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Development of a multimedia tool for the Solidarity Economy Consulting Office in Cúcuta

Desarrollo de una herramienta multimedia para el Consultorio de Economía Solidaria en Cúcuta

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Abstract: Solidarity economy is a form of economic organization, where people, the environment and sustainability are taken into account above other interests. Uniminuto, through the solidarity economy office in Cúcuta, intends to offer students the possibility of doing professional internships, however, the four-monthly periodicity causes this induction process to become a tiring process. Therefore, it is suggested the implementation of a multimedia tool that facilitates the induction process, allowing students to train autonomously. The research is based on an exploratory methodology with a mixed approach, which allowed the creation of the manual of processes and procedures, as well as the prototypes of the multimedia tool. This initiative aims to automate the training of new students, optimizing time and resources, which represents an improvement in efficiency and user experience in the solidarity economy office.

Keywords: Solidarity economy, multimedia tool, process manual, productivity, optimization, video game.

Resumen: La economía solidaria es una forma de organización económica, donde se tienen en cuenta las personas, el medio ambiente y la sostenibilidad por encima de otros intereses. La Uniminuto a través del consultorio de economía solidaria en Cúcuta, pretende brindar a los estudiantes la posibilidad de realizar prácticas profesionales, sin embargo, la periodicidad cuatrimestral ocasiona que este proceso de inducción se convierta en un proceso desgastante. De manera que se sugiere la implementación de una herramienta multimedia que facilite los procesos de inducción, permitiendo a los estudiantes formarse autónomamente. La investigación se apoya en una metodología exploratoria con enfoque mixto, que permitió la creación del manual de procesos y procedimientos, así como los prototipos de la herramienta multimedia. Con esta iniciativa se pretende automatizar la capacitación de los estudiantes nuevos, optimizando tiempos y recursos, lo que representa la mejora de la eficiencia y la experiencia de los usuarios en el consultorio de economía solidaria.



Palabras clave: Economía solidaria, herramienta multimedia, manual de procesos, productividad, optimización, videojuego.

1. INTRODUCTION

The Special Administrative Unit of Solidarity Organizations (UAEOS) defines solidarity economy enterprises as entrepreneurial organizations with an associative and solidarity approach, managed in a democratic and non-profit manner [1]. On the other hand, Non-Governmental Organizations (NGOs) are private entities dedicated to diminishing the needs and promoting the interests of the underprivileged [2]. In this context, Uniminuto proposed a solidarity economy consulting office at its headquarters in the city of Cúcuta, with the objective of offering consulting services to companies in the solidarity sector, involving students in internships or graduate work to support the services offered, however, these students rotate every four months, which generates administrative wear and tear in induction processes [3].

In order to guarantee an effective induction of new students in each period, a multimedia tool with a simple and practical design is proposed, which will allow them to become familiar with the office and its services [3]. The creation of this multimedia tool is supported by an institutional quality management process, with the purpose of improving the transfer of knowledge about the services provided by the solidarity economy office, generating a significant change in the educational sector and promoting the development of new theories about the learning process [4] [5] [6].

2. PROBLEM STATEMENT

The Social Solidarity Economy (SSE) as an economic model with a transformative potential has experienced significant global growth in Europe and Latin America [7]. However, in the particular case of the city of Cúcuta, these types of organizations have not been studied or promoted [8]. For this reason, Uniminuto has taken the initiative to study these organizations, finding in them a potential to improve the economic and employment conditions of the city, thus generating the idea of creating a solidarity economy office and it is here where the initiative to create a multimedia tool to support the induction processes for new students who join the office in their practical stage or degree option arises. However, it should be noted that the lack of technological resources and the need for specialized training have become impediments to strengthening the SSE in the region [9].

To achieve this multimedia tool, it was necessary to build the processes and procedures manuals, as well as a practical and detailed guide to facilitate the understanding of the practice's services, which could impact the quality of training and operational efficiency [10]. In addition, the COVID-19 crisis has underlined the importance of technology in education and collaborative work, highlighting the need for adequate digital tools in these times [11]. The lack of a multimedia tool, coupled with the lack of knowledge on how to build it, represents a significant challenge to exploit the potential in the current context [12]. Therefore, it became necessary an interinstitutional work, where students of business administration from Uniminuto and students of systems engineering from Unipamplona, worked together to design a multimedia tool for the manual of procedures and procedures contributes to strengthening the training promotion of solidarity economy at local and regional level.

In this context, UNIMINUTO has adopted an educational model centered on praxeology, which is based on a process of realization of the person as a person, where each person possesses potentialities that are often not known and that with this educational model the recognition of the same is sought, for its subsequent placement at the service of others [13]. This approach seeks a process of self-realization, where learning is based on experiences [14]. In addition, it is important to highlight that Uniminuto offers the four-month mode, allowing students to complete their undergraduate degree in less time, which facilitates the early entry of these professionals to the labor market.

However, the rotation of students who will support the work of the office, occurs very frequently, for these four-monthly training cycles, which leads to the need to perform inductions in short periods of time for each new group, which is exhausting for both teachers and students [14]. As a strategy to improve induction times, the creation of a multimedia tool that facilitates learning, promotes the use of didactic tools and improves the autonomous learning experience is proposed [15]. This tool will allow students to explore and consult the services offered by the practice, according to



their needs, giving them access to information and empowering them to interact with the content in a personalized and effective way.

3. METHODOLOGY

The methodology adopted for this research is exploratory, since the application of multimedia tools to support consulting processes in companies of the solidarity sector has been little addressed. The main objective of the creation of the multimedia tool is to make the induction process for students more efficient and autonomous [16].

Likewise, a mixed approach was used, since being intersubjective, it addresses qualitative and quantitative data to obtain a comprehensive view of the problem under study [17]. This choice is relevant in situations where both types of data are essential, however, it is necessary to establish very well the data collection tools, since this will allow a better understanding of the research problem.

The population under study is composed of 470 students enrolled in the Distance Business Administration program as of September 4, 2023. The sample corresponds to a subgroup of the population, corresponding to 211 students, taken at convenience.

The collection of information was carried out with the support of an unstructured survey, allowing responses to open-ended questions, in addition to making it possible to obtain opinions and experiences from the respondents [18].

4. DEVELOPMENT

4.1. Creation of the manual of processes and procedures of the solidarity economy office in Cúcuta.

The development of the manual of processes and procedures of the solidarity economy office was a collaborative task that involved the staff of the different areas that are part of the corporation, such as social projection, continuing education, professional practices, social responsibility and research. In this phase, unstructured interviews were conducted with the personnel of each area to gather information on the processes, responsibilities and regulatory framework of the institution.

For the construction of the manual, the processes related to the services offered by the practice, the

people responsible for them, the areas involved in the provision of the services, as well as the instructions for the development of each function were identified. The design of the manual covered various elements, from introductory aspects of the practice to the graphic representation of the organizational structure, the strategic objectives, the process map, the agreements, the standards and the identification of the value chain.

The grouping of related processes in the macro process was done in order to manage more efficiently the tasks or activities that are somehow interconnected for the provision of services.

After completing the manual, it was submitted for review and adjustments according to the recommendations received for approval. Considering this an essential input to improve control over the provision of services, implement processes on an ongoing basis and especially strengthen the induction process for students who will support the activities of the solidarity economy office in Cúcuta, offering a detailed view of its operation.

The set of activities shown in Figure 1 are fundamental to the structuring and success of organizational processes. These mission processes are vital as they integrate related tasks to achieve the strategic objectives of the practice. Training and education are essential for the development of competencies within the organization. The creation, recognition and categorization of these processes ensure that the tasks of instruction and education are carried out in an effective manner and aligned with the mission of the entity.

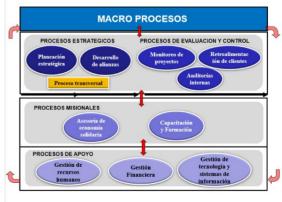


Fig. 1. Macroprocess. Source: own elaboration.

On the other hand, solidarity economy consulting, as represented, is important to foster practices that reflect the values and principles of the solidarity



economy. Identifying, developing and organizing these activities within the core processes allows the organization to offer consistent and quality consulting, thus promoting a positive impact on both the organization and the community it serves.

These processes are clear examples of how mission activities can be designed and structured to support and reinforce an organization's vision and strategic objectives, ensuring that every effort contributes to the achievement of an overall goal. The self-development of these procedures demonstrates a commitment to adaptation and continuous improvement, key elements for success in any field, especially one as dynamic and community-focused as the solidarity economy.

4.2. Interactive video game guide, for the induction process of the solidarity economy clinic in Cúcuta.

Digital transformation only implies not technological modernization, but also presents itself as a valuable opportunity for business growth. This transformation opens the door to the creation of new products and services, through the implementation and management of processes that comprehensively encompass data management, interaction with customers, competitive analysis, value creation and promotion of innovation [19]. The Interactive Guide of the "EcoEmprende" video game, designed for the induction process at the Solidarity Economy Clinic in Cúcuta, emerges as an innovative tool in the educational field, offering a unique experience for users in their learning process.

This guide not only seeks to introduce participants to the principles and practices of the solidarity economy, but also aims to provide a dynamic and participatory learning experience, with this combined approach, it is intended not only to enhance the gaming experience, but also to contribute to the development of entrepreneurial skills [20].



Fig. 2. Game Start Source: Taken from [21]

As shown in Figures 2 and 3, through a series of interactive worlds, educational resources and evaluative activities, the guide seeks to immerse players in the key concepts of the solidarity economy. From understanding the macro processes of the practice to active participation in community and institutional projects, each stage of the game is designed to provide a comprehensive and meaningful educational experience.



Fig. 3. Game Start
Source: Taken from [22]

Critical Thinking is fundamental in Higher Education. The video game not only teaches, but also fosters this skill, helping to address academic challenges [23], as it not only conveys knowledge, but also promotes the development of practical skills and critical thinking. Participants have the opportunity to strategically plan projects, teach virtual classes, and participate in research projects, all within a virtual environment that simulates real-world situations.





Fig. 4. Female character prototype Source: own elaboration.



Fig. 5. Prototype of male character Source: own elaboration.

In addition, the interactive guide encourages collaboration and interaction among participants, creating a socially constructive learning environment. As players, evidenced in Figures 4 and 5, progress through the different worlds and complete the proposed challenges, they have the opportunity to unlock rewards and recognition that reinforce their progress and motivation.

4.3. Develop the prototype of the process manual

The video game prototype in images seeks to generate a strong visual impact to arouse interest and curiosity about the solidarity economy. Each image aims to clearly and persuasively convey the fundamental values of solidarity, cooperation and social justice that characterize this economic model. Through an attractive and engaging visual presentation, the aim is not only to educate, but also to inspire users to explore and engage with the solidarity economy in their daily lives.

The game interface presents seven distinct worlds as shown in figures 6 and 7, each addressing specific aspects of the solidarity economy. From an introduction to a practice, to social responsibility practice, to social outreach and teaching, the game covers a wide range of relevant topics. Each world is presented with illustrative images and animations explaining key concepts, accompanied by audio and



Fig. 6. First world interface Source: taken from [24]



Fig. 7. Second world interface Source: taken from [21]

The design of the worlds and the presentation of information are adapted to the anime style, using graphics and animations that capture the player's attention. In addition, interactive elements, such as puzzles and quizzes, are incorporated to encourage participation and active learning. With a combination of visual and auditory stimuli, the



game seeks to immerse the user in the fascinating world of solidarity economy and motivate him to get involved in it.

5. CONCLUSIONS

After a thorough analysis of the processes and procedures of the Solidarity Economy office in Cúcuta, a detailed and comprehensive manual has been created. This manual, which provides a precise and well-structured guide to the operations and practices of the office, will be essential for the effective implementation of the multimedia tool. This ensures a thorough understanding of the practice's processes and procedures, as well as their proper execution, providing a valuable resource for those who wish to become involved in the solidarity economy and contribute to a more just and caring world.

Likewise, the careful development of a thorough and specialized booklet has been fundamental for the future multimedia tool, as it highlights the critical elements necessary for the effective presentation of the concepts and principles of the solidarity economy consultancy. This booklet, elaborated with a technical and specific approach, will serve as a guide for the design and development of the multimedia tool, ensuring its coherence and alignment with the standards and needs of the institution. This meticulous approach seeks not only to inform, but also to inspire those who interact with the tool, fostering an active commitment to the values of solidarity and social justice.

As for the prototype, it was considered to be a functional and adaptable multimedia tool, subjected to a rigorous analysis to identify areas for improvement and ensure its alignment with the standards and specific needs of the solidarity economy practice. This prototype, designed with a and efficiency-oriented approach, technical represents a step in the successful implementation of the multimedia tool, ensuring its effectiveness and usefulness in the practice environment. This technological advance seeks not only to facilitate processes, but also to empower those who use it, promoting an active and conscious participation in the promotion of a more solidary and equitable economy.

RECOMMENDATIONS

This project has made significant progress in the creation of a detailed manual, a specialized booklet and a working prototype. However, it is crucial to

continue with the next phase, which consists of the development and implementation of the complete multimedia tool. This will allow materializing all the designed elements and carrying out tests to ensure its effectiveness.

The collaboration between the students of the Business Administration seedbed of the Corporación Universitaria Minuto de Dios and the students of the Systems Engineering seedbed of the Universidad de Pamplona, which has been fundamental for this project, is highlighted. It is recommended to continue and deepen this interinstitutional synergy, which will further enrich the development of the multimedia tool and will allow approaching the project from multiple perspectives.

While the current prototype presents an attractive and immersive visual interface, usability and user experience testing is recommended. This will identify areas for improvement in interactivity, navigation and understanding of concepts, ensuring that the multimedia tool is intuitive and easy to use for players.

Since the goal is to create a significant visual impact and spark interest in the sharing economy, it is recommended to further explore the possibilities of gamification. This may include the implementation of reward systems, challenges, difficulty levels and game mechanics that keep users motivated and engaged throughout the experience.

Once the complete multimedia tool has been developed, it is suggested that a rigorous evaluation process be implemented to measure its educational impact. This will make it possible to determine whether the objectives of communicating clearly and convincingly the values of the solidarity economy are being met, and to make the necessary adjustments to improve the effectiveness of the tool.

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