not be considered for a company which decides to operate with Amazon in the first approach.

## How to sell agri-food products on Amazon

Selling food on Amazon is not a simple decision / process. In order to decide whether or not it makes sense to start marketing agri-food products on Amazon, it is important to think about the size and stage of the business. If the company in question is new, it will be necessary to consider whether Amazon should be the only digital retail platform. If the answer is yes, the MFN will probably be the most economical model. The company will need to have a marketing plan inside and outside Amazon to include directing people to the platform and attracting users within the platform due to high competition. It should be noted that it is not generally possible to gain a large brand presence on Amazon without any investment. For an established business with good brand awareness and a business model that allows you to easily absorb additional costs, the AFN model may be an interesting option, investing in price-defining algorithmic and digital marketing-based variables.

## 6.

# Conclusion

This study aimed to present the results of the analysis of the main trends in digital markets and recommendations to small and medium enterprises (SMEs). Initially, the collected information was on the current outlook for e-marketplaces in terms of current technology, market conditions and sales recorded in recent years, as well as growth forecasts.

Subsequently, the top 10 trends in digital commerce in general and also the e-marketplaces applied to the agri-food sector at a global level were analysed. Such trends, although at a macro level, can help SMEs be better prepared for advances in technology, consumer behaviour and digital market movements.

Following a brief description of the 10 key trends in e-commerce, the impacts of these trends on the agri-food sector were analysed, namely: consumer behaviour trends in agri-food products, the increasing demand for convenience, such as ready-to-eat foods, the growing use of mobile devices, and surpassing purchases made on computers. In addition, as regards technological developments affecting the industry, voice technology has a new range of online shopping possibilities and companies that are prepared to do so will have competitive advantages. The importance of the availability of products online and the need for efficient delivery is still important, as they are often fresh or products for immediate consumption. Achieving an ERP system integrated with e-commerce is also considered as a competitive advantage, because when joining the digital market, many impacts are registered in the company's regular system of operations. It is also important to mention the issue of regulatory barriers, the basic requirement for joining digital markets beyond the traditional borders that they already trade. Successful examples in the agri-food digital marketplace

are cited to inspire SMEs with trends and companies to follow over time, having Amazon as the most iconic case study. Opportunities for the food and beverage industry are still growing exponentially and may be limitless, but companies need to know how to take advantage of them. Other impacts relate to integrated omnichannel purchasing, and the relevance of logistics and supply chain changes to successful online sales. Recommendations were also subdivided into initial strategic decisions: what is the online business model to adopt? Own e-commerce or join an existing e-marketplace? This is one of the most important strategic decisions and it is the first one that must be made after the decision to effectively enter the digital market. The recommendations section also presents strategies and advantages for entering an established e-marketplace using the Amazon case and also explores the specifics of marketing agri-food products on Amazon.

Given the results, this Study aimed at supporting the SMEs of AgroCluster Ribatejo to make an informed and assertive decision about whether to enter the digital market, either individually, jointly, or in an existing e-marketplace.

