



**Assessment of the Effectiveness of a Social Contribution Management
Information System: Employee Satisfaction and Contribution Collection
Processes - Case of Algeria**

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Abstract :

This study assesses the effectiveness of the social contribution management information system (SYSCAS) used by CASNOS in Algeria, focusing on employee satisfaction and its role in improving contribution collection processes within the TEBESSA and KHENCHELA agencies. Using a quantitative survey of 68 employees conducted between January and June 2024, the research examines four dimensions: functionality, work impact, contribution collection efficiency, and reporting quality. Analysis with IBM SPSS 27 reveals a positive correlation between employee satisfaction and SYSCAS's effectiveness, with employees expressing high satisfaction in usability, speed, and reliability. SYSCAS positively impacts work processes, enhancing transparency and efficiency in contribution collection and aiding decision-making through robust reporting. This statement further highlights the fact that the system has achieved its aim of addressing employees' physical needs.

Keywords: employee satisfaction; information systems; social contribution collection; effectiveness; CASNOS; Algeria.

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1. INTRODUCTION:

As organizations in a range of different cohorts have come to appreciate the significance of information systems (IS) in simplifying complicated operational activities and promoting swift and effective decision-making as well as value addition (Yoo et al., 2012; Bharadwaj et al., 2013; Toumia et al., 2024). However, as far as organizational success is concerned, the closer the ties get to the public sector, the more directly they will be related to the information systems (IS). Effective information systems enable a great improvement in operational activities and the performance of decision-making and value addition. Specifically, in the case of CASNOS, the effectiveness of SYSCAS also plays a pivotal role in optimizing contribution collection processes which is considered a critical aspect for social security organizations. Information systems (IS) effectiveness is one of the challenges that has oftentimes been discussed in IS literature as an area of focus in relation to IS research frameworks (Thong & Yap, 1996). This development is seriously gross in the public sector which operational management effectiveness through effective information systems (IS) translated into satisfactory organizational performance with a proper provision of vital services to the populace (Heeks & Bailur, 2007); (Bannister & Connolly, 2011) . Indeed, a substantial body of research in the IS literature highlights the paramount importance of IS effectiveness, establishing it as a central theme in various IS research models (William Delone & Ephraim, 2003). Our research explores the multifaceted dimensions of employee satisfaction (Gatian, 1994), encompassing crucial aspects such as system usability (Pyae et al., 2023), perceived data quality (R. Y. Wang & Strong, 1996), system functionality alignment with user needs (Seddon, 1997). We delve into the experiences and perceptions of the National Social Security Fund for Non-Salaried Workers (CASNOS) agents who directly interact with the social contribution management information system (SYSCAS), capturing their insights on the system's strengths and weaknesses about their core tasks. Furthermore, we investigate the relationship between employee satisfaction and the efficiency of contribution collection processes, a crucial aspect of CASNOS's mandate and a key performance indicator for social security organizations globally.

1.1. Statement of the Problem: This study focuses on the following problem: Does the (SYSCAS) information system contribute to employee satisfaction and improved contribution collection processes within the CASNOS branches of TEBESSA and KHENCHELA?

1.2. Research Questions: the central problem of our research conducts us to the following sub-questions:

- Does the system work well and meet employees ' needs?
- Does the system make employees ' jobs easier and more productive?

- Does the system improve the process of collecting social contributions?
- Does the system provide useful data for decision-making and transparency?

1.3. Hypothesis/ hypotheses: Based on this central issue, we formulate the following general hypothesis:

- Zero Hypothesis H_0 : no statistically significant difference between employee satisfaction and effectiveness of (SYSCAS) at the $\alpha \leq 0.05$ level.

To test this general hypothesis, we have developed four sub-hypotheses, which will be elaborated upon later in our analysis:

- Sub-Zero Hypothesis H_{01} : no statistically significant difference between employee satisfaction and the variable Features of (SYSCAS) at the $\alpha \leq 0.05$ level;
- Sub-Zero Hypothesis H_{02} : no statistically significant difference between employee satisfaction and the variable Impact of (SYSCAS) on work at the $\alpha \leq 0.05$ level;
- Sub-Zero Hypothesis H_{03} : no statistically significant difference between employee satisfaction and the variable Social Security Contribution Collection Process at the $\alpha \leq 0.05$ level;
- Sub-Zero Hypothesis H_{04} : no statistically significant difference between employee satisfaction and the variable Impact of (SYSCAS) on reporting and analysis at the $\alpha \leq 0.05$ level.

1.4. Significance of the Study: Based on the results, this study will enhance the comprehension of (SYSCAS)'s impact on the professional practices of CASNOS agents and identify the system's strengths and weaknesses. This critical analysis will serve as a basis for formulating concrete recommendations to optimize (SYSCAS) and maximize its effectiveness within the organization.

1.5. Objectives of the Study: Accordingly, this investigation intends to analyze the effectiveness of social contribution collection information systems from an employee satisfaction perspective. It will explore the unique factors influencing employee satisfaction in this domain and investigate how they contribute to the system's effectiveness in facilitating and managing social contributions.

1.6. methodology of the Study: This study used both descriptive and analytical approaches. while the descriptive approach was used to provide an overview of the main concepts related to information systems effectiveness, the analytical approach was used to investigate whether the CASNOS fund has an effective social contribution management information system as a case study of Algerian companies.

1.7. previous researches :(literature review)

Numerous studies have mentioned the multifaceted relationship between employee satisfaction and information system effectiveness across various domains. This section synthesizes key findings from prior research, highlighting their methodologies, main results, and limitations.

Kalankesh et al. (2020) conducted a study entitled Factors Influencing User Satisfaction with Information Systems: A Systematic Review to identify those factors, focusing specifically on Hospital Information Systems (HIS). Their review encompassed articles published between 1990 and 2016, sourced from PubMed, Science Direct, and IEEE databases. The study revealed seven key dimensions impacting HIS user satisfaction: Quality of Information, Quality of System, Quality of Vendor Support, Usage of System, Perceived Utility, User Traits, and Organizational Structure & Management Approach. However, the authors acknowledge a limitation in their research: the reliance on older literature may not fully represent recent advancements in HIS and evolving user expectations;

Study of (Park, 2022) entitled Computational analysis of user experience and customer satisfaction with mobile food delivery services: Evidence from big data approaches, In the context of mobile meal delivery services, the author looked at customer satisfaction and user experience, by employing a big data approach. The study involved analyzing user reviews using two distinct natural language processing (NLP) methods to extract key user experience factors and their relationship to satisfaction levels. The findings revealed that sentiment dimensions, usability, usefulness, and affection significantly influence user satisfaction with mobile food delivery applications. However, the study acknowledges a limitation stemming from its reliance on user-generated reviews. This dependence on subjective data might introduce biases;

study of (Xu & Du, 2018) entitled: Factors Influencing Users' Satisfaction and Loyalty to Digital Libraries in Chinese Universities, the authors surveyed 426 users of Chinese university digital libraries to understand what drives satisfaction and loyalty. They found that high-quality systems and services, perceived usefulness, and users' affinity for the platform led to greater satisfaction, which then boosted loyalty. Demographics also mattered, but the study couldn't prove cause-and-effect due to its design;

study of (Salam & Farooq, 2020) entitled Does sociability quality of web-based collaborative learning information system influence students' satisfaction and system usage? The authors explored how the "sociability" of a web-based collaborative learning system (WBCLIS) affected student satisfaction and usage. By collecting responses from students in a service-learning course and analyzing data with PLS-SEM, they found that a more sociable WBCLIS indeed led to both higher satisfaction and more frequent use, ultimately benefiting the learning outcomes. However, because the study was limited to a specific course type, its findings might not apply broadly to all WBCLIS implementations;

study by (Li et al., 2021) entitled Customer Satisfaction with bank services: The Role of cloud services, security, e-learning and Service Quality, This study investigated what drives customer satisfaction in e-banking. Using a survey and structural equation modeling (SEM), they found that users are more satisfied when e-banking services are: delivered via reliable cloud platforms, perceived as secure, supported by helpful e-learning resources, and accompanied by overall good service quality. However, because the study relied on users' self-reported experiences, the results might be influenced by people exaggerating positive feelings or downplaying negative ones.

1.8. Organization of the Study: This study follows the IMRAD structure. In the second section, we outline the conceptual framework related to our topic. The third section details the methodology employed, while the results section presents the primary findings from our survey. Finally, we conclude with a brief summary of the main results and propose recommendations for CASNOS professionals to enhance the effectiveness of their social contribution information system.

2. Conceptual framework:

This section will describe the main keywords and give an overview of different models assessing information systems.

2.1 User satisfaction

User satisfaction represents an individual's positive or negative attitude toward an information system after using it (Bailey & Pearson, 1983). various factors, such as perceived usefulness, ease of use, interface quality, information quality, informational content, system reliability, and technical support quality (Davis, 1989) (Kalankesh et al., 2020)) influence user satisfaction. A satisfied user is more likely to use the system regularly, and optimally, and recommend its use to others.

2.2 Information system

An information system is an organized set of resources, encompassing hardware, software, human elements, and data, that interact to collect, store, process, and disseminate information within an organization (Laudon & Laudon, 2020) (O'Brien & Marakas, 2011); (Stair & Reynolds, 2018). It is a complex socio-technical system designed to support operational processes, decision-making, and value creation within an organization.

2.3 Information system effectiveness

The effectiveness of an IS refers to its ability to achieve the objectives for which it was designed and implemented (William Delone & Ephraim, 2003). Its effectiveness is gauged by performance, reliability, flexibility, integration with other systems, security, and its capacity to fulfill users' and organizations' needs (Seddon, 1997). In essence, an effective information system enables the organization to achieve its objectives both efficiently and effectively.

2.4 Different models for measuring information system effectiveness

The effectiveness of information systems can be evaluated using several models, including the ones mentioned below:

2.4.1 The mclean and delone model (1992)

This approach is a leading example of extensively utilized theoretical approaches for assessing IS effectiveness. It identifies six criteria for assessing the information systems success (Alotaibi & Alshahrani, 2022) (Urbach & Müller, 2012);(William Delone & Ephraim, 2003):

- System Quality: Assesses the operational effectiveness of the IS.
- Information Quality: Measures the pertinence, accuracy, and quality of the information provided by the IS.
- Use: Relates to how frequency and in what ways users engage with the IS.
- User Satisfaction: Evaluates the overall satisfaction of users with the IS.
- Individual Impact: Examines the effects of the IS on the personal performance of users.
- Organizational Impact: Evaluate the Information system's impact on the overall performance of the organization.

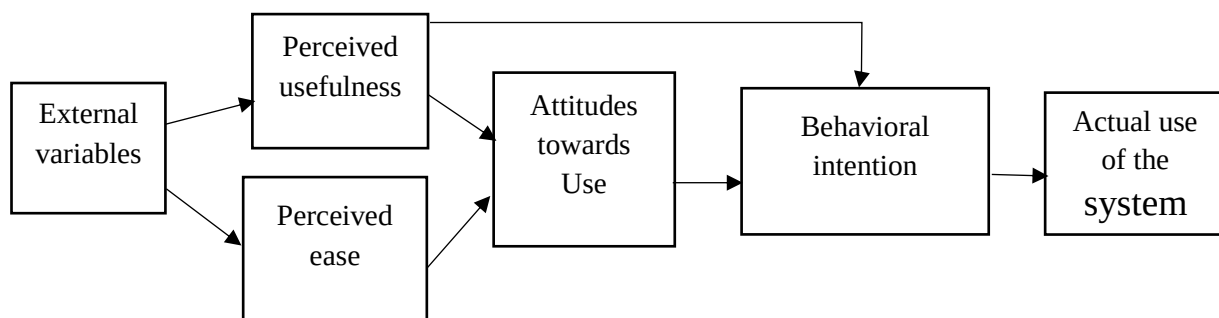
2.4.2 The technology acceptance model (TAM)

TAM, brought into focus by (Davis, 1989), focuses more on the acceptance of technology by a user as well as the use of technology by the user. TAM identifies two primary variables (Luciani et al., 2023); (Venkatesh & Davis, 2000):

Perceived Usefulness: Also defined as the extent to which a user considers that the adoption of the IS will improve their work in many ways.

Perceived Ease of Use: The extent that a user expects his interactions with the IS would be effortless. These types of perceptions, in turn, affect the users' attitudes toward IS and, in due course, their use intention toward the technology. The TAM has been widely used and modified in different studies to investigate technology adoption determinants because of its simplicity and ease of use (Dulcic et al., 2012).

Figure N°01: Technology Acceptance Model TAM



Source: y.Malhotra, D.Galletta, 1999, page 02.

According to (Malhotra & Galletta, 1999), the scope of the model devotes as much analysis to explanation as it does to description. It seeks to provide a verifiable and universal account of the determinants of information technology acceptance. The model is intended to be useful across various contexts, providing insights into user behavior across various technologies and populations, while maintaining theoretical rigor and simplicity.

2.4.3 The user satisfaction model

According to Khajouei & Farahani (2019), DeLone & McLean (2016), however, the satisfaction of users with a system, is how the users comprehend the ability of the system to realize their information needs.

This and about to advise quite some other information systems scholars that they should apply (DeLone & McLean, 1992) to their empirical studies as satisfactory their satisfaction model. In particular this model addresses the need to consider user dissatisfaction as the only one measure of Information system impact effectiveness. some factors are responsible for the satisfaction of the user (Bailey & Pearson, 1983):

- Service quality: the degree of assistance as well as other connected services rendered to an IST.
- Perceived usefulness: the how the IST is believed to add onto the productivity of the users.
- Ease of use: the complexity of a system and how obvious the IS is.
- User Experience: The whole interaction with the IST including the graphical interface and how
- friendly the systems are designed. Americans who have traveled to 38 countries, including Europe and Africa.
- User satisfaction-based models lack the factors which reinforce the psychological concerns regarding the IS usage behavior and the self-control over time.

2.5 The relationship between user satisfaction and information systems effectiveness

The past many years have had their scholarly focus on the interplay existing between the user's satisfaction and the effectiveness of the information systems (IS). More often than not, it is believed that user satisfaction is one of those determinants which indicate whether an information system has been effective or successful. Locating existing investigations and analysis carried out on the field, this chapter assesses the empirical evidence in regards with the correlation between user satisfaction and the total IS effectiveness.

2.5.1 User satisfaction in evaluation metrics of an information system

User-satisfaction measure involves service, information and system usability. User satisfaction growing figures indicate that the design has a good performance in fulfilling the considerations of its audience. An analysis of the recent findings, however, indicates that there is a strong positive relationship between user satisfaction and the effectiveness of the Information system in the organization. For instance, the case of (Petter et al., 2008) showed that the perceived Net Benefits of an information system are strongest determined by the satisfaction cues of the users. users who are content with the system feel that the system is facilitating their work through improving their productivity.

2.5.2 Influencing factors of User Satisfaction

User satisfaction is made possible by several factors, which in turn affects the end effectiveness of a given information system. In the opinion of Wixom and Todd (2005), the user satisfaction can be largely influenced by 3 factors which are, the information provided, the system itself and the services provided. High quality, accuracy, relevance and timeliness bolsters user trust and reliance on the system, resulting in heightened satisfaction and perceived effectiveness. In addition, it is worth noting that efficiency of a system which involves its ease of use, reliability, and features included in the interface design has a very positive contribution towards satisfaction of the user (Torkzadeh & Doll, 1999). Users are able to have a good experience with information systems and as a result the information systems resources productivity is increased when there are simple navigations and good consistent sweets from systems that are operating in the background.

2.5.3 Influence of user satisfaction on IS achievement

The level of impact of user satisfaction on information systems is not limited to personal perspectives. More satisfied users can lead to greater levels of acceptance and use of the system, which is essential in increasing the return on investment in information systems. Wang and Liao (2008) claim that user satisfaction is an important source that enhances the interaction of users, his satisfaction facilitates acceptance, and uses such systems, which is critical for the attainment of information systems. To add to this, those users of the system that are contented with the system tend to provide constructive criticism and recommendations that assist in the improvement and development of the system (Urbach & Müller, 2012). This becomes a step that feeds pagination and, in many cases, the development of new systems, the problems of ‘consumers’ and the target audience are solved.

3. Method:

3.1 Sample and data collection process:

In the efforts to form an all-rounded understanding of use and perception of an information system daily, a single case is studied: the National Social Security Fund for Non-Salaried Workers (CASNOS), targeting its agencies in TEBESSA and KHENCHELA provinces of Algeria. Our research aimed at assessing the success of their social security contributions collection management system, SYSCAS. For this purpose, a questionnaire was created to assess the level of the employees of CASNOS satisfaction with the effectiveness of SYSCAS in their routine tasks. This questionnaire addresses four major issues with the system: functionality, impact on work, efficiency of the collection process, and quality of reporting. We employed a structured cross-sectional design and used descriptive statistics to analyze a questionnaire that was completed by a sample of 68 employees of CASNOS. The questions, structured with 5-point Likert scales, enable respondents to express their level of agreement or disagreement with statements of each dimension. Analyzing the data obtained from this questionnaire will allow us to test our previously formulated hypotheses and develop recommendations for optimizing SYSCAS usage within CASNOS.

3.2 Analysis method

Analysis of the collected data was conducted using IBM SPSS 27 statistical software, employing normality tests, correlation analyses, and non-parametric tests. First and foremost, we ensured our questionnaire's validity and reliability using the coefficient of alpha Cronbach and a correlation matrix. Next, descriptive data analysis (means, standard deviations) provided us with an initial overview of employees' perceptions regarding SYSCAS.

Finally, to test our research hypotheses, we employed non-parametric statistical tests, specifically the Wilcoxon signed-rank test. This choice was justified by the non-normal nature of our data, confirmed by the Kolmogorov-Smirnov and Shapiro-Wilk normality tests. All statistical analyses were performed using SPSS IBM 27 software.

4. Results:

4.1 Research instrument reliability analysis

We used Cronbach's alpha for each dimension and the entire questionnaire to ensure the questionnaire's reliability.

Table N°01: Alpha Cronbach value

Dimension	Alpha Cronbach	Number of Items
SYSCAS Functionality	0.886	7
Impact of SYSCAS on Work	0.899	6
Contributions collection Process	0.875	6
Reporting and Analysis	0.873	6
All Dimensions Combined	0.769	25

Source: compiled by authors based on IBM SPSS 27 output.

According to the first table, the results demonstrate excellent internal consistency with values of 0.886 for the first dimension, SYSCAS Functionality, 0.899 for the impact of SYSCAS on work quality, 0.875 for the Collection Process dimension, 0.873 for the Reporting and Analysis dimension, and 0.769 for the entire questionnaire. These values indicate that the items within each dimension and the overall questionnaire consistently measure the concepts targeted by the research. This strengthens the reliability of our research instrument.

4.2 Research instrument validity analysis

Table N°02: Research instrument validity analysis

		SYSCAS Functionality	Impact of SYSCAS on Work	Collection Process	Reporting and Analysis
SYSCAS Functionality	Correlation of Pearson	1	,318**	,245*	,252*
	Sig. (2-tailed)		,008	,044	,038
	N	68	68	68	68
Impact of SYSCAS on Work	Pearson of correlation	,318**	1	,618**	,743**
	Sig. (2-tailed)	,008		,000	,000
	N	68	68	68	68

Collection Process	Pearson of correlation	0,245*	,618**	1	,822**
	Sig. (2-tailed)	,044	,000		,000
	N	68	68	68	68
Reporting and Analysis	Pearson of correlation	,252*	,743**	,822**	1
	Sig. (2-tailed)	,038	,000	,000	
	N	68	68	68	68

** . Correlation shows significance at the 0.01 level (2-tailed).

*. Correlation shows significance at the 0.05 level (2-tailed).

Source: compiled by authors based on IBM SPSS 27 output.

The analysis of the information system SYSCAS's effectiveness, based on data collected through a questionnaire and analyzed using SPSS IBM 27, reveals significant correlations between the different variables studied. The results indicate significance levels of $p < .01$ and $p < .05$, thus confirming the validity of our research instrument. For instance, the Pearson correlation between SYSCAS functionality and its impact on work is .318 ($p = .008$), while the correlation between the collection process and reporting and analysis is .822 ($p < .001$). These findings demonstrate robust and coherent relationships between the variables, attesting to the reliability and pertinence of the collected data for evaluating SYSCAS's effectiveness.

4.3 The sample's socio-professional characteristics

In this section, we will give an overview of the socio-professional characteristics of the sample.

Table N°03: The sample's socio-professional characteristics

	Category	Frequency	Percentage
Variable	Male	30	40,10
	Female	38	55,90
	Total	68	100%

Age	Less than 25 years old	1	1,5
	25-34 years old	9	13,2
	35-44 years old	41	60.3%
	45-54 years old	13	19.1%
	55-64 years old	4	5.9%
	Total	68	100%
Education Level	High School Diploma	3	4,4
	University Degree (Bachelor)	27	39,7
	University Degree (Master's)	33	48,5
	Doctorate	5	7,4
	Total	68	100%
Seniority	1-3 years	1	1,5
	4-6 years	5	7,4
	7-10 years	42	61,8
	More than 10 years	20	29,4
	Total	68	100%
Job Title	Senior Manager	19	27.9%
	Management Agent	47	69.1%
	Executive Agent	1	1.5%
	Supervisory Agent	1	1.5%
	Total	68	100%
Department	Contributing Service	32	47.1%
	Registration Service	9	13.2%
	Member Control Service	9	13.2%
	Litigation Service	12	17.6%

Social Insured Service	4	5.9%
Finance and Accounting Service	2	2,9
Total	68	100

Source: compiled by authors based on IBM SPSS 27 output.

Analysis of the information system users' socio-professional characteristics reveals a balanced gender distribution, with a slight majority of women representing 55.9% of the sample. Regarding age, the majority of employees (60.3%) fall between 35 and 44 years old, indicating a predominantly experienced workforce. In terms of education level, a significant portion of employees hold university degrees, with 48.5% possessing a Master's degree and 39.7% holding a Bachelor's degree. This emphasizes the company's emphasis on academic qualification during recruitment.

The employees' seniority within the organization shows that 61.8% of them have been working there for 7 to 10 years, suggesting stability and solid professional experience within the team. The majority of positions are held by management agents (69.1%), which may indicate an organizational structure favoring management and supervision. Finally, the distribution across departments reveals a predominance of the contributing service, representing 47.1% of employees. This likely reflects a priority placed on contribution management within the studied information system.

These statistics demonstrate that the organization values not only professional experience and stability but also a high level of academic qualification. This could positively impact the information system's overall effectiveness and performance.

Table N°04: Representation of the degree of satisfaction and acceptance

Degree of Satisfaction	Weighted Average	Level of Acceptance
Not at all satisfied	1.00 - 1.80	Quite Weak
Not satisfied	1.81 - 2.60	Weak
Neither satisfied nor dissatisfied	2.61 - 3.40	Average
Satisfied	3.41 - 4.20	Strong
Very satisfied	4.21 - 5.00	Quite Strong

Source: compiled by authors based on IBM SPSS 27 output.

4.4 Mean values and standard deviations of responses

Table N°05: Mean values and standard deviations of responses for the SYSCAS functionality dimension

Variable	N	Mean	Standard Deviation	Level of Acceptance
Ease of use and user-friendliness of the system	68	4,31	1,188	Quite Strong
Speed and reliability of the system	68	3,96	0,871	Strong
Clarity and relevance of the information provided	68	3,93	1,150	Strong
Effectiveness of data search and filtering functionalities	68	4,03	1,171	Strong
Sécurité et confidentialité des données	68	4,10	1,108	Strong
Integration with other systems used by your department	68	3,94	0,896	Strong
Quality of technical support and user documentation	68	4,07	0,982	Strong
Overall SYSCAS Functionality Dimension	68	4,0147	0,67826	Strong

Source: compiled by authors based on IBM SPSS 27 output.

The results reveal that the system's user-friendliness and ease of use are very well-perceived, with a mean of 4.31 and a standard deviation of 1.188. Moreover, the speed, reliability, clarity of information, effectiveness of functionalities, security, and quality of technical support are all highly appreciated, with means nearing 4. Overall, the SYSCAS functionality dimension shows a mean of 4.01 and a standard deviation of 0.678, reflecting a generally positive and strong perception.

Table N°06: Mean values and standard deviations of responses for the impact of SYSCAS on work dimension

Variable	N	Mean	Standard Deviation	Level of Acceptance
The information system has allowed me to save time on my contribution collection tasks.	68	4.28	0.895	Quite Strong
The system allows me to better track the status of collections.	68	4.31	0.950	Quite Strong
The system facilitates communication and collaboration within my team.	68	3.99	1.000	Strong
The system has helped improve the quality of service provided to members.	68	4.13	0.929	Strong
In general, the information system has contributed positively to my work.	68	4.40	0.933	Quite Strong
I feel more efficient and productive in my work thanks to SYSCAS.	68	3.97	1.065	Strong
Overall Impact of SYSCAS on the Work Dimension	68	4.2157	0.55618	Quite Strong

Source: compiled by authors based on IBM SPSS 27 output.

The information system has had a notably positive impact on work, allowing for time savings (mean of 4.28) and improvement in collection tracking (mean of 4.31). Communication and collaboration within teams are also strengthened (mean of 3.99), as is the quality of service provided to members (mean of 4.13). Overall, employees feel more efficient and productive thanks to SYSCAS (mean of 3.97), with the overall perception of the system's impact on work reaching a mean of 4.2157.

Table N°07: Mean and standard deviation of responses for the social security contribution collection process dimension

Variable	N	Mean	Standard Deviation	Level of Acceptance
Clarity and effectiveness of collection procedures	68	4.35	0.768	Quite Strong
Effectiveness of follow-up on collection actions	68	4.46	0.762	Quite Strong
Coordination between the different departments involved in the collection process	68	4.35	0.860	Quite Strong
Quality and accessibility of documentation relating to collection processes	68	4.21	0.907	Quite Strong
Consideration of the specific situations of members/clients experiencing payment difficulties	68	4.40	0.756	Quite Strong
Ease of handling complaints and disputes	68	3.97	0.897	Strong
Overall Impact of SYSCAS on the Social Security Contribution Collection Process Dimension	68	4.3113	0.48348	Quite Strong

Source: compiled by authors based on IBM SPSS 27 output.

The results show a positive perception of recovery procedures with an average of 4.35 and a standard deviation of 0.768, and the effectiveness of action monitoring with an average of 4.46 and a standard deviation of 0.762. The coordination between services and the quality of documentation are also well perceived with averages of 4.35 and 4.21, respectively. The consideration of specific situations of members in difficulty is appreciated with an average of 4.40. The management of complaints and disputes has an average of 3.97. Overall, the impact of (SYSCAS) on the recovery process achieves an average of 4.3113, indicating a fairly strong and consistent perception.

Table N°08: Mean and standard deviation of responses for the reporting and analysis dimension

Variable	N	Mean	Standard Deviation	Level of Acceptance
The system provides clear and relevant reports on the status of collections.	68	4.47	0.743	Quite Strong
The system facilitates the production of key performance indicators (KPIs) for contribution collection.	68	4.32	0.781	Quite Strong
The data extracted from the system is reliable and usable.	68	4.32	0.722	Quite Strong
The system offers analysis and simulation functionalities to optimize collection actions.	68	4.34	0.874	Quite Strong
I can customize reports according to my specific needs.	68	4.09	0.859	Strong
The data and analyses generated by the system allow me to make better decisions.	68	4.37	0.731	Quite Strong
Overall Impact of SYSCAS on Reporting and Analysis Dimension	68	4.3382	0.48525	Quite Strong

Source: compiled by authors based on IBM SPSS 27 output.

Descriptive analysis reveals a positive perception of the impact of the (SYSCAS) system on reporting and recovery analysis. Respondents particularly appreciate the clarity of reports ($M = 4.47$) and their contribution to decision-making ($M = 4.37$). The customization of reports ($M = 4.09$) represents a potential area for improvement to maximize the system's utility. Overall, the impact of (SYSCAS) on the reporting and analysis axis shows an average of 4.3382, indicating a fairly strong and consistent perception.

4.5 Normality test results

This table summarizes the normality test results.

Table N°09: normality test

Dimension	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	DDL	Sig.	Statistic	DDL	Sig.
SYSCAS Functionality	0.193	68	< .001	0.864	68	< .001
Impact (SYSCAS) on Work	0.173	68	< .001	0.894	68	< .001
Social Security Contribution Collection Process	0.162	68	< .001	0.890	68	< .001
Reporting and Analysis	0.187	68	< .001	0.828	68	< .001
a. Lilliefors Significance Correction						

Source: compiled by authors based on IBM SPSS 27 output.

Data analyzed using Kolmogorov-Smirnov and Shapiro-Wilk normality tests related to the effectiveness of the (SYSCAS) system reveal a non-normal distribution for all studied variables ($p < 0.001$). This non-normality justifies the use of non-parametric statistical analyses for data exploitation and supports the validity of the research instrument used.

4.6 Hypotheses test

In this section, we used the Wilcoxon test for a single sample to examine the validity of the Zero hypotheses.

Zero hypothesis 01: No statistically significant difference exists between employee satisfaction and the variable Functionality of (SYSCAS) at the $\alpha \leq 0.05$ level.

Table N°10: Wilcoxon test for a single sample of the variable features of (SYSCAS)

Hypothesis testing results summary				
Zero Hypothesis	Test	Sig. a,b	Decision	
1 the median of SYSCAS functionality is equal to 3.00.	Wilcoxon Test for Signed Ranks	< 0,001	Dismiss the Zero Hypothesis No. H01	
a. Level of significance is.050.				
b. Asymptotic significance is shown.				

Source: compiled by authors based on IBM SPSS 27 output.

Zero hypothesis 03: No statistically significant difference between employee satisfaction and the variable Impact of (SYSCAS) on work at the $\alpha \leq 0.05$ level.

Table N°11: Wilcoxon test for a single sample of the variable impact of (SYSCAS) on work

Hypothesis testing results summary				
	Zero Hypothesis	Test	Sig. a,b	Decision
1	The median of the impact of SYSCAS on work is equal to 3.00.	Wilcoxon test for Signed Ranks	< 0,001	Dismiss the Zero hypothesis No. H02
a. Level of significance is.050.				
b. Asymptotic significance is shown.				

Source: compiled by authors based on IBM SPSS 27 output.

Zero hypothesis 03: No statistically significant difference between employee satisfaction and the variable Social Security Contribution Collection Process at the $\alpha \leq 0.05$ level.

Table N°12: Wilcoxon test for a single sample of the variable Recovery Process

Hypothesis testing results summary				
	Zero Hypothesis	Test	Sig. a,b	Decision
1	The median of the Social Security Contribution Collection Process is equal to 3.00.	Wilcoxon test for Signed Ranks	< 0,001	Dismiss the Zero hypothesis No. H03
a. Level of significance is .050.				
b. Asymptotic significance is shown.				

Source: compiled by authors based on IBM SPSS 27 output.

Zero hypothesis 04: No statistically significant difference between employee satisfaction and the variable Impact of (SYSCAS) on reporting and analysis at the $\alpha \leq 0.05$ level.

Table N°13: Wilcoxon test for a single sample of the variable Impact of (SYSCAS) on reporting and analysis

Hypothesis testing results summary				
	Zero Hypothesis	Test	Sig. a,b	Decision
1	The median of reporting and analysis is equal to 3.00.	Wilcoxon test for Signed Ranks	< 0,001	Dismiss the Zero hypothesis No. H04
a. Level of significance is.050.				
b. Asymptotic significance is shown.				

Source: compiled by authors based on IBM SPSS 27 output.

Main Zero Hypothesis H0: No statistically significant difference between employee satisfaction and effectiveness of (SYSCAS) at the $\alpha \leq 0.05$ level.

Table N°14: Main hypothesis test

Hypothesis testing results summary				
	Zero Hypothesis	Test	Sig. a,b	Decision
1	The median of the effectiveness of SYSCAS is equal to 3.00.	Wilcoxon test for Signed Ranks	< 0,001	Dismiss the Zero hypothesis No. H0
a. Level of significance is .050.				
b. Asymptotic significance is shown.				

Source: compiled by authors based on IBM SPSS 27 output.

5. Discussion in light of previous research:

This study investigated the effectiveness of SYSCAS, the information system used by CASNOS for social security contribution collection, through the lens of employee satisfaction. Our findings indicate that SYSCAS has been successful in achieving a high level of employee satisfaction across several key dimensions, aligning with broader research emphasizing the positive relationship between employee satisfaction and information systems success (DeLone & McLean, 1992; Petter et al., 2008). Our study found that SYSCAS demonstrates strong performance in functionality, positively impacting work processes and ultimately contributing to overall employee satisfaction. This resonates with Thong & Yap (1996) assertion that user satisfaction serves as a valuable approach to gauging information system effectiveness. This positive perception of SYSCAS's functionality, particularly its ease of use and usefulness, aligns strongly with the principles of the Technology Acceptance Model (TAM) (Davis, 1989). The TAM posits that perceived usefulness and ease of use are primary drivers of user acceptance of technology. Consistent with this, our results also indicate that these important considerations appear to have been successfully addressed in the design of SYSCAS, leading to positive feedback from employees.

This reflects findings of Dulcic et al. (2012) Using TAM to assess decision supporting systems in Croatian firms found positive connections of perceived usefulness, ease of use, and acceptance by users. Additionally, our investigation illustrates that SYSCAS has simplified methods in the receipt of contributions and resulted in improved work productivity. This is in sync with generalized studies highlighting the significance of information systems in making organizational processes more efficient thus led public sector performance (Laudon & Laudon, 2020; O'Brien & Marakas, 2011). Our finding is in line with that obtained by Khajouei and Farahani's (2019) study, which evaluated user satisfaction with Iran's Social Security Electronic System. Similar to ours, their study stresses the significance of user-centered design and the benefits brought by effective information systems on organizational efficiency especially in its own realm,

social security administration. In addition, SYSCAS's reporting and analysis functions received favorable user feedback, indicating that the system supports decision-making with in CASNOS. This concurs with past research underlining the importance of sustainable visualization and reporting tools for enhancing organizational performance (William Delone & Ephraim, 2003). Accessible and holistic data provided to employees creates an almost perfect setting facilitating contributing collection strategy optimizations as well as service delivery workflow enhancements even adjustments can be made without the need for a technical upgrade through the so-called citizen development.

6. Conclusion:

The purpose of our article is to evaluate the effectiveness of one information system (SYSCAS) placed within the agencies as CASNOS in TEBESSA and KHENCHELA, through its impact on achieving employee satisfaction and improving the process of social contribution management. Data was collected from 68 employees and analyzed with the help of IBM SPSS 27 software, and found to be significant. Our first contribution is validation of the hypothesis that employee satisfaction positively correlates to (SYSCAS) performance on the one hand. System dimensions such as functionality, impact on work, recovery efficiency, and reporting quality were all positively rated by users, thereby contributing to an overall high level of satisfaction. Furthermore, the study identifies employee satisfaction as a vital metric of an information system's success. Indeed, satisfied employees are more likely to use the system optimally, which can lead to tangible improvements in organizational processes, such as contribution recovery in the case of (SYSCAS).

Considering these results, we formulate the following recommendations:

- Continue improving the ergonomics and employee-friendliness of (SYSCAS): Invest in additional training for users and further simplify the user interface.
- Enhance communication and user support: Establish a more responsive technical support service and develop internal communication tools (FAQs, tutorials) to address user inquiries.
- Utilize the analysis and reporting functionalities of (SYSCAS) more effectively: Train managers in the use of dashboards and key performance indicators to more efficiently manage social contribution recovery activities.
- Conduct regular satisfaction surveys: Track the evolution of user needs and expectations, and adapt (SYSCAS) accordingly.

In conclusion, (SYSCAS) represents a valuable tool for CASNOS. By following the recommendations outlined, the organization can optimize the use of this system and maximize its positive impact on overall agency performance and employee satisfaction.

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