MANAGEMENT, TECHNOLOGY AND TOURISM: SOCIAL VALUE CREATION

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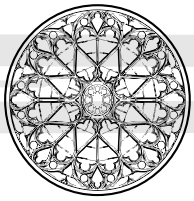

ICOMTT2020

INTERNATIONAL CONFERENCE ON MANAGEMENT TECHNOLOGY AND TOURISM

SOCIAL VALUE CREATION

This book provides the reader with access to research papers presented at the 1st Internacional Conference on Management, Technology and Tourism: Social Value Creation (ICOMTT2020), as well as work developed under the Volto Já Project: Senior Exchange Program (Ref: ALT20-03-0145-FEDER-024111).

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PREFACE

The 1st International Conference on Management, Technology, and Tourism: Social Value Creation (ICOMTT2020), which took place on 6 and 7 of February, 2020, emerged as an outcome of the *Volto Já* Project - Senior Exchange Program, developed by Instituto Politécnico de Santarém, Instituto Politécnico de Beja, and Santa Casa da Misericórdia de Santarém.

During those two days, the ICOMTT2020 provided an opportunity for national and international researchers, academics, experts, entrepreneurs, and community leaders, to exchange and share their experiences, results and deepen the debate on social value creation.

Value creation is a cornerstone of corporate sustainability, but it is not enough. The challenges of the next decades require a change in the dominant paradigm for the creation of social value that is the guarantee of the regions' sustainability. This paradigm shift will be analysed and debated thoroughly according to the major areas of ICOMTT2020: Management, Technology, and Tourism.

This e-book presents diverse articles, all outputs from the *Volto Já* project and ICOMTT2020.

The first article, entitled *Volto Já - Senior Exchange Program: From idea to implementation*, aims to present the main outputs of the *Volto Já* project. In this article, the authors organize the results obtained in the project around the three areas, management, technology, and tourism, with special emphasis on the participation of 24 seniors and six social economy organizations in the test of senior exchanges.

The second article, entitled *The role of social tourism in the satisfaction of elderly customers: the case of the Volto Já project*, seeks to capture the perceived value given by the elderly to participation in social tourism programmes, and the link between the social tourism experience and their satisfaction as customers of social welfare services.

The third article, entitled *Industry 4.0 and Knowledge Management practices*, has as main objective to highlight the role of the technologies that support Industry 4.0 in facilitating the knowledge management process. The article outlines how Industry 4.0's components are useful to overcome several stages of the process and improve the performance of the organization.

The fourth article, entitled *A systematic literature review of the quality of working life and employee outcomes*, presents a systematic literature review regarding the consequences of quality of working life. The results show how a higher level of quality of life at work can improve several relevant employee outcomes at work.

Organizational commitment was found to be the most relevant employee outcome. Other core outcomes are job satisfaction, turnover intention, and burnout.

The fifth article, entitled *Comparison of the level of disclosure of elements of statement of financial position of the PSI-20 entities*, aims to analyse the levels of disclosure of the components of the statement of financial position following International Accounting Standard 1, through the compliance indices found for the companies of the Portuguese Stock Index (PSI 20).

The sixth and final article, entitled *Youth's education for social entrepreneurship: Outcomes and pitfalls of an applied project*, aims to analyse the impact of an educational project aiming to create social value through governance mentoring. The project consisted of designing an original programme for the curricular unit "Citizenship and Development" and applied it to a Portuguese group of students enrolled in a school of basic education.

Social value creation can be achieved in various ways, mainly by integrating contributions from different scientific areas, such as management, technology, and tourism. In this e-book three of the articles show how to increase social value through applied projects. In this context, the role of the *Volto Já* project is highlighted, not only for proposing a social business model, but also for contributing to active ageing, reducing social inequalities, and improving the quality of life of the elderly.

The organizing committee,

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VOLTO JÁ – SENIOR EXCHANGE PROGRAM: FROM IDEA TO IMPLEMENTATION

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ABSTRACT

Purpose: The general aim of *Volto Já* was the operationalisation of a Social Senior Exchange Programme between Social Economy Organisations that promotes cultural, touristic, and artistic experiences. *Volto Já* developed a set of actions with a direct impact on seniors' active ageing and social inclusion. The programme was developed between August 24, 2018 and February 23, 2021. This paper aims to present the main outputs of the programme.

Method: The *Volto Já* is an applied project. To test it, a proof of concept was developed with the participation of six Social Economy Organisations and 24 elderly people.

Findings: The main outputs of *Volto Já* were: (a) a social tourism business model in the Social Economy sector, for elderly people, notably those institutionalised in senior citizens' homes or nursing homes; (b) the implementation of a business model through a network of Social Economy Organisations that guarantees the exchange of services in the Alentejo region; (c) the stimulation of active ageing and preventing social exclusion, and endorsing the social inclusion of the elderly in the Alentejo region; (d) the implementation of an ICT platform and a mobile application to manage the registration of Social Economy Organisations, which presents the offers of available exchange services, provides access to organisations and experiences in the senior

social tourism area, specifically designed for Social Economy Organisations and their users; (e) the improvement of the quality of life of elderly people (e.g., well-being, life satisfaction, happiness, etc.).

Originality/value: A community network was created to effectively address and prevent social exclusion and promote senior mobility, using social tourism and recreational activities as a facilitator. The proof of concept enabled the testing of the social business model and the acquisition of new insights into the process associated with senior exchanges.

KEYWORDS:

Applied project; ICT platform; social business model; Social Economy Organisations, social tourism; *Volto Já*

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1. INTRODUCTION

The increase in the ageing of the population in Portugal and the number of institutionalised senior citizens, many suffering from loneliness, social isolation, with reduced participation in cultural, touristic, and artistic experiences, suggests the need to promote active ageing and reduce isolation. This approach led to the following research question: What could be done to promote active ageing and combat the social isolation of institutionalised senior citizens through cultural, touristic and artistic experiences, facilitated by an Information and Communication Technology (ICT) platform? In this work, we present an applied project that seeks to answer this question: *Volto Já* - Senior Exchange Program.

This article strives to: (a) present the context of the reality where the project is being developed; (b) set out the objectives of the project; (c) and briefly describe the main outputs of the project.

The article is structured as follows: first, it presents the project including its contextualisation, its objectives, and its conceptual model; it then describes the main outputs of the project organised by its underlying main areas (management, technology, tourism, and communication); and finally, it concludes and sets out limitations and suggestions for future studies.

2. PROJECT PRESENTATION

In this section, we explain the context in which the *Volto Já* - Senior Exchange Programme was developed, as well as its aims and conceptual model.

2.1. CONTEXTUALISATION

In recent decades, the Social Economy sector has experienced high growth in Portugal. The organisations of this sector play an increasingly relevant role in society due to the ageing of the population and the societal changes that have been taking place. Even though these organisations are very dynamic, their recreational activities tend to be standardised as a result of budgetary constraints. In light of these restrictions, few Social Economy Organisations can offer their users, notably institutionalised senior citizens, holidays. In addition, few senior citizens take holidays autonomously due to monetary reasons, limited physical or cognitive independence, or even family reasons (e.g., lack of family companionship for the enjoyment of holidays).

Tourism is a strategic sector for the economic development of Portugal (Turismo de Portugal, 2017). Recently, diversified solutions have emerged aimed at a broader range of audiences, namely in senior tourism and social tourism. The unprecedented ageing process and the growing number of seniors offer an opportunity for new participants in traditional tourism services. From the point of view of the senior tourist, there is a growing interest and willingness to participate in various tourist activities (González, Vila, & García, 2010). The senior tourist can take holidays outside of the high season and therefore help counter the seasonal nature of the tourism sector (Ferrer, Sanz, Ferrandis, McCabe, & García, 2016). Senior tourism contributes to healthy and active ageing by preventing addiction and improving the quality of life of seniors, which in turn reduces public spending on social and health services and the burden on informal carers (Ferri, Durá, & Garcés, 2013).

However, not all audiences have the purchasing power to access the standardised tourist offer. In this context, it is important to refer to social tourism. Social tourism is a specific type of tourism characterised by the participation of low-income individuals that offers special services, and is recognised as such (Hunzicker, 1951; Minnaert, 2014). A given tourist activity can be classified as social when (Comité Económico e Social Europeu, 2006): (a) the individual is totally or partially unable to fully exercise the right to tourism (e.g., due to lack of economic conditions or isolation), (b) someone takes action to overcome or reduce the obstacle preventing an individual from exercising his or her right to tourism, and (c) this action enables a group of people to engage in tourism in a way that respects values such as sustainability, accessibility and solidarity. Due to these characteristics, social tourism tends to be developed by organisations in the Social Economy sector.

Developing social tourism solutions for Social Economy Organisations, including those serving the institutionalised senior public, may allow these organisations to diversify their offer, with the inherent benefits for senior citizens. The *Volto Já* proposes the development of a business model in social tourism, developed for institutionalised senior citizens in Social Economy Organisations (e.g., nursing homes) in the Alentejo region.

2.2. PROJECT AIMS

The general aim of *Volto Já* was to operationalise a Social Senior Exchange Programme in Social Economy Organisations to promote cultural, touristic, and artistic experiences for institutionalised seniors. *Volto Já* developed a set of actions with a direct impact on seniors' mobility and social exclusion. The elderly taking part in the *Volto Já* could experience a recreational context, in some cases for the first time.

The *Volto Já* embraces a senior social tourism business model which targets elderly people in unfavourable economic circumstances, or who do not have family and / or friends that can accompany them, and allows them to travel and / or enjoy holidays (Oliveira et al., 2019a).

The main objectives of the project are to:

a) promote active ageing and improve the quality of life (well-being, life satisfaction, happiness, etc.) of institutionalised seniors;

b) develop a social tourism business model aimed at institutionalised seniors in nursing homes or day care centres;

c) implement the business model through a network of Social Economy Organisations that guarantees the exchange of services in the Alentejo region;

d) develop social tourism packages tailor made to the needs of institutionalised seniors, in partnership with Social Economy entities; and

e) develop an ICT platform that allows Social Economy Organisations to join the Senior Exchange Programme, disseminate the socio-cultural experiences offered and establish partnerships that lead to the exchanges between Social Economy Organisations.

Social Economy Organisations were natural partners/ key stakeholders since they were the source of participants and also a privileged source of knowledge. The proof of concept was conducted in and with these organisations and was evaluated under the continuous supervision of an invited international expert.

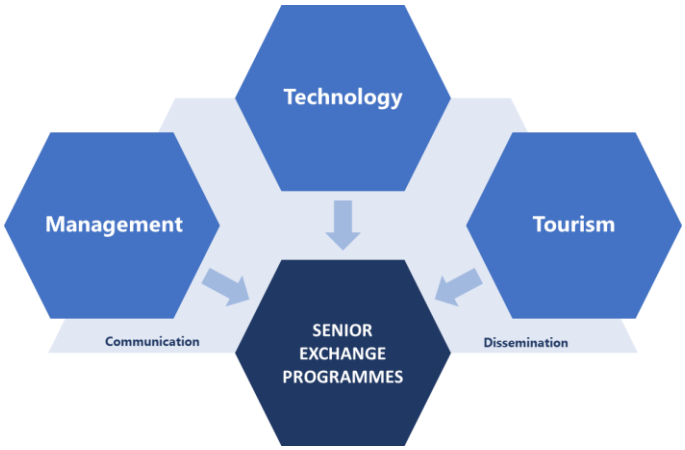
2.3. CONCEPTUAL MODEL OF THE VOLTO JÁ

The *Volto Já* was developed by a multidisciplinary team, involving collaborative work in three main areas: management, technology, and tourism (Figure 1). These areas also have the integrating role of communication and information dissemination.

The management area was responsible for (a) carrying out the needs assessment and characterising the profile of the elderly person who could participate in the Exchange Programme, (b) the development of the social business model, (c) carrying out the proof of concept and (d) involving and integrating the work performed by the other areas (including project evaluation). The technological area was responsible for the development of web and mobile platforms that allow senior exchanges to be operationalised. The tourism area analysed the market, developed social tourism packages, and handled the promotion, distribution and evaluation of social tourism

packages. All these areas benefit from the work done in the area of communication and dissemination.

Figure 1 – Conceptual model of *Volto Já*



3. RESULTS

The activities carried out and the results obtained in each of the areas identified in Figure 1 for the realisation of the Senior Exchange Programmes are presented in this section.

3.1. MANAGEMENT

The management area included two main activities: (a) diagnosis of needs and characterisation of the profile of the elderly participating in the mobilities; (b) social business model development. Although this area also streamlines the proof of concept, this activity is described in chapter 4 as it involves all the areas.

3.1.1. Diagnosis of needs and characterisation of the profile

A sample of 135 elderly people from eight Social Economy Organisations (inclusion criterion: being 55 years of age or older) concluded that (Moita, Graça, Vivas, Leal, & Oliveira, 2019):

a) more than 90% of the respondents had less than 6 years of schooling and about half of them could not read or write;

b) the average of the last earned salary was 227.50 euros (sd: 196.7);

c) in relation to dependency, 48% were independent, 29% had a slight dependency, 15% had moderate dependency, 7.5% had a severe dependency and 0.7% were totally dependent;

d) in leisure time, the preferred activities were talking (72.4%), watching television (70.1%) and walking (41.8%);

e) around 24% had felt sad and 43% "more or less" sad;

f) with regard to future desires, 55.2% wished to have access to walks, 33.6% to parties, and 22.4% to massages;

g) the elderly showed a clear desire to know new places, suggesting that this could contribute to feeling happier (69.9%);

h) 75.2% of respondents wanted to travel or take a holiday.

3.1.2. Social business model development

A business model describes the logical thinking, how the business is run and how to create value for its stakeholders (Aspara, Lamberg, Laukia, & Tikkanen, 2011). Business Model Canvas is a framework that describes the rationale of how an organisation creates, delivers and captures value (Osterwalder & Pigneur, 2010). The design of the social business model of the *Volto Já* took the data obtained in the previous activity (diagnosis of needs and characterisation of the profile) and new data obtained through three focus groups into account (Table 1).

Table 1 – Focus groups of the *Volto Já*

Data and place	Participants	Methods
1st Focus groups - 21st November 2018, Beja	Five professors and two technical directors of Social Economy Organisations	Semi-structured script to conduct the session. Tape recording and note-taking. Discourse analysis.
2nd Focus group - 28th November 2018, Santarém	Five professors and four technical directors of Social Economy Organisations	Semi-structured script to conduct the section. Tape recording and note-taking. Discourse analysis.
3rd Focus group - 17th April 2019, Santarém	Five professors and eleven professionals (technical directors and social educators) from seven Social Economy Organisations	Presentation of the results of the first two focus groups. Brainstorming. Tape recording and note-taking.

The first two focus groups took place independently of each other. The same script was used to present the questions to be discussed, but the participants - mainly the technical directors of the Social Economy Organisations - were given freedom to develop the themes as they saw fit. After the focus groups, a compilation of the information was made through discourse analysis. This information was used to design the first draft of the social business model, which was presented to the participants in the third focus group. The business model was designed using the Osterwalder and Pigneur (2010) framework. Brainstorming was used in the third focus group to present, discuss, and improve the business model. The result is shown in Figure 2. A

detailed explanation of the Figure 2 is available in Oliveira et al. (2019a, 2019b). Social business models must not only respond to the same challenges as a business model, but also reinvent the social objective as these (social) organisations work where the market fail (Kania, Lestari, & Dhewanto, 2017).

Figure 2 – The Business Model Canvas for the *Volto Já*

<table>
<tr><th>KEY PARTNERS</th><th>KEY ACTIVITIES</th><th>VALUE</th><th>CUST.REL.</th><th>CUSTOMERS</th></tr>
<tr><td rowspan="2">Nursing homes
Counties
Tourist Office
Parish councils
Travel agencies
Recreational activity companies
Transport companies</td><td>Mobility programme admission
Management of the sociocultural offer
Management of the participants
Matching between supply and demand
Communication
Assessment of the experience</td><td rowspan="2">Senior exchange
Mobility
Cultural and touristic experiences
Active ageing
Combatting social asymmetries
Better psychosocial well-being
Social tourism (low-cost)</td><td>Regular and close contact</td><td rowspan="2">Nursing home community</td></tr>
<tr><td>KEY PARTNERS
Human resources
Technical resources
Networking
Reputational capital</td><td>CHANNELS
Digital (online)</td></tr>
<tr><td colspan="3">COST STRUCTURE
Promotion activities
Maintenance and upgrade of the platform</td><td colspan="2">REVENUE STREAMS
Freemium
Philanthropy</td></tr>
</table>

Source: Oliveira et al. (2019a)

The social business model developed was subsequently used in other phases of the project (e.g., technology and tourism areas). The proof of concept of this business model is presented in chapter 4 where a sample of six Social Economy Organisations and 24 seniors participated in Senior Exchange Programmes.

3.2. TECHNOLOGY

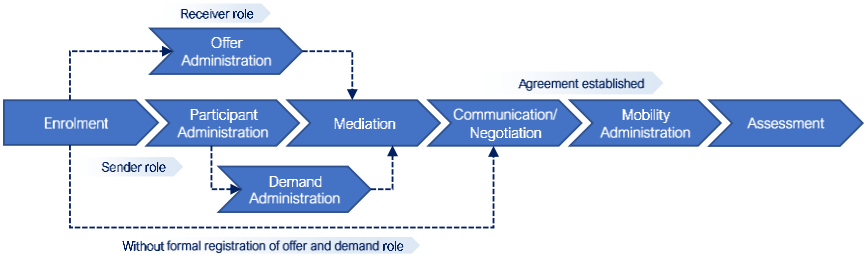
The core objective of the technology area was to develop an information system (VJIS) to support the *Volto Já* business model (VJBM) and its underlying dynamics. VJIS is composed of a web platform and a mobile application. The technology-related research was designed in line with the Framework for Design Science in Information Systems Research (Hevner, March, Park, & Ram, 2004; March & Smith, 1995) which presupposes the development of IT artefacts to fulfil business needs. The utility, efficiency, and quality of the developed IT artefacts must be assessed.

3.2.1. The *Volto Já* information system development

In the framework design cycle, the design of the software artefacts (VJIS) was guided by the Dynamic Systems Development Method framework (DSDM) (Anwer, Aftab, Waheed, & Muhammad, 2017; DSDMC, 2014). As the Feasibility study (the first step of the DSDM framework) was out of the scope of the technology area, only the (a) Business study, (b) Functional model iteration, and (c) Design and building iteration were addressed.

The Business study comprised the definition and formalisation of the Business Process Model. The Business Model Canvas (Osterwalder & Pigneur, 2010) of the VJBM allowed the identification of some critical elements, such as partners, activities, resources, customers, and relationships, for the design of the VJIS. VJBM lies on eight core business processes (see Figure 3) and considers four key players: (a) Social Economy Entities (SEEs) that provide housing and care services to the elderly; (b) the Social Economy Entity Directors (SEED), who are the main representatives of SEEs; (c) SEE users (also referred to as participants), who are the institutionalised elderly in SEE; and (d) the SEE companions (also referred to as teammates) who are the SEE people who accompany the participants in the mobilities (senior interchanges)[1].

Figure 3 – *Volto Já* Core Business Processes



In the functional model iteration, the list of functional requirements was produced based on the VJBM and its underlying Business Processes. The consolidated list of requirements includes sixty-one items. Each requirement received an identification number, a classification (in accordance with its functional and non-functional nature; and degree of importance). The MoSCoW technique was used to identify the relevance of each requirement on the list (DSDMC, 2014). At the end of the process, forty-five requirements were identified, of which: twenty-seven were considered mandatory (Must); nine important (Should); eight suggested (Could); and only one was considered as excluded (Won't). The system was then modelled, user interfaces were designed, and the document of analysis was produced.

The first activities in the Design and build iteration were related with the design and validation of the system architecture (Barradas et al., 2019) and the construction of

[1] Mobilities and Exchange Programmes are used in this text as synonyms.

low fidelity functional prototypes of both the web platform and mobile application. These prototypes allowed the team to explore design alternatives, simulate how core tasks were performed, and identify and mitigate some usability issues. In addition, they served as leading guides for the software building.

The technology selection process involved a survey on open-source technologies for persistent data storage and for web and mobile software development, available on the market. The MySQL SGBD was naturally chosen for persistent data storage. For the development of the web platform, the choice fell on the Yii platform – a fast, secure, feature-rich, and efficient open-source PHP framework – together with the Bootstrap UI framework. The mobile application technology selection was more complex due to the multitude of app typologies, development frameworks for the two major mobile ecosystems in the market: Android and iOS. The decision-making process was designed based on three main criteria: (a) independence of the platform/execution environment; (b) time to market; and (c) familiarity with the development technologies. The choice fell on the development of a hybrid application using the Vue.js framework together with the Vuetify UI component library. The Ionic Capacitor (Huber, Demetz, & Felderer, 2020) was selected to provide a cross-platform native runtime.

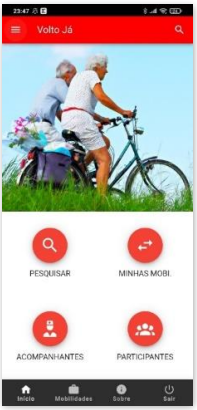
The Design and Build iteration ended with the software development that involved the development of the two software artefacts (a time-consuming task) and their integration; followed by the test and validation phase. Unit, integration, and functional tests were performed to assess the quality and efficiency of the application.

3.2.2. Major outputs

The two developed software artefacts can be considered the major outputs of the technology team. While the web platform (Figure 4a) strives to provide support for the heavy work of operationalising the entire business model, the mobile application (Figure 4b, c) seeks to mediate the tourism experiences of participants during their Exchange Programmes and provides SEED and Teammates with a pocket tool to manage the Exchange Programmes in which they are involved.

Figure 4 – *Volto Já* web and mobile applications: sample views

a) Volto Já Web Platform home page



b) SEEDs main screen

c) Participant's mobility contents screen

3.3. TOURISM

The tourism area has as activity to plan and design social tourism packages.

In *Volto Já*, a tourism package is mostly conceived as a global experience with a holistic approach; it is not determined by the price but by a constant flow of thoughts, feelings and sensations that seniors experience during the Exchange Programmes. With that in mind, the team developed a conceptual model named OEC Model (Organic, Experiential and Complex Model), for the creation of tourism packages and evaluation of tourism experiences in Senior Exchange Programmes.

The OEC Model is established on the basis of a set of data collection instruments which were carefully and appropriately chosen in line with the goals of each phase of the process. The OEC model is divided into three phases: 1st phase/Organic/Pre-mobility; 2nd phase/Experiential/Post-mobility; 3rd phase/Complex/Post-mobility.

In the 1st phase, the team started with data collection undertaken before the mobility took place in order to assess the profile, motivations and perceptions of seniors. The data collection techniques were observation in loco by the researcher (inspection visit) in order to evaluate the tourism package components to be included in the mobility programme (quality and type of accommodation; location and accessibility of museums, churches and other components for seniors) and privileged information agents through contacts and conversations with the staff from the Social Economy Organisations participating in the mobilities/Exchange Programmes since they know the reality of the territory in question better than anyone.

This 1st phase is composed of five actions:

a) Definition of the Social Economy Organisation partners (project presentation and all its assumptions);

b) Participant selection (profile identification; motivations and interests; limitations; expectations - pre-mobility questionnaire application);

c) Tour package planning (get feedback from Social Economy Organisations on the most valuable destinations, and most attractive places and special events (pre-programme);

d) Tourism package design (identify and establish formal protocols with potential partners);

e) Inspection visit (evaluation of the places to visit and ensure that everything is ensured; e.g., accommodation, meals, accessibility, transport, tickets, comfort, among others).

A total of six senior Exchange Programmes were carried out with a total of 12 travel exchanges as they did not take place simultaneously and thus allowed participants to join two exchanges (see chapter 4 for more details).

The team accompanied the senior Exchange Programmes and in this 2nd phase (Experiential/Post-mobility) data was collected during the precise period of the mobility programme. Participant-observation was the data collection technique used; - primary data were extracted through field notes based on direct observations. This method was combined with informal conversational interviews and personal experience and free elicitation technique; in addition, and to complement the data collection, visual data was also used through photos taken by the researcher during the Exchange Programme.

The 3rd phase (Complex/Post-mobility) followed each Exchange Programme (post-mobility). Considering the OEC model, the team used several techniques to obtain a clear level of responses based on: (a) 24 semi-structured interviews with elderly participants in the Exchange Programmes and observation (each interview lasted about 15 minutes on average; age of the participants 65-85); (b) Complementary information with privileged information agents after the Exchange Programme.

Crucial information was obtained here that addresses three dimensions: (a) evaluating the mobility experience by the seniors that participated in the mobility programme; (b) assessing the senior experience through models of dimensions of the experience; (c) assessing the levels of satisfaction with the tourism experience (mobility programme).

We note the following results:

a) The best recorded memories of the seniors were the friendships that emerged during the programmes, the social moments provided, the affection generated, the good reception of the host community, the good condition of the host facilities, and the place visited and the tours associated with the visit;

b) These visits were positive, namely due the benefits derived in terms of knowledge of the destination and its attractions and the reception of the community that received them, leaving them with a great desire to do more Exchange Programmes;

c) All respondents showed great satisfaction with the Exchange Programmes, giving the following reasons: (i) accommodation (cleanliness and quality conditions); (ii) transportation; (iii) programme of the tour taken; (iv) use of merchandising and its symbolic value (caps and T-shirts created with the *Volto Já* logo – see section 3.4); (v) social moments provided; and (vi) the friendliness of the entire team;

d) Senior's highly valued the experience provided, essentially because it was an opportunity for them to get to know a new place, to travel or to roam. In addition, they had no doubts about their willingness to participate;

e) Results show that seniors mainly highlight aspects related to how the experience changed them as a person, by giving good thoughts about the way they see life; knowledge acquired about the destination and its resources; the opportunity to grow by seeing new situations; feelings of joy and happiness and tranquillity; and the opportunity to meet new people;

f) Most interviewees wanted to repeat the experience by doing more Exchange Programmes.

3.4. COMMUNICATION AND DISSEMINATION

According to Rocha and Nogueira (1995), design is the set of operations developed to shape objects, equipment, systems or, in the field of communication, messages that respond to detected needs. Moreover, according to the same authors, design projects can have several levels of complexity and require a series of steps that go from conception to realisation, involving all studies and experimental development phases that confirm the project's level of responsiveness to the target need. The *Design Council* and *Interaction Design Foundation* recommendations and the project methodology were the basis of the entire design process, the aim of which was to create the graphic identity for *Volto Já* adapted to a communication strategy and a platform that would put the project's functionality into practice. The *Design Council* describes the design process in five stages that must be followed (*first steps, research, planning, communication, and implementation*); the initial phase determines the design problem and then the implicit needs are studied with the user and his/her behaviours in mind. This leads to an effective and reasoned answer at the end of the whole process (Visocky O'Grady & Visocky O'Grady, 2006).

The entire communication project and dissemination of *Volto Já* will then be explained, summarising all its underlying stages and the solutions obtained. The main goal of the *Volto Já* communication is to maximise results and the communication plan must therefore be suitable for its dissemination among the main stakeholders and prioritise digital communication through appropriate channels and messages. Thus, the following activities took place:

a) Preparation of the communication plan, which took into account the need to validate a business model to promote senior mobility in line with the Business Model Canvas (Osterwalder & Pigneur, 2010), and the following (i) the target audience and the respective segmentation; (ii) the message to be conveyed in line with that segmentation; (iii) the schedule for the dissemination of

messages and campaigns; (iv) the purpose of that communication; (v) the means of dissemination and the communication channels to be adopted; (vi) the actors in that communication, within the project and the organisations involved in the partnership; and (vii) where the communication should take place, namely given the potential of digital communication but without neglecting the relevance of human contact for this kind of project;

b) Implementation of communication channels, dissemination of content and management of the project's presence on the Internet as per the objectives and communication axis - The definition of a communication axis, supported by the project's graphic identity allowed a set of media and communication channels to be implemented and the dissemination of content. In light of the geographical dispersion of the "residential homes for the elderly" (that is, nursing homes) to be reached, and the objective of ensuring the "memorability" of a project supported by a digital platform, the research team invested in the *Volto Já* website (Figure 5) as one of the fundamental communication tools. With the same objective, a project profile was created in a set of social networks to foster bonds and empathy relationships between the project and its target audience. For example, Facebook was used as a privileged channel of extended communication between the project team, the nursing homes and the participants in the mobility activities as some authors consider it to be a very important social support environment for the elderly (Silva, Scortegana, & Marchi, 2018), it. Thus, through the sharing of content associated with the mobilities and tour packages developed during the pilot project, an empathetic relationship was created with the project which helped validate the recommended business model;

Figure 5 – Project website https://voltojaorg.wordpress.com

c) Production of the project's promotional video for dissemination on social networks. This video (https://youtu.be/JzJoUtLjdQU), disseminated through

the *Volto Já* social networks, not only played a relational role with the target audience but also helped validate the business model by reaching its potential "customers" as it aroused the interest of Social Economy Organisations technicians;

d) Design of a webmarketing campaign to promote the project results to the target audience. This campaign was supported by the content produced during the mobilities and the means designed to disseminate the project's objectives with the aim of making the project known. It aimed to generate "leads" for the project's website and platform, thus contributing to the validation of the business model;

e) Design of the project's graphic identity and production of the dissemination supports in line with the set of project activities - the graphic identity strived to convey the concepts and values associated with the genesis of the project through its logo. Thus, the project logo and *Manual of Norms for Use* (Figure 6) were prepared so that all stakeholders, recipients of the communication as well as the participants and those in charge of the mobilities could understand the graphic identity.Through the logo and consequent graphic identity created, we sought to transmit the concepts and values associated with the genesis of the project, such as mobility, change/difference, positivism/joy, and dynamism/movement;

f) Creation of a showcase, following the definition of the graphic identity, composed of several support materials to present the project at dissemination and merchandising events, in line with the set of activities stipulated: A5 flyers (front and back - Figure 7); rollups with 80x200cm; merchandising materials to support mobilities - t-shirts and caps (Figure 8); a newsletter to send by email and explanatory schemes to support project communication.

Figure 6 - Project logo, associated with the definition of the project's graphic identity, transversal to the various activities and means of dissemination

Figure 7 - A5 flyers produced for the project

Figure 8 – Merchandising material to support mobilities (caps and t-shirts)

It was essential to define these materials at an early stage to consolidate the project's graphic identity and subsequently adapt them for the screens in the digital platform. The outlined communication strategy not only covers "physical" communication materials, to create a closer and emotional connection with all those involved, but also digital communication materials to take advantage of the internet and the associated communication channels in order to reach a wider audience.

4. PROOF OF CONCEPT: EXAMPLES OF SENIOR EXCHANGE PROGRAMME

The *Volto Já* proof of concept was implemented with a sample of six Social Economy Organisations, and 24 seniors. Six Exchange Programmes took place between June and November 2019 but the Covid-19 Pandemic made further Exchange Programmes impossible. The Social Economy Organisations that participated in *Volto Já* as partners are all from the Alentejo region: Santa Casa da Misericórdia de Santarém, Santa Casa da Misericórdia in Santiago do Cacém, Santa Casa da Misericórdia de Sines, Santa Casa da Misericórdia da Chamusca, Associação Protectora e Abrigo dos Velhos Trabalhadores de Montemor-o-Novo, and Centro Social Cultural e Recreativo do Bairro da Esperança.

In relation to the 24 seniors, their mean age was 78.6 years, 58.3% were female, 50% widowed, 33.3% single, and 16.7% married, 58.3% had 4 years of schooling, 20.8% were illiterate and 20.8% had five or more years of schooling.

Each Senior Exchange Programme was planned in detail and activities and resources were meticulously described. As the *Volto Já* web and mobile applications were not yet available in 2019, the arrangements for the Exchange Programmes were made by the *Volto Já* team. The planning and designing of social tourism packages for each Exchange Programme were as explained in Section 3.3. Additionally, the Social Economy Organisations provided information about the seniors that would participate in the Exchange Programmes, about facilities available and any specific information related with the institutionalised seniors. The transportation was provided by Social Economy Organisation partners. Each Social Economy organisation and the selected seniors participated in the senior Exchange Programmes twice: once as host entity, and once as visiting entity. The seniors also participated in all activities twice, but only travelled once to a different region and stayed one night in the facilities provided (without associated payment) by the host entity. The touristic, artistic, and cultural activities took place over the two days. The seniors were accompanied 24 hours a day by two technicians from the home institution and by several professionals from the host institution (e.g., sociocultural animators).

During the Exchange Programmes, the seniors took part in cultural and touristic activities with a high level of social interaction, sharing experiences and moments of relaxation and animation (Figure 9). For some it was the first time in their lives they had had such an experience, e.g., seeing the sea, going on a boat trip or visiting a farm with exotic animals.

Figure 9 – Sample of touristic activities in the *Volto Já* Exchange Programmes

Photos: Joana Santinhos

Data were collected at various moments through semi-structured interviews and questionnaires both to assess the social business model and the interest and satisfaction of participants in the Exchange Programmes. The interviews were conducted after the exchange mobilities to evaluate the touristic dimensions characterised in section 3.3 as well as service quality, satisfaction with the exchange, and impact of the exchange for the elderly. The questionnaires were administered to all participant seniors twice: one week before the Exchange Programme and one week after the second Exchange Programme. The questionnaires assessed topics related to quality of life, satisfaction with life, happiness, and emotional well-being. The data provided evidence of the positive impact of participating in the *Volto Já* on the emotional well-being of the elderly.

The interviews shed more light on the impact of these Exchange Programmes. All participants showed positive emotions associated with participation, felt that taking part in these activities made a difference in their lives, that the four days of activities (two in each exchange) and the interaction with other seniors helped increase their levels of happiness and well-being, and that they had benefited from a holiday-like experience; they expressed strong satisfaction. They revealed sentiments such as (Figure 10): "I had the feeling I was in the right place", "I will never forget these good days", "My life became more meaningful. I would do it again", "It was an unforgettable experience". For the Social Economy Organisations, the network of partners allowed the exchange of experiences, the development of common activities and the opening of doors for future activities. The activities helped reduce the loneliness and social isolation of the elderly, and promote active ageing.

Figure 10 – Sample of participants of the Senior Exchange Programmes

Photos: Joana Santinhos

5. DISCUSSION

The main conclusions and some of the limitations, identified during the project execution, are presented below. In this context, some future studies are also listed.

5.1. CONCLUSION

This article presents the *Volto Já* applied project, which aimed to promote the active ageing and combat social isolation of institutionalised senior citizens through cultural, touristic and artistic experiences, facilitated by ICT platforms. *Volto Já* proposes the development of a social business model supported by an information system that gave institutionalised seniors access to leisure activities at a very low cost. The social business model is for implementation by a network of Social Economy Organisations that share their own resources to provide holidays both for the seniors they receive in the Exchange Programmes and their own institutionalised seniors. The business model presented could contribute to the circular economy (Patwa et al., 2021) and to the accomplishment of the sustainable development goals (United Nations, 2015).

A network of Social Economy Organisations that guarantees the Exchange Programmes in the Alentejo region was implemented. The network is made up of six organisations that implemented the Exchange Programmes, and several others that showed interest in them but were unable to participate due to the Covid-19 pandemic crisis.

The Exchange Programmes provided four days of leisure activities for 24 institutionalised seniors, with touristic and cultural activities (12 travel exchanges, two exchanges by organisations, two days each). Activities are provided in the region of the host Social Economy organisation over two days and in the region of the visiting organisation over two other days. All activities were organised by the *Volto Já* team in coordination with the Social Economy Organisations. The Exchange Programmes were preceded by participant selection, tour package planning, tourism package design and inspection visit. The *Volto Já* team accompanied all the exchanges and activities, and an assessment was made with all the participants after the programmes.

The Exchange Programmes *per se* and the developed activities made a positive contribution to: (a) the stimulation of active ageing, preventing social exclusion, and endorsing the social inclusion of the elderly in the Alentejo region; (b) an improvement in the quality of life of elderly people (e.g., well-being, life satisfaction, happiness, etc.). The participation on the *Volto Já* had a positive impact on the institutionalised seniors.

The social business model proposed and tested with Exchange Programmes could be enlarged through the *VJIS* that was specifically designed for Social Economy Organisations and their users. While the web platform strives to provide support for the heavy work of operationalising the entire business model, the mobile application seeks to mediate the tourism experiences of participants during their Exchange Programmes and provides organisers and participants with a pocket tool to manage the Exchange Programmes in which they are involved.

5.2. LIMITATIONS AND FUTURE STUDIES

The main limitation of the present work stems from the Covid-19 pandemic. Following the World Health Organisation's declaration of the Covid-19 pandemic on March 11, 2020, some of the planned activities had to be cancelled.

The first and overriding limitation was that Exchange Programmes with the institutionalised elderly in Social Economy Organisations could not go ahead in 2020. The compulsory confinement and Covid-19 outbreaks made tourism activities and exchanges impossible. Touristic activities are in a real crisis and the future will be challenging. Given that the elderly population is the most affected by Covid-19, we anticipate even more difficulty in reintroducing tourism activities to this age group. Nevertheless, there is also an opportunity to think of creative solutions to bring some normality to Social Economy Organisations and institutionalised elderly people in the near future. The adaptation of the proposed social business model to the post-Covid-19 reality is an opportunity for future studies.

Secondly, as testing the web platform and mobile app through actual exchange intentions and their realisation proved impossible, this was done through simulation. We suggest that as soon as the Covid-19 pandemic eases and Exchange Programmes can be resumed, both tools should be tested with the participation of Social Economy Organisations and senior citizens.

As a pilot project, *Volto Já* was only applied in one region of Portugal: Alentejo. It is suggested that future studies should apply the proposed social business model across Portugal or even beyond. The business model has been tested and its replication capacity allows it to be scaled up to other geographical areas.

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THE ROLE OF SOCIAL TOURISM IN THE SATISFACTION OF ELDERLY CUSTOMERS: THE CASE OF THE VOLTO JÁ PROJECT

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ABSTRACT

Purpose: This research seeks to capture the perceived value given by the elderly to participation in social tourism programmes, and the link between the social tourism experience and their satisfaction as customers of social welfare services. It aims to: 1) study the interviewees' perceptions of the specificities of the programmes; and 2) understand the relationship between the participation in social tourism activities and elderly customers' satisfaction.

Method: To this end, we used the *Volto Já* Project as the main source of information since it is a research project that implements a social business model through a network of Social Economy institutions where it promotes a senior exchange programme. Data is collected on the feedback from participants in the *Volto Já* Project's social tourism activities. The study follows a qualitative design with data collected in semi-structured interviews. The sample is composed of 23 elderly people (14 females, 9 males, average age of 79). Content analysis procedures were used to examine the interviews.

Findings: There is some evidence that participation in social tourism activities increases the users' satisfaction with the organization as welfare service customers,

although this satisfaction depends on corporate image. On the other hand, the satisfaction of participants in the *Volta Já* project was also influenced by factors other than this experience.

Originality/value: This study allowed us to evaluate the experience of the social tourism programme and its effects on customers' satisfaction with the organisation. The insights provided by this feedback bring novel topics to this evaluation, enriching both the current work and future studies.

KEYWORDS:

elderly customers satisfaction; management; qualitative methodology; social tourism; *Volto Já* project

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1. INTRODUCTION

According to the Portuguese National Statistics Institute (2017), it is estimated that the ageing rate will have doubled from 147 to 317 elderly per 100 young people by 2080. This is due to both the decline in the birth rate and the increasing longevity. As a result, the National Social Welfare Services have implemented new and wide-ranging measures (e.g., physiotherapy, psychology, and hairdressing) to support the elderly. However, most of these responses are standardised rather than tailored to users' preferences and they are mainly indoor activities (GEP/MTSSS, 2019).

As social welfare services for the elderly have become more diverse, customer satisfaction with the social and healthcare services provided have acquired increasing importance (Kleinsorge & Koenig, 1991). In fact, measuring customer satisfaction is now widespread in social services and is used as a tool to monitor performance and improve services (Willis, Evandrou, Pathak, & Khambhaita, 2016).

In Portugal, the limited offer of social tourism is provided mainly by the INATEL Foundation (Eusébio, Carneiro, Kastenholz, & Alvelos, 2017; Moita, Graça, Vivas, Leal, & Oliveira, 2019).

However, many individuals are unable to benefit from these opportunities due to their health, socio-economic conditions, or simply because they are institutionalised in social welfare institutions. Social tourism allows social economy institutions to offer a differentiated service which, among other aspects, can contribute to higher levels of customer satisfaction.

Social tourism falls within the scope of social institutions' occupational and personal development activities (Instituto da Segurança Social, 2007a). It can have a positive impact on senior clients through (Morgan, Pritchard, & Sedgley, 2015): 1) increased

well-being; 2) improved self-esteem and 3) higher levels of confidence. Recent studies also noted that the benefits obtained by seniors when participating in a social tourism programme include satisfaction with and loyalty to the institution (Eusébio et al., 2017).

The objective of this study is therefore to study social tourism's role in promoting the satisfaction of senior clients.

The *Volto Já* Project – Senior Exchange Programme was included in the research to fulfil this goal. This main aim of the project is to elaborate a business model for the operationalisation of an exchange programme among Social Economy organisations that promote tourist experiences for seniors (Oliveira, Amaral, et al., 2019).

The proof of concept included the effective exchange of institutionalised seniors, enabling the collection of data that would assess social tourism's role in customer satisfaction.

The study not only strives to contribute to the sparse research in this field, but also to study the consequences of the participation on social tourism activities. Thus, the objectives are to: 1) study the different perceptions of the participants in the exchange programmes offered within the *Volto Já* Project; 2) analyse the impact of tourist experiences among seniors; 3) and assess the relationship between the participation in tourist activities and satisfaction with the organisation.

A qualitative approach was adopted as this allows a more in-depth analysis of the results. Twenty-three interviews were conducted, which were subjected to content analysis (Bardin, 2009).

The remainder of the article is structured as follows: we start by presenting the concept of customer satisfaction with services and its determinants in both social responses for the elderly and senior social tourism; we then describe the *Volto Já* Project and its scope of intervention; the next section is devoted to methodology; section 5 presents and discusses the results; and the final section sets out the main conclusions.

2. THEORETICAL FRAMEWORK

2.1. CUSTOMER SATISFACTION WITH THE SERVICES PROVIDED

2.1.1. Main concepts

For Gustafsson, Johnson and Roos (2005), satisfaction with a service is similar to the customer's general assessment of the quality of the service. According to Ilieska (2013), satisfaction can be understood as a consumer's evaluation of a certain product or service based on his/her previous needs and / or expectations.

The study of satisfaction with services has some specificities that we summarise in accordance with our objectives. Yi (1989) notes that the study of satisfaction with services can be made from two different perspectives – one that sees it as a result, and the other that sees it as a process. The process-oriented perspective is more

appropriate for this study because it considers consumption as an experience and the combination of a set of perceptions and psychological processes. The nature of services and their peculiarities (e.g., intangibility, inseparability) require a distinction to be made between overall or cumulative satisfaction and satisfaction with a specific service encounter (transaction-specific satisfaction) (Boshoff & Gray, 2004).

Recently, research on the concept of satisfaction has expanded to an organisational or brand vision: satisfaction encompasses many transient experiences with the service over time. It can be analysed as the capacity that a company / brand / organisation has to satisfy the client's needs and expectations during the various and different experiences that are being provided (Boshoff & Gray, 2004).

2.1.2. Determinants of customer satisfaction with services

The determinants of customer satisfaction with services may vary according to the type of service in question. According to Tinoco and Ribeiro (2007), "the possible variables that affect the evaluation of the product or service made by the customer" (p. 456) can be considered determinants of customer satisfaction. The main determinants are (Tinoco & Ribeiro, 2007): expectations, perceived quality, perceived value, price, desires, affections / emotions, and the corporate image.

The expectations and perceptions of the performance levels of a product or service influence customer satisfaction (Bolton & Drew, 1991). Customer satisfaction depends on whether or not the expectations of the product / service performance are met (Bolton & Drew, 1991; Caruana, 2008; Rizwan, Umair, Fiaz, & Rashid, 2014).

Perceived quality can be defined as the consumer's judgement about a product's overall excellence or superiority and it differs from objective quality. Perceived quality is an overall appraisal characterised by a high abstraction level and refers to a specific consumption setting (Tsiotsou, 2006; Zeithaml, 1988).

The value perceived is the result of the customer's choice based on the costs and benefits of the experience, including price and quality (Ravald & Grönroos, 1996). When the value perceived by the customer meets his/her needs and desires, the customer appreciates the product / service. When the perceived value does not meet expectations, customer loyalty tends to decrease (Rizwan et al., 2014).

The price corresponds to what the customer sacrifices / abandons to obtain a product (Zeithaml, 1988). It has three components: perceived monetary price, perceived non-monetary price and perceived sacrifice (Zeithaml, 1988). It is a substitution through which value is obtained, whether in the form of a good (tangible) or a service (intangible) (Rizwan et al., 2014).

It is possible to conceptualise desires through different, more or less abstract / subjective approaches, viewing them as the most basic or fundamental needs, as life goals, as an end result, or even as the very means that the individual believes will take him to the final idealised state (Spreng, MacKenzie, & Olshavsky, 1996).

In social psychology, affection is closely related to the concept of intimacy, and it fosters a role in an enduring relationship through the affectionate bond that links the customer and the firm (La & Choi, 2012). Emotions foresee the perception of

physiological stimulus, which is followed by behaviour and psychological consideration. They guide daily lives and can come from external or internal stimuli (from the organism itself) (Tinoco & Ribeiro, 2007).

The corporate image is based on what people associate with the company and the information they have at their disposal such as perceptions, inferences, and beliefs (Martenson, 2007). The corporate image directly influences stakeholders' attitudes and reactions towards an organisation's services, products, and stores (Upamannyu, Bhakar, & Gupta, 2015).

In the case of social welfare services for elderly people, the assessment of customer satisfaction with Social Economy Organisations (SEO) is conditioned by the procedures of the national institutions that regulate the activity. According to the Portuguese Social Security Institute (2007b, 2010a, 2010b), the determinants of satisfaction are: tangible factors (facilities, equipment and signposting); reliability and credibility; technical competence; responsibility and responsiveness; service and communication; responsiveness; trust and security; and empathy.

2.2. SENIOR SOCIAL TOURISM

2.2.1. Social tourism

According to the International Social Tourism Organisation, social tourism comprises any activity that contributes, in a fair and sustainable manner, to greater accessibility to holidays and tourist activities for the entire population.

Cheibub (2012) highlights access to tourism as a primary characteristic of social tourism in more disadvantaged population groups. The author also stresses that this characteristic is the most consistent specificity among the diverse academic literature available.

Social tourism can enhance social inclusion, since it "encourages participation in tourism by all, including people who are economically or otherwise disadvantaged. (…) Such initiatives see assistance to participate in tourism as a universal benefit, but with particular benefit to the economically least well off. The tourism product offered is again standard, the same for disadvantaged and non-disadvantaged groups." (Minnaert, Maitland, & Miller, 2011, p. 405).

2.2.2. Senior tourism

United Nations (2019) data confirm that the world's population is growing older and the over 65s are the fastest-growing age group. In fact, by 2050, one in six people in the world will be over the age of 65 (16%), up from one in 11 in 2019 (9%).The number of people over the age of 80 is also projected to triple, from 143 million in 2019 to 426 million in 2050.

As a result of the demographic and socio-economic evolution, tourism initiatives in numerous countries are beginning to consolidate and further develop responses to the leisure time needs of the elderly. Older people generally have the necessary free

time for tourism activities, so the initiatives aim to respond to the objective and subjective needs of this age group (Le Serre & Chevalier, 2012; World Tourism Organisation, 1999).

The World Tourism Organisation (1999) states that tourism policy makers and professionals should develop programmes that enhance the quality of the senior tourism experience, ensuring:

- *Basic quality factors, such as security, hygiene and health, environmental interests, independence, accessibility to services and rules of consumer protection;*
- *Healthy food, exercise, and other factors which constitute physical wellbeing, as well as those life domains which constitute spiritual wellbeing and the quality of life;*
- *Interaction with the local communities;*
- *The promotion of seniors' networks and senior college activities;*
- *Enrichment of cultural visits, promotion of educational experiences and local heritage;*
- *Spa and entertainment activities, especially outdoors;*
- *High standards of service, structured social activities, flexibility in programmes, an adequate pace for physical activities, as well as fair and clear information;*
- *Internal auditing and evaluation for senior tourism quality standards;*
- *Immediate introduction of tariffs for seniors by air, sea and land (rail and coach) transport carriers, especially on a regional basis such as within the European Union. (p. 2).*

According to the World Tourism Organisation (1999), senior tourism programmes resulting from public and private partnerships, or initiatives by public, civic and social economy organisations should meet certain objectives, including:

a) Encourage involvement in tourist activities as a response to the current situation of social exclusion;

b) Improve the quality of life of elderly people through the benefits of access to leisure periods;

c) Contribute to the creation of a new and diversified tourism market, thus strengthening the economy and creating new jobs, and, consequently, being an agent of social cohesion;

d) Contribute to peace, social tolerance and solidarity through the sharing of memories, interactions and travel among generations;

e) Use tourist facilities and equipment more effectively during low seasons and in the most economically disadvantaged regions.

Benefits obtained by joining in trips organised by social tourism programmes can have a positive impact on older people's subjective wellbeing and levels of social engagement as well as increase their self-esteem and confidence (Morgan et al., 2015).

According to the study by Eusébio, Carneiro, Kastenholz, and Alvelos (2017), social tourism programmes can reduce seniors' isolation by: providing opportunities to socialise with friends, relatives and local people; increasing their quality of life through cultural enrichment, escape and relaxation; and improving their health.

3. *VOLTO JÁ* PROJECT

The *Volto Já* Project has built a partnership programme between Social Economy organisations that offers exchange activities for institutionalised seniors, and develops cultural, tourist and artistic experiences. It has a senior social tourism business model which targets elderly people in unfavourable economic circumstances, or who do not have family and / or friends that can accompany them, and allows them to travel and / or enjoy holidays (Oliveira, Leal, et al., 2019).

The main objectives of the project are to (Oliveira, Leal, et al., 2019, p. 6):

(i) promote active ageing and improve the quality of life (well-being, life satisfaction, happiness, etc.) of institutionalised seniors;

(ii) develop a social tourism business model aimed at institutionalised seniors in nursing homes / ERPI or day care centres in the Alentejo region;

(iii) develop social tourism packages tailor made to the needs of institutionalised seniors, in partnership with Social Economy entities; and

(iv) develop a computer platform that allows Social Economy institutions to join the senior exchange programme, disseminate the socio-cultural experiences offered and establish partnerships that lead to the exchanges between SEO.

4. METHOD

4.1. SAMPLE

The sample selected for the study comprises twenty-three participants in the *Volto Já* Project between June and November 2019. Six mobilities were held to date, with six Social Economy organisations.All members are seniors and 28pplied28 28pplie of the six Social Economy Organisations that are partners of the *Volto Já* Project, namely: Santa Casa da Misericórdia de Santarém, Santa Casa da Misericórdia in Santiago do Cacém, Santa Casa da Misericórdia de Sines, Santa Casa da Misericórdia da Chamusca, Associação Protectora e Abrigo dos Velhos Trabalhadores de Montemor-o-Novo and Centro Social Cultural e Recreativo do Bairro da Esperança.

The sample is composed of 23 elderly people. The sociodemographic characteristics of the sample are:

- Age: between 60 and 98 years, five of whom (22%) in the 60 – 70 age group, six (26%) in the 71 – 80 years age group, ten (43 %) in the 81 – 90 age group and the remaining two (9%) in the 91 – 98 age group.
- Gender: fourteen (61%) female and nine (39%) male.
- Marital status: twelve (52%) are widowed, seven (31%) are single, and four (17%) married.
- Education: five (22%) have no education, thirteen (57%) have 4 years education, four (17%) have 6 years education and one (4%) has 9 years education.
- Time in the organisation: six (26%) of the interviewees have been in the organisation for less than 6 months, four (17%) between 7 and 12 months, four (17%) between 13 and 24 months, two (9 %) between 25 and 36 months and seven (31%) for 37 months or more.
- Reasons for being in the organisation: six respondents (26%) joined as they lived alone, eight (35%) due to illnesses, five (22%) due to the illness of a relative, three (13%) not to become a burden for their family and one (4%) due to difficulties in the relationship with family members.
- Number of children: four participants (17%) have no children, four (17%) have one child, eight have two children, four (17%) have three children and finally three (13%) have four children.

4.2. DATA COLLECTION INSTRUMENT

A semi-structured interview was applied as the data this provides values each individual's system of thought, cognitive processes, value systems and representations, emotions, affectivity which are revealed unconsciously as the interview unfolds (Bardin, 2009). The interview guide was based on the literature review, the Satisfaction Assessment Questionnaires provided by the Social Security Institute (2007b, 2010b, 2010a) and the objectives of the study, namely in the evaluation of the tourist experience and its impact on satisfaction with the organisation in which the participant is institutionalised.

The speech of each interviewee was systematised and subsequently analysed. The interviews were recorded on audio support with the authorisation of the organisation and each individual, and later transcribed in full.

The interview guide (Table 1) includes questions on the context of tourist experiences before and after the individual's institutionalisation, the impact of tourist experiences on their quality of life, the evaluation of the different aspects of senior exchange promoted by the *Volto Já* Project and, finally, the perceived changes in satisfaction with the organisation as a result of their participation in the exchange.

Table 1 – Interview Guide

1. Did you use to go on trips or other tourist and leisure activities before coming across this Organisation?
1.1. If not, why?
1.2. If so, what was your motivation for these trips or activities?
1.2.3. What activities did you perform?
2. Since you have been connected to the Organisation, have you taken any trips or done any tourist and leisure activities?
2.1. If not, why?
2.2. If so, what was your motivation for these trips or activities?
2.2.3. What activities did you perform?
3. When you participate in the Organisation's tourist and leisure activities, how do you feel about the Organisation?
3.1. Why?
4. When you participate in the Organisation's tourist and leisure activities, do they have an impact on your quality of life?
4.1. In what way?
5. Do you think your quality of life would improve if you had more opportunities to enjoy tourist and leisure experiences?
5.1. Why?
6. How do you feel about the monitoring by the technicians who received you?
6.1. Why?
7. And how do you evaluate the technicians who accompanied you?
7.1. Why?
8. Did you feel integrated with the other participants in the exchange?
9. How do you evaluate the social experience provided by mobility?
10. How do you rate the facilities where you stayed overnight?
10.1. Why?
11. What is your opinion of the transport used during mobility?
11.1. Why?
12. What do you think of the meals prepared by the host Organisation?
12.1. Why?
13. In general, how do you evaluate the programme of activities you joined?
14. Were you satisfied with the senior exchange activity programme?
14.1. Why?
15. If you could do this again, would you do so?
16. Would you recommend a friend of yours to participate in a senior exchange programme?
17. Has your participation in this senior exchange programme made you feel more satisfied with your Organisation?
17.1. Why?

4.3. CODING

In line with the sequential organisation of the content analysis model proposed by Bardin (2009) – pre-analysis, material exploration and treatment of results and interpretations, the following were considered:

1) As a unit of record: the topic, breaking down each interviewee's speech according to a criterion of choice and delimitation guided by the dimension of analysis. The dimension of analysis is determined by the intended goal, dividing the different recording units of the study into categories. The topic allows us to study the motivations of opinions, values, beliefs, attitudes, and is commonly used for the analysis of open responses (Bardin, 2009);
2) As a rule of enumeration: the presence / absence of content;
3) As a categorisation of content: the "collection", where the conceptual title of each category is only obtained after the organisation of the set of registration units that compose it, and each dimension is generated from the grouping of categories relating to the same concept.

5. RESULTS

Table 2 presents the categorical systematisation of: a) all the registration units obtained by the context units in categories and b) the categories formed into dimensions of analysis. Each dimension of the analysis corresponds to the respective interview question. The content obtained is organised in tables and is analysed further in the discussion section.

Table 2 – Inductive category formation

Dimension	Category	Recording Unit
D1: Tourist experience prior to integration into the Organisation	No previous tourist experience	Work
		Solitude/Isolation
		No reason
		Health Limitations
	Has previous tourist experience	Family Activities
		Leisure Activities
		New Experiences
		Excursions
		Social Tourism Activities
D2: Tourist Experience prior to integration into the organisation	*Volto Já* Project	Project *Volto Já*
	Tourist experience exclusive to *Volto Já* Project	Activities not specified
		Activities offered (e.g., touristic activities)
		Beach Tourism
	Feelings	Well-being

D3: Value given to the Organisation after participating in tourist activities		Happiness
		Satisfaction
		Ambiguous feeling
	Evaluation of services	Contentment
		Recognition of the good service
		Motivation
		Competence
		Excellence of the monitoring
D4: Perception of impact of tourist experiences on quality of life	Physical Impact	Physical impact
	Emotional Impact	Well-being
		Relaxation
		Joy
		Contentment
		Satisfaction
		Motivation
		Enthusiasm
		Relief
	No impact	Felt no change
D5: The impact of more frequent touristic experiences on quality of life	More frequent touristic experiences would improve quality of life	Satisfaction
		Motivation
		Enthusiasm
		Happiness
	Quality of life does not depend on the frequency of tourist experiences	Satisfaction with current quality of life
		Satisfaction with the effect of the current tourist activities
	More frequent tourist experiences would reduce quality of life	Health Limitations
D6: Evaluation of the partner-organisation's staff during the senior exchange	Staff member's characteristics	Excellence
		Cheerfulness
		Friendliness
	Staff member's actions	Competence
		Care
		Hospitality
	Feeling	Satisfaction
		Pride
D7: Evaluation of the Institution's staff during the senior exchange	Staff member's characteristics	Excellence
		Kindness
		Friendliness

		Education
		Affability
		Joy
		Dedication
	Feeling	Satisfaction
		Recognition
	Staff member's action	Competence
	Relationship	Compatibility
		Friendship
		Familiarity
D8: Inclusion in the group of participants in the senior exchange	Experience	Excellence
	Feeling	Inclusion/integration
		Well-being
	Relationship	Friendship
D9: Socialising with the participants in the senior exchange	Experience	Excellent/outstanding
		General satisfaction
		Ambiguous feedback
	Feeling	Enthusiasm
		Motivation
		Contentment
	Relationship	Friendship
		Familiarity
D10: Evaluation of the transportation during the senior exchange	People in charge	Competence
		Driving
		Monitoring
	Vehicle	Excellence
		Dissatisfaction
		Comfort
	Monetary aspects	Free service
	Journey	Safety
	Route	Adequacy
D11: Evaluation of the accommodation during the senior exchange	Cleanliness and tidiness	Excellence of cleanliness and tidiness
		Satisfaction with cleanliness and tidiness
	Tangible goods/Material resources	Excellence of tangible goods/Material resources
		Satisfaction with tangible goods/Material resources

		Dissatisfaction with tangible goods/Material resources
		Extreme dissatisfaction with tangible goods/Material resources
	Experience of overnight stay	Satisfaction
		Dissatisfaction
D12: Evaluation of the meals during the senior exchange	Food	Satisfaction
		Feeding habits
	Experience	Satisfaction with no explanation
		Excellence
	Place	Landscape
D13: General Evaluation of the activities programme during the senior exchange	Activities	Excellence
		Satisfaction
		Productive
	Interpersonal Relationship	Monitoring
		Happy
	Locations	Interest
		Motivation
D14: Perception of satisfaction with the activities programme for the senior exchange	Locations/Activities	Attractiveness
	Attitude	Repetition
	Interpersonal Relationship	Familiarity
		Satisfaction with the interaction
	Programme	Excellence
		Motivation
		Suitability
D15: Repetition of the senior exchange	The senior would like to repeat the experience	Statement of repetition
	The senior would like to participate but has limitations	Health limitations
D16: Would recommend the senior exchange tourist experience	Would recommend the exchange	Had recommended the exchange
	Would recommend the exchange with justification	Autonomy
		Interest/Willingness
D17: Influence of the participation in the senior exchange on satisfaction with the Institution	Greater satisfaction with the organisation due to participation in the exchange	Attractiveness of the locations/Exchange activities
		Recognition
		Will repeat in future
		Well-being
		Interpersonal Relationships
		Happy

		Staff competence
		Happiness
	Satisfaction with the organisation independent of the participation in the senior exchange	Satisfaction unaltered

When asked about taking trips or other tourist and leisure activities before joining the organisation (Table 2; dimension 1), some of the respondents said they had had no previous tourist experience, while others reported having previously enjoyed some tourist activities. The main reasons given for having no prior experience are: 1) work, 2) socially isolation or 3) health limitations. Those with tourist experience (the majority of responses) referred to the following main activities and / or underlying motivations: family activities, leisure activities, new experiences, excursions, and social tourism activities.

For dimension 2, it was found that eleven of the twenty-three respondents had no experience other than through the *Volto Já* Project (category one). The remaining interviews form the second category and they report: unspecified activities (e.g. "We went to several" (...). "; E12," we have been to many places."; E19); activities such as tourist experiences without overnight stays; and beach tourism.

Dimension 3 (Table 2), namely "Value given to the organisation after participating in tourist experiences" refers to the responses to the questions "When you participate in the Organisation's tourist and leisure activities, how do you feel about the Organisation? Why?". Two categories emerged: internal perceptions, such as feelings and emotions, and perceptions and analysis of external factors, such as appraisals of the organisation and its services.

In the first category (Table 2; dimension 3) the interviewees linked the following feelings to the organisation as a result of participating in its tourist and leisure activities: well-being, happiness, satisfaction, ambiguity, recognition of the good service, motivation. The appraisal of the institution and / or service (2nd category) is decoded into: competence, excellence of the monitoring, and relevance of services.

For Dimension 4, on how the tourist experiences impacted the respondents' quality of life, the registration units obtained were: 1) physical impact, 2) emotional impact, 3) no impact. The physical impact encompassed responses on physical changes (e.g. "Head and body. I feel better"; E1). The category with the largest number of statements was for the emotional impact where respondents referred to the following feelings and emotions: well-being, relaxation, joy, contentment, satisfaction, motivation, enthusiasm, relief (e.g. "It's a relief to do something different from the normal routine "; E20). In the third category, respondents felt the tourist experience had no impact on their quality of life.

When asked whether more frequent tourist and leisure activities would improve their quality of life (Table 2; dimension 5), three types of response emerged: (a) yes, it would improve the quality of life; (b) no, because the quality of life does not depend on participation in tourist and leisure experiences; (c) no, because it would lower the quality of life. In the first category, which had the most answers, more frequent tourist

activities could improve quality of life because these activities foster positive feelings such as satisfaction with one's life, encouragement, enthusiasm and happiness (e.g. "Because I was even happier"; E7).

In the second category, tourist activities do not affect the quality of life because: 1) the interviewee's quality of life is already satisfactory (e.g. "The quality of life I have is good. "; E4); 2) the quantity and quality of the current experiences are already satisfactory.

The third category encompasses answers from seniors who feel their quality of life might deteriorate if there were more tourist activities because they are not healthy enough to participate in these activities (e.g. "No, because I no longer have the health for that "; E10).

Regarding the evaluation of the partner-organisation's staff during the senior exchange (Table 2; dimension 6), the registration units were organised according to: 1) the staff member's characteristics that were mentioned, 2) staff member's actions, 3) the interviewee's feelings and emotions about the staff member.

In the first category, the registration units highlight: excellence, joy, friendly (e.g. "Nice, very good."; E5). The second category refers to: competence, care, and hospitality (Example: "Nobody could give a better welcome"; E11). The third category consists of interviewees' feelings about employees, such as satisfaction and pride (e.g. "we feel proud to be welcomed like this."; E13).

Dimension 7 (Table 2; dimension 7), corresponds to the question "How do you feel about the monitoring from the staff who welcomed you? Why?" and it includes four categories: 1) perceived characteristics of employees; 2) interviewees' feelings or emotions towards the employee and his/her monitoring; 3) the employee's performance; 4) relationship between the interviewee and the employee.

The interviewees gave the most responses on the perceived characteristics of the employee as an individual and referred to: excellence, kindness, friendliness, education, affability, cheerfulness, dedication. The main feelings expressed were satisfaction and recognition. With regards to how the employees carried out their work, seniors had a perception of competence. The relationship between the senior and the employee was described as compatible, friendly, and familiar.

The responses to the question "Did you feel integrated with the other participants in the exchange?" (Table 2; dimension 8) can be grouped into three categories: experience, feeling, and relationship. Respondents felt they were integrated in the group (e.g. "Everything, everything flawless."; E7).

The second category (feelings) was mentioned most by the interviewees and they confirmed the feeling of integration and well-being (e.g. "I felt good."; E5). The participants felt that they were treated as friends (e.g. "They are very friendly."; E2).

Dimension 9 on the socialisation of the participants in the senior exchange (Table 2; dimension 9) corresponds to the results obtained to the question "How do you evaluate the social experience provided by mobility?". The responses were divided into three categories: 1) those who described the living experience as excellent, satisfactory or neither positive nor negative (e.g. "Look, exceptional"; E11); 2) those

who expressed feelings on the interaction between participants, such as enthusiasm, encouragement and contentment (e.g. "It makes a person more alive, in even better spirits"; E7); 3) those who evaluate the socialisation by the resulting relationship, such as friendship and familiarity (e.g. "As if they were one of the family."; E1). The registration unit most often used was "general satisfaction".

Dimension 10 refers to "Evaluation of the transportation during the senior exchange" (Table 2; dimension 10) obtained from the answers to the question "What is your opinion of the transportation used during mobility? Why?". It covers the perceptions regarding: those in charge of for transport (driver/accompanying person), the vehicle, monetary aspects, the experience of the trip and the route taken. Most responses were about the people in charge and the vehicle.

The people in charge of transport were appraised on competence, driving and monitoring. The feelings expressed about the vehicle, were excellence, dissatisfaction, and comfort. The transport was also given a monetary evaluation, namely it was a free service. The trip as a whole was described as safe and the route as adequate.

Dimension 11 – Evaluation of the accommodation during the senior exchange – (Table 2) details what stands out most about the accommodation for participants: cleanliness and tidiness, tangible goods/material resources and experience of the overnight stay.

In this dimension, the cleaning and tidiness of the spaces were rated through excellence (e.g. "Everything flawless, hygienic, impeccably cleaned."; E7), and satisfaction or dissatisfaction (e.g. "Everything was really very tidy."; E9).

The tangible goods/material resources (Table 2; dimension 11) were categorised for their excellence (e.g. "A first class hotel."; E12); satisfaction with the tangible goods/material resources (e.g. "A gorgeous house big, good, and it is a home, "; E1); dissatisfaction (e.g. "I mean it was not the best accommodation… It was a quite low quality."; E2); and extreme dissatisfaction (e.g. "Awful."; E3).

For the last category in dimension 11, the experience of the overnight stay (Table 2), the interviewees referred to satisfaction (e.g. "Good. (...) We slept well."; E4) and dissatisfaction (e.g. "I am used to sleeping alone in my small bedroom and accompanied (...) I could not sleep."; E21).

Despite some negative evaluations, the vast majority of the participants were satisfied and evaluated the accommodation as excellent.

The seniors' assessment of the meals (Table 2; dimension 12) included three categories: 1) food and eating habits (e.g. "Food was good."; E9); 2) the general assessment of the meal as an experience, expressed as excellent and satisfactory (e.g. "All the best."; E12); 3) the space and surrounding landscape (e.g. "Just to be eating and looking at the sea. Eating and looking at the sea through the window ..."; E1). The overall perception of the meals was that they were satisfactory.

The evaluation of the activities programme during the senior exchange (Table 2; dimension 13) highlights: the activities, the interpersonal relationship generated and the location of the activities. In relation to activities, the evaluations obtained in the registration units were excellence, satisfaction and productive (e.g. "I think it was good, it's fruitful."; E9). The relationship was expressed through monitoring and

happiness (e.g. “Everyone was happy, everyone ...”; E19); The locations were defined according to their interest and motivation (e.g. “they tried to take us to interesting places, explain to us what used to be there, what it is now ...”; E11). It should be noted all the respondents’ comments in this dimension were positive.

Dimension 14 (Table 2) sets out the participants’ responses on their satisfaction with the activities programme, which were ordered according to references to: locations / activities; attitude; interpersonal relationship; and programme. The attractiveness of the locations/activities, stood out (e.g. “Besides being pretty, I went to see something very old things, things that, you know, I would never have seen if I hadn’t gone there. ”; E10). On attitude, participants expressed a desire to repeat the programme (e.g. “I still want to go there again.”; E19). The interpersonal relationship was manifested through familiarity and satisfaction with the social interaction (e.g. “The people were impeccable. Impeccable. Impeccable, impeccable and friendly people, from the heart.”; E7). The programme was described through its excellence, motivation, and adequacy (e.g. “Because, of course, it couldn’t have been better.”; E18). This dimension confirmed the positive evaluation all interviewees gave of the activities programme.

The seniors’ responses on their desire to repeat the exchange generated dimension 15 – Repetition of the senior Exchange (Table 2). The first category is associated with the desire to repeat: e.g., “Without a doubt.” (E10). The second category expresses the repetition of the experience if there were no health limitations: “I would, if... If my health was good and If I could walk and… Of course” (E18). Where there were no health restrictions, all participants would repeat the exchange.

The responses for dimension 16 (Table 2) “Would recommend the tourist experience of the senior exchange” are divided into unequivocal recommendation to a friend and recommendation but with justification (e.g. “To a friend? I already recommended to my daughters (laughter)” (E11); “I think so. If she wanted to.”; E10). All respondents would recommend the experience, taking into consideration the friends’ interests and health.

When the seniors were asked “Are you more satisfied with your Organisation after participating in this senior exchange? Why?”, their responses fell into two categories: 1) greater satisfaction with the Organisation due to participation in the exchange and 2) participation in the exchange did not influence their satisfaction with the Organisation.

In the first category, the participants’ satisfaction with the Organisation is confirmed through: 1) interest in the exchange sites/activities (e.g. “From us going there, I mean, nobody has ever seen anything like that… Never. So, I was satisfied with everything. Everything I saw.”; E1); 2) recognition of the Organisation (example: “Yes. Because if it wasn’t for the Organisation I would never have gone there.”; E11); 3) repetition of the experience (e.g. “Yes. (...) And now we just have to do some more trips.”; E3); 4) feeling of well-being (e.g. “Yes. (...) And I feel good. I feel good.”; E5); 5) experienced interpersonal relationship (e.g. “It’s a unity, that we can connect with people, isn’t it? It’s like that. Us, from here and there, we connect, it’s a satisfaction to find this one and that one, and hug and all, it was very good. ”; E6); 6) happiness (e.g. “I feel so happy.”; E7); and 7) the seniors value the organisation’s competence (e.g. “Give a lot

of value to the organisation. We realize who we are dealing with"; E14). This category received the most responses: nineteen of the twenty-three respondents say they were more satisfied with the organisation following the tourist experience.

The second category specifies situations in which interviewees' satisfaction or dissatisfaction with the Organisation was unchanged by participating in these activities. This perception results from the awareness that the Organisation itself and the respective provision of day-to-day services remained the same – e.g., "No. I'm not better or worse. I came here out of necessity." (E4),"No, no ... I also felt good before going to this gathering."(E9),"Maybe not more. I feel satisfied as I always do. (...) They do what they can and what I ask them to do, they do. There they did what they could." (E20), "No. Because the Organisation remains the same." (E21).

6. DISCUSSION

Bu using the interview as an instrument of data collection, we were not only able to register the interviewees' discourse, but also record the non-verbal language and emotional intensity in each answer and topic addressed.

The results reveal the following: a) some seniors had not enjoyed any tourist experiences until entering the institution, and the organisation was able to fill this gap; b) in the case of seniors with previous tourist experiences, for some the only tourist experience at the organisation was promoted by the *Volto Já* Project.

In addition, the *Volto Já* Project exchange was the only tourist experience some seniors had ever had (before and after their institutionalisation). The findings show that this was for economic or social reasons (isolation/loneliness) as we see in Morgan et al. (2015), or due to health problems; this confirms the relevance of social tourism and its benefits for seniors included in such programmes (Eusébio et al., 2017; Minnaert et al., 2011).

The interview proved to be particularly revealing to the topics mentioned above as it allowed interviewees to express themselves freely and highlighted the specific importance of the *Volto Já* project experience in their lives.

In general, respondents valued the organisation more as a result of their participation in tourist activities. References to the organisation's excellence and their satisfaction with it were evident in the verbal and non-verbal discourse, as was the feeling of recognition for the work done to foster their well-being and their gratitude for the opportunity given.

Enabling institutionalised seniors to participate in tourist activities can thus enhance the corporate image as their expectations are exceeded (Bolton & Drew, 1991; Caruana, 2008; Rizwan et al., 2014; Upamannyu et al., 2015)

Based the Runa and Miranda (2015) scale of feelings and emotions, the interviewees' feelings on how they value the Organisation as a result of the tourist experiences also makes them more satisfied customers (Tinoco & Ribeiro, 2007).

One of the seniors expressed the desire to participate in more tourist experiences and recognised that this would lead to greater satisfaction with the institution – e.g., "there should also be more activities" (E6).

The perceived impact of the tourist experiences on quality of life is also found in previous studies, which note how vacation and leisure time foster physical activity and social interaction (Morgan et al., 2015; Quinn & Stacey, 2010)

The interviewees who acknowledged the impact of these experiences on their quality of life emphasised the positive effects of getting away from the daily routine, especially on an emotional level and the vast majority of respondents said it brought relief, relaxation, enthusiasm and expectation/stimulus .

The enduring impact of the experience must be stressed. Even though the interview took place sometime after the tourist experience, some participants were still deeply moved by the recollection and were enthusiastic about collaborating with their own report.

This long-term physical or emotional impact is illustrated by one of the interviewees' comments: "I am alone and when I think about these things and it fills me" (E15). This data underpins the "studies that emphasise how the benefits of social tourism extend beyond the immediate holiday experience and into participants' daily lives" (Morgan et al., 2015, p. 4).

Individuals who consider quality of life as being strictly associated with health may not perceive the impact of the tourist experience as relevant. In situations where the tourist experience *per se* did not change the interviewee's quality of life it was categorised as having no impact.

Health is one of the main aspects dictating the different perceptions and it is given as a constraint to participating in social tourism programmes. As evidenced in the study by Eusébio et al. (2017), it represents a vulnerability that determines the frequency of participation in tourist activities and hence the increase or decrease in the quality of life.,

The short duration of the experience meant there was relatively little impact on physical health. However, most of the interviewees considered the effect on their psychological, emotional, and social well-being to be relevant and they referred to the wave of positive feelings and emotions about the experience, themselves, and the organisation.

Evidence from dimension 5 demonstrates that more frequent tourist activities lead to feelings of individual satisfaction, stimulus, enthusiasm, and happiness and therefore a better quality of life.

A quite positive evaluation was given of the partner institution's employees, be it in terms of characteristics, performance or dominant feelings e.g., "Really flawless, like stars in the sky." (E7), "Really friendly, very good." (E5).

The evaluation of the SEO employees where the interviewees are institutionalised was determined by the prior relationship between the interviewee and the employee e.g.

"Because I get along very well with the employee" (E2); "They were our friends" (E10); "They are part of the family here" (E12).

Based on the interviewees' responses, expectations were exceeded in relation to feelings and emotions inspired, performance and the employee/senior relationship so that an atmosphere of trust, security and familiarity was created.

Dimensions 6 and 7 on the host and partner institution staff also show customer satisfaction in relation to the different social welfare services, such as reliability, technical competence, responsibility, responsiveness, service and the communication (Instituto da Segurança Social, 2007b, 2010a, 2010b).

Dimension 8 addresses integration in the senior exchange group. According to the interviewees, integration was excellent and there was no record of negative feelings, poor inclusion or total lack of integration in the group. A feeling of full integration can bring benefits to the individual, as can be seen in the results of Morgan et al. (2015, p. 10) "Being with people of a similar age on this break enabled the clients to share stories and to create a common sense of identity and affirmation of self".

The experience allowed participants to build bonds and close relationships, and they even expressed the intention to nurture these relationships by sending letters, making video calls and exchanging cards at festive seasons.

It can be concluded from the integration and socialisation dimensions that a person can feel integrated and at the same time not necessarily evaluate the socialising positively. The two aspects are understood differently. In addition, these two dimensions impact individuals positively since "group involvement is a significant psychosocial factor in improving personal confidence, satisfaction with life and the ability to face problems" (Andrade et al., 2014, p. 46).

In transportation, meals and accommodation, the determinants of customer satisfaction were clearly perceived quality, expectations, price and corporate image s. However, dissatisfaction with one of these services did not imply general dissatisfaction with the exchange experience, nor with the organisation in which they are institutionalised.

It is also noted that the senior customers' satisfaction in the dimensions evaluating transport, meals and accommodation, crossed with some of the goals of social tourism – "Basic quality factors, such as security, hygiene and health, environmental interests, independence, accessibility to services and rules of consumer protection "and" Healthy food, exercise, and other factors which constitute physical wellbeing, as well as those life domains which constitute spiritual wellbeing and the quality of life "(World Tourism Organisation, 1999, p.2) .

The most diverse opinions were given when evaluating the accommodation, mainly with regards to tangible goods/material resources – e.g., "A first-class hotel." (E12), "Okay, in conclusion, it didn't work." (E3). The experience of the overnight stay away from the usual institution was one way of expressing appreciation of the accommodation; this was distinct from the satisfaction or dissatisfaction with the experience itself, which was governed by the individuals' sleeping habits – e.g., "Good.

(...) We slept well. "(E4)," More or less. (...) I am used to sleeping alone in my small room, and accompanied (...) I could not sleep. "(E21).

The evaluation of the activities programme based on 1) the attractiveness of the places visited and different activities and 2) the interpersonal relationship between senior participants and the organisation staff is aligned with the ideas of the World Tourism Organisation (1999) on the interaction with local communities, the promotion of group support and activity networks, cultural visits, promotion of educational experiences and local traditions, as well as outdoor and entertainment activities.

The seniors expressed general satisfaction with the activities programme not only because of the interest of the locations and the pleasure they gave but also due to the monitoring of each activity and information given by the professionals in charge.

According to Larán and Espinoza (2009), judgments about the consumption experience stand out from among the motivations that lead to consumer loyalty, as these evaluations or judgments strongly influence the creation of attitudes and intentions for action. While repeating and recommending the exchange reveal the senior clients' loyalty and satisfaction, these feelings were dependent on health, the attractiveness of the activities programme and the autonomy to take advantage of it, among other factors.

The influence of participation in the senior exchange programme on the senior clients' satisfaction was confirmed by the determinants: feelings and emotions (recognition, well-being, happiness); expectations (attractiveness of the places, exchange activities, repetition); perceived quality (competence); interpersonal relationship. E.g. "Yes. Because if it wasn't for the *Organisation* I would never have gone to *that place*." (E11); "Because it was a new activity for us, we had never done anything like that." (E13); "More… Because they chose me." (E2); "Going there, I mean, we have never seen anything like that… Never. So, I was satisfied with everything. Everything I saw." (E1).

The participation in the exchange programme has a limited impact on the corporate image and on the clients' perceptions of satisfaction with SEO's services;; more specifically, despite satisfaction with the exchange and its positive impact on the their quality of life, some seniors did not change their perception of the image of the institution and satisfaction held prior to the social tourism programme. Examples are: "No. Because it's still the same Organisation. "(E21); "Maybe not more. I feel just as satisfied as ever. (...) They do what they can and what I ask them to do, they do it. "(E20).

The mobility provided by the *Volto Já* Project has already given the senior participants a new experience that they have undertaken enthusiastically; it has brought prospects for the future, personal fulfilment and the opportunity to expand their network of relationships.

The vast majority of these seniors are more satisfied with the organisation, which considered them the right people to include in this experience. Seniors interpret this as a persistent effort to improve the services provided and they are fully satisfied with the social welfare services provided.

7. CONCLUSION

The interviews with senior participants in the *Volto Já* Project helped evaluate specific aspects of the social tourism activity, and above all, to study whether there is a relationship between social tourism activities and satisfaction with the organisation.

The feelings, emotions, opinions, and attitudes that seniors developed during the tourist activities were the added value that this programme gave them and their lives. These intangible outputs shed light on how the tourist activities influence the seniors' satisfaction with the organisation.

The analysis confirms the relationship between social tourism and senior customers' satisfaction in most cases. Nevertheless, no link was found between participation in social tourism activities and satisfaction with the organisation in a few cases; that is, corporate image is perceived as a determinant of satisfaction that was formed prior to the social tourism activity and not affected by it.

The increased satisfaction with the organisation due to participation in social tourism activities was measured by the attractiveness of the activities programme, expressed willingness to repeat the experience, and feelings such as well-being and happiness, the competence attributed to the organisation, and the relationships generated between participants and employees during the mobilities.

However, the relationship between social tourism activities and customer satisfaction is not straightforward. Satisfaction with the organisation is not affected by only one external activity such as the senior exchange promoted by the *Volto Já* Project, even though the individual recognises the activity is satisfactory. The repeated and frequent practice of social tourism activities may, however, influence that satisfaction.

Loyalty to the organisation can also interfere with the "social tourism activities vs customer satisfaction" relationship. Loyalty is strongly linked to customer satisfaction. When customers are loyal, they are more lenient and do not complain so much about situations in which the service does not meet expectation.

It was also found that dissatisfaction with a component of the senior exchange does not imply general dissatisfaction, and that satisfaction with the social tourism activity does not mean that the seniors are therefore satisfied with the organisation in which they are institutionalised.

The main limitations of this research are as follows: 1) the sociodemographic characterisation of the sample, which required the interviewers to adjust their speech, 2) the short duration of the experience as it would have been interesting to consider more lasting impacts, namely in relation to health issues.

Fruitful avenues for future research include the impact of this type of experience on seniors' quality of life, and more specifically the duration and intensity of this impact. It would also be interesting to study SEO professionals' perceptions of the impact of similar experiences on seniors, as they are in a privileged position to observe attitudes, behaviours, and any changes in the physical and emotional state of institutionalised elderly people.

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INDUSTRY 4.0 AND KNOWLEDGE MANAGEMENT PRACTICES

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ABSTRACT

Purpose – The purpose of this paper is to synthesize Industry 4.0's on knowledge management process and practices, and to explore the improvements that will arise from it. It also provides an idea of how to use approaches for enhancing the knowledge management process in Industry 4.0. The main objective is to highlight the role of the technologies that support Industry 4.0 in facilitating the knowledge management process.

Design/methodology/approach – The aforementioned dynamic suggests that a thorough analysis of the existing literature on the topics related to the subject is needed to better understand what Industry 4.0 is for and how it can support the knowledge management system. Despite the analysis of the literature on Industry 4.0, this study develops an approach that presents the importance of this new industrial system, especially its technologies in the knowledge management process. It outlines the way in which Industry 4.0's components are useful to overcome several stages of the process and improve the performance of the organization.

Findings – Findings reveal that Industry 4.0 is an important factor in the growth of various organizational management processes. Industry 4.0' components such as the Internet of Things (IoT), big data, cyber-physical systems (CPS), and Cloud computing play an important role in supporting the knowledge management process that contributes to the organization's performance.

Research limitations/implications – How to manage the knowledge process is one of the important questions that pursue organizations to investigate possible ways. In this context, this paper deals with the relationship between Industry 4.0's technologies and knowledge management. It provides an approach that covers the key technologies of this industry that can support managing knowledge in the organization. It contributes to the literature of Industry 4.0 and knowledge management by examining the role of its technologies in acquiring, creating, storing, sharing and protecting knowledge. Despite opening a new perspective for academics, this study also has limitations. As the main contribution is conceptual, further empirical studies are needed to analyze the impact of Industry 4.0 on knowledge management.

Originality/value – Business models are evolving along with the growing globalization and technological advancement, thus increasing the need for creative knowledge management. This paper highlights the current trend in knowledge management related to industry 4.0 and its technology. It focuses on the effect of this Industry and, subsequently connected technologies in the knowledge management process. This paper is one of the pioneering studies which examined the role of industry 4.0 in the process of knowledge management. It discusses the connection between industry 4.0' technologies, mainly IoT, big data, cloud, and CPS and the knowledge management process. Therefore, this study contributed to the literature by providing valuable insights into knowledge management through Industry 4.0.

KEYWORDS

Industry 4.0, Knowledge management, IoT, big data, Technology, Cloud, Artificial intelligence

1. INTRODUCTION

Nowadays, organizational management is widely linked to the innovative application of management techniques in knowledge processes and the organizational capacity to adapt to changing environments based on the rapid development of new technologies. Companies are facing complex structural changes and are increasingly based on knowledge which is a key driver of innovation. It is, therefore, necessary to implement strategies to support the knowledge management strategies. In addition, it is shown that the implementation of knowledge management strategies has a direct positive impact on the performance of the organization.

Therefore, the ability to manage information in today's business landscape is becoming increasingly important. Knowledge management strategies can often be focused on new technologies and companies can adopt methods and use technologies to support knowledge management strategy and ensure dynamic and timely use of knowledge. Companies have to face challenges and embrace the opportunities offered by the new emerging technologies in order to remain competitive.

In the possible use of knowledge management, there is an apparent need for suitable and practical solutions to support innovation (Roblek et al., 2016). This is particularly

evident in the fourth industrial revolution, known as Industry 4.0, which reflects the new manufacturing paradigm based on technology and which is heavily dependent on knowledge. In Industry 4 0 strategically based knowledge management can prove critical for securing knowledge relevant and foster innovation.

Industry 4.0 and the related digital transformation refer to the advent of new digital technologies, such as the Internet of Things (IoT), artificial intelligence, cloud computing, and Big Data, and involve a profound transformation of processes and activities, skills and business models. The emergence of these technologies generates a multiplicity of challenges for companies and particularly upsets the organizational ecosystem by the development of robotics and the arrival of smart and virtual factories.

In this context, the development of techniques and tools to tackle this challenge was exponentially increased during the last decade but the sharing of knowledge is important to the practical and the implementation of technological applications in the field of knowledge management.

To examine this issue, this paper focuses on the technical characteristics and related future innovation paths that are essential to the formulation of structured knowledge management strategies and tools. Therefore, this paper aims to describe the technology flows and key elements of an effective technical roadmap that matches knowledge management formal strategies. Its contribution is, therefore, mainly conceptual.

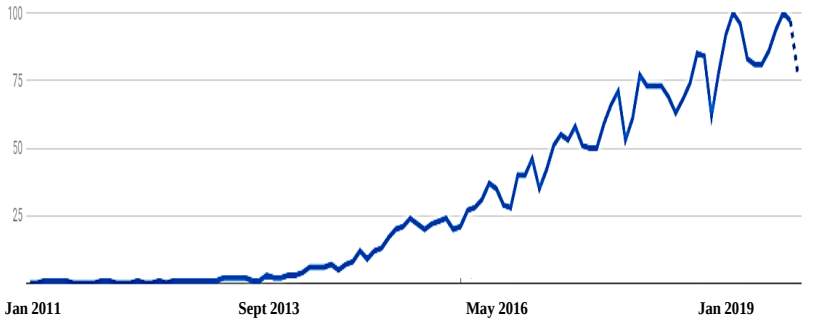
This paper has been achieved as follows. Before discussing how Industry 4.0 can support the Knowledge management system, a brief overview of Industry 4.0 and the pillar of technological advancement that support it are presented in section 2. This section covers also a scientific contribution analysis related to Industry 4.0 with the focus on the technologies that support this new industrial system. Section 3 describes the process of managing knowledge and highlights its different stages. Section 4 outlines the adopted research approach and details the role of the components of Industry 4.0 in supporting the different stages of the knowledge management process. Section 5 discusses presents a brief discussion about the relationship between the different technologies of Industry 4.0 and how they fit together to improve the process of knowledge management in the organization. Section 6 summarizes the conclusions of the study and proposals for future research.

2. INDUSTRY 4.0: THEORETICAL FRAMEWORK

2.1. INDUSTRY 4.0 IN LITERATURE

In recent years, the term of Industry 4.0 has attracted very high-level attention. Google trends (see Figure 1) reveal that up to 2013 there was little searching interest even the concept introduced in 2011. There has been an increase in search interest in the period between 2016 and 2019, which has continued to increase.

Figure 1 – Google trends for Industry 4.0 (2011-2019)

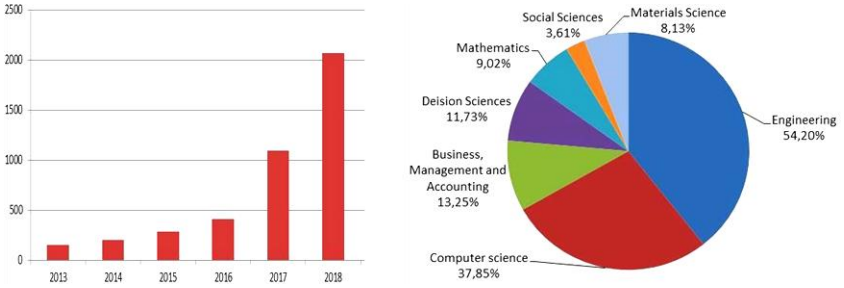


Source: https://trends.google.com/ (Retrieved 29, December 2019)

By analyzing the number of the scientific publications indexed in Scopus database from 2013 to 2019, and containing the following keywords: Industry 4.0, 4th industrial revolution, Smart factory, Smart Industry, and Manufacturing 4.0; we can notice that more than 6000 publications were made as shown in the following Figure.

Figure 2 reflects the interest of the Industry 4.0 among the scientific community and shows that the number of scientific contributions of Industry 4.0 has been increasing since 2013. In addition, the results of this analysis show also that the publications were maximal in the field of Engineering (54.20%), Computer Sciences (37.85%), Business, Management and Accounting (13.25%), and Decision Sciences (11.73%). It is worth noting that Industry 4.0 has attracted less attention in other research areas such as Social Sciences, Mathematics, and Materials Science with 3.61%, 9.06%, and 8.13% respectively.

Figure 2 – Number of publications and % of Industry 4.0 literature by research areas (2013-2019)



Despite its popularity, especially during these last years, a clear and commonly accepted definition of the term Industry 4.0 still seems difficult to pin down (Muller, et al., 2018). Many studies have tried to develop different definitions of what constitutes Industry 4.0 (Lu et al., 2016; Muhuri et al., 2019). Industry 4.0, which presents the next level of manufacturing, does not concern only industrial. It concerns also all the

change using digital integration and intelligent engineering, where machines redefine themselves to more communicate and perform different operations.

Based on digital transformation, Industry 4.0 and the smart factory have served as the basis for many countries' programs. The appendix illustrates the different visions of some countries that have embraced the Industry 4.0 in very ambitious programs. The Appendix indicates that most of the European countries' program is closer to the German's Industry 4.0 strategy. Similarly, other countries have also put forward the corresponding Industry 4.0 program.

Globally, Industry 4.0 can be viewed as the utilization of cyber-physical systems in the systems of industrial production (Flynn, 2017). It affects manufacturing because of its emphasis on making a smart environment. In this context, this new industrial system needs advanced manufacturing technologies including the Internet of things (IoT), cloud, big data, cyber-physical systems (CPS), etc. We have paid specific attention to these components, and we selected some relevant technology in the following section.

2.2. INDUSTRY 4.0'S TECHNOLOGY

Industry 4.0 is related to (i) the technical perspective of CPS coordinated into manufacturing activities, and (ii) the IoT tools into the industrial process. Therefore, humans, machines, and resources are vertically connected, while organizations are connected horizontally over the value chain (Waibel et al. 2017). It aims to provide employees with more accurate and relevant information, empower them with smart technology, and give them greater responsibility and flexibility with a higher perspective on workplace autonomy while delegating repetitive and low-level decision-making to machines and systems.

In this context, different advent technologies that are related to the main features of Industry 4.0 (Cheng et al., 2016) mainly: (i) Interconnectivity, (ii) data, (iii) integration, and (iv) innovation, are used to perform Industry 4.0 elements.

It should be noticed that it is not an exhaustive list, but it serves as a guide to select technologies that are of particular importance to Industry 4.0. These technology groups bring together a variety of technologies, approaches, methods, and techniques, as shown in Table 1. Their judicious combination enables the implementation of the company's digital strategy.

Table 1 – Industry 4.0's technology groups and support resources

Technology	For Industry 4.0	Resources involved
IoT and connected object (Molano et al., 2018)	Connecting a huge variety of digital and physical resources. Decentralizing real-time decision-making	RFID, Wireless Sensor Networks, etc.
Cloud computing (Kagermann et al., 2013)	Facilitate data-sharing systems. Deploy the functionality related to production, process, monitoring, and control	Infrastructure as a service (IaaS), Software as a Service (SaaS), Platform as a Service (PaaS).

Cyber-physical systems (Kagermann et al., 2013)	Integrating sensors, software and communications components to monitor and act in real-time on the physical world.	Smart and connected communities, physical components, etc.
Big data and analytics (Sedkaoui, 2018)	Driving and supporting real-time the decision process based on the analysis of the available data generated from different sources.	High-performance computing, High-Performance Computing Cluster, Hadoop-YARN, etc.
Industrial integration and enterprise architecture (Pereira and Romero, 2017)	Digital information integration and interoperability of engineering across the value chain	service-oriented architecture, Business process management, etc.
Artificial intelligence	Support the management of the production process machinery.	Neural networks, machine learning, Bayesian networks, etc.
Simulation	Simulate all production operations	machines, products, and humans
Cybersecurity	Reliable and proven communication protocols can be used to control access to the machine control systems.	VPN, P2P, RFID, etc.

The implementation of elements from the range of alternatives illustrated in Table 1 may depend on the case, redefine the way of monitoring, controlling, optimizing or even making Industry 4.0 products, processes or services autonomous.

Today's business environment is moving towards Industry 4.0, marked by the use of cyber-physical systems, smart factories and developments in services. The term Industry 4.0 suggests that the effort is focused on improving manufacturing processes. However, the increase in the presence of sensors and real-time exchanges also opens up new opportunities in the definition of communicating products. Indeed, the contributions of digital technology can be broken down along the two following axes:

- The process, Industry 4.0 promises a transformation of production methods, going from mass production to individualized production. Processes are more agile and reconfigurable to adjust to customer needs and thus maximize value creation. Production decisions are adapted in real-time with the appearance of autonomous machines and communication between machines and cyber-physical systems.
- Connected objects allow real-time data collection. This data can be analyzed in real-time and allow the system to adapt to its environment autonomously, or be used later for the development of new products or services. The availability of data and the possibilities of analysis bring opportunities for the development of new services (Sedkaoui, 2018).

3. KNOWLEDGE MANAGEMENT: PROCESS AND PRACTICES

The success of an organization depends widely on the quality of knowledge applied to its business processes. Therefore, the knowledge management process, as a part of the business processes, is essential for effective knowledge management. This

process requires that personal knowledge be transformed into corporate knowledge that can be widely shared and applied appropriately across an organization.

The literature identifies a multitude of knowledge management processes and divides it into several stages:

- Creation, Storage/Retrieval, Transfer, Application (Alavi & Leidner, 2001);
- Discovery, Capture, Sharing, Application (Beccara-Fernandez et al., 2004);
- Acquisition, Conversion, Application, Protection (Mills et al., 2011);
- Acquisition, Sharing, Application, Storage (Lee et al., 2013).

It should be mentioned that there is no consensus to illustrate the classification and implementation of these processes. However, all these knowledge management processes contribute to the performance of knowledge management practices in the organization.

In this study, the authors explored the following knowledge management process: (i) acquisition, (ii) creation, (iii) storage, (iv) sharing, and (v) protection, in order to examine the impact of Industry 4.0 or more specifically its components. Where all these stages (see Table 2) contribute to the performance of knowledge management practices.

An organization needs to continually generate new knowledge, promote its sharing, and use knowledge in order to achieve a competitive advantage.

Table 2 – Knowledge management process

Stage	Definition
Acquisition	Defining applicable external knowledge, turning it into a form suitable for assimilation or internalization in the sense of an organization that can be applied to the creation of knowledge
Creation	Generating new knowledge by applying the knowledge acquired from outside and within the organization appropriately.
Storage	Collecting and recording of organizational knowledge available and knowledge acquired for future reference
Sharing	Mechanisms that allow safe transfer of knowledge within the organization.
Protection	Mechanisms of protecting an organization's knowledge from illegal or inappropriate use.

The process of knowledge management allows an organization to acquire, store, use and protect knowledge to facilitate problem-solving, creating creative insights, and supporting the decision-making process.

The analysis of literature indicates generally accepted distinction in knowledge management between the two following strategic focus areas (Choi et al., 2008):

- *Explicit oriented strategy*: or the use of information and communication technologies (ICT) to manage knowledge across the organization;

- *Tacit oriented strategy*: Knowledge management is allowed using people-focused tools and techniques.

A clear link can be seen in the literature between the strategic orientation and the form of shared knowledge. The first strategy is related to explicit knowledge that is data-driven, codifiable, and not connected to individuals. While the second strategy is linked to tacit knowledge, which refers to the person's knowledge and cannot be codifiable. In practice, two main types of knowledge branch off entire strategic focuses.

The use of ICTs increases the organization's effectiveness and improves collaboration. In this context, the emphasis in the knowledge management process is on codification, storage, structured knowledge sharing, and internal organizational links (Sedkaoui, 2018). The improvement of collaboration can support innovation. Its main purpose is to share knowledge through informal connections that can be created, for example, through social networks or directly at meetings.

If we examine more deeply into modern business practices, we can notice that new organization' trends show that the internet of things and connected objects, big data analytics, smart systems, etc. are increasingly being integrated into knowledge management processes.

The knowledge management process becomes more flexible and smart, thanks to the development of new technology (North et al., 2018). With the advent of IoT and the development of several devices, organizations can now gain an insight that has never been possible before. This technology facilitates the way in which knowledge is acquiring, creating, sharing, storing and protecting. It stimulated the development of integrated software platforms to optimize knowledge management strategies.

4. INDUSTRY 4.0 AND KNOWLEDGE MANAGEMENT PROCESS

4.1. RESEARCH APPROACH

Industry 4.0 is the most recent trendy field in changing the business landscape. In the midst of expanded digitalization and systems administration, the term covers different perspectives including knowledge Management. This new industrial system impacts hierarchical structures and furthermore influences the manner by which we get knowledge.

The use of Industry 4.0 components listed in Table 1, which should be chosen according to the strategic goals of the organization, is a realistic way to support the knowledge management process. In addition, it should be mentioned that the choice of strategically oriented organizations for their knowledge management practices depends on their needs, objectives and available resources.

In the following, the authors will suggest an approach, based on the technological advancement that supports Industry 4.0, which is progressively appropriate for knowledge management in the organization. This approach is shown as follows:

Figure 3 – The conceptual framework

The essential components of Industry 4.0 are changing the method in which knowledge is acquired, transmitted and used. Knowledge management process updating with Industry 4.0 components has reduced the human factor in the execution of transaction management.

In the context of the proposed approach, knowledge management practices in the organization require the technology capabilities that support Industry 4.0, such as digital enhancements and the implementation of CPS, which can facilitate the process of managing knowledge. This approach takes into account the technological challenges that organizations are dealing with in Industry 4.0. Therefore, these challenges involve diverse employees' skills and creative capabilities.

Therefore, it is important not only to understand the context of Industry 4.0 but also to explore the key enabling technologies to adapt knowledge management practices to this emerging area (Shamim et al., 2016). In this paper, multiple articles are reviewed to list of core technologies in the field of this new industrial system. This analysis provides the key aspects of the driving forces behind industry 4.0 that are important to the improvement of the knowledge management process.

It should be mentioned that the above analysis of the literature related to Industry 4.0, shows that the more technologies cited are:

- The Internet of things (IoT);
- Big data analytics;
- Cloud computing;
- Cyber-physical systems (CPS);
- Artificial intelligence.

In other word, these three technologies are the most core components of industry 4.0 literature. For the new industrial system, the importance of these components lies in providing services that can be easily integrated and used and accessed through the Internet.

4.2. THE CONTRIBUTION OF INDUSTRY 4.0' TECHNOLOGIES TOWARDS KNOWLEDGE MANAGEMENT PROCESS

Industry 4.0 means that all company activities and processes are automated and interconnected. It aims to achieve a higher degree of operating efficiency, productive efficiency and automation. Industry 4.0 has an important role in the production and service sectors and has clear performance ties (Imran et al. 2018; Rüßmann et al. 2015). Roblek et al. (2016) and Posada et al. (2015) mentioned the high connection

between various Industry 4.0 features and advanced algorithms. They also note that Industry 4.0 is one of the important technological and efficient procedures for knowledge management practices.

In addressing various data management and other technical issues, industry 4.0 has a constructive role to play and can increase business performance. Increasing market efficiency and development from Industry 4.0 through big data, IoT and CPS as well as cloud, are able to resolve technology challenges.

Based on the research approach, the authors will examine the five major components of Industry 4.0 which include: IoT, big data, clouds, CPS, and artificial intelligence. All these elements influence the process of knowledge management processes and develop their mechanisms. Therefore, we developed the approach presented in Figure 3, regarding the different stage of the knowledge management process considered by this study. So, we have taken into consideration all these stages, to develop our approach.

Figure 4 – The developed approach

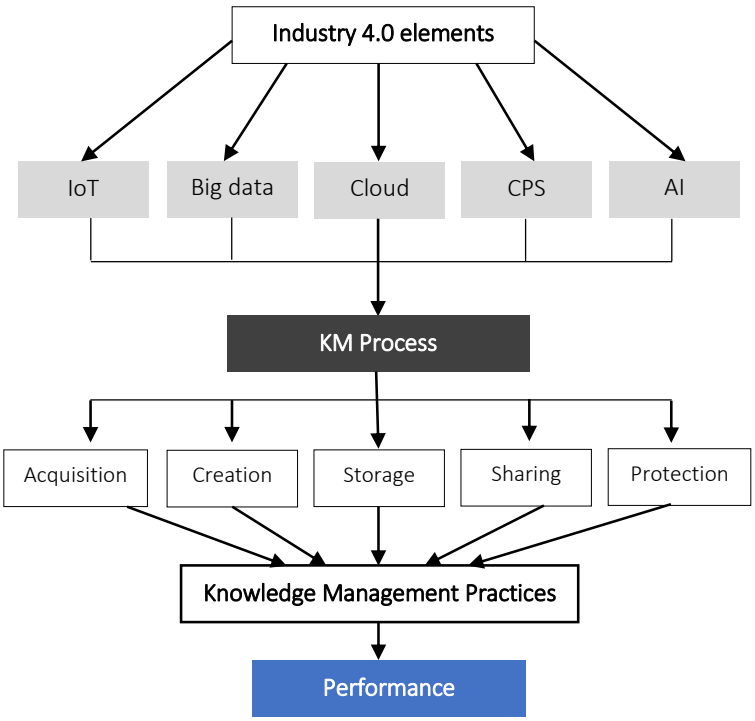


Figure 4 shows how Industry 4.0 promotes the knowledge management process. It shows that the components of Industry 4.0 have significant effects on the knowledge management process which includes acquisition, creation, storage, sharing, and protection. Therefore, it shows that Industry 4.0 supports the management of

knowledge and facilitates its practices, which can increase the performance of the organization. Therefore, as the technologies that support Industry 4.0 has a significant role in the organization, it has a direct relationship with performance

Based on the knowledge management stages, authors claim that industry 4.0' components might support knowledge management process in the following ways:

- IoT and connected objects

The advantage of IoT for knowledge management is that it is possible to collect data from various resources. It allows better information and analysis to be produced that can significantly improve decision-making (Sedkaoui and Gottinger, 2017). IoT would allow devices to understand better what users are doing and to provide context-conscious help including the physical environment. The trend to connected things will allow the knowledge management process to connect all stages more closely in the virtual and physical world. This should help both the development of new knowledge and the reusing of the existing ones. Also, by providing more extensive knowledge IoT can boost logistics and supply chain effectiveness, and all stakeholders can access real-time data so that knowledge is shared easily.

- Big data

Big data technologies can be used for capturing, authentication, delivery, storage, analysis, search, the confidentiality of large quantities of structured as well as unstructured data. Typically, it is used for handling massive data volumes. The essence of big data requires systematic mechanisms for the detection and interpretation of data into new ideas (from data to knowledge, see Ackoff, 1989). Also, big data technologies help to effectively store data. Big data has a major role to play, not only in processing information but also in automating processes and providing innovative insight based on data analysis.

- Cloud

Large quantities of data directly gathered from the customers and things will be analyzed and then stored in the cloud. The data collected using this system can be stored in clouds. Products integrated with the cloud can provide predictive maintenance data and information on production optimization opportunities. The use of automated networking and product integration into Internet data allows far-reaching data collection possibilities (Sedkaoui and Khelfaoui, 2019).

- Cyber-physical systems (CPS)

Cyber-physical systems (CPS) allow machines to connect and exchange data, but also machines and products to communicate with each other, this is called Cyber-physical production systems (CPPS). Automated decision-making can be integrated into production processes on the basis of the data they produce. The downside is that this database is more reliable and more recent than standard production systems.

- Artificial intelligence

Knowledge management is a domain that could have a maximum impact on tools such as machine learning algorithms and artificial intelligence. These tools can help organizations, codifying tacit knowledge, to address the missing link in their knowledge

flow (Sedkaoui and Khelfaoui, 2020). Traditional knowledge management processes have great efficiency in codifying specific artifacts for knowledge but are inadequate for the benefit of the large organization. Artificial intelligence methods, such as natural language processing (NLP), text processing, etc., coupled with big data and advanced algorithms can be helpful in using unstructured data sources.

In addition to the enhancement of the knowledge management process, the added value of these five elements covers also the reduction of costs and time, labor requirements, and improvement of the security of the process. It should be mentioned that the other components of Industry 4.0; Industrial integration and enterprise architecture, intelligence system, simulation, cybersecurity, etc. influence also the knowledge management process in the organization. But, in this study, we focused only on the technologies that are considered the most relevant Industry 4.0's components that support the process of knowledge management.

5. DISCUSSION

5.1. HOW DO COMPONENTS FIT TOGETHER TO IMPROVE THE KNOWLEDGE MANAGEMENT PROCESS?

A different perspective and diverse priorities are taken into account in digital transformation strategies that focus on products, processes, business models and operational dimensions due to emerging technologies (Manyika et al., 2013) such as big data (Sedkaoui, 2018, cloud computing, artificial intelligence, CPS, and IoT (Porter and Heppelmann, 2014). These technologies can fit together and help to acquire, create, store, share and protect knowledge.

The IoT enables the control of all management processes in order to sustain, produce and optimize management. The goal is to connect all intelligent devices to the increased decision-making process. The IoT contains objects such as radio-frequency identification (RFID) sensors to send information about storage, processing and analysis and interacting smartphones and cooperation with smart components (Sedkaoui and Gottinger, 2017).

The idea of the Internet of Things is being established in which businesses are each time fitted with additional devices and software that can capture large quantities of information that must be collected, processed and stored within the cloud through tools like advanced machine learning algorithms and Big Data.

Organizations set up a connection between product and service for the establishment of IoT and the implementation of knowledge management processes: (RFID, wireless sensor networks (WSN), middleware, cloud, and IoT applications. Individuals and artificial intelligence can together operationalize this system (Lee and Lee, 2015). IoT and smart devices will improve reliability, flexibility, real-time decision and operational efficiency. Sharing of information and collaboration via wireless communication among individuals, individuals and things, and between things

The Internet of Things and cloud computing provide the potential for simplifying recognition and enhancing their effectiveness through the provision of real-time

access to information. In combination with cloud storage and IoT, which means that physical data is digital and returns to cyber-physical systems, organizations handle enormous amounts of data at higher rates. The whole process begins with the collection of information and data.

This process enables all stakeholders, including suppliers and customers (Li et al., 2019), to complete integration with digital interfaces and channels. Such a system is based on big data analytics. High volume historical and current data in one system can be saved by cloud storage. This information is also supported by digital transfer for access throughout all stages of the knowledge management process.

By managing connections between the physical and computational elements, the CPS technology transforms a traditional factory into an intelligent one (Bagheri, et al., 2015). CPS can be understood by sensors and drivers to perform different tasks, as a link between hardware and software connected over the internet to the external world. According to Dmitry et al. (2019), collaborative CPS will serve as the basis to integrate and to improve supply chain management among organizations.

5.2. TOWARDS KNOWLEDGE MANAGEMENT 4.0

Starting in the latter part of the XVIII century, the first industrial revolution was characterized by automated production plants based on water and steam as a power source. In the early 20th century, the Second Industrial Revolution started, with mass production of electric energy-based labor. The Third Industrial Revolution saw the incorporation of IT and machine into manufacturing. With the introduction of Industry 4.0, a huge step towards future technology has been taken in the overall transition with digital convergence and intelligent engineering.

Nowadays, every device is equipped with machine learning, automation is a priority and a further industrial revolution is underway. The features of the Cyber-Physical System (CPS), based on various data as well as a mixture of information, are also continued by the industry 4.0. The key characteristics of CPS are the dynamic production needs of the entire industrial sector and the advancement of efficiency and expertise. Industry 4.0 includes numerous technologies that have an important role in the organization (Hariharasudan and Kot 2018).

For example, in a virtual factory environment, the employee can question each smart machine using up-to-date data, and then interpret the information received to make decisions. The decisions taken identify varying aspects that maintain the path taken by an organization. These decisions depend on resources to acquire, collect, and analyze information. These decisions can, in turn, enrich the database of tested scenarios. Such learning simulators provide a rich and safe learning ground for the different processes in the organization.

In this context, the authors suggest the following possibilities of building an efficient strategy and monitor its diverse sources in the next generation of knowledge management systems in the age of Industry 4.0:

- Create a customized experience and track diverse sources;

- Facilitate the sharing and the real-time analyzing of data;
- Providing updates of the data used in decision-making contexts in real-time;
- Ensure that the various components of the knowledge management system are flexible and interoperable.

It is set up that to be effective in the context of Industry 4.0; organizations must focus on knowledge management. The implications of Industry 4.0 for knowledge management are very important. Some experts have even started talking about Knowledge Management 4.0 (Roblek et al., 2016; Foresti et al., 2018)

Knowledge Management 4.0 is emerging as a result of rapid industrial digitalization in Industry 4.0. The Internet of Things allows the continuous exchange of information in real-time. This requires the exchange of information between people and machines in the knowledge management process. Due to the widely used digitization, the codification of knowledge will likely be even faster. In this context, Roblek et al. (2016) claimed that codified knowledge would be also more available in cloud storage.

The trend towards knowledge management 4.0, in most cases between machines themselves, leads to the creation of a communication channel to continue exchanging information. The purpose of such automation is to adapt products and services to individual customers, which increases value-added for businesses and customers (Kagermann, 2015).

6. CONCLUSION

The arrival of Industry 4.0 marked the giant step towards future technology with the overall transformation of digital integration and intelligent engineering. Today, every device is fitted with machine learning, automation has become a necessity, and another industrial revolution is underway. In this paper, we concentrated on industry 4.0's role in the process and practices of knowledge management. In fact, in the context of this industry, organizations need to reconsider what is expected from the various technologies that support Industry 4.0.

This study presents an important theoretical contribution to the understanding of Industry 4.0 and its different key technologies, particularly: IoT, Big Data, CPS, Cloud, and Artificial Intelligence. This study has examined how these technologies are helpful and how they fit together to support knowledge management in the organization. The study is based on the analysis of the existing literature and the building of an approach which reinforced the conclusion that managing knowledge, in industry 4.0 environment, is considerably enhanced through these technologies.

The paper theorizes that the more the organization relies on Industry 4.0 and its technologies in the knowledge management process the more it supports acquiring, creating, storing, sharing and protection of knowledge, and ensure the gains in terms of the reduction of costs and time. The paper also confirms that the openness towards Industry 4.0 leads to sustainable business performance for the organizations. This is partly proved in the literature about Industry 4.0 by the analysis of its efficiency and

impacts on the organizational performance and the improvement of the various management processes.

Moreover, as this study contributed to the body of literature by examining the role of Industry 4.0 in an organization, this makes it one of the pioneering studies which discussed the influence of the different technologies in the knowledge management process. This can open a new discussion for academics and may conduct future research in this field.

One particular limitation of the article is that its main contribution is theoretical. Therefore, the previous confirmations deserve further empirical investigations by focusing on the role of each technology on the different management processes taking into account different regions and countries to better analyze the trend of using Industry 4.0's technologies.

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APPENDIX

Introducing Industry 4.0 - Different countries visions

Country	Program	Objective
	National Network for Manufacturing Innovation	Creation of research network centers
	High-Value Manufacturing catapult	Creation of research network centers and adaptation of employee skills
	Industry 4.0	Develop a technological offer based on the digitalization of production systems
	Made in China 2025	Device modernization of production and upgrading of industry
	Industrie du Future	Modernization and digitalization of SMEs and start-ups to develop the technological offer
	Industria Conectada 4.0	Digitalization of the industrial fabrics and adaptation of employee skills
	Manufacturing Industry Innovation 3.0 Strategy	Develop a technological offer based on the digitalization of production systems and increase the number of smart factories
	Fabbrica del Futuro	Development of a technological offer
	Smart Industry	Digitalization of the industrial fabrics
	Make in India	Support manufacturing companies to invest and produce in India

A SYSTEMATIC LITERATURE REVIEW OF THE QUALITY OF WORKING LIFE AND EMPLOYEE OUTCOMES

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ABSTRACT

Purpose: The quality of working life (QWL) research field dates back to the 1970s and has grown considerably since that time. At an individual level, positive outcomes of QWL include reduced absenteeism, lower turnover, improved job satisfaction and improved individual productivity; however, few studies have systematically analyzed all the employee outcomes associated to QWL.

Method: The systematic literature review methodology is used herein with the aim of identifying the employee outcomes associated with the QWL construct. More specifically, the article explores research studies that have examined QWL and its consequences for individuals in a given organizational setting. Since our focus was to gain insights into the empirical investigation about QWL, we exclude studies with a primary focus on model development or testing measurement instruments. Extensive research was conducted using the PROQUEST and EBSCO databases. On both databases, the following terms were included: quality of life at work, work-related quality of life, quality of working life, working-life quality. Only the work-related

consequences of QWL were considered. The search was limited to peer-reviewed articles published in the English language between 1970 and 2017.

Findings: The results show how a higher level of quality of life at work can improve several relevant employee outcomes at work.

Value: This work corroborates previous studies confirming the linkage between QWL and employee outcomes and organizational commitment was found to be the most relevant employee outcome. Other core outcomes are job satisfaction, turnover intention, and burnout. These findings are consistent with those of previous studies.

KEYWORDS

Consequences, outcomes, quality of working life, systematic literature review

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1. INTRODUCTION

The origins of research related to the quality of working life (QWL) is not well defined, but the first evidence from such studies came in the early 1970s. The earliest research was essentially in the form of case studies of experiments in industrial organizations, often with the aim of describing the changes made in the QWL programs (Whitsett & Yorks, 1983). More recent research showed that organizational changes bringing improvements to the QWL could have a significant impact on employee behavioral responses, such as organizational identification, job satisfaction, job involvement, job effort, job performance, intention to quit, organizational turnover, personal alienation, etc. (Sirgy, Efraty, Siegel, & Lee, 2001). QWL is not only important from the organizations' standpoint but also for employees. Sirgy et al. (2001) defend that "there is some evidence showing that a happy employee is a productive employee; a happy employee is a dedicated and loyal employee" (p. 242).

Despite extensive research on the antecedents and benefits of QWL, the relationships between QWL and employee work attitudes and behaviors have not been adequately examined (Shen, Benson, & Huang, 2014) and, to our knowledge, no systematic literature review (SLR) has been made of the consequences of QWL for employees. The existing reviews in the QWL area mainly focus on specific sectors (e.g., health sector, Phan & Vo, 2016) or employees with diseases (Jong, Boer, Tamminga, & Frings-Dresen, 2015). This research aims to fill this gap by investigating the employee outcomes related to QWL, on an individual level of analysis, using SLR as the method of study.

2. QUALITY OF WORKING LIFE

The origins of QWL research related are not clearly defined. Several valuable contributions can be mentioned: (a) the studies of productivity and "satisfyingness" by Thorndike (1917), (b) the Hawthorne Studies at the Wester Electric's Chicago Plant between 1927 and 1932, by Elton Mayo (1933), or (c) the studies by Eric Trist and his colleagues at the Tavistock Institute in London (Agarwal, Garg, & Rastogi, 2013). However, in the 1920s-1930s the expression "Quality of work life" was still not in use.

To our knowledge, the expression "Quality of work life" came into more frequent use thanks to Irving Bluestone (Goode, 1989 as cited in Martel & Dupuis, 2006), Vice President of the General Motors department of the United Automobile Workers from 1970 to 1980 (Hevesi, 2007) and an advocate of Quality of Work-life programs. The following are the first academic references to the topic: (a) the First International Conference on QWL at Arden House, Toronto, in 1972 (Davis & Cherns, 1975), (b) the book entitled "Improving the Quality of Work Life" written by Davis and Trist (1972), and (c) the articles by Walton (1972, 1973, 1974) published in the Harvard Business Review and Sloan Management Review. It was also in 1973 that The International Council on the Quality of Working Life was formed. This council is responsible for the publication of a series of books on various aspects of QWL (Roan & Diamond, 2003).

The most preeminent contributions of the 1970s were the eight conceptual categories describing the core characteristics of QWL, proposed by Walton (1973, 1974): (i) adequate and fair compensation, (ii) safe and healthy working conditions, (iii) immediate opportunity to use and develop human capacities, (iv) future opportunity for continued growth and security, (v) social integration in the work organization, (vi) constitutionalism in the work organization, (vii) work and the total life space, and (viii) the social relevance of work life. Recently, Grote and Guest (2017) not only ascertain that this list of criteria remains relevant but also add two further criteria (due to changes that have occurred since then): individual proactivity and flexible working.

The first research into QWL tended to be in the form of case studies of experiments in industrial organizations, job redesign, training, and teamwork (Roan & Diamond, 2003), most of which investigate QWL's impact on the productivity or labor turnover (Hales, 1987; Walton, 1973). Later, interest in QWL started to encompass research related with work and family balance, work-life balance, workplace stress, burnout, job satisfaction and emotions at work (Korunka, Hoonakker, & Carayon, 2008; Roan & Diamond, 2003), among other variables.

Despite broad acceptance in academia of the QWL criteria of Walton (1973, 1974), "there is no formal definition of quality of working life" (Sirgy et al., 2001, p. 241). Some researchers define QWL by analogy to the concept of quality of life. For instance, Roan and Diamond (2003) defend that the definition of quality of life proposed by Van Sell and Jacobs (1994) – "a global evaluative term that summarises a person's reactions to the experiences in his or her life" (p.81) – can be applied to the work context. Recently, Fontinha, Van Laar, and Easton (2018) defined QWL "as the part of overall quality of life that is influenced by work" (p. 786). Other researchers prefer to relate the QWL concept to employee needs or employee satisfaction. Sirgy et al. (2001) define QWL as "employee satisfaction with a variety of needs through resources, activities, and outcomes stemming from participation in the workplace" (p. 242);

Swamy, Nanjundeswaraswamy, and Rashmi (2015) as "an extent to which an employee is satisfied with personal and working needs through participating in the workplace while achieving the goals of the organization" (p. 281), while Mosadeghrad, Ferlie, and Rosenberg (2011) state that QWL refers "to an employee's satisfaction with working life" (p. 171).

Ahmad (2013) synthesizes the concept saying: the QWL "is generally associated with a series of objective organizational conditions and practices that enables employees of an organization to perceive that they are virtually safe, satisfied and have better chances of growth and development as individual human beings" (p. 73).

Although a number of studies recognize that QWL is a multidimensional construct (e.g., Edwards, Van Laar, Easton, & Kinman, 2009; Fontinha et al., 2018; Mosadeghrad et al., 2011; Sirgy et al., 2001), the dimensions considered vary. While Sirgy et al. (2001) understand QWL to be a second-order construct embracing seven dimensions (health and safety needs, economic and family needs, esteem needs, actualization needs, knowledge needs and aesthetics needs), for Mosadeghrad et al. (2011) the QWL construct has nine dimensions (participation and involvement, job promotion, disturbance handling, communication, motivation for work, job security, wages and salaries, job proud and job stress). According to studies by Easton and Van Laar (2012), the construct has six factors (recently proposing a seventh one; Fontinha et al., 2018): home-work interface, working conditions, job-career satisfaction, control at work, the absence of stress at work, commitment and general well-being. The QWL literature seems like a patchwork with various different theoretical backgrounds and empirical approaches. More work is needed to define the conceptual framework of QWL. This lack of clarity in the area is even greater when the analysis is deepened to the employee consequences of QWL. A systematic literature review (SLR) will be performed in the following sections with the aim of contributing to a better understanding of the consequences of QWL for employees.

3. METHOD

This SLR followed the steps proposed by Rew (2011) (see Table 1).

Table 1 - Steps of the systematic literature review

1. Identify specific research question(s) to be answered.
2. State purpose of the review. What are its aims?
3. Identify inclusion and exclusion criteria.
4. Select search terms to use.
5. Identify appropriate databases to search.
6. Conduct the electronic search.
7. Review outcome of search and match with inclusion/exclusion criteria.
8. Data extraction. Systematically retrieve data from each paper included.
9. Determine quality of studies reviewed.
10. Summarize findings in a table.

11. Interpret meaning of the evidence retrieved.
12. Acknowledge limitations and biases inherent in the process.
13. Publish and apply findings in practice.

Source: Rew (2011, p. 65)

3.1. RESEARCH QUESTION AND PURPOSE OF THE REVIEW

The starting point of this SLR is the research question underlying this research: "What are the consequences of QWL for the employee at the individual level of analysis?". Hence, the main objective of the study is to investigate the employee outcomes of QWL in the organizational context, at the individual level of analysis.

3.2. INCLUSION AND EXCLUSION CRITERIA

This SLR encompasses publications that meet the following inclusion criteria: (a) the title has one of the specific terms identified in the "3.3. Search terms" section; (b) they were published between January 1970 and December 2017; (c) articles published in peer-review journals with the full document available (thesis, conference articles, books, working papers, abstracts, posters, and reviews were excluded from the analysis); and (d) documents written in English.

The focus of the analysis was specified further by introducing the following exclusion criteria to the selection process: (a) all documents automatically selected by the databases but, on detailed analysis, were found not to be related with QWL (e.g., documents that have the words quality of life and work in different sections of the title); (b) documents not relating QWL with the employees' outcomes; (c) documents not written in English, even though the title and abstract were in English; (d) reference is not made to individual level outcomes (this is the case of organizational performance); (e) documents with the same research published in different journals (despite with slightly different titles); (f) the employees' outcomes are dimensions of the QWL construct; (g) poorly written documents, which hinders a clear understanding of the results; and (h) descriptive studies or studies with insufficient statistical evidence.

3.3. SEARCH TERMS

Given the diversity of terms used in QWL literature, the database searches considered the following four expressions when found in the title of publications: quality of life at work, work-related quality of life, quality of working life, and working-life quality.

3.4. DATABASES AND ELECTRONIC SEARCH

The choice of a database is of the utmost importance in a systematic literature review. Criteria must first be established before selecting a source like Web of Science, Science Direct, JSTOR, SCOPUS, Proquest, EBSCO, ISI, Pubmed.

Authors use databases rather than search engines when they need information about a specific field, focusing on a particular source type (such as peer-reviewed articles), related to a specific concept and that is only available by subscription. In light of the research field, topic, suitability and quality, EBSCO and Proquest were chosen as multi-disciplinary and prominent database providers; they presented full text-periodicals published in peer-reviewed journals used for the pursuit of research and subject refinement. The electronic search was performed in April 2018.

3.5. REVIEW THE OUTCOME OF SEARCH AND MATCH WITH INCLUSION/EXCLUSION CRITERIA

The database article selection returned 542 documents, 310 documents in Proquest and 232 in EBSCO. After removing the duplicated documents (n=167), a list of 375 documents was obtained. There was an overlap of 31% of the publications in the Proquest and EBSCO databases.

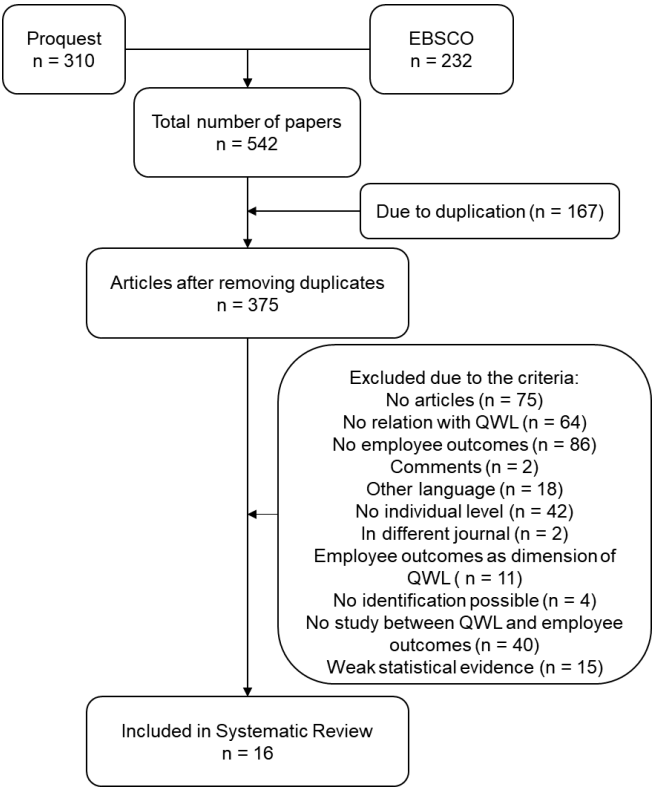
The selection of the studies was screened by three evaluators working independently. In the first data analysis, the title and abstracts of the documents were analyzed. When necessary, the full document was also examined with the aim in this phase of accessing the inclusion/exclusion criteria. The exclusion criteria were dynamically adjusted to increase the quality of the documents retained for analysis (e.g., studies with insufficient statistical evidence were excluded in this phase).

In this process, 327 documents were excluded due to the inclusion/exclusion criteria: 75 were not articles, 64 had no relation with QWL, 86 did not present employees' outcomes, 2 were theoretical comments, 18 were presented in languages not considered for analysis, such as Mandarin, Russian, etc., 42 presented results at the organizational rather than individual level, 2 articles appeared repeatedly in different journals; in 10 articles the employee outcomes are a dimension of QWL; 40 articles did not study the relation between QWL and employee outcomes; the statistical evidence was poor in 15 articles, and the outcomes could not be identified in 4 articles as it was poorly written.

3.6. DATA EXTRACTION AND QUALITY OF STUDIES REVIEWED

A total of 16 studies were considered for the present SLR (Figure 1). Two of the researchers made a thorough analysis of the full text of these studies. The 10th to 13th steps of the SLR (Table 1) are presented in the results and conclusion sections.

Figure 1 - The systematic review process



4. RESULTS

A table was constructed to provide a pictorial comparison of the study characteristics and results (Table 2).

The study by Walton (1973), the first in this SLR, suggested that changes in aspects affecting the working life quality lead to long-term alterations in productivity. However, this outcome should be considered with caution due to the theoretical nature of the study.

Using a quantitative approach, Benders and van de Looij (1994) present a correlation between QWL (assessed as (dis)satisfaction relative to several job characteristics) and willingness to quit. Turnover intention is a similar employee outcome that was addressed in three QWL studies (Korunka et al., 2008; Mosadeghrad et al., 2011; Wagenaar, Kompier, et al., 2012). In the Mosadeghrad et al. (2011) study, the facets of QWL predicting turnover intention are low motivation, organizational policies, job stress, poor communication and lack of job security. According to the Korunka et al. (2008) study, two other facets of QWL (emotional exhaustion and job satisfaction) predict turnover intention. In the study by Wagenaar, Kompier, et al. (2012),

autonomy is negatively related to turnover intention and task demands are positively related. These results are supported by Chinomona and Dhurup (2014) who found that QWL predicts tenure intention.

Tuuli and Karisalmi (1999) and Cetrano et al. (2017) studied another outcome: burnout. In Tuuli and Karisalmi (1999) "burnout was positively related to the amount of different conflicts in the work place, job demands, and monotony on the job" (p. 444). Cetrano et al. (2017) demonstrated that ergonomic problems and the impact of work on life predict higher levels of burnout, while trust, autonomy, participation, perceived quality of meetings, and organizational commitment have a negative impact on burnout.

Job satisfaction or work satisfaction are also employee outcomes associated with QWL (Chinomona & Dhurup, 2014; Danford, Richardson, Stewart, Tailby, & Upchurch, 2008; Wagenaar, Kompier, et al., 2012; Wagenaar, Taris, et al., 2012). The study by Danford et al. (2008) found the following QWL dimensions predict job satisfaction: fair treatment, consultation, job security, joint decision-making in teams, increased job responsibilities, increased workload (negative impact) and increased working hours (negative impact). The study by Wagenaar, Taris, et al. (2012) shows that adverse physical working conditions, physical load, work pressure, lack of autonomy, repetitive tasks, less work complexity and irregular working times are associated with less work satisfaction. The study by Wagenaar, Kompier, et al. (2012) related two dimensions of QWL (autonomy and task demands) with work satisfaction, turnover intentions and employability: greater autonomy leads to higher work satisfaction and employability and fewer turnover intentions, while more tasks to do and extra work are associated with less work satisfaction and higher turnover intentions and employability. The greater the perceived QWL, the higher the levels of employee job satisfaction will be (Chinomona & Dhurup, 2014).

Organizational commitment (also known as job commitment or employee commitment) is another frequently studied employee outcome associated with QWL (Amjad & Rafique, 2013; Chinomona & Dhurup, 2014; Danford et al., 2008; Ojedokun, Idemudia, & Desouza, 2015; Yasin & Khalid, 2015). The study by Danford et al. (2008) shows that partnership environment, fair treatment, problem-solving groups, and increased workload also predict employee commitment. Amjad and Rafique (2013) demonstrate that compassion satisfaction (subscale of QWL) is a significant predictor of job commitment. Job satisfaction, job commitment, and SME employee tenure intention are also employee attitudes predicted by QWL in the study by Chinomona and Dhurup (2014). In the Yasin and Khalid (2015) study, working conditions predict organizational commitment (but only in the affective dimension). QWL can have a direct effect on organizational commitment, but it may also be indirect through the mediation of job involvement (Ojedokun et al., 2015).

Stress is another employee outcome. Danford et al. (2008) found that several dimensions of QWL tend to increase stress: a partnership environment, consultation, joint decision-making in teams, work hours, greater job responsibilities, heavier workload, and increased working hours. However, fair treatment and formal training have a positive impact and reduce stress (Danford et al., 2008).

Table 2 - General characteristics of the sixteen studies included in the SLR

#	Study and Year	Type	Outcomes	Statistical Techniques
1	Walton (1973)	Theoretical	Productivity	-
2	Benders and van de Looij (1994)	Quantitative	Willingness to quit	Correlations
3	Tuuli and Karisalmi (1999)	Quantitative	Burnout	Linear Regression Model
4	Danford et al. (2008)	Quantitative	Job satisfaction Employee commitment Stress	OLS Regression
5	Korunka et al. (2008)	Quantitative	Turnover intention	Structural Equations
6	Mosadeghrad et al. (2011)	Quantitative	Turnover intention	Correlations
7	Wagenaar, Taris, et al. (2012)	Quantitative	Work satisfaction	Correlations and variance analysis
8	Wagenaar, Kompier, et al. (2012)	Quantitative	Work satisfaction Turnover intention Employability	Correlations and Variance analysis
9	Amjad and Rafique (2013)	Quantitative	Organizational Commitment	Linear Regression Model
10	Chinomona and Dhurup (2014)	Quantitative	Job satisfaction Job commitment Tenure intention	Structural Equations
11	Shen et al. (2014)	Quantitative	In-role performance Extra-role performance	Multilevel analysis
12	Ojedokun et al. (2015)	Quantitative	Job involvement Organizational commitment	Linear Regression Model
13	Yasin and Khalid (2015)	Quantitative	Organizational commitment	Structural Equations
14	Kachoie, Tehran, Dehghani, Didehban, and Raisi (2016)	Quantitative	Interpersonal forgiveness	Correlations
15	Far (2016)	Quantitative	Satisfaction of the customers	Correlations
16	Cetrano et al. (2017)	Quantitative	Compassion fatigue Burnout Compassion satisfaction	Linear Regression Model

In addition to employee attitudes at work, employee performance can also be influenced by QWL. Shen et al. (2014) defend that "QWL serves as an important intrinsic and extrinsic motivator, as it is concerned with the employees' needs for growth, learning and development, and economic and family needs, thus linking HPWSs [high-performance work systems] and teachers' work performance" (p. 826).

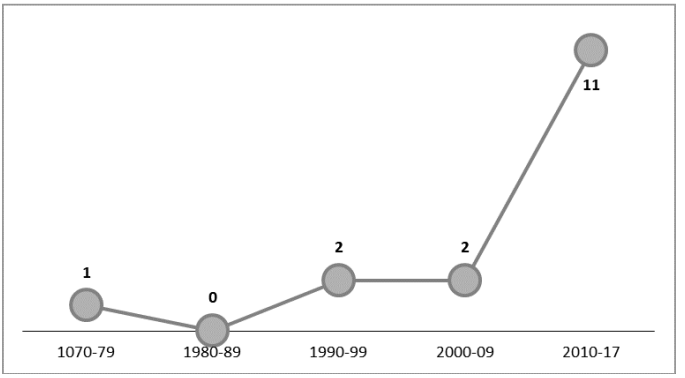
Through a multi-level study, Shen et al. (2014) demonstrated that QWL has a direct impact on the employees' in-role and extra-role behavior.

Although various other employee outcomes are associated with QWL, evidence is scarce. That is the case of job involvement (Ojedokun et al., 2015), interpersonal forgiveness (Kachoie et al., 2016), customer satisfaction (Far, 2016), compassion fatigue (Cetrano et al., 2017), and compassion satisfaction (Cetrano et al., 2017).

Following the above identification and brief description of QWL studies, some additional remarks can be made.

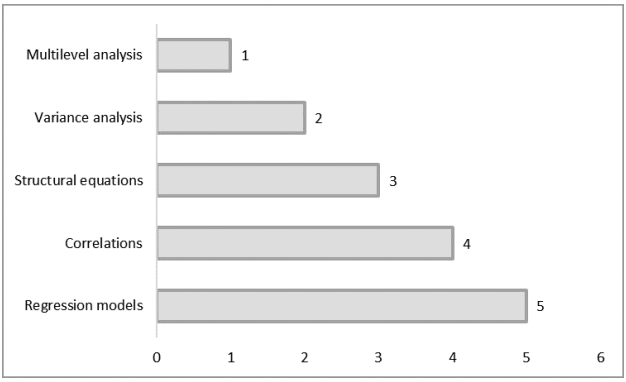
As can be seen in Figure 2, there is an upward trend over time in the distribution of the studies considered. The first document was published in 1973 (Walton, 1973). In the first phase (1970-2009), a small number of articles were published that addressed the employee outcomes of QWL but the number rose rapidly in the last seven years (69% of the studies of this SLR were published in this period).

Figure 2 - Evolution of the studies by date



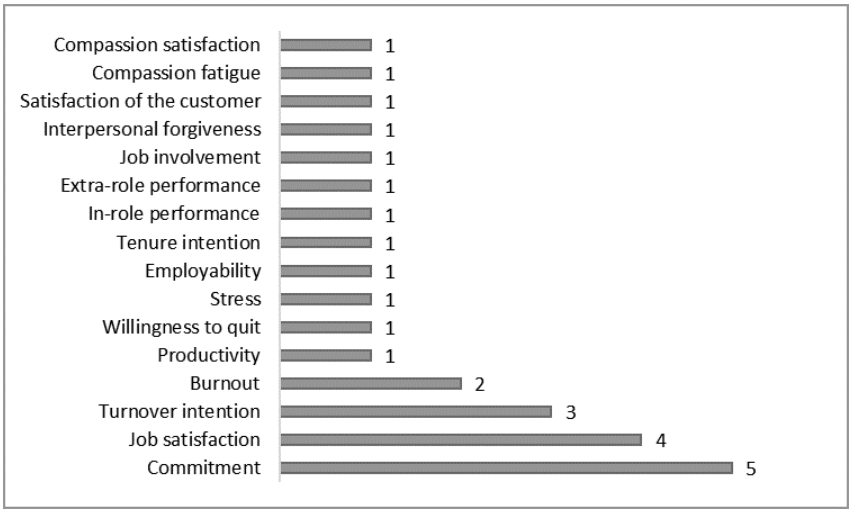
Most of the studies were empirical and quantitative (93.75%) and only one study was theoretical. The statistical methods used in the selected articles vary considerably: five articles (33%) used regression models (linear multiple regressions and OLS regressions), four (27%) used correlations methods, three (20%) opted for structural equations models, two (13%) used variance analysis and correlations, and only one study (7%) opted for the multilevel method (Figure 3).

Figure 3 - Methods of statistical analysis



Organizational commitment was the most cited employee outcome of QWL, followed by job satisfaction, turnover intention, and burnout. Even though there are several other outcomes, they have only one accreditation and are therefore not representative, as can be seen in Figure 4.

Figure 4 - Employee outcomes for QWL



5. DISCUSSION AND CONCLUSION

The main aim of this study was to explore employee outcomes associated with the QWL construct. The study was carried out using the SLR method and by analyzing a collection of articles obtained from Proquest and EBSCO. Results revealed some linkages between the QWL construct and employee outcomes.

QWL has been developing as a scientific discipline since the 1970s. Its inception followed industries' rapid growth in interest and need to promote better conditions for employees. The changes in industrial organizations during the 20th century and workers' growing demands have made QWL an important issue for organizations. Nowadays QWL is recognized as a multidimensional field (Nanjundeswaraswamy & Swamy, 2012) and a concept related to an array of topics.

This work corroborates previous studies confirming the linkage between QWL and employee outcomes (Rai, 2015), and organizational commitment was found to be the most relevant employee outcome. Other core outcomes are job satisfaction, turnover intention, and burnout. These findings are consistent with those of previous studies (Rai, 2015; Sirgy et al., 2001).

It should also be stressed that some of the studies included reported productivity, willingness to quit, stress, employability, tenure intention, in-role and extra-role performance, job involvement, interpersonal forgiveness, customer satisfaction, compassion satisfaction, and compassion fatigue as other employee outcomes.

Shen et al. (2014) noted that the relationships between QWL and employee work attitudes and behaviors had not been thoroughly examined; hence, this SLR synthesizes the main employee outcomes associated to the QWL construct. This research demonstrates that it is essential for companies to continue investing in improving conditions related with health and safety, employment security, job satisfaction, occupational stress, work environment, work-life balance, and human relations (Ahmad, 2013), among other variables. These influence employees' QWL and, in turn, their attitudes and behaviors at work; ultimately, this has an impact on important organizational variables, such as performance (e.g., Becker, Billings, Eveleth, & Gilbert, 1996; Becker & Kernan, 2003; Carmeli & Freund, 2004).

The limitations of this research can be seen as an invitation to improve and refine further studies in the field. More specifically, the two databases used as the basis of this research may not have all the available impact papers in the field and future research might therefore use other databases for the purpose. Secondly, the QWL construct is not adequately delimited, and the scale measures are very diverse. For instance, some constructs are considered as an output of QWL in one study but are included in the QWL construct itself in others; for example, whereas job satisfaction is considered a consequence of QWL in some studies (see Table 2), it is part of the QWL construct in others. This occurs with the Work-Related Quality of Life (WRQoL) Scale (Easton & Van Laar, 2012; Edwards et al., 2009; Van Laar, Edwards, & Easton, 2007) where job and career satisfaction is one of the dimensions of the construct. Finally, a considerable number of outcomes were supported by weak data analysis (e.g. correlations) and the inclusion of more databases and impact factor papers would therefore increase the robustness of the data analysis.

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COMPARISON OF THE LEVEL OF DISCLOSURE OF ELEMENTS OF STATEMENT OF FINANCIAL POSITION OF THE PSI-20 ENTITIES

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ABSTRACT

Purpose: The massive competition that operates in today's markets presents a positive contribution to the optimization of financial reporting, especially in companies that integrate stock indices. However, the way this information is disclosed may be affected by certain factors related to company. Considering the problem mentioned, this study aims to analyse the levels of disclosure of the components of the statement of financial position in accordance with International Accounting Standard 1 (IAS 1), through the compliance indices (CI) found for the companies of the Portuguese Stock Index (PSI) 20 in the sample of this study.

Methodology: For the research, the Reports and Accounts of 2012 and 2017 of the selected entities will be reviewed. Through descriptive statistics and multiple linear regression, the collected data are analysed the relationship between the CI and the variables: size of the board of directors, leverage, profitability, liquidity, type of auditing company, sector of activity and internationalization.

Findings: The results proved that the companies reveal an average CI of 73.30% in 2012 and 80.10% in 2017. It is also verified that the total CI has a positive and significant relationship with the variables of leverage, liquidity and type of auditing entity, which was not verified with the others. This confirms that these are the characteristics of companies that can affect the comparability of information.

Practical implications/ value: This study aims to contribute to the issue of disclosure and comparison of information by companies, when it concerns IAS 1 which applies to all entities applying IFRS as adopted by the EU.

KEYWORDS

Comparability, compliance rates, disclosure, IAS 1, statement of the financial position

1. INTRODUCTION

Some factors, such as globalization and the interdependence of world economies, have created the need for a single language that is understood in all markets (Magro, 2014).

Regulation of the European Community (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 was an important document in the implementation of the first attempts at accounting harmonization, ensuring intrinsic characteristics of the financial statements such as comparability. However, this document is only the basis for resolving issues that did not ensure these characteristics as it does not translate into a standard. Successive amendments to this Regulation were intended to correspond with the needs of companies and thus they disclosed the most appropriate and true position, while still allowing the information disclosed to be comparable with other entities.

However, international standards do not provide a standard template for disclosure of financial statements. They only describe the minimum information considered mandatory for reporting. Considering the problem, there may be factors that directly affect comparability and, therefore, accounting harmonization. Variables such as culture, leverage, funding source, company size may affect the disclosure of financial statements (Silva, 2009). For this reason, disclosure of financial statement components may be affected as there is no standard template.

IAS 1 includes guidelines and minimum elements for company disclosures but also contains components that must be reported. The intrinsic characteristics of entities, including other external variables, may also have an impact on the level of disclosure of financial statement elements.

This study has the following specific objectives:

1. Compare the disclosure of information by the compliance index of the companies that make up the sample, verifying if in the years under analysis there was an increase of this disclosure;

2. Collection of data to support the hypothesis that there are variables that influence the level of disclosure of certain elements of the statement of financial position and, consequently, the comparability between companies of the PSI-20.

2. THEORETICAL FRAMEWORK

This section discusses some literature on this subject, beginning with the process of accounting harmonization, and also refers to some studies related to the variables that affect the disclosure of information.

2.1. THE PROCESS OF ACCOUNTING HARMONIZATION

For Nobes and Parker (1998 cited by Almeida, 2010) harmonization can be defined as a process of increasing the comparability of accounting practices by setting limits for your level of variation.

The need to create new accounting procedures translated into market globalization, economic growth, technological development and pressure from companies to internationalize (Magro, 2014).

According to a study in the area of accounting harmonization, it was found that the implementation of internationally recognized quality standards increased comparability between companies, although the results did not indicate that this would be the primary reason (Murphy, 2000). Another study on the choice of accounting standards by French companies states that the adoption of internationally accepted standards promote harmonization (Stolowy & Ding, 2003). However, according to Stolowy and Ding (2003, p. 211), French companies also had the option to choose "accounting standards in order to suit their specific financing needs after a cost-benefit trade-off". This option means that there is still a choice of procedures.

From these two previous studies it follows that simplification of the accounting process increases the comparability and quality of financial reporting, which leads to an advantage of harmonization. There are also some aspects that affect accounting harmonization, such as resistance to change in some countries, weak intervention by the organism responsible for issuing accounting standards and no penalty for non-applicability of accounting standard. Harmonization should be increasingly related to the concept of comparability, because only in this way information has the utility that must be intrinsic to it (Magro, 2014).

2.2. EXPLANATORY VARIABLES OF INFORMATION DISCLOSURE

Although IAS 1 presents the minimum elements that should be disclosed by entities, the following studies indicate that there are variables that influence the disclosure mode.

In research that analysed the determinants that influence the disclosure level of listed companies in Nigeria, Modugu and Eboigbe (2017) found that company size and leverage have a significant and positive influence on voluntary disclosure.

Mutawaa and Hewaidy (2010) developed a study that sampled the 48 non-financial listed companies in Kuwait for the 2006 financial year. This study analysed compliance with 12 IAS, one of the revised standards being IAS 1 and companies averaged 77.06% compliance. The results showed that the type of sector (investment firms) and company size (measured by total assets and total company revenues) are variables that demonstrated a statistically positive relationship to the degree of compliance found.

Another study that adopts some variables to justify the levels of compliance found is the research by Popova et al. (2013), which has a sample of 20 non-financial UK companies that are listed on the Financial Times Stock Exchange 350 (FTSE 350).

The results indicate greater disclosure of information when it comes to the variable that represents company value, age and solvency. Otherwise, the profitability and size of the entity were relatively insignificant relative to the disclosures.

Yiadow and Atsunyo (2014) in their study included in their sample 31 companies listed on the Ghana Stock Exchange (GSE) for 2010. The variables used were company size, profitability, type of auditing company, internationalization, solvency and the type of business sector. Regarding the degree of compliance found with IAS 1 this was 80.90% while the variables with the greatest influence were profitability, internationalization, type of auditor and type of activity sector (industry sector and trade).

Another study related to the introduction of variables was presented by Gaio and Mateus (2014), which included 38 non-financial Portuguese companies listed on Euronext Lisbon in 2010. The determinants used for this study are: size, industry, profitability, internationalization and type of audit entity. In this study, 101 items from IAS 1 were considered which through the internal disclosure index, allowed achieving a compliance level of 81%. The variables that had a more significant and positive relationship with the disclosure levels found in this study were company size (measured by total net assets) and type of auditing companies (audited by a Big 4 or another audit). The remaining variables were not found to be significantly associated with the results of the degree of disclosure.

Aljifri, Alzarouni, Ng and Tahir (2014) established an association between corporate characteristics and disclosures required by United Arab Emirates standards, applied some variables such as type of business, profitability, liquidity, the size of the company, the structure of the company, the composition of the board of directors and the existence of an audit committee. The results indicated that there was no positive and significant relationship when the variable is the size of the board of directors. On the other hand, the type of sector of activity has a positive and significant relationship with the level of disclosure found due to the companies in the banking sector that presented a more considerable relationship.

Regarding the studies mentioned, it appears that most of the studies refers various standards for defining their objectives and not only for IAS 1. The same is apply for companies in the PSI-20, for which there are no substantial studies in this matter.

3. METHOD

In this section, and at first, the characteristics of the study sample and the method of data collection are mentioned, such as the determination of the Conformity Index (CI) and the calculation methods of the explanatory variables. This section also discusses the factors that affect the disclosure of company information and that motivated the choice of objectives. In addition, the study's objectives and hypotheses are developed but reference is also made to how the compliance index is constructed by verifying the mandatory elements of IAS 1 provided for in the statement of financial position of the sampled companies.

3.1. SAMPLE AND DATA COLLECTION

The sample consists of companies listed on Euronext Lisbon that were part of the PSI-20 in 2012 and 2017 (20 companies in 2012 and 18 companies in 2017). Companies in the financial and insurance sectors are excluded, as they have specific regulations. Sports entities are also not included as they have a different reporting period and are therefore not comparable.

Thus, the sample consists of 32 observations that translated some differences in the financial reports, since some elements were disclosed more clearly and objectively in some reports when compared to others.

The compliance index was determined by checking in each company the items that constitute the index, through the quotient between the items found and the total of selected elements. The compliance index has an unweighted approach, with a value of 1 for items disclosed by the study sample and 0 for elements not disclosed in the entities' statement of financial position. As for the unweighted index, the researcher builds it according to the needs of his research. However, it may also be subject to judgment because all items have the same relevance (Hassan & Marston, 2010).

This CI represents the ratio between all elements disclosed by the entities and the sum of the 13 items that make up the listing. The following table indicates the items that constitute the CI subdivided by areas in accordance with IAS 1.

Table 1 - Compliance Index in accordance with IAS 1

Compliance Index	Items
General characteristics	5
Structure and content of the statement of financial position	12
TOTAL	17

For the proposed objectives, an unweighted compliance index to the requirements of IAS 1 is presented. The Table 2 presents the 13 items that integrate the CI.

Table 2 - Compliance Index (CI)

Item	Item Description
IC1	Presentation of Financial Statement
IC2	Presentation of the statement of financial position in accordance with IFRS, upon explicit statement of compliance
IC3	Presentation of the statement of financial position on a going concern basis
IC4	Comparison of period comparative information for all amounts
IC5	Presentation of end date of reporting period
IC6	Presentation of rounding level for disclosure of amounts

IC7	Separate presentation of current assets/ liabilities and non-current assets/ liabilities
IC8	Submiting a reconciliation of the number of shares outstanding at the beginning and end of the period
IC9	Presentation of the nature and purpose of each reserve in equity
IC10	Presentation of Tangible Assets
IC11	Presentation of Intangible Assets
IC12	Provision Presentation
IC13	Presentation of investments accounted for by the Equity Method

Source: Adapted from Albuquerque et al. (2017, p. 12).

32 Reports were analysed and if the items applicable to the entity are disclosed, the number 1 is adopted. For those items that although applicable, were not disclosed, the number 0 is adopted. If any of the items presented is not applicable to the entity, it will not be considered in the CI. Thus, the following expression is presented:

$$\mathbf{CI} = \frac{\sum_{i=1}^{m} \boldsymbol{di}}{\sum_{i=1}^{n} \boldsymbol{dp}}$$

Where:

d = 1 when the element is disclosed by the entity;

d = 0 when the element is not disclosed by the entity;

m = number of items disclosed;

n = number of items susceptible to disclosure.

The calculated index is between 0 to 1. If the CI has a high value, compliance with IAS 1 will also be higher (Mutawaa & Hewaidy, 2010). This procedure was performed for each sample entity and for each check item. This is the dependent variable (CI) of the multiple linear regression model.

The following table presents the sample companies with some additional information, such as the compliance index found and the sector type.

Table 3 - Sample Companies

Companies	Year	Activity Sector	disclosure index
Altri SGPS SA	2012	2000 - Industrials	0.923
Altri SGPS SA	2017	2000 - Industrials	0.923
Cofina	2012	5000 - Consumer Services	0.846
Corticeira Amorim SGPS SA	2017	3000 - Consumer Goods	0.923
EDP - Energias de Portugal SA	2012	7000 - Utilities	0.846
EDP - Energias de Portugal SA	2017	7000 - Utilities	0.923
EDP Renováveis, SA	2012	7000 - Utilities	0.846
EDP Renováveis, SA	2017	7000 - Utilities	0.923
Galp Energia SGPS SA	2012	0500 - *Oil and Gas*	0.769
Galp Energia SGPS SA	2017	0500 - *Oil and Gas*	0.769
Ibersol SGPS SA	2017	2000 - Industrials	0.692
Jerónimo Martins SGPS SA	2012	5000 - Consumer Services	0.615
Jerónimo Martins SGPS SA	2017	5000 - Consumer Services	0.615
Mota Engil Engenharia e Construção, SA**	2012	n.a	n.a
Mota Engil Engenharia e Construção, SA	2017	2000 - Industrials	0.692
NOS SGPS SA*	2017	6000 - Telecommunications	0.846
NovaBase SGPS SA	2017	2790 - Support Services	0.923
Portucel Empresa de Celulose e Papel de Portugal, SA***	2012	1000 - Basic Materials	0.692
The Navigator***	2017	1000 - Basic Materials	0.769
Portugal Telecom SGPS SA****	2012	6000 - Telecommunications	0.692
Pharol SGPS SA****	2017	6000 - Telecommunications	0.385
Ren - Redes Energéticas Nacionais SGPS SA	2012	7000 - Utilities	0.923
Ren - Redes Energéticas Nacionais SGPS SA	2017	7000 - Utilities	0.923
Semapa - Sociedade de Investimentos e Gestão, SGPS SA	2012	1000 - Basic Materials	0.692
Semapa - Sociedade de Investimentos e Gestão, SGPS SA	2017	1000 - Basic Materials	0.846
Sonae SGPS SA	2012	5000 - Consumer Services	0.769
Sonae SGPS SA	2017	5000 - Consumer Services	0.769
Sonae Indústria SGPS SA	2012	2000 - Industrials	0.846
Sonae Indústria SGPS SA	2017	2000 - Industrials	0.846
SonaeCom SGPS SA	2012	6000 - Telecommunications	0.692
Sonae Capital	2017	2000 - Industrials	0.846
Zon Multimédia - Serviços de Telecomunicações e Multimédia, SGPS, SA*	2012	5000 - Consumer Services	0.846

The Compliance Index used analyses some components of the statement of financial position in accordance with IAS 1 and verifies that companies disclose this information in accordance with the provisions of the standard, making it possible to identify each company's Total Compliance Index.

The choice of the 2012 and 2017 periods is related to the fact that the new rules for integrating the PSI-20, which were not effective until 2014; For 2017, already with the new rules in force, this period was marked by the departure of two companies (Cimpor and Sumol-Compal) but also by a 26% increase in the profit of listed companies, which led to the appreciation PSI-20 by 15.2%. This sample only considers companies using IFRS as adopted by the EU and which have their accounting period equal to the calendar year.

To collect the information, the 2012 and 2017 Annual Reports and Accounts available on the companies' official websites were analysed. Since these documents are extremely important, they are considered sources of reliable information.

3.2. STUDY VARIABLES

The adopted variables result from some studies mentioned in the theoretical framework and materialize the hypotheses presented. The following is a description of the variables and a reference to the expected results.

- CI: 2017> 2012:

Through the compliance index built on the elements mentioned in IAS 1, hypothesis 1 (H1) aims to verify that the disclosure level is higher in 2017 compared to 2012.

- Board of Directors:

The board of directors should have internal control functions in the companies. However, if this control is exercised by a larger number of members, communication and decision-making may be affected. However, there is also the possibility of more compliance with the requirements of accounting standards, as there is more knowledge about the entire company system. Aljifri et al. (2014) in their study on the association between company characteristics and the disclosures required by United Arab Emirates standards, showed that there was no positive relationship when the variable is the size of the board of directors. This variable is related to how entities are directed and how they are organized to set their goals. Thus, the size of the board of directors can be associated with a corporate governance variable.

Considering that this is a variable that always depends on the number of elements of the structure, the hypothesis 2 (H2) intends to analyse if there is a negative relationship between a board of directors composed of more elements and the level of disclosure of information.

- Leverage:

Leverage is a variable directly related to the company's operating activity that also takes into account some characteristics of the entity and, therefore, can be framed in a structure variable (Inácio, 2016).

In relation to this variable, this represents the company's leverage level, being a feature of particular interest to investors, but also to the creditors. This financial index indicates the relationship between the total liabilities of an entity and the total assets for which it is intended to analyse the risk of default and possible financial risks can be predicted (Mutawaa & Hewaidy, 2010).

Popova et al. (2013) demonstrated that a company with a higher debt level will have to disclose more information to creditors in order to access data of importance to them.

In the study by Mutawaa and Hewaidy (2010), this variable does not have a positive relationship with the level of disclosure, as in the study by Yiadom and Atsunyo (2014), which indicated a negative but not significant relationship. However, in the study by Popova et al. (2013), this variable showed a positive and significant relationship.

Therefore, hypothesis 3 (H3) analyses whether there is a positive relationship between the level of compliance with IAS 1 and the leverage level as follows:

Leverage (%) = Total Liabilities / Total Assets

- Profitability:

This variable is extremely important since in today's market there is success only for the most competitive companies. For this reason, when companies have higher profitability, they may tend to report this information so that managers have some level of compensation (Popova et al., 2013). This determinant can be framed in a performance variable (Inácio, 2016 cited by Wallace et al., 1994).

Profitability is an indicator that reflects the efficiency of the company during the activity. In the study by Yiadom and Atsunyo (2014), the results point to a positive relationship between profitability and disclosure level, since managers are motivated to disclose good results to the market. Other studies indicate that this variable has no statistical relevance, as indicated by Gaio and Mateus (2014).

The purpose of hypothesis 4 (H4) is to determine whether there is a positive relationship between profitability and disclosure level using Return on Equity (ROE):

ROE = Net Income / Equity

- Liquidity:

Liquidity is a measure that reflects a company's ability to settle its obligations in the short term (Mutawaa & Hewaidy, 2010). This indicator essentially reflects the company's operating cycle and is regularly one of the most important features to determine market position (Aljifri et al., 2014).

Mutawaa and Hewiady (2010) showed that liquidity had a negative and significant relationship with disclosure level, as also demonstrated by Aljifri et al. (2014).

Through the hypothesis 5 (H5) we intend to demonstrate that there is a negative relationship between liquidity and degree of compliance, as shown in previous studies.

We have the following expression that demonstrates the relationship between current assets and liabilities:

Liquidity = Current Assets / Current Liabilities

- Sector Type:

There are sectors of activity with higher disclosure levels than others and therefore the results of the studies are not always conclusive according to Gaio and Mateus (2014). However, a positive relationship was found when it comes to investment firms, as indicated by the studies by Mutawaa and Hewaidy (2010) and Yiadow and Atsunyo (2014).

For the hypothesis 6 (H6), it is not possible to determine a result, as the sample integrates different activity sectors. However, similarly to the study by Gaio and Mateus (2014), the Industry Classification Benchmark (ICB) classification system was used, in which a dummy variable was used where the value of 0 corresponds to a company that does not belong to industrial sector and 1 if the company is in the industrial sector.

- Auditing Company (Big 4)

An internationally recognized audit firm can provide greater credibility to an entity's annual accounts. In addition, these companies can put pressure on their customers to adopt the requirements of the standards. Similarly, larger audit firms have a market image that they want to be consistent (Gaio & Mateus, 2014). In this study, there is a positive relationship between disclosure of information and companies audited by a recognized auditor. In this situation, these companies disclose more information compared to companies that are not audited by any of these entities (PWC, Delloite, EY and KPMG). Mutawaa and Hewaidy (2010) concluded in their study that the type of audit firm had a positive but not statistically significant relationship. According to the studies previous mentioned, this investigation will also use the value of 1 when the sampled company has one of the big 4 as auditors and the value of 0 when none of these firms is concerned.

The hypothesis 7 (H7) aims to investigate whether there is a positive relationship between the type of audit firm and the level of information disclosure.

- Internationalization

The internationalization variable is related to foreign operations that motivate the disclosure of comparable information to users of financial statements (Gaio & Mateus, 2014).

Yiadom and Atsunyo (2014) presented in their study the results of this variable that indicated a positive but statistically weak relationship. Regarding the study by Gaio and Mateus (2014), this variable was not relevant to explain the level of information disclosure.

This indicator will be measured through the relationship between sales and services rendered in other countries and total income (Gaio & Mateus, 2014). Thus, the hypothesis 8 (H8) aims to verify whether there is a positive relationship between the internationalization variable and the level of disclosure.

3.3. RESEARCH HYPOTHESES

Considering the presented objectives, some hypotheses were formulated that are confronted with the conformity index. This analysis allows us to verify which variables determine more or less compliance with the requirements of IAS 1. Considering the hypotheses that were selected from the studies mentioned and that comprise the literature review.

● Hypothesis 1 (H1): Compliance index increased from 2012 to 2017, taking into account the requirements of IAS 1 (IC: 2017> 2012).

● Hypothesis 2 (H2): There is a negative relationship between the level of disclosure and the size of the board.

● Hypothesis 3 (H3): There is a positive relationship between disclosure level and leverage.

● Hypothesis 4 (H4): There is a positive relationship between disclosure level and profitability.

● Hypothesis 5 (H5): There is a negative relationship between disclosure level and liquidity.

● Hypothesis 6 (H6): There is a positive / negative relationship between the level of disclosure and the sector of activity.

● Hypothesis 7 (H7): There is a positive relationship between the level of disclosure and the type of audit firm (BIG 4).

● Hypothesis 8 (H8): There is a positive relationship between the level of disclosure and internationalization.

The following table summarizes the hypotheses and also presents the studies that contributed to the assumptions that are intended to be verified.

Table 4 - Relationship between expected results and previous studies

Hypothesis	Variables	Expected Effect	Studies related to the area
H1	IC: 2017>2012	+	
H2	Board of Directors	-	Aljifri et. al (2014)
H3	Leverage	+	Popova et. al (2013)
H4	Profitability	+	Yiadom e Atsunyo (2014)
H5	Liquidity	-	Mutawaa e Hewaidy (2010)
			Aljifri et. al (2014)
H6	Activity Sector Type	+/-	Gaio e Mateus (2014)
H7	Auditing Company (Big 4)	+	Mutawaa e Hewaidy (2010)
H8	Internationalization	+	Yiadom e Atsunyo (2014)

4. RESULTS

To simplify the presentation of the data and considering the analysed periods and the companies that integrate the sample, the terminology adopted for the results found in 2012 is CI 1 and for 2017 is CI 2.

Regarding the results found for the CI, in 2012 it can be seen that the companies Altri SGPS, S.A. and REN - Redes Energéticas Nacional SGPS, S.A. presented the highest values (CI = 92.30% for both). For 2017, the companies that disclosed the most information in accordance with the requirements of IAS 1 were Altri SGPS, SA, Corticeira Amorim SGPS, EDP Renováveis, SA, NovaBase SGPS, SA and REN - Redes Energéticas Nacional SGPS., SA. (Table 3).

Concerning the dummy variables (board of directors, big 4 and sector of activity), the relationship between these and the CI for each of the periods is presented below.

For 2012 and for the independent variable Board of Directors, the company with the largest number of members is Portugal Telecom SGPS S.A. (23 members). The company with the most board of directors in 2017 is Galp Energia SGPS S.A (19 members).

Table 5 - Relationship between CI 1 and Board of Directors

	CI 1 Minimum	CI 1 Maximum	CI 1 Average	CI 1 standard deviation
0 - Less than 10 elements	0.000	0.923	0.705	0.318
1 - 10 or more elements	0.615	0.923	0.752	0.094
Total	0.000	0.923	0.733	0.216

Regarding the impact that this variable has on the requirements of IAS 1, it can be seen that there is a positive relationship between the number of elements and the level of disclosure of the entities, although not very significant, since the value of the averages it is very similar. This situation translates into the similar value of averages and is also proved by the average CI 1 value which is higher when the company has 10 or more members of the board of directors and therefore the standard deviation is less than the total CI 1 deviation (average = 0.752; deviation = 0.094).

The Table 6 indicates the same variables for 2017 and the impact of the composition of the board of directors on the disclosure of information.

Table 6 - Relationship between CI 2 and Board of Directors

	CI 2 Minimum	CI 2 Maximum	CI 2 Average	CI 2 standard deviation
0 - Less than 10 elements	0.615	0.923	0.829	0.107
1 - 10 or more elements	0.385	0.923	0.769	0.163
Total	0.385	0.923	0.801	0.140

As the table demonstrates, there is a relationship between variables since the means are different from each other. However, the average disclosure is higher when the Board of Directors is smaller, which reveals a negative relationship. In the same sense,

the standard deviation is also lower than the total CI 2 which confirms this negative association between the two analysed variables (mean = 0.829; standard deviation = 0.107).

This situation allows us to agree with the study by Aljifri et al. (2014), since although the results for 2012 indicate a positive relationship, it is not significant. For 2017 the results showed that there is a negative relationship between the variables and corroborates the previously mentioned study.

By analysing the previous tables, it is possible to verify that the CI average in 2017 is higher than in 2012, which reveals that the level of disclosure increased from one period to the next.

In the 32 observations, regarding the independent variable Big 4, only two entities (6.25%) were audited by a non-Big 4 audit firm.

Table 7 - Relationship between CI 1 and the auditor (Big 4)

	CI 1 Minimum	CI 1 Maximum	CI 1 Average	CI 1 standard deviation
0 - Not a Big 4 auditor	0.000	0.846	0.423	0.423
1 - Big 4 auditor	0.615	0.923	0.781	0.095
Total	0.000	0.923	0.733	0.216

Table 8 - Relationship between CI 2 and the auditor (Big 4)

	CI 2 Minimum	CI 2 Maximum	CI 2 Average	CI 2 standard deviation
0 - Not a Big 4 auditor	0.385	0.385	0.385	0.000
1 - Big 4 auditor	0.615	0.923	0.827	0.096
Total	0.385	0.923	0.801	0.140

The first table demonstrates that in 2012 there is a positive relationship between the level of disclosure in accordance with IAS 1 and the type of auditor. It can also be seen that the average of CI 1 is higher when the audit is performed by Big 4 and the standard deviation is lower than the total standard deviation of CI 1 (mean = 0.781; standard deviation = 0.095).

In 2017, once again, the CI 2 average is higher when the auditor is one of the Big 4 and the standard deviation is also lower than the total standard deviation.

These conclusions are in line with the expected result, as already shown in the study by Gaio and Mateus (2014), which demonstrated that there is a positive relationship between these determinants.

The third dummy variable (the activity sector) was based on the ICB classification, and the CI was constructed in order to identify the entities that are part of the industrial sector (1) and those that belong to other sectors (0).

The following tables present the results regarding the relationship between the type of sector of activity of the entities and the compliance index found for the two periods under analysis.

Table 9 - Relationship between CI 1 and sector activity

	CI 1 Minimum	CI 1 Maximum	CI 1 Average	CI 1 standard deviation
0 - Not industrial sector	0.000	0.923	0.710	0.222
1 - Industrial sector	0.846	0.923	0.885	0.038
Total	0.000	0.923	0.733	0.216

Table 10 - Relationship between CI 2 and sector activity

	CI 2 Minimum	CI 2 Maximum	CI 2 Average	CI 2 standard deviation
0 - Not industrial sector	0.692	0.385	0.800	0.092
1 - Industrial sector	0.385	0.923	0.801	0.155
Total	0.385	0.923	0.801	0.140

For 2012 the average is higher when it comes to industrial sector entities and the standard deviation is also lower than the standard deviation of the total CI 1, resulting in a relationship between the variables (mean = 0.885; standard deviation = 0.038). However, the averages have a minimal difference between them and so this relationship is considered insignificant.

In 2017 there is no relationship between the variables because the averages are very close (mean (0) = 0.800; mean (1) = 0.801). According to the study by Gaio and Mateus (2014), it is not possible to predict the relationship between these variables, although the results were conclusive.

In order to present an overview of the other quantitative variables and the CI, the following table presents the various descriptive statistics, such as minimum, maximum, mean and standard deviation.

Table 11 - Descriptive Statistics

	Minimum		Maximum		Average		Standard Deviation		Median	
	2012	2017	2012	2017	2012	2017	2012	2017	2012	2017
CI	0.000	0.385	0.923	0.923	0.733	0.801	0.216	0.140	0.769	0.846
Leverage	0.000	0.027	0.897	0.871	0.666	0.580	0.232	0.175	0.732	0.619
Profitability	-0.740	-3.081	0.342	0.593	0.073	-0.052	0.238	0.768	0.112	0.101
Liquidity	0.000	0.478	1.665	3.474	0.812	1.264	0.454	0.733	0.825	0.133
Internationalization	0.000	0.000	1.000	0.943	0.499	0.349	0.420	0.371	0.594	0.103

Analysing the CI it is possible to verify that there was an increase from 2012 to 2017, as shown by the average (average = 0.733 in 2012 and average = 0.801 in 2017. This increase in disclosure levels is possibly explained by the incorporation of the requirements of the standards, but also by the PSI 20 access rules that have had some modifications.

Through the statistical data, H1 is validated as there was an increase in the level of information disclosure from 2012 to 2017.

Through the presentation of statistical data, a model is presented that can be used when there is a problem that presents variables for which the relationship between them is to be known. In this sense, the ordinary linear least squares (OLS) multiple linear regression model aims to demonstrate that the independent variables influence the level of disclosure of information in accordance with IAS 1 of the companies that integrate the PSI-20 in the periods of 2012 and 2017.

In applying this model, the correlation coefficient is also used to demonstrate that both variables are measured using the same scale. This model is given by the following expression:

$$C = \beta_0 + \beta_1 CA_1 + \beta_2 END_2 + \beta_3 REND_3 + \beta_4 LIQ_4 + \beta_5 INTERN_5 + \beta_6 BIG4_6 + \beta_7 SET_7 + \varepsilon$$

where, β_0 is constant, β_1 to β_7 are the coefficients of the independent variables and ε represents the errors or residuals of this model.

The results of multiple linear regression are presented in the Table 12.

Table 12 - Multiple linear regression model

	Coefficients	Standard error	p*	<95%	>95%
(constant)	0.116	0.107	0.291	-0.11	0.34
Board of Directors	-0.013	0.048	0.788	-0.11	0.09
Leverage	0.534	0.132	0.000	0.26	0.81
Profitability	0.057	0.059	0.337	-0.06	0.18
Liquidity	0.140	0.049	0.009	0.04	0.24
Internationalization	-0.141	0.063	0.035	-0.27	-0.01
BIG 4	0.268	0.097	0.011	0.07	0.47
Sector Type	-0.008	60	0.892	-0.13	0.11
R	R Square	R square adjusted	Standard error		
0.822	0.675	0.580	0.120		
	gl	SQ	MQ	F	F significance
Regression	7	0.719	0.103	7.128	0.000
Residual	24	0.346	0.014		
Total	31	1.065			

* significant for p<0.05

Through the analysis of the table it is possible to verify that the independent variables used in this model explain 67.5% of the total CI variation, which is defined as the coefficient of multiple determination. The observation of the adjusted r2, which translates into the adjusted determination coefficient and which is directly related to the number of independent variables used in the model, shows that the difference with the multiple correlation coefficient is not significant and therefore it is assumed that the variables have some relationship with the CI.

In the same way, there is a clear positive relationship for the variables leverage, liquidity and big 4, considering $p < 0.05$ and the confidence interval do not contain the value zero. Regarding the internationalization variable, considering the p value <0.05, in the confidence interval the slope of the line varies between [-0.27; -0.01], thus being the zero is included in this interval. This situation indicates that there is no significant relationship between the variables or it may be negative.

5. DISCUSSION

Firstly, the companies' total compliance index is positive, which demonstrates that the requirements of IAS 1 are clearly and objectively disclosed. However, by analysing the Annual Report and Accounts, it was also possible to observe some differences in the way information is presented in the statement of financial position and in the structure of the report.

Regarding H1, a higher CI is visible in 2017 compared to the period 2012, which shows the confirmation of this hypothesis.

In the analysis of descriptive statistics, this determinant also showed that in 2012 there was a smaller relationship with the CI, in which the companies' board of directors was composed of more elements; In 2017, this was not the case and therefore, it appears that it is not a variable that explains an increase or decrease in information disclosure. The results of the multiple linear regression also indicated that there is no positive relationship, since the coefficient has a negative value, although it is not a statistically significant result. Thus, H2 is not verified since the relationship between the variables is not significant.

Regarding the leverage variable, the linear regression model demonstrated that there is a positive relationship, which allows verifying H3 and confirming the result with the study by Popova et al. (2013). The results were contrary to the study of Mutawaa and Hewaidy (2010) and Yiadom and Atsunyo (2014), which had shown a negative result in this association of variables.

Regarding the profitability variable, the results were not significant and therefore it was not possible to validate H4. This result is not in line with the study by Yiadom and Atsunyo (2014) but is confirmed by the research by Gaio and Mateus (2014), which demonstrated a less significant relationship.

For the other variables, the linear regression model indicates that the liquidity variable also resulted in a positive and significant relationship, as shown by the study by Mutawaa and Hewaidy (2010). The activity sector was shown through the linear regression model and descriptive statistics that has a negative relationship with the CI

and therefore is in agreement with the results of the research by Gaio and Mateus (2014).

The hypotheses H1, H3, H5 and H7 were confirmed. Regarding the proposed objectives, and in relation to the first objective, the increase in the level of disclosure between 2012 and 2017 was confirmed by the analysis of the CI of the companies. As for the second objective, this was also confirmed. The results indicate the existence of three variables (leverage, liquidity and big 4) that have a positive and significant relationship.

6. CONCLUSION

The objective of this study was to evaluate the compliance index of the sampled companies with IAS 1 and to verify if there was an increase in the CI from 2012 to 2017. In the same line, we intend to demonstrate that there are variables that influence the way information is disclosed. Through the financial statements and the Annual Report of the entities, it was possible to construct the compliance index and the independent variables.

Analysing the first proposed objective, the total compliance index found for 2012 was 73.3% and in 2017 the value was 80.1%, which indicates an increase of information disclosure of approximately 7.00%. This determines that the first objective has been achieved.

To verify the second objective, descriptive statistics and the multiple linear regression model were used. From the various hypotheses proposed, the H1, H3, H5 and H7 were validated, which means that the leverage, liquidity and the type of auditing company have a positive relationship. Thus, it can be concluded that the second objective has been achieved, since characteristics of the PSI 20 companies that directly affect the level of disclosure of elements of the statement of financial position.

The limitation of this study is related to the subjectivity that is associated with the construction of the conformity index and the few companies that integrate the stock index. Another factor that has some influence on this work is the fact that there are some differences in the presentation of some components of the statement of financial position and the structure of the Report and Accounts, which makes it difficult to collect the data necessary for the study.

Finally, the results are compared with other researchers in which the index is constructed with elements of various standards that do not only include IAS 1, which also makes it difficult to compare the main conclusions.

This study aims to contribute to the issue of disclosure and comparison of information by companies, when it concerns IAS 1 which is applicable to all entities applying IFRS as adopted by the EU. Through the explanatory variables found in this study, the responsible organism that issue the accounting standards can have an overview of the characteristics of the companies that most influence their reporting. The inclusion of PSI 20 companies is also an important aspect, as they are entities that are more subject to external evaluations.

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YOUTH'S EDUCATION FOR SOCIAL ENTREPRENEURSHIP: OUTCOMES AND PITFALLS OF AN APPLIED PROJECT

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ABSTRACT

Purpose: Nowadays the European Union's social policy, in overall, advocates that society must lead efforts to overtake its problems by self-regulation. In coherence with such perspective, our research analyses the impact of a pioneer educational project aiming to create social value through the governance mentoring. Empowering citizens implies a priori to develop educational resources, boosting competences related to management and demystifying some pre-assumed myths about social economy.

Design/methodology/approach: Our project consisted in designing an original program for the curricular unit "Citizenship and Development" and applied it to a Portuguese group of students enrolled in a school of basic education, located at a low-density municipality in the Center or Portugal, during the first scholar period (September to December) of 2019. We made three tracking surveys – implemented at the classes of 1st and 5th grades - to capture students' perceptions changes about social entrepreneurship. We also made interviews to classes' directors and to the dean to gather more information about their personal evaluation of project's effectiveness.

Findings: Data collected from both surveys allowed to: i) shed light on students' minds about the social economy organizations' relevance through theoretical and practical learning; ii) bring up comprehension and implementation of real actions of social entrepreneurship by young people.

Originality/value: The outcomes produced till now, through the comparison of the first and second surveys, as well as from the ongoing five social entrepreneurship initiatives lead by these students, are truly stimulating. The paper reports details and numbers as evidence of the effectiveness of the reported project and highlight the need to

include this unit in mandatory schedule - especially in the scholar system in peripheric territories.

KEYWORDS:

governance, social economy, entrepreneurship, education

1. INTRODUCTION

Social entrepreneurship gets into our lives in an unquestionable way as we are all part of society. Consequently, we are not alienated from the preoccupations and problematic that characterise it and we are called, more or less actively, to be part of movements that accomplish an essentially therapeutic ending in the society we live in. The Hallmark of social entrepreneurship remains its ability to combine social interests with business practices to effect social change (Alter, 2006, p.205).

The senior citizen often regrets that the youngest are too individualistic, and we wonder how the future of every and each one of them will be. The era they are born and live in, with all technology facilitating their lives, has made them too focused on themselves and very little committed in giving their best. That's why it is fundamental to talk about social entrepreneurship at school. For a fairer society to be built young students must be involved in causes and motivated to work in a team to solve real problems. So, it does make sense to involve students in social entrepreneurship projects.

This project's aim is to encourage politicians, school responsible and the society as a whole to embrace the mission of improving and empowering the Social Economy Organization leaders' education. Indeed:

> *What are "educational projects in school", rosaries of the most important sinks, among them the highlight for equality and educational success, worth for if they are nothing more than documents written in school offices, by teachers born of the better intentions, without any connection to the surrounding social dynamics, other than (so often) those of formal approval of documents (which never cease to be formal, to become local social constructions)*[1] (Azevedo, 2001, p.28)

[1] Our translation from the original text (in Portuguese): "De que valem os «projetos educativos na escola» lindíssimos, rosários das mais pias promessas, entre elas o destaque para a igualdade e para o sucesso educativo, se eles não passam de documentos escritos em gabinetes escolares, por professores carregados das melhores intenções, sem qualquer ligação às dinâmicas sociais envolventes, que não sejam (tantas vezes) as de aprovação formal de documentos (que nunca deixam de ser formais, para passarem a ser construções sociais locais)".

2. THEORETICAL FRAMEWORK

Social entrepreneurship emerges when the civilian society replaces government on finding solution to social problems, in the quest for alternative practices, which respond to the unanswered needs (both government and markets'). Besides, it intends to attend social problems in an innovative way and to promote the Social Economy Organization's sustainability.

Taking as reference the book Social Entrepreneurship in Portugal[2] by Parente et al. (2014, p.360), it is fundamental to encourage and promote social entrepreneurship's initiatives, namely through educational actions aimed to the youth, informing and stimulating the possibility of creating their own jobs (as a normal option for a professional activity), remembering that this is not only possible but also desirable at the social economy's action context.[3]

According to the European Research Network (Borzaga et al., 2018, p.11), social enterprises are private, autonomous and entrepreneurial organizations that provide products or services with the explicit objective of benefiting the community. They are owned and managed by a group of citizens and investors' material interest is subject to limits (...) being legally prohibited from distributing profits, sometimes structured in order to exclude profit as the main objective.

As Martinho et al. (2014, p.9) state, these organizations list the following specific characteristics: individual and social object's priority over capital;

- free and volunteer affiliation;
- membership's democratic control;
- agreement between the members' and the general interests;
- protection and implementation of the principles of solidarity and responsibility;
- self-management and independence from the government;
- application of the surplus's greater part in the prosecution of its sustainable development's objectives.[4]

To achieve these aims we must embrace the social economy organizations' leaders' and managers' education and training starting by young people's education. In the

[2] The original title is *Empreendedorismo Social em Portugal*.

[3] See the original text (in Portuguese): "i) encorajar e promover iniciativas de empreendedorismo social; ii) informar e incitar à consideração da criação do próprio emprego como opção de actividade profissional; iii) informar e formar em criação e gestão de negócios ou organizações de tonalidade social."

[4] See the original text (in Portuguese): "Estas organizações elencam uma série de características específicas: "a primazia do indivíduo e do objecto social sobre o capital; a adesão livre e voluntária; o controlo democrático pelos seus membros; a combinação dos interesses dos seus membros beneficiários e o interesse geral; a defesa e a implementação dos princípios da solidariedade e da responsabilidade; a autogestão e independência face ao governo; o uso da maior parte do excedente para a prossecução de objetivos de desenvolvimento sustentável, no interesse dos membros e interesse público"

document National Strategy of Education for Citizenship[5], presented by the Portuguese Government in 2017, we note the emphasis put on the idea that the future of the planet, in social and environmental terms, depends on the citizens' formation, bearing in mind competences and values that help not only to understand the world, but also to forsake effective solutions to drive our communities through a path of sustainable and inclusive development.[6]

In the same document, it is assumed that citizenship is not apprehended through rhetorical processes, but through experiential processes, which put students in contact with the social problems that surround them and trigger their genuine will for solving these problems. These processes imply an open and enlightened mind, empowering these young students and proving them that social value creation is in their hands.

We recognise young students' education as fundamental in the social leaders' formation as school can and must assume its role as a social change actor. This assumption has become a basis for the appearance of educational initiatives destined to appease the cause of social problems, doing formal and non-formal education a very rich field for the creation and divulgation of innovative social initiatives, as it is through a meaningful learning that individuals form and mobilise new attitudes (Parente, 2014, p.357)[7].

Social entrepreneurship seems to advocate the need for a wider and more diverse formation. A formation that captures the connection between economics, society and politics, motivating the apprentices to the development of a holistic thinking so they can become capable of diagnosing and acting effectively towards social problems (Parente, 2014, p.361)[8].

We believe that it is fundamental to provide an education not constrained to technical contents so we can contribute to a better society´s assumption on a global scale. Education must help to create critical ways of thinking and to stimulate an active and

[5] The original title is *Estratégia Nacional de Educação para a Cidadania* (XXI Governo Constitucional, 2017).

[6] See the orginal text (in portuguese): "O futuro do planeta, em termos sociais e ambientais, depende da formação de cidadãs/dãos com competências e valores não apenas para compreender o mundo que os rodeia, mas também para procurar soluções que contribuam para nos colocar na tora de um desenvolvimento sustentável e inclusivo."

[7] See the original text (in portuguese): "Esta premissa tem-se constituído como uma base para o surgimento de iniciativas educativas destinadas a aplacar as causas de tais problemas, fazendo da educação formal e não formal um campo fértil para a criação e divulgação de iniciativas sociais inovadoras, na medida em que é através da aprendizagem significativa que os indivíduos formam e mobilizam novas atitudes."

[8] See the original text (in portuguese): "O empreendedorismo social parece pressupor, desde logo, a necessidade de uma formação mais abrangente e diversificada. Uma que, captando as diversas conexões entre economia, sociedade e política, motive os aprendizes para o desenvolvimento dum pensamento holístico, de modo a torná-los capazes de diagnosticarem e agirem eficazmente sobre os problemas sociais."

interventional citizenship, triggering new forms of action, on putting real problematics and experiences at the centre of the process.[9] (Raposo et al., 2019, p.850)

3. METHOD

These convictions led us to create an original program which would serve as main purpose – to enlighten the importance of teaching social entrepreneurship to young students at a public school. Therefore, the number of classes devoted to the theoretical part – 7/8 – was higher than the one devoted to the practical one – 4/5 – as we defined that the assumption of a social entrepreneurship's initiative was not the main goal.

We worried much more about their understanding of the dynamics themselves. For instance, we couldn´t (and we didn´t) move forward until it wasn't clear for them the concepts of "social economy" and "social entrepreneurship".

To clarify these concepts we firstly used theoretical definitions by starting with the concept of economics and showing where social economy was integrated.

We invited a local social economy's leader to be interviewed and, on structuring the interview, students were confronted by problems and issues they had never thought about – sustainability, risk taking; among others.

We showed students videos that could better enlighten certain aspects namely social's innovation and value creation;

We allowed them to elect a social problem they wanted to work with and we provided them the necessary tools so they could come all the way from the problem to the initiative itself.

We presented them key tools of analysis such as "The tree of the problems" (exploring the relation between causes and effects and teaching them where action could take place) and the SWOT tool of analysis, which each class applied to their social entrepreneurship´s initiative and recognised the aspects they still had to work on before the implementation itself.

The key concepts we used to rule our program conceived the emergence and consolidation of the following competences:

1) critical social mind set:

    i) to provide students with the necessary spaces for them to think about the social problems they find;

[9] See the original text (in portuguese): "Para que possamos contribuir para a construção de uma melhor sociedade a uma escala global, é necessário que as pessoas tenham acesso a uma educação que não se restrinja a conteúdos técnicos mas que antes, ajude a criar pensamento crítico e a fomentar uma cidadania ativa e interventiva e que, trazendo as vivências e experiências do mundo real para o centro das aprendizagens; proponha novos modos de pensar e agir."

ii) to give them the possibility to present solutions for those problems and to allow students to explore those solutions.

2) self-confidence/ risks assumption:

   i) solving difficulties in a positive way;

   ii) showing confidence in the young students' capacities.

3) initiative/ energy:

   i) to provide students with the possibility to identify and choose methods and strategies.

4) resistance to failure:

   i) to put students in contact with experiences that potentially may bring obstacles and give space to moments of reflection about those experiences.

5) planning/ organization:

   i) to generate activities that imply to decompose an action in several parts, so the student is confronted with several solicitations and may define logical priorities.

It was a point of honour for us that this wouldn't just be another project they were doing in classes. We demanded most of all that they would really feel engaged in it, understand it and see its potentialities and obstacles.

We advocate our project in what Boni (2018) calls a transformative school. Transformative school is counter-hegemonic, it intends to put education at the service of the strengths that struggle to transform the established order, promoting a new society´s shape. In Portugal, where curricular flexibility and interdisciplinarity are on the agenda, there are real opportunities to influence the school curriculum and to introduce educative elements to global citizenship.[10]

We talk about transformative school when we promote and create conditions to the assumption of global citizens, active, responsible and committed people, who want to transform through a set of principles like social justice, equity, respect and equality. People who want to transform their society, the one they're in, the one they know better, but aiming a global purpose. In this perspective, school is indeed a place of transformation.[11]

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[10] See the original text (in portuguese): "A escola transformadora é contra-hegemónica por natureza. Em Portugal, onde a flexibilidade curricular e a interdisciplinaridade estão na ordem do dia, existem actualmente oportunidades reais de influenciar o currículo escolar e de introduzir elementos de Educação para a Cidadania Global."

[11] See the original text (in portuguese): "Falamos de educação transformadora quando promovemos e criamos condições para a existência de cidadãos globais, pessoas activas, responsáveis, comprometidas, que querem transformar a partir de um conjunto de princípios como a justiça social, a equidade, o respeito e a igualdade.

In this Project we are working with the 7th and 8th years of the Group of Schools "Verde Horizonte", placed at Mação, in the school period 2019/2020, and we are working with 97 students. We chose this sample due to the following reasons:

- the 3rd education cycle is a time when students have to think about vocations and the stimulation is essential at this time;
- and to integrate our curricular project in the National Strategy of Education for Citizenship.

Table 1 - Students' characterization

School Year	Gender													
	Male						Male Total	Female					Female Total	Total by Year
	11	12	13	14	15	16		11	12	13	14	15	16	
7th	2	10	1	2			15	6	13	2	1			22	37
8th		3	21	5	3	2	34		4	16	3	3		26	60
Global Total	97														

To accomplish it, we created a social entrepreneurship program, as well as all the pedagogic material and we had to adjust some contents, as we will present ahead.

It is important to mention that this work is being done in the following way: first, we implemented the diagnostic survey (appendix 1, 1st survey), which had the particularity of not only diagnosing the contents we intended (social economics and social entrepreneurship) but it also allowed us to characterise students' competences in terms of their entrepreneur's profile; then, we had a period of two and a half months for teaching the main contents (during this period we had the second survey (appendix 2) to evaluate students' progress towards the main contents- social economics and social entrepreneurship). So, we are now at the final stage, students are working on their social entrepreneurship initiatives and we are about to implement the final survey (the same as the 2nd).

The project previewed 45 weekly minutes in the period of the school unit *Citizenship and Development* [12] resulting in about nine hours to each class (Table 2). In practice, we are now facing the need to take more time to implement their initiatives, because they are much more solid than we have previewed.

Pessoas que querem transformar a sua sociedade, aquela em que estão inseridas e que lhes está próxima, mas tendo presente o global. Nesta perspectiva, uma escola capaz deste desafio converte-se em espaço de transformação."

[12] *Cidadania e Desenvolvimento*, as official denomination.

The ultimate objective of this project is that it helps us to understand the basis for successful teaching programs and projects, promoting motivated and enlightened future social economy's governors.

Table 2 - Project Plan

Main objectives	Specific objectives	Contents	Competences	Actions	Time
✓ To enlighten 3rd basic education cycle students towards social economy	✓ To shed light on students' minds about the social economy organizations' relevance	✓ Economy ✓ Social Economy ✓ Social Economy Actors	✓ Critical Social Thinking	✓ Survey ✓ Exposition ✓ Game ✓ Guests	4*45 minutes
✓ To increase 3rd basic education cycle student perception towards the potentialities and value of social entrepreneurship's actions	✓ Sow seeds for young social entrepreneurship	✓ Entrepreneurship ✓ Social entrepreneurship ✓ Social entrepreneur ✓ Social Innovation	✓ Creativity/ Innovation ✓ Critical Social Thinking	✓ Exposition ✓ Game ✓ Survey	3*45 minutes
✓ To bring about entrepreneurship actions	✓ Bring up visible social entrepreneurship actions, assuming its local relevance	✓ To create a social entrepreneurship initiative	✓ Self confidence/ risk assumption ✓ Initiative/ energy ✓ Resistance to failure ✓ Planning/ organization ✓ Creativity/ Innovation ✓ Critical Social Thinking	✓ "Role play" activity ✓ Survey	4*45 minutes

4. RESULTS

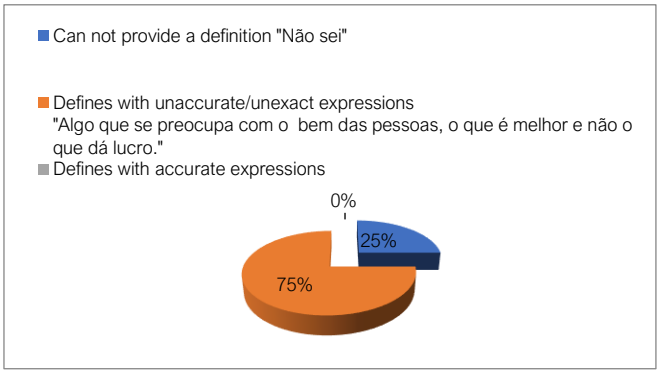
This study is still in progress but, as mentioned above, there are already several achievements and consequences that are worth mentioning. The first is the impact: on both young students and local community.

As to young students, we must say it was quite surprising to notice that their understanding about social economy was not at all unaccomplished.

As we can check, on Table 3, they were not able, before the intervention, to provide an exact definition of social economy, but they did manage to define it quite accurately.

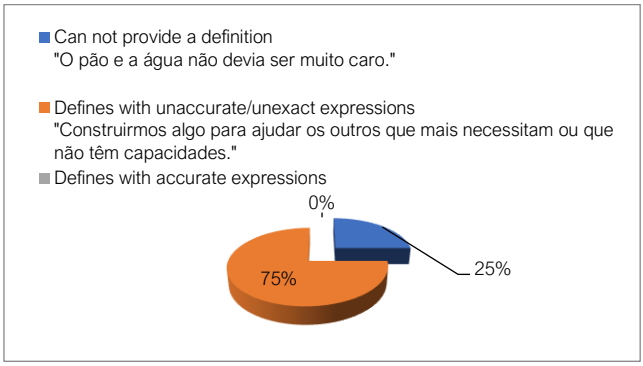
75% of the inquired students managed to provide a not totally wrong answer: "*Something that cares about people's good, which is better and not what makes profit*".[13]

Table 3 - Results of the 1st survey's answers to the definition of social economy



As to social entrepreneurship, the results are similar to the previous question, as 75% of the inquired students identified key aspects: "*Build something to help others who need it most or don't have capabilities*"[14].

Table 4 - Results of the 1st survey's answers to the definition of social entrepreneurship



At the second survey, the acknowledgment on social economy shown to be quite more consolidated. As shown in Table 5, classes had already triggered different perspectives and assumptions. 80% of the students managed to explore the concept

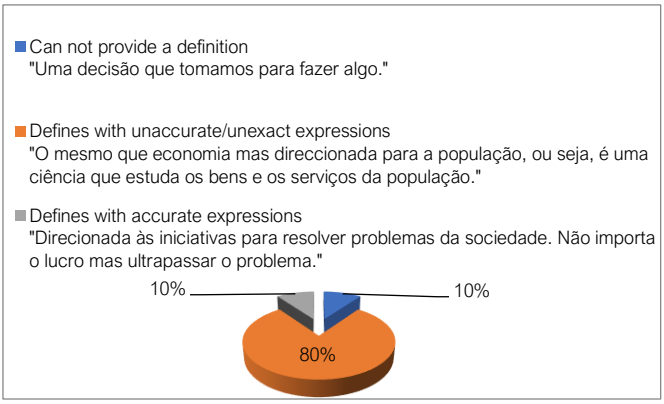
[13] *Algo que se preocupa com o bem das pessoas, o que é melhor e não o que dá lucro.*

[14] *Construirmos algo para ajudar os outros que mais necessitam ou que não têm capacidades*.

using important keywords: "*The same as economics but directed at the population, that is, it is a science that studies the goods and services of the population*"[15].

Still concerning social economy, it was rewarding for us that, at the second survey, there was already possible to find student´s definitions that were close to what we considered an accurate answer, 10% of the sample, which is also a good evidence: "Targeted at initiatives to solve society's problems. It is not about profit but about overcoming the problem"[16].

Table 5 - Results of the 2nd survey's answers to the definition of social economy



As to social entrepreneurship, we could notice a persistent difficulty in identifying innovations as an essential part of the definition. This assumption led us to take another class working this part of entrepreneurship more deeply and it was indeed worthy in the subsequent ideas and initiatives. But it is impactful to notice the use of a very specific vocabulary, result of the teaching process: "*Our ability to identify a social problem and solve it*"[17].

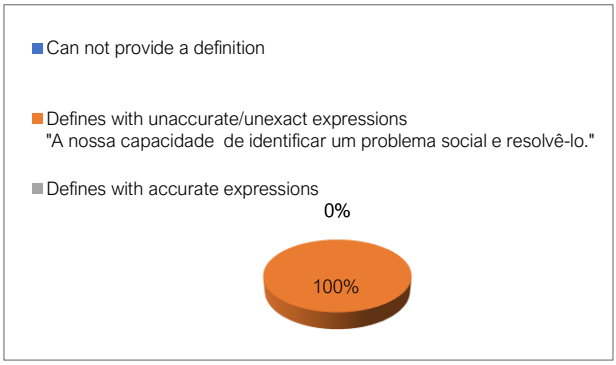
As to local community, the impact we reached here is still far from reaching its greatest potential but is worth reporting. Among the five groups of students, three of them decided to lead initiatives that involved school, the local government´s social services and around fifty Social Economy Organizations of this low-density, peripheric municipality of Portugal. This achievement was not identified as a project's objective and its accomplishment is absolutely outstanding and demonstrates how far we can make the difference on working social economy with young students.

[15] *O mesmo que economia mas direccionada para a população, ou seja, é uma ciência que estuda os bens e os serviços da população.*

[16] *Direcionada às iniciativas para resolver problemas da sociedade. Não importa o lucro mas ultrapassar o problema.*

[17] *A nossa capacidade de identificar um problema social e resolvê-lo.*

Table 6 - Results of the 2nd survey's answers to the definition of social entrepreneurship



Two of the projects - "Fighting old people loneliness and isolation" and "Reforest Mação" have received great acceptance by the class´s group of teachers and it is certain that these projects will have continuity in the following periods. This achievement also proves that social economy as a subject shows an enormous transversality as each school subject has the possibility to conjugate its specific objective with it.

As to the results more directed to the social entrepreneurship initiatives themselves, it is important to tell that the students' age made some difference here. 8th grade students managed to engage more complex initiatives and they could also show a greatest ability to locally articulate their objectives with society's stimulation. As to 7th grade students, the differences were shown right away in choosing the social problem they wanted to work with (Table 7).

During our intervention, we tried to stimulate and empower students, avoiding to influence them and to constrain their ideas and initiatives. Several ideas encountered changes in the process, which we found perfectly natural in the course of the actions 'development.

It is also meaningful to mention that these students didn´t preview profits for their actions as they were perfectly aware that these projects were protected by schools' resources (internet, paper) and they managed to find solutions for any action that would mean to have a cost. For example, the 8th C had to deliver their letters to the Mação's Social Economy Organizations, so they distributed among them and they managed to deliver the overall 50 letters (organizations of whom the Municipality didn´t have email).

Table 7 - Entrepreneurship initiatives summary

Grades/Classes		Entrepreneurship initiatives summary	Social Problem	Partnerships	Sustainability	Initiatives
7th	A	"Fighting bullying" https://sosstopbullying123.blogspot.com/2019/11/sos-stop-bullying.html	Bullying	- Mação's Municipality - Mação's Social Economy Organizations	- yes – the Email will continue	- Receiving emails and find the school's psychology department to follow up the situation - Fight Bullying-ideas competition destined to Mação's Social Economy Organizations
	B	"Fighting global warming" https://protegeroambienteprotegeravida.blogspot.com	Global Warming	----------	----------	- Creating the blog and develop contents to enrich it: interviews, games, images...
8th	A	"Fighting old people loneliness and isolation" https://cidadaniaverdehorizonte.blogspot.com/2019/11/respeito.html	Violence over old people	- Mação Municipality's social services	- yes –it will be continued and it previews other intergenerational actions	- Exchanging correspondence with old people; - Direct dangerous situations to the competent authorities; - Enrol in intergenerational activities
	B	"Fighting violence on date" https://violencianonamoro8b.blogspot.com/2019/11/	Violence on date	_____	_____	- Theatre play destined to schoolmates
	C	"Reforest Mação" https://juntospelaflorestа.blogspot.com/2019/11/associacoes-do-concelho-queremos-ser.html	Global warming	- Mação's Municipality - Mação's Social Economy Organizations	- yes – the following steps will be done at the school unit Natural Sciences	- Increase Mação's Social Economy Organizations awareness towards this problematic and their desirable enrolment; - Educate Mação's Social Economy Organizations concerning reforestation

5. DISCUSSION

Even though we have not reached the end of this project, the fact is that it is already possible to explore some correlations between our expectations and our current results.

As to the objectives, it is quite conspicuous that we have reached all the main and specific ones. The students' perception and recognition of the Social Economy's importance in society became undeniable. Classes' Directors, who always accompany these school unit classes', report that students' awareness of this subject could already be seen in other contexts (such as recognizing a Foundation) and their enrolment and excitement towards their initiatives is also admirable.

Old people talk about it: "I have this young student who now writes me letters". Social Economy Organizations talk about it: "Students are encouraging us to areas we had never thought about. And it is worth trying". Regarding to other students school directors told us that their reaction was like: "How come don't we do the same?". So, people feel the impact. People enjoy embracing social problems.

The restriction we can point is time. The period we chose to implement the project is quite enough for the objectives, but we didn't preview that these young students would enrol and embrace their initiatives in the way they did and now we assume that we need the whole 13 weeks of classes until the end of the period (we previewed 11). But this is a very good restriction, it means acceptance, success, social value creation and this was always our ultimate objective.

6. CONCLUSION

To sum up, we expected to empower young students; we expected to raise their awareness towards social economy; we expected to show them the several complexities of the sector – strengths and weaknesses, and we did.

We ultimately expect that we have contributed to both captivate these students to be social actors and to captivate schools towards the huge local and social potential they represent. As for that we are still analysing the results.

It is obvious that students embrace these problematic with enthusiasm and commitment. It is also obvious that social engagement and participation suit in school programs perfectly and provide teachers a different way of teaching, through students enrolment, their awareness of the importance of those apprenticeships.

In a depressed territory, characterised for low investment, low density and seriously affected by fires in these last years (Mação saw 80% of its territory burn in 2017 and again 15% in 2019), such a project brings hope and empowers the social sector - that is so important in a Municipality with these characteristics.

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Appendix 1 – 1st Survey (Page 1)

Nome:	
Localidade onde mora:	
Idade:	
Sexo:	
Ano que frequenta:	

VAMOS CONHECER-TE UM POUCO MELHOR

Assinala apenas uma resposta em cada pergunta (X)

1. Quando tens um problema:

a) Espero que me digam o que fazer	
b) Tento encontrar uma solução	
c) Não faço nada	

2. Quando tens uma tarefa:

a) Defino por onde devo começar e cumpro	
b) Defino por onde devo começar mas nem sempre cumpro	
c) Espero que me digam o que fazer	

3. Quando alguém te pede ajuda:

a) Quero ajudar mas não sei bem como	
b) Prefiro afastar-me	
c) Defino como posso ajudar e tento	

4. Quando tens de fazer uma pesquisa:

a) Não faço, porque não gosto do tema	
b) Não faço porque não gosto de pesquisas	
c) Procuro a informação com os recursos que tiver ao meu alcance	

Appendix 1– 1st Survey (Page 2)

5. Gostas de trabalhar?
a) Sim, não tenho outro remédio
b) Sim, é bom sentir-me útil
c) Não gosto

6. Quando tens de tomar uma decisão:
a) Peço ajuda para decidir/sou indeciso
b) Decido na hora
c) Penso sobre como será melhor e/ou peço ajuda no processo de decisão

7. Quando não concordas com os outros:
a) Digo-lhes por quê
b) Depende do assunto
c) Não gosto de discordar/não me sinto confortável

8. Quando tens trabalhos em grupo:
a) Faço tudo sozinho, não gosto de trabalhar em grupo
b) Distribuo entre todos aquilo que temos de fazer e/ou ajudo a distribuir
c) Não faço nada

9. Se algo te corre mal:
a) Desisto
b) Tento de forma diferente
c) Insisto da mesma forma

10. Quando vês um problema:
a) Não faço nada
b) Tento pensar numa forma de o ultrapassar que já conheço
c) Imagino soluções novas

11. Fazes amigos com facilidade?
a) Sim, com toda a gente
b) Sim, desde que conheça
c) Não faço amigos com facilidade

Appendix 1 – 1st Survey (Page 3)

VAMOS FALAR DE ECONOMIA SOCIAL

1. Economia é:_____
2. Economia social é:_____
3. Um exemplo de economia social que tenho na minha localidade/freguesia é: _____
   _____
4. Onde/através de quem conheceste essa iniciativa que referiste anteriormente:_____
   _____
5. Empreendedorismo é:_____
6. Empreendedorismo social é:_____

Muito obrigada pela tua colaboração
Cláudia Cordeiro
Mestranda do Curso "Gestão de Organizações de Economia Social"

Appendix 2- 2nd and 3rd Survey

Nome:	
Localidade onde mora:	
Idade:	
Sexo:	
Ano que frequenta:	

VAMOS FALAR DE ECONOMIA E EMPREENDEDORISMO

1. Economia é:_____
2. Economia social é:_____
3. Um exemplo de economia social que tenho na minha localidade/freguesia é: _____
_____
4. Onde/através de quem conheceste essa iniciativa que referiste anteriormente:_____
_____
5. Empreendedorismo é:_____
6. Empreendedorismo social é:_____

Muito obrigada pela tua colaboração
Cláudia Cordeiro
Mestranda do Curso "Gestão de Organizações de Economia Social"

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