



### **Digitalisation and digital transformation in the social economy: the cases of Anecoop and Consum**

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## Digitalisation and digital transformation in the social economy: the cases of Anecoop and Consum

### Abstract

**Purpose** – Digital technologies are changing the business landscape and the way companies are run. This research examines the implementation of digitalisation and ~~d~~digital ~~t~~transformation (DT) and explores ~~its~~the associated advantages and disadvantages.

**Design/methodology/approach** – Case study methodology was employed to help develop an understanding of how key actors implement DT. Semi-structured qualitative interviews were ~~carried out~~ performed with managers of two social economy enterprises in the agri-food sector supply value chain.

**Findings** – The specific nature of the supply chain of companies in this sector can hinder the implementation of ~~some certain~~ digital technologies. This scenario results in two different ~~models to~~ approaches to digital technologies: one focused on digitalisation and another focused on DT. Companies in this sector ~~that seeking the~~ successful implementation of DT should choose and combine appropriate digital technologies that fit ~~with~~ their DT strategy. They should also structure their organisation ~~with to ensure the~~ leadership ~~from of~~ senior management to engage all staff.

**Originality/value** – This ~~research study~~ is valuable because of its focus on cooperativesism in ~~the its~~ analysis of DT. There is scant research on this business model, so the present study helps fill this gap in the literature.

**Keywords:** digitalisation; digital transformation; social economy; supply chain; case study methodology

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## 1. Introduction

Over the last 20 years, digital technologies, and, as a result, digitalisation and digital transformation (DT), have ~~changed-revolutionised~~ business operations, organisations, business management, and consumer behaviour (Gungor and Cadirci, 2022). ~~Specifically,~~ DT enables organisations to acquire, collect and use new types of data (Arnaboldi et al., 2017)- and DT also allows organisations to restructure power relations and engage with stakeholders (Scott and Orlikowski, 2012). ~~It also allows organisations.~~ ~~Meanwhile, it lets them to~~ introduce new decision-making practices (Dubey et al., 2019). ~~Meanwhile, it can.~~ ~~And Finally, it enables organisations to~~ empower consumers, who, instead of being mere decision-making agents, can acquire a more proactive role by freely creating and sharing product content (Knudsen, 2020).

In recent decades, globalisation, compounded by the COVID-19 pandemic, has ~~placed pressure forced on~~ companies to change. ~~This pressure has been compounded by the COVID-19 crises.~~ increasing Together, these two factors have led organisations to increase their awareness of DT and the need to push forward advance in this direction (Ritter and Peterson, 2020). However, recent data indicate that the DT success rate of companies across different sectors is less than 30%. Even firms in digitally savvy industries, such as the media industry and the telecommunications sector, have struggled, with a success rate of 26%. In more traditional industries such as oil and gas, the automobile industry and pharmaceuticals, the DT success rate is between 4% and 11% (McKinsey, 2018).

Businesses are increasingly interlinked. Consequently, their ~~A company's~~ competitiveness is conditioned by the competitiveness of ~~its-their~~ suppliers and customers. Digitalisation and DT represent yet another opportunity to intensify and encourage the exchange of information, knowledge and experience between different links within of the supply chain (Bresciani et al. 2021). They offer an opportunity for these links to work in harmony in a process of continuous improvement. To probe further into this topic, the aim of this study is to examine the implementation of DT and to look at its advantages and disadvantages in two social economy companies in the food sector supply value chain. Firms are introducing a range of digital information technologies (digital ITs). However, doing so does not always mean that they are undertaking a DT process. Therefore, the research question addressed by this study is as follows: How do digital ITs- affect the DT of Spanish cooperatives? To answer this question, semi-structured interviews were performed. These interviews probed into the specific digital ITs adopted by the cooperatives included in the study. Data were also collected on the

functional areas and stages of the supply chain where digital ITs have been implemented, as well as who is leading the DT in each cooperative.

A cooperative is a type of social economy organisation~~Social economy enterprises and agri-food cooperatives in Spain account for a large part of the Spanish agri-food sector. (Lajara-Camilleri and Server-Izquierdo, 2017).~~ Cooperatives account for a large proportion of the Spanish agri-food sector. Specifically, agri-food cooperatives in Spain ~~Such firms~~ recorded a turnover of €34.186 billion in 2020 and were directly responsible for 119,700 jobs. The exports of agri-food cooperatives have grown, with an increase in turnover in foreign markets between 2011 and 2020 of more than 82%. Anecoop S. Coop. is the top cooperative in terms of exports (Cooperativas Agroalimentarias de España, 2021).

To achieve ~~theits proposed objective~~aims of this research, ~~this study used~~ case study methodology was used (Yin, 1994). The chosen companies were Anecoop S. Coop (hereinafter ANECOOP) and Consum. ANECOOP is a cooperative that buys vegetables, fruit and wine from farmers (suppliers) and delivers them to distribution companies. CONSUM is a cooperative that buys vegetables, fruit, wine and other products from intermediaries, such as ANECOOP, or directly from farmers and sells them to end consumers. The main finding of this study is that these cooperatives have adopted two different models to deal with digital technology. ANECOOP uses a digitalisation business model, whereas CONSUM uses a DT business model. This study is novel in the sense that it examines digitalisation and DT in a new field, namely cooperatives. Cooperatives are built on a membership basis, thus making the design and implementation of DT in these organisations different from the design and implementation of DT in~~that of~~ other companies.

The paper is structured as follows. Following this introduction. Section 2 defines the terms digitisation, digitalisation and DT and discusses their advantages and disadvantages. The methodology is explained in Section 3. Section 4 describes and analyses the chosen cases. The results are discussed in Section 5. Finally, Section 6 presents the conclusions and implications. Section 7 outlines the limitations of the study and ideas for future research.

## 2. Background

~~The impact of d~~Digitalisation on-in firms ~~is affectsing~~ business management (Teuber and Stockinger, 2020). because the design and use of ITs brings about changes such as process automation (Hess et al., 2016). Businesses that are in the process of digitalisation are in a phase

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4 prior to DT, which entails strategic ~~entail~~ a reconfiguration ~~of strategy~~ or profound changes in  
5 the direction that the business takes (Andati et al. 2022). ~~direction~~, as does DT. Digitisation  
6 ~~refers to the technical process whereby analogue information is encoded into a digital format.~~  
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8 The resulting digitised content is programmable, addressable, traceable and communicable. It  
9 ~~automates processes through IT (Hess et al., 2016). Digitisation is less of a comprehensive~~  
10 ~~change than digitalisation.~~

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14 Although there is no single definition of DT (Kraus et al., 2021), it can be understood as a  
15 process that aims to improve an organisation, ~~industry or society~~ by radically changing its  
16 properties through the combination of digital ITs, ~~(which are digital)~~, computation,  
17 communication and connectivity (Vial, 2019). ~~In the case of organisations,~~ These changes to  
18 an organisation's properties consist of malleable organisational designs ~~of malleable~~  
19 ~~organisational designs~~ that are integrated in and driven by digital business ecosystems and  
20 based on (Bresciani et al., 2021). ~~The malleable organisational designs generated by DT rely on~~  
21 digital IT technologies and agile structures to adapt rapidly to opportunities and threats in the  
22 environment (Bresciani et al. 2021). Hence, according to Zhu et al. (2021), to design and  
23 implement a DT strategy, digital ITs must first be appropriately chosen and combined, ~~and~~  
24 luego suggested that companies first to design so that a digital business strategy that  
25 synchronises business strategy and with IT strategy can then be designed. The right choice and  
26 combination of digital ITs by a company when designing a DT strategy changes ~~They are then~~  
27 recommended to design the DT strategy to implement their DT. According to Zhu et al. (2021),  
28 ~~the digital business strategy first requires the appropriate choice and combination of digital~~  
29 ~~technologies.~~

### 2.1. Digital technologies and digital transformation

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33 In their conceptual framework, Hess et al. (2016) developed the DT framework by identifying  
34 four key dimensions for formulating a company's DT strategy: the use of technologies, changes  
35 in value creation, structural changes and DT financing. Digital technologies are the drivers of  
36 digitalisation. They play a central role in creating and reinforcing disruptions in society and  
37 industry. Companies must choose and combine digital technologies carefully because this  
38 choice and combination has numerous effects on DT (Zhu et al., 2021). ~~Firms use digital~~  
39 ~~technologies to alter~~ the the value creation pathways routes (Romanello and Veglio, 2022) that  
40 the company previously relied on to make it more competitive. ~~Moreover, firms~~ To do so, they  
41 must also implement structural changes and overcome barriers that hinder DT strategy design.  
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3 resulting in both positive effects for firms (Di Vaio and Varriale, 2020; Dubey et al., 2019;  
4 Kamble et al., 2020; Pagani and Pardo, 2017) and In some cases, they may be associated with  
5 unwanted outcomes such as CO2 emissions, electricity consumption, radioactivity and e-waste  
6 (Cohen, 2018; Ahmadova et al. 2021 Corbett, 2018). Hess et al. (2016) noted that firms must  
7 also be able to finance their DT.

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12 In addition to choosing and combining digital ITs effectively, and creating value and  
13 making structural changes, firms require coordination in the design of their DT strategy.

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16 Big data analytics enables better decisions and new ways of organising, learning and innovating  
17 (Zhu et al., 2021). It thus strengthens customer relationship management (CRM), improves  
18 operational risk management and operational efficiency (Zhu et al., 2021), and enhances  
19 overall business performance (Dubay et al., 2019). Wamba et al. (2017) cited studies of the  
20 business value derived from investments in information systems, an area that encompasses big  
21 data analytics. These studies have shown mixed results. Such investments do not necessarily  
22 lead to higher operational efficiency and effectiveness. However, they lead to superior  
23 (business and financial) company performance (Wamba et al., 2017). They also enhance  
24 sustainable performance (ElMassah and Mohieldin, 2020). Wamba et al. (2017) argued that  
25 for big data analytics to provide a sustainable competitive advantage, firms must develop  
26 dynamic management capabilities, as well as infrastructure and analytical capabilities.

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36 Blockchain technology is used to help companies improve their production processes and  
37 reduce their costs through technology (Pan et al., 2020). Blockchain technology records digital  
38 events and other features such as smart contracts to prevent and respond to technological issues  
39 such as fraud.

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43 Blockchain technology also plays a crucial role within supply chains (Kamble et al., 2019;  
44 2019b; Wong et al., 2019), where there are many interconnections. As supply chain actors,  
45 suppliers and customers need to coordinate and collaborate. The adoption of blockchain  
46 technology in managing supply chain operations offers some benefits. It offers security by  
47 preventing product fraud and counterfeiting (Chen, 2018). It enables traceability, which  
48 increases customer confidence. It also offers transparency and accountability by identifying  
49 where errors occur (Di Vaio and Varriale, 2020). These benefits reduce costs and increase  
50 supply chain efficiency (Di Vaio and Varriale, 2020). However, for successful implementation,  
51 companies must not focus only on the adoption phase. Doing so may lead to the neglect of the  
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organisational and management strategies and policies necessary for successful implementation (Queiroz and Fosso Wamba, 2019).

Finally, the use of the Internet of things (IoT), radio frequency identification (RFID) tags, sensors, barcodes, electronic tags and GPS chips also has major effects on the management of supply chain operations in areas such as product location and tracking (Di Vaio and Varriale, 2020). The IoT and sensor technologies are useful for bridging the supply demand gap and, for example, addressing the problem of food quality and safety (Wang and Yue, 2017; Zhong et al., 2017). In addition, the literature advocates developing virtual supply chains using the IoT and sensors that can help supply chain actors control and monitor products from any location without physically needing to access them (Verdouw et al., 2016).

With DT, companies can increase supply chain visibility, thereby facilitating the availability of information to help decision makers develop sustainable supply chain strategies (Kamble et al., 2020). Supply chain visibility is understood as the availability of information to those who need it, inside and outside the company, to monitor, control and modify supply chain strategies and operations, from raw material procurement to product delivery (Schoenthaler, 2003). Supply chain visibility refers not only to information availability but also to the accuracy, timeliness, usefulness and structure of shared data (Barratt and Oke, 2007). To achieve this visibility, companies need financial, physical, human (technical and management skills), organisational, technological and intangible (reputation, brand recognition, data-driven culture and organisational learning) resources (Kamble et al., 2020).

## *2.2. Digital transformation and its implementation: requirements and implications*

DT design requires not only the use of technologies but also changes in value creation (Hess et al., 2016; Romanello and Veglio, 2022). These changes relate to creating a value network or group of actors that collaborates in the activities necessary to create value for end consumers by taking responsibility for the success or failure of the network (Pagani and Pardo, 2017). However, one of the main problems of the DT value network is a lack of coordination. When a company undergoes DT, it is important to decide who is steering this transformation. The DT process requires strong support from the top management team because it must be not only be implemented but also secured and communicated (Kraus et al., 2021). In addition, the complexity of DT projects means that can challenge executives (Andriole, 2017). The leadership of Chief Information Officers (CIOs) and Chief Executive Officers (CEOs) is needed is therefore important in digitalisation (Kholi and Johnson, 2011).

DT requires leadership skills not only in managers but also in other staff (Kohtamaki et al., 2020; Chen et al., 2022). ~~The reason is that because it entails learning~~ to use new systems, which requires training, mentoring and ~~learning~~ new ~~digital~~ ITs skills (Wamba et al., 2017). ~~Other changes include to modifying modifying~~ routines (Papadopoulos et al., 2022) and capabilities across the organisation (Chatterjee et al., 2021). ~~administering~~ ~~Examples include project management, rR~~research and ~~dD~~development (R&D) ~~projects, the supply chain, delivering the solutions, delivery, and supporting activities such as finance and~~ ~~managing~~ human resources ~~management~~ (Kohtamaki et al., 2020). DT fails when firms do not modify routines and succumb to organisational inertia by failing to change their resource investment patterns or modify organisational procedures and business models (Airbar-Guzmán et al., 2022; Mikalef et al., 2021).

~~In terms of financing DT, Hess et al. (2017) reported that if an organisation's core business continues to generate sufficient profits, managers may not see the urgency of DT or be willing to take the associated risks. However, history has shown that markets can change quickly. Acting too late can be fatal for companies.~~

~~Finally, DT has organisational implications and indirect organisational impacts that raise ethical issues related to privacy, confidentiality, transparency and identity. It may also be possible for a business model to be digitally transformed in an attempt to achieve eco-innovation, with the new model proving less environmentally profitable than expected (Li, 2022). The reason is that data management requires a physical infrastructure that uses energy. Therefore, DT may lead to higher CO<sub>2</sub> emissions, electricity consumption, radioactivity and e-waste (Ahmadova et al., 2021; Cohen, 2018; Kohtamaki et al., 2020).~~

~~The indirect effects of DT that lead to increased exposure to cyber threats include data leakage, identity theft by hackers, insider trading, dishonest transactions and money laundering. Other issues include data privacy, machine bias, algorithm fairness and technology addiction (Cohen, 2018). Businesses face challenges such as how to exploit and unlock the power of the mass of data they collect whilst ensuring consumer happiness, trust and fairness (Cohen, 2018). Other challenges include the dilemma of whether a growing volume and increasing variety of data leads to better decisions (Corbett, 2018).~~

## **2.1. The role of digital information technologies (digital ITs) in digitalisation and digital transformation (DT)**



Digital ITs are the main drivers of digitalisation and form one of the key dimensions for the creation of a DT strategy. Notable digital ITs are those that affect production processes and increase supply chain visibility, thereby facilitating the availability of information to help decision makers ~~decision makers~~ develop sustainable supply chain strategies (Kamble et al., 2020). Supply chain visibility is understood as the availability of information to those who need it, inside and outside the company, to monitor, control and modify supply chain strategies and operations, from raw material procurement to product delivery (Schoenthaler, 2003). Supply chain visibility refers not only to information availability but also to the accuracy, timeliness, usefulness and structure of shared data (Barratt and Oke, 2007).

Blockchain technology plays a crucial role within supply chains (Guaita et al., 2022; Kamble et al., 2019; Aslam et al. 2022 Wong et al., 2019), where the supply chain actors, suppliers and customers, need to must coordinate and collaborate with each other. Although this technology can improve the performance of organisations and production by protecting data and transactions (Caldarelli et al., 2021), it has not been assessed in terms of its potential to create genuine business value in food supply chain traceability systems (Casino et al. 2021). For example, Bettin et al. (2018) studied the integration of blockchain in the food industry supply chain to achieve traceability throughout the process and offer end consumers information about the origin of products. This information can help customers take informed decisions, thus improving supply chain traceability. The adoption of blockchain technology in managing supply chain operations offers some benefits: (1) security, by preventing product fraud and counterfeiting (Chen, 2018); (2) the traceability, which increases customer confidence (Galvez et al. 2021); and (3) the transparency and accountability, by identifying where errors occur (Di Vaio and Varriale, 2020). Although these benefits reduce costs and increase supply chain efficiency (Di Vaio and Varriale, 2020), for successful blockchain implementation, companies must not focus not only on the adoption phase, but also on the design of the necessary organisational and management strategy and policies necessary for successful implementation (Queiroz and Fosso Wamba, 2019).

Traceability-driven food supply chain management is based on novel technologies such as the Internet of things, commonly abbreviated to (IoT) (Casino et al., 2021). The use of the (IoT), radio frequency identification (RFID) tags, sensors, barcodes, electronic tags and global positioning system (GPS) chips also has major effects on the management of food supply chain operations in areas such as product location and tracking (Di Vaio and Varriale, 2020). The IoT and sensor technologies are useful for bridging the supply–demand gap and, for example,

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3 addressing the problem of food quality and safety (Wang and Yue, 2017; Zhong et al., 2017).  
4 In addition, the literature advocates developing virtual supply chains using the IoT and sensors  
5 that can help supply chain actors control and monitor products from any location without  
6 physically needing to access them (Verdouw et al., 2016).  
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10 Despite the substantial benefits of adopting IoT-related applications, there are still some issues  
11 in the food supply chain such as its complexity and fragmentation. These features of the food  
12 chain hinder the identification and tracking of products and processes along globalised food  
13 supply chain networks (Casino et al., 2021). Notably, there have been improvements in data  
14 communication and export through IoT- and blockchain-enabled food supply chain  
15 approaches. This scenario has resulted in additional benefits for the logistics sector with respect  
16 to data management and analysis (Banafa, 2017; Huh et al. 2017).  
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23 Finally, bBig data analytics enables better decision makings, the adoption of new ways of  
24 organising, learning and innovating (Zhu et al., 2021), and the strengthening of customer  
25 relationship management (CRM). It can thus, improve operational risk management and  
26 operational efficiency (Zhu et al., 2021); and enhances overall business performance (Dubay  
27 et al., 2019). The results regarding firms' application of big data analytics have been mixed.  
28 Wamba et al. (2017) cited studies of sureported its business value and showed that investment  
29 in big data analytics does not necessarily lead to higher operational efficiency and effectiveness  
30 (Ballestar et al, 2021) but does lead to superior (business and financial) company performance  
31 (Wamba et al., 2017) and sustainable performance (ElMassah and Mohieldin, 2020). Wamba  
32 et al. (2017) argued that for big data analytics to provide a sustainable competitive advantage,  
33 firms must develop dynamic management capabilities, as well as infrastructure and analytical  
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### 47 **3. Method**

#### 48 **3.1. Research approach**

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51 This study examines the implementation of DT, as well as its advantages and disadvantages,  
52 in two social economy enterprises in Spain. The research question addressed by this study is  
53 as follows: How do digital ITs technologies affect the DT of Spanish cooperatives? In response  
54 to this research question, the core hypothesis of this study can be formulated: The application  
55 of digital ITs by the cooperatives investigated in this study does not necessarily imply that they  
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3 are implementing a DT process. Given the research objective and the fact that the study of  
4 cooperativesism is a new field of study-inquiry (Cheng, 2016), a qualitative ~~research~~-approach  
5 was employed. Specifically, case study methodology was applied (Yin, 1994), enabling close  
6 collaboration with informants. This approach uncovered latent variables that can help explain  
7 how those who implement DT see the world around them. A qualitative perspective offers the  
8 opportunity to develop existing theory. This specific study examined two cases of social  
9 economy organisations (-ANECOOP and CONSUM)- ~~from the social economy~~ in the food  
10 sector supply chain.

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12 This study followed an exploratory survey-based approach using semi-structured interviews  
13 (Saunders et al., 2009). This technique of interviewing can generate new perspectives and raise  
14 new questions. It can also make it easier to sort, compare and analyse data. ~~According~~  
15 ~~to~~ Following Gläser and Laudel (2010), an interview guide was used because (1) the content of  
16 the interview was based on a specific research objective ~~and not on~~ as opposed to information  
17 data provided by ~~from~~ interviewees and (2) unique, determinable data ~~must be collected~~ were  
18 needed. The central themes of the interviews were the use of digital technologies when  
19 implementing DT, approaches to implementing DT and the consequences of DT. Given the  
20 exploratory nature of the study, the procedure followed both deductive and inductive  
21 approaches, resulting in a general abductive approach (Czarniawska, 2014).

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23 In the case of CONSUM, the Director of Finance and Information and Communication  
24 Technologies (ICTs) and the Director of External Relations were interviewed. In the case of  
25 ANECOOP, the Director of External Relations and two executives from Systems and  
26 Organisation were interviewed. The social economy (cooperative sector) was chosen because  
27 of its economic and social impact in Spain, as explained in the introduction. The two  
28 cooperatives were chosen because they are part of the agri-food sector, constituting two links  
29 in the supply value-chain (intermediary and distributor). Reliability was ensured by following  
30 a detailed case study protocol that documented the calendar, interview procedures, recording,  
31 follow-ups, questions and ~~a~~-summary of the data set (Pagani and Pardo, 2017).

### 3.2. *Data collection*

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33 The main source of data was the interviews. The interviewees were asked to give a brief  
34 description of the company. They were requested to focus on the design and implementation  
35 of the DT strategy through the deployment of different digital technologies. Two semi-  
36 structured qualitative interviews were conducted. They had an average duration of 2.5 hours  
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each. Interviews were conducted with staff from each company in charge of implementing DT. The choice of informants is critical to the success of case studies (Yin, 1994). The informants were chosen based on the principle that data would be best gathered from people with knowledge of the topic of interest and who had been involved in DT implementation.

To address the hypothesis presented earlier, open questions were formulated. Which functional areas of the business are targeted by DT? Why were these areas chosen as opposed to others? At what stages of the supply chain is DT being implemented? What individual (job title) or team is implementing DT? What specific technologies are being implemented in the functional areas or stages of the aforementioned supply chain? The interviews were transcribed to ensure that they could be used to their full potential. Qualitative data analysis was used to organise the data into themes. Field notes were made to record reactions. The transcriptions and field notes helped achieve validity in this qualitative study. In some cases, the research team also had access to confidential internal and external documents to triangulate respondents' answers. This approach is advocated in the literature (Yin, 1994). The validity and reliability of research increases with data triangulation.

### 3.3. Case descriptions

#### 3.3.1. Case 1: Anecoop S. Coop.

ANECOOP is a second-degree cooperative whose members are first-degree cooperatives that operate in the agri-food sector in Spain. Specifically, it sells fruit, fresh vegetables and wine. Abroad, it sells its products through subsidiaries. However, it does not have associated producers. It sells 100% Spanish produce. ~~It is important to~~ Crucially, there is a difference between the services provided by ANECOOP within the organisation itself and the consultancy and advisory services it provides to its members ~~related to consultancy and advisory services~~. ANECOOP is not involved in warehouse automation processes. The members themselves develop manufacturing and packaging lines and transform their processes. For the provision of these services, ANECOOP has an area called Organisation and Systems. This area, which lies within the IT department, is in charge of members' DT.

Within the ANECOOP organisation, DT focuses on everything that is business related, namely marketing, sales contact with customers (large supermarkets), and integrated transport management and logistics. Therefore, the DT is integrated in the process of commercial business management. For members, DT includes not only cooperatives' own technology but

also other services such as cloud services and networks. ANECOOP's Director of External Relations, José Balaguer (JB), described this situation as follows:

JB: All advances we make in digitalisation are also extended to our members, either with our own systems, so that they are commercially integrated, or with other types of systems, such as cloud storage or robotic process automation (RPA) applications.

### 3.3.2. Case 2: Consum

CONSUM began in 1975 as a consumer cooperative. It has since become the largest Spanish cooperative in terms of number of members. It is one of the leading companies in the food distribution sector through its own supermarkets (under the "Consum" brand), and through franchised supermarkets (under the "Charter" brand) and its online shop. At the close of the 2021 financial year, it had 838 own and franchised supermarkets ([www.consum.es](http://www.consum.es)) located throughout the regions of Spain. At the close of the 2021 financial year (31 January 2022), CONSUM had more than 4 million customer members and 18,212 employees. CONSUM has specific cross-departmental DT projects involving different departments. It has specific projects promoted by the digital transformation office (DTO), such as RPA projects, and projects in the ICT department, such as the automated queue management system for the purchase of perishable products via mobile phones.

## 4. Findings

### 4.1. Case 1: Anecoop S. Coop

#### 4.1.1. Digitally transforming to ~~digitally~~ transform digitally

Digitalisation of ANECOOP's commercial process began in the 1990s. They started digitalising their billing, continuing until process completion. ANECOOP then digitalised all communication with cooperative members. Around 2007, it began using electronic data interchange (EDI) communication with customers (distributors), having implemented this change with its main customers. It is currently digitalising everyday management processes such as supplier billing. It has begun to adopt communication in its relationships with its customers. With members, it is adopting new technology through the development of web services. It is integrating orders and billing and is offering a more accessible service. It is also developing an application for planning, covering everything from farm operations to the sales and marketing process.

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3 ANECOOP's digitalisation with its members started with a project to create a food traceability  
4 system in 40 to 50 warehouses to ensure safety. It was a pioneering project because traceability  
5 was just starting in Europe. The story of the digitalisation of ANECOOP and its members was  
6 summarised by the Director of External Relations, José Balaguer (JB), as follows:  
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10 JB: We are a company that primarily provides commercial services to our own  
11 company, as well as services such as DT to our members, regardless of their  
12 own DT, in their commercial process and supply chain.  
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16 As independent companies, supplier members are not obliged to adopt the services offered by  
17 ANECOOP. They are free to choose their own. The Executive of Organisation and Systems,  
18 David Ruíz (DR), described this situation as follows:  
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22 DR: We offer them services and technology; some are interested, and others look for  
23 their own solutions. It's not a problem.  
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#### 26 4.1.2. Technologies

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28 ANECOOP has adopted the use of some technologies such as EDI systems. However, others,  
29 such as Radio Frequency Identification (RFID), have been adopted by only certain  
30 ANECOOP warehouses because the nature of the product makes its adoption ineffective. This  
31 idea was summarised as follows:  
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36 DR: We were the first to work with this RFID at the warehouse level, but it caused  
37 some problems because they weren't being read properly with the fruit . . . This  
38 technology can be useful depending on the size of the company.  
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42 JB: In the case of ANECOOP members, because they don't all use the same  
43 warehouse (they may be small, medium or large, and some have a lot of pallet  
44 movement, whereas others don't), implementing this technology for warehouse  
45 control, which is also expensive, does not give us a competitive advantage.  
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49 However, although ANECOOP has struggled to implement this technology, it may be  
50 introduced going forwards:  
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53 DR: Now that RFID technology has improved and costs have fallen, we can  
54 reintroduce it.  
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58 Automation in production lines in the agri-food sector does not have the disadvantage of staff  
59 reductions:  
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3 JB: During the season, there may be 2,000 people working on the production lines.  
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6 The automation of processes is feasible for calibration because,  
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8 JB: Electronic calibrators are highly technological and have improved considerably.  
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10 Regarding blockchain, ANECOOP is not yet using this technology. However, some  
11 distributors such as Carrefour want to implement it. According to an employee in Organisation  
12 and Systems, Isabel Rodríguez (IR),  
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16 IR: They want to be sure that their suppliers such as ANECOOP cannot alter the  
17 traceability of the product because, with blockchain technology, it cannot be  
18 modified, and it will give you a truer traceability process . . . They will sign a  
19 contract soon . . . to use a platform with blockchain technology and keep a record  
20 of best practices and certifications in the core process.  
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25 For its members, ANECOOP views blockchain technology as attractive. They are studying its  
26 use. However, they are having difficulties.  
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29 DR: Introducing traceability from the farm is complicated because we have  
30 thousands of farmers with smallholdings who we have to provide with easy tools  
31 (applications and mobiles) because the average age of our base members is quite  
32 old and it is proving difficult.  
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37 DR: We work with a lot of warehouses that have to agree to adopt blockchain, and  
38 then there is ANECOOP, where we also struggle to link a batch of production  
39 with one of the sales outlets. It's all very difficult to manage with blockchain  
40 throughout the entire process. As well as these difficulties, there are processes  
41 with the fruit where it gets really mixed, making it even more complicated to  
42 apply blockchain because it requires the entire line to be synchronised.  
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48 Despite these difficulties, ANECOOP intends to apply blockchain wherever possible and then  
49 continue to implement it further up the chain. ANECOOP is working on a project to make the  
50 value supply chain more visible using blockchain technology through (Quick Response (QR)  
51 labelling and certified technology). The idea is that customers and end consumers will be able  
52 to see as much of the process that the product has followed as possible.  
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57 DR: We would like to go all the way back to the tree, to the farmer who planted it,  
58 but we are still working on it.  
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Regarding the Internet of things (IoT), ANECOOP also struggles to use drones, sensors and satellites because of differences between members in different regions.

DR: The greenhouse technology in Almeria, which is highly advanced, is not the same as the technology in the citrus farms in Valencia, which is a little further behind . . . At the moment, they don't work with drones because it's difficult to get permits and authorisation to fly drones, and ~~achieving~~ ~~getting~~ results is still expensive . . . It's not the same for a company in Andalusia, where we have members, where they have huge areas of land and where flying a drone might be profitable, as in Valencia, where we have small plots.

At an experimental level, in farms in Valencia, ANECOOP has sensors that measure humidity, soil and temperature. They have tools connected to a satellite to take digital images of different soil layers and discover pests, diseases, ~~lack of~~ water ~~shortages~~ and other such issues.

#### 4.2. Case 2: Consum

##### 4.2.1. A ~~modernisation~~ ~~change~~ of internal organisation

According to its Finance and ICT Director, Amadeo Ferrer (AF), the CONSUM cooperative,

AF: Began implementing DT long before 2017, but that was when it started to deploy its DT more intensively as a separate line within the cooperative.

In 2017, CONSUM designed a three-year DT strategic plan. As summarised by ~~the~~ Director of External Relations, Francisco Javier Quiles (FJQ),

FJQ: It's ~~nonsense~~ ~~silly~~ because DT is ongoing and never takes three years. It has to be a continuous process, and, in fact, it's no longer ~~situational~~ ~~one-off~~ but structural.

CONSUM is a social economy enterprise that is constantly undergoing DT.

AF: We have projects that we have completed, projects that are in progress, projects that have been interrupted because we started them but weren't sure about the cost-benefit, and projects that we've put on hold because what we've done is enough, although we'll revisit it in the future if we want to ~~take it~~ ~~go into~~ further detail.

In 2017, a ~~d~~ ~~D~~igital ~~t~~ ~~T~~ransformation ~~o~~ ~~O~~ffice (DTO) was created, stretching across the entire organisation.



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3 AF: There are times in a company when the organisation has a major influence on  
4 how things are run. It seemed sensible for us to have an organisation department,  
5 but our CEO didn't see it that way. So, what did we do? We made a company  
6 director the coordinator of a DT steering committee, along with three other  
7 managers, overseeing the evolution of DT.  
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12 The DTO depends on this Digital Transformation Steering Committee, which consists of the  
13 Coordinator, the Finance and ICT Director, the Director of Customer Members and Marketing,  
14 the Director of Human Resources, and the Administrative Director.  
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18 AF: We represent the board of directors as a whole and make decisions, which we  
19 then pass on to the board so that they know what we are doing and prioritise  
20 new digital initiatives.  
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24 The DTO consists of an executive, an area manager and a technician. With the support of  
25 Deloitte, they are responsible for the day-to-day running of DT. In 2020, CONSUM launched  
26 a process mapping and re-engineering project, which is also part of the transversalisation of  
27 the organisation.  
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31 AF: In organisations like ours, we were working in silos, with each department doing  
32 ~~what it had to do its thing~~, often without taking too much notice of its influence  
33 on other departments.  
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37 Both DTO and process re-engineering aim to change this way of working because,  
38

39 AF: All modern organisations work interdepartmentally; they don't work in  
40 silos/departments.  
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43 The intention is to help the organisation work through projects, where necessary, despite,  
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45 AF: A certain fear of changing a work situation where you're fairly comfortable and  
46 which is going well for you.  
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#### 49 4.2.2. Technologies

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51 CONSUM carries out considerable research and innovation in general, especially in  
52 digitalisation, where technology is the common theme. However, it is not the only  
53 consideration. As already mentioned, the most innovative change is not related to digitalisation.  
54 The latest measure taken by CONSUM is the delivery of online shopping with special thermal  
55 boxes to keep the food cold. These boxes keep the temperature constant for frozen food, fish  
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3 and other such products. The cold chain thus remains unbroken, so traceability is guaranteed,  
4 and health problems are avoided.  
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7 The DT started long before CONSUM began to offer online shopping. It was immediately well  
8 received by members and customers. CONSUM has since incorporated more services: a ~~record~~  
9 ~~of products purchased by shopping list for~~ each customer, who can ~~include them in use it for the~~  
10 ~~next subsequent~~ purchases without having to add ~~them all the items on the list~~ again, and ~~the a~~  
11 home delivery service.  
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16 AF: The online shop, even though it's technology and it looks good, in the case of  
17 CONSUM represents 2% of sales. It's not much. It doesn't work for everyone.  
18

19  
20 However,  
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22 FJQ: You can't get rid of it because the service is already in high demand.  
23

24 In 2022, to complement the online shop, CONSUM began developing a project with Google  
25 for a voice assistant with,  
26

27 FJQ: Two functions: to ensure customer convenience and obviously to allow people  
28 who couldn't buy anything on the website to be able to do their shopping.  
29

30 As well as being used to do shopping by voice, the voice assistant suggests similar products to  
31 those that have already been ordered.  
32

33 However, the standout example is the web integration project. This project covered internal  
34 communication (intranet) and external communication (customer members and general  
35 customers). The aim was to unify or integrate all websites under a single user-friendly  
36 technology. These websites were managed independently by different departments, with no  
37 common form of management in terms of suppliers and technology. When they were  
38 integrated, it became clear that,  
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40 AF: It was one of the most complex technological projects ever undertaken in  
41 CONSUM. It involves changing the way we do things to introduce the latest  
42 technology for all websites.  
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45 This web integration project affects both the intranet, which can be accessed only by worker  
46 members (because it has to do with members' working relations), and the general corporate  
47 website, which is accessible to customers who have no relationship with CONSUM, as well as  
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3 both customer members and worker members. The website has restricted access for members,  
4 both customers and workers, with general access for other visitors.  
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7 Refactoring is another project undertaken by CONSUM. It consists of changing the code  
8 historically used for programming. It entails moving to a new language and introducing a new  
9 technological architecture.  
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13 AF: To ensure an up-to-date technological platform with a future, which can support  
14 all new programming development in CONSUM in the long term.  
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17 This project will be completed in 2025 or 2026. It means,  
18

19 FJQ: Having our own architecture, but when you see all the technology behind a  
20 shopping receipt . . . and you have to modify a line because the new law against  
21 food waste means that I have to issue an invoice with a zero tax base, how do  
22 you do it? If you use a standard SAP-type program, it's obvious, because it's a  
23 universal patch made by the software creator, but when CONSUM needs to  
24 change and adapt, it has to add its own code.  
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30 The creation of the *Mundo Consum* ("Consum World") application (app) is another DT project  
31 example. This app is linked to the *Mundo Consum* card, which can also be used to make  
32 payments as a credit card. When customer members access the website with their credentials,  
33 if they make a purchase online, the details of the purchase appear on the *Mundo Consum* app.  
34 Likewise, if they shop at a brick-and-mortar supermarket, CONSUM sends the details to the  
35 app. The technology behind this app means that it can automatically display a specific offering  
36 for users. They can request home delivery by booking a specific one-hour time slot when they  
37 want their shopping to be delivered. The system keeps users informed about when their  
38 shopping will arrive. Linked to the *Mundo Consum* app, CONSUM has implemented a mobile-  
39 phone-based automated queue management service for purchases from the fresh produce  
40 sections. As well as being a credit card, the *Mundo Consum* card accredits the status of  
41 customer members. It lets them access the member section of the website and enjoy the  
42 advantages of shopping online. The online shop is also available for customers who are not  
43 members. These customers can shop online, despite not being members, just by registering.  
44 However, they will not benefit from the advantages available to customer members.  
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56 CONSUM uses ~~nNear-fF~~ ~~eC~~ommunication (NFC) technology, a high-frequency, short-  
57 range form of wireless technology. With NFC, customer members can use their mobile phones  
58 for identification at the point of sale to link their purchase to their membership number. All  
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discounts are automatically applied, as long as this function has been enabled and members have provided their consent.

AF: You have to be careful with the new technology you introduce because it's great to want to introduce a lot of changes, but you also have to assess the return on investment. You talk to a business department and they suggest introducing this change and that change. Sometimes it overcomplicates things . . . because our customers are not that technology oriented.

For instance, an app was designed after a business department made a proposal to allow customers to pay for their purchase at the checkout using their NFC-enabled mobile phone. This payment would then identify the customer and would download the special discounts available to that customer. The interviewees discussed this idea:

AF: We have a lot of technology, but we don't advertise it enough, and people sometimes don't know about it. It's been four years, and they know about it. But we have to be careful because people might not want it or understand it, and it's also very expensive.

At the beginning of 2021, CONSUM launched the DT project for ~~Robotic p~~Process aAutomation (RPA) in the administration and logistics department. This project was advocated by the consultancy firm Deloitte, which is supporting CONSUM in its DT.

AF: At first, people didn't get it because they didn't understand exactly what it was, but now we have started using "little robots" to do what people used to do all day long. You press a button, and the machine does it every day from 7 to 8 a.m., and that's it. They love it. So now they say, "give me more, give me more", and we're working on it.

In the case of the administration department, RPA is controlling the invoicing process, which used to be done by hand with lists. Now, the machine checks each supplier's conditions against what is written on the invoice. This technology is based on character recognition, so it reads electronic invoices better than paper invoices. The robot works well, despite the following disadvantage:

AF: You have to tell the robot exactly what it has to do, under what conditions, and when to do it and when not to do it. The most difficult thing is to set all that up

because of the high level of precision of the instructions you have to give it. Once it's set up, it honestly works really well.

The project to detect the location of the company's physical assets using radio frequency technology is another ongoing DT project at CONSUM. The aim of this project is to monitor the company's assets, given that the company has almost 1 billion euros in assets on the balance sheet and 120,000 assets spread throughout the organisation.

AF: We are in the process of seeing whether radiofrequency technology can quickly allow us to detect and verify where assets are and then make a permanent inventory to know where each asset is . . . We can have a greater awareness and control of all the fixed assets we have.

To summarise the data following the indications of Gioia et al. (2013), Table 1 provides the categories and phenomena targeted by this study (digitalisation and transformation), along with their subcategories (organisational strategy, digital technologies and supply chain). The table shows the links between them.

*[Insert Table 1]*

## 5. Discussion of findings

The findings of the analysis of the two cases of cooperatives presented in this study reveal two very different ways of designing and implementing digital transformation (DT). In the case of CONSUM, the whole organisation is involved in the design and implementation of DT, designing an organisational strategy that has brought about changes in the cooperative that have led to choosing and combining different –has adopted a company-wide design as an integrated organisation where the whole company is involved in the implementation of DT digital ITs. In contrast, ANECOOP has adopted an organisational design to implement its DT based on one department: (Systems and Organisation), which decides on the digital ITs that should be adopted. Arguably, it ~~could be described as being~~ is in the process of digitalisation, ~~given~~ that it is not changing the way the company itself is organised.

As highlighted in Section 2, the digital technologies used to design a DT strategy create value for the supply chain actors (Romanello and Veglio, 2022). For example, ANECOOP has mainly focused on applying these technologies with its suppliers rather than its customers (distributors). However, it has encountered some difficulties with suppliers (farmers) when implementing these technologies, such as (1) specific product characteristics and the size of

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3 ~~farms and warehouses in the case of~~ it is struggling to apply some technologies such as RFID,  
4 ~~automation and the IoT amongst supplier partners~~ (Mahdad et al., 2022). ~~According to DT~~  
5 ~~managers, the reasons for these difficulties are specific product characteristics and the size of~~  
6 ~~farms and warehouses. Another noteworthy finding in the case of blockchain technology is;~~  
7 ~~(2) the lack of some key capabilities such as the analytical skills of farmers in the case of~~  
8 ~~blockchain technology~~ (Kiron et al., 2014); ~~and (3) the lack of~~ technological capacity needed  
9 ~~to explore and manage the full range of available data in the case of social media in the case of~~  
10 ~~social media~~ (Barton and Court, 2012), ~~as well as~~ and poor social media performance. ~~This~~  
11 ~~lack of performance is mainly~~ due to the nature of the product. As a non-differentiated product,  
12 the data gathered on it can be used in relation to ANECOOP as well as the competition.  
13 ~~Therefore, ANECOOP finds it hard to achieve~~ build a value network with suppliers (farmers)  
14 ~~because they struggle to apply digital technologies, making it difficult to create links between~~  
15 ~~activities (e.g. administration) and the combination of resources (organisational units). In~~  
16 ~~accordance with Zhou et al. (2021), CONSUM confirmed the hypothesis of undergoing a DT~~  
17 ~~process. In contrast, ANECOOP did not confirm this hypothesis given that this cooperative~~ has  
18 ~~focused on applying digital technologies more in the for the case of end~~ consumers and  
19 ~~employees~~ than ~~in for the case of~~ suppliers. ~~CONSUM has faced,~~ It is having fewer difficulties  
20 than ANECOOP in implementing digital technologies, ~~although in the case of some~~  
21 ~~technologies, it has had issues. For example, there were delays in the case of web integration.~~  
22 ~~There is also a lack of maturity of blockchain technology. Moreover, CONSUM has designed~~  
23 ~~an organisational strategy, which has helped create a network by enabling the coordination of~~  
24 ~~activities, resources and actors. and~~ The creation of a value network has been more successful,  
25 as reflected by ~~the~~ collaboration with all internal and external actors involved in DT.

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~~ANECOOP finds it hard to achieve a value network with suppliers (farmers) because they~~  
~~struggle to apply digital technologies, making it difficult to create links between activities (e.g.~~  
~~administration) and the combination of resources (organisational units). In CONSUM, the~~  
~~value network has been more successful, as reflected by the collaboration with all internal and~~  
~~external actors involved in DT. CONSUM's organisational design has helped create this~~  
~~network by enabling the coordination of activities, resources and actors.~~

~~In general, T~~ the advantages and disadvantages of DT mentioned by both companies mostly  
relate to performance. In the case of ANECOOP, ~~it is achieving notable examples are~~ internal  
(non-financial) performance in terms of process efficiency (improving daily operations), the  
reduction of transaction costs (shorter timeframes and better resource management) and

competitiveness, but not market performance. However, a failure to undergo DT because it does not provide market returns can leave a company out of the market. ~~For ANECOOP, the supply chain visibility and improved decision making provided by DT are other notable advantages. However, v~~Visibility has not yet been achieved ~~by ANECOOP~~ because of problems in applying technologies for traceability. This finding highlights some disadvantages, together with the resistance of members and employees to change routines and weak capabilities due to a lack of digital knowledge.- Although CONSUM enjoys the advantage of operational efficiency from DT and the improved decision making derived from using data gathered by different technologies, it confirms the theory that not all DT is profitable. This idea is supported by the statements of the Chief Financial Officer (CFO) and ICT director regarding the online shop.

~~also enjoys the advantage of operational efficiency from DT and the improved decision making derived from using data gathered by different technologies.~~

~~The main disadvantages for ANECOOP in implementing DT are those that appear in the literature (Chatterjee et al., 2021; Mikalef et al., 2021; Papadopoulos et al., 2022). Specifically, the advantages are the resistance of members and employees to change routines and weak capabilities due to a lack of digital knowledge.~~

## 6. Conclusions and implications

This article tackles the following research question: How do digital technologies affect the DT of Spanish cooperatives? A series of open questions were formulated for the purpose of semi-structured interviews designed to test the hypothesis that the cooperatives examined in this study are in the process of digitalisation or digital transformation (DT). DT is crucial for the agri-food sector to ensure traceability. However, ~~not all digital technologies are applicable.~~ In accordance with Trivelli et al. (2019), the idiosyncrasies of the supply chain in this sector hinders the implementation of certain technologies, failing to generate value for the suppliers in the supply chain. In particular, suppliers (farmers) have plots of land that differ in size, meaning that some technologies are unprofitable in terms of cost-benefit. Also, products from and different the origins. ~~The plots also have different origins.~~ Therefore, are mixed across the warehouse network, making it difficult to apply blockchain technology for traceability. In short, the large number of suppliers and the nature of this non-industrial product are some of the sector characteristics that hinder the implementation of DT throughout the supplyvalue chain.

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3 In conclusion, the case of ANECOOP confirms the findings of Zhu et al. (2021) that companies  
4 must carefully choose digital technologies and combine them in the right way to implement  
5 DT. Therefore, the study shows that ANECOOP is in a digitalisation process through a digital  
6 business strategy and has not applied structural changes in the company derived from a clear  
7 organisational strategy to implement DT. In the case of En-el caso de CONSUM, the study  
8 shows that it is in a process of DT because it applies digital technologies that fit within a  
9 suitable organisational design within a cross-departmental organisational design, with support  
10 from the leadership of the DT coordinator and its executive directors. Companies with a  
11 malleable organisational design to implement DT with the support of an external consultant  
12 are more likely to implement DT successfully. This conclusion holds for the case of CONSUM  
13 with its cross-departmental organisational design and the leadership of the DT coordinator and  
14 its executive directors. The links between the DT coordinator and the other departments, as  
15 well as the external consultant, enable coordination of administrative, technical, commercial  
16 and other activities. However, it is not only necessary to have ~~In addition to~~ the leadership of  
17 those who design and execute DT, ~~e~~Employee skills are also needed. CONSUM Both cases  
18 shows that an organisational design that involves all departments helps reduce employees'  
19 resistance to changing routines and to acquiring the necessary competencies to implement DT.  
20 In its design and implementation of a DT strategy, CONSUM has chosen to protect the  
21 organisation's knowledge and outsource tasks that do not add value, such as software  
22 development.

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DT provides financial returns through operational efficiency achieved from new processes  
following DT implementation. It also provides market returns by giving customers what they  
want from the company in this area. However, DT must be deployed carefully so that it is used  
immediately and is profitable. In other words, its usefulness should be proportional to its cost.

Too much technology can also be counterproductive because it may not be wanted by suppliers,  
as seen in the case of ANECOOP, or end consumers, as seen in the case of CONSUM. There  
must be awareness of the neighbouring links in the value chain to match them with the right  
technology to provide financial, commercial or consumer experience returns for both parties.

In terms of DT design and implementation, ANECOOP appears to be struggling more than  
CONSUM to implement digital technologies. In addition to differences between the two  
companies in terms of their business and the nature of their products, one reason for this  
additional difficulty is that ANECOOP has not designed a DT strategy. Instead, it applies a  
digital business strategy whilst undergoing a digitalisation process. In contrast, CONSUM



applies digital technologies that fit within a suitable organisational design for them. It is in the process of DT. In its design and implementation of a DT strategy, CONSUM has chosen to protect the organisation's knowledge and outsource tasks that do not add value, such as software development. This decision has a spill-over effect. Both of these social economy enterprises are aware of TD. The case of CONSUM confirms the theory that not all DT is profitable. This idea is supported by the statements of the CFO and ICT director regarding the online shop.

In terms of theoretical implications, the case study ~~analysis does not suggests~~ the need for further exploration of how a company's organisational design can contribute to the successful implementation of DT, involving the entire company in the form of both managers and employees with digital skills. ~~The involvement of the whole company, where both managers and employees have digital competencies, is necessary for DT implementation.~~

Regarding managerial implications, ~~the recommendation is that both companies as cooperatives~~ are encouraged to ~~make a~~ careful ~~choice of those~~ to choose the digital technologies that best suit their characteristics and combine them in a way that is profitable. ~~Cooperatives~~ Companies are also recommended to have a ~~strategy of to implement~~ DT strategy that matches their organisational design, with the necessary organisational design. For this purpose, cooperatives must understand new business models and assess their digital limitations (e.g. the digital skills of suppliers, employees and customers, as well as the digital divide). In general, before designing a DT strategy, companies should perform a study of the aspects of the organisation and sector that may act as barriers for strategy implementation. They can then propose organisational changes to choose and combine the digital ITs that best suit their company and sector.

### **6.1. Limitations and future lines of research**

Besides the different contributions outlined in the previous section, this study has some limitations. The first relates to the limited number of cases ~~considered in this study~~ and the limited knowledge of the technologies available to ~~Bbusiness-to-Bbusiness~~ (B2B) companies. A second limitation relates to the approach of the study. By focusing on the impact of digital technologies and their contribution to DT, the internal aspects of DT were overlooked.

Future lines of research should tackle the following questions: Should companies apply all available digital technologies? Would simply knowing the cost-benefit trade-off help with the decision to implement them? Should companies place greater importance on ~~commercial~~

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business variables, such as customer experience, than financial variables, such as cost–benefit?

Do the answers to these questions depend on the sector where digital technologies are applied?

British Food Journal

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Table 1. Links between categories and subcategories

<p>“Members’ lack of acceptance of technology” (ANECOOP)</p> <p>“Its usefulness depends on the size of the business” (ANECOOP)</p> <p>“At first, people . . . did not understand exactly what it was, but when we deployed robots, they started saying ‘we want more’” (CONSUM)</p>	Usefulness of information technologies (ITs)	<b>D</b> <b>I</b> <b>G</b> <b>I</b> <b>T</b>	T R A N
<p>“Members’ lack of acceptance of technology” (ANECOOP)</p> <p>“It can be a bit overwhelming to change a situation where you feel pretty comfortable working and that seems to be going well for you” (CONSUM)</p> <p>“It entails changing the way you do things to use a new technology for all sites” (CONSUM)</p> <p>“We make things more difficult than they need to be, because customers are not so tech savvy . . . You have to go slowly because people might not want it or understand it, and it’s very costly” (CONSUM)</p> <p>“Blockchain is complicated . . . You have to give farmers easy tools” (ANECOOP)</p> <p>“Blockchain is complicated . . . The fruit industry has some processes where things get mixed a lot” (ANECOOP)</p>	Supply chain	<b>A</b> <b>L</b> <b>S</b> <b>A</b> <b>T</b> <b>I</b> <b>O</b> <b>N</b>	S F O R M A C I O N
<p>“Everything we adopt in our company we transfer to our members” (ANECOOP)</p> <p>“We work with a lot of warehouses, which have to reach an agreement” (ANECOOP)</p> <p>“DT is continuous. It’s not one-off but structural. We have projects that have been completed, are ongoing and have been put on hold” (CONSUM)</p> <p>“Instead of creating an organisational department in charge of DT, a director was tasked with coordinating a DT committee” (CONSUM)</p> <p>“All modern organisations work transversally” (CONSUM)</p>	Organisational strategy		D I G I

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<p>“We don’t yet work with drones . . . It’s still expensive to get results” (ANECOOP)</p> <p>“The online shop . . . accounts for 2% of sales. It’s not much . . . , but you can’t get rid of it because it’s in high demand” (CONSUM)</p> <p>“You have to go slowly with all the new technologies you introduce . . . You have to assess the return on investment” (CONSUM)</p>	<p>Value creation of digital technologies</p>		<p>T A L</p>
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