

**UNIVERSIDAD PERUANA UNIÓN**  
FACULTAD DE INGENIERÍA Y ARQUITECTURA  
Escuela Profesional de Ingeniería de Sistemas



**Impacto de la implantación de una Data Warehouse en la  
satisfacción de la gestión de la morosidad del CIF-CDSMT**

Tesis para obtener el Título Profesional de Ingeniero de Sistemas

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Tarapoto, Octubre 2024

## DECLARACIÓN JURADA DE ORIGINALIDAD DE TESIS

Yo Miguel Ángel Valles-Coral, docente de la Facultad de Ingeniería y Arquitectura de la Escuela Profesional de Ingeniería de Sistemas, de la Universidad Peruana Unión.

DECLARO:

Que la presente investigación titulada: **“IMPACTO DE LA IMPLANTACIÓN DE UNA DATA WAREHOUSE EN LA SATISFACCIÓN DE LA GESTIÓN DE LA MOROSIDAD DEL CIF-CDSMT”** del (los) autor (autores) (Nombres y apellidos de los autores) tiene un índice de similitud de **08 %** verificable en el informe del programa Turnitin, y fue realizada en la Universidad Peruana Unión bajo mi dirección.

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Miguel ángel Valles-Coral

ACTA DE SUSTENTACIÓN DE TESIS



En San Martín, Tarapoto, Morales, a 10 día(s) del mes de octubre del año 2024 siendo las 11:00 horas, se reunieron los miembros del jurado en la Universidad Peruana Unión Campus Tarapoto, bajo la dirección del (de la) presidente(a): Mg. Dany Lévano Rodríguez el (la) secretario(a): Mg. Sergio Omar Valladares Castillo y los demás miembros: Mg. Marco Antonio Ruiz Grandez y el (la) asesor(a) Dr. Miguel Ángel Valles Coral

con el propósito de administrar el acto académico de sustentación de la tesis titulado: "Impacto de la implantación de una data warehouse en la satisfacción de la gestión de la morosidad del CIP-CDSMT"

del(los) bachiller/es: a) Alexander Romero chuguita  
 b) John Jeanfranco Melendres Velasco  
 c) \_\_\_\_\_

conducente a la obtención del título profesional de: Ingeniero de sistemas  
(Denominación del Título Profesional)

El Presidente inició el acto académico de sustentación invitando al (a la) / a (los) (las) candidato(a)s hacer uso del tiempo determinado para su exposición. Concluida la exposición, el Presidente invitó a los demás miembros del jurado a efectuar las preguntas, y aclaraciones pertinentes, las cuales fueron absueltas por al (a la) / a (los) (las) candidato(a)s. Luego, se produjo un receso para las deliberaciones y la emisión del dictamen del jurado.

Posteriormente, el jurado procedió a dejar constancia escrita sobre la evaluación en la presente acta, con el dictamen siguiente:

Bachiller-(a): Alexander Romero chuguita

| CALIFICACIÓN    | ESCALAS   |          |              | Mérito           |
|-----------------|-----------|----------|--------------|------------------|
|                 | Vigesimal | Literal  | Cualitativa  |                  |
| <u>Aprobado</u> | <u>16</u> | <u>B</u> | <u>Bueno</u> | <u>Muy Bueno</u> |

Bachiller -(b): John Jeanfranco Melendres Velasco

| CALIFICACIÓN | ESCALAS   |         |             | Mérito |
|--------------|-----------|---------|-------------|--------|
|              | Vigesimal | Literal | Cualitativa |        |
|              |           |         |             |        |

Bachiller -(c): \_\_\_\_\_

| CALIFICACIÓN | ESCALAS   |         |             | Mérito |
|--------------|-----------|---------|-------------|--------|
|              | Vigesimal | Literal | Cualitativa |        |
|              |           |         |             |        |

(\*) Ver parte posterior

Finalmente, el Presidente del jurado invitó al (a la) / a (los) (las) candidato(a)s a ponerse de pie, para recibir la evaluación final y concluir el acto académico de sustentación procediéndose a registrar las firmas respectivas.

\_\_\_\_\_  
 Presidente/a

[Firma]  
 Secretario/a

\_\_\_\_\_  
 Asesor/a

\_\_\_\_\_  
 Miembro

\_\_\_\_\_  
 Miembro

\_\_\_\_\_  
 Bachiller (a)

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 Bachiller (b)

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 Bachiller (c)

**\*) Tabla de Calificación**

| CALIFICACIÓN | ESCALAS     |                                    |                                     | Mérito        |
|--------------|-------------|------------------------------------|-------------------------------------|---------------|
|              | Vigesimal   | Literal                            | Cualitativa                         |               |
| APROBADO     | 20          | A+                                 | Con nominación de <b>Excelente</b>  | Excelencia    |
|              | 19          | A                                  |                                     |               |
|              | 18          | A-                                 | Con nominación de <b>Muy Bueno</b>  | Sobresaliente |
|              | 17          | B+                                 |                                     |               |
|              | 16          | B                                  | Con nominación de <b>Bueno</b>      | Muy Bueno     |
|              | 15          | B-                                 |                                     |               |
| 14           | C           | Con nominación de <b>Aceptable</b> | Bueno                               |               |
| DESAPROBADO  | Menos de 14 | D                                  | Con nominación de <b>Deficiente</b> | Insuficiente  |

## **Impact of a Data Warehouse on Satisfaction with Delinquency Management of the CIP-CDSMT** **Impacto de un Data Warehouse en la Satisfacción de la Gestión de Morosidad del CIP-CDSMT**

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### **KEYWORDS**

Decisions; DwH; Implementation; Information; Solutions

Decisiones; DwH; Implementación; Información, Soluciones

**ABSTRACT:** In recent years, making decisions based on information has been essential to acquire knowledge on issues that involve organizational growth, however, the misuse of data generates a deficiency in the actions that as an institution should be carried out, this leads to problems regarding the management of the company. The objective of the research was to determine the impact of the implementation of a data warehouse on the satisfaction of late payment management at the College of Engineers of Peru – San Martin Departmental Council (CIP-CDSMT). For this, an experimental investigation was carried out, taking the board of directors of the CIP-CDSMT as a sample, a questionnaire was applied to measure the impact of the solution proposal, we also used the Kimball methodology as a guide in the construction of the DwH to organize and structure the data necessary for the construction of the proposal. 92% of those surveyed recognized the improvements in decision making, which marks a big difference between the pre- and post-test. In conclusion, the implementation of the DwH allowed the data to be managed in an orderly manner, structuring and transforming it, leading to the application of filters that make possible the analysis of the information, which served as support in making strategic decisions, being reflected in the increase of the level of satisfaction, generating tangible benefits.

**RESUMEN:** En los últimos años, tomar decisiones basada en información ha sido fundamental, para adquirir conocimiento sobre temas que involucran al crecimiento organizacional, sin embargo, el mal uso de datos genera deficiencia sobre las acciones que como institución se debería realizar, esto conlleva a problemáticas sobre la gestión de la empresa. El objetivo de la investigación fue determinar el impacto de la implantación de una data Warehouse en la satisfacción de la gestión de la morosidad del Colegio de Ingenieros del Perú – Consejo Departamental San Martín (CIP-CDSMT). Para ello se realizó una investigación experimental, teniendo como muestra a la junta directiva del CIP-CDSMT, se aplicó un cuestionario para poder medir el impacto de la propuesta de solución, además empleamos la metodología Kimball como guía en la construcción del DwH para organizar y estructurar la data necesaria para la construcción de la propuesta. El 92% de los encuestados reconoció las mejoras sobre la toma de decisiones, lo que marca una gran diferencia entre el pre y pos-test. En conclusión, la implantación del DwH permitió manejar los datos de forma ordenada, estructurándola y transformándola, conllevando a la aplicación de filtros que haga posible el análisis de la información, que sirvió como apoyo en la toma de decisiones estratégicas, siendo reflejada en el aumento del nivel de satisfacción, generando beneficios tangibles.

## **1. Introduction**

The Data Warehouse (DwH) is a data repository responsible for storing, structuring, filtering and processing data to be processed for a specific purpose[1]. It is characterized by integrating data from different sources (database), using predefined schemes, allowing complex analyzes to be carried out, which results in obtaining valuable information for making strategic decisions in an organization, thus improving efficiency and satisfaction over the organization. process management, eliminating duplication and inconsistency of data, which results in the creation of proposals for beneficial solutions for organizations[2].

The creation of DwH within organizations has provided a successful foundation on the transformation of data as a form of asset[3], focusing on the development of strategies for decision making, for this its development process must be iterative, monitored to adjust its progress. as necessary. In this sense, the implementation of computer systems or solutions allows maintaining control over decisions, guaranteeing compliance with organizational goals[4].

The constant growth of information that companies store in their database is often not concrete, due to the dispersion of its origins[2]. Data fragmentation greatly hinders timely and accurate access to the knowledge generated by the process of transforming data into information, limiting the ability to make decisions. For this, the need arises to obtain a comprehensive and unified vision of information, becoming essential to facilitate informed and strategic decision-making[5].

Cases such as the CIP-CDSMT (College of Engineers of Peru- Departmental Council of San Martín - Tarapoto), which is dedicated to resolving disputes between parties through arbitration, dispute resolution boards and expert opinions, aims to provide an effective alternative to traditional judicial processes, offering reliable, efficient and transparent mechanisms for the dispute resolution. You are currently experiencing a problem that requires careful evaluation. Through the analysis carried out in the institution, a high number of disqualified members has been identified. Despite being a non-profit institution, the contribution of its members is necessary, which allows for correct organizational functioning. This is partly due to the perception of the company's management of resources, leading to dissatisfaction on issues of institutional transparency, where credibility is lost regarding the management of contributions as a means of organizational growth.

The purpose of this study is to solve a specific problem; to achieve this, it seeks to determine the impact of the implementation of a DwH on the satisfaction of the CIP-CDSMT delinquency management.

## 2. Methodology

### 2.1. Analysis

The type of research was applied, with a pre-experimental design, for the data collection process, a survey was used as an instrument, the questionnaire in question is self-authored, previously validated and approved by specialists in the area, including a type of assessment. Likert consisting of 5 points. Within the general population of members, only a small group are those responsible for making decisions, therefore it was considered to use as a sample the total population that is made up of the board of directors of the CIP-CDSMT.

An inferential analysis was carried out, where the confidence level for the calculation was 95% and a margin of error of 5%. The sample was made up of 29 individuals, because the use of the Wilcoxon test is for non-normally distributed variables and is very simple and straightforward for the purposes of this work, the T Test was used where the change and type of change is established. which is generated from the analysis of bilateral significance and mean values, also considering that the data or results are normally distributed.

To calculate and interpret the results of the questionnaire, the following procedure was followed: the responses of the odd statements were added and 5 were subtracted from them; Then the answers to the even-numbered statements will be added and 25 will be subtracted; Finally, both results were added and multiplied by 2.5. The score obtained was interpreted according to the following scale (Figure 1)

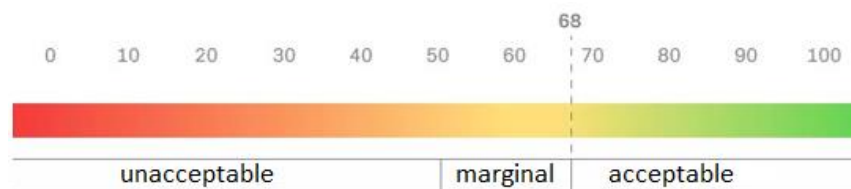


Figure 1 Representation of results

### 2.2. Development phase

For the construction of the DwH, the Kimball methodology was used due to its flexible and scalable approach[6]. Structuring the development in four (04) phases: initiation, elaboration, construction and transition; allowing all required aspects of the solution to be addressed, shown below in (table 1).

**Table 1** Solution development phases

| PHASE        | ACTIVITY  |
|--------------|---|
| START        | <ul style="list-style-type: none"> <li>- Defining DwH objectives</li> <li>- Identification of necessities</li> <li>- Analysis of data sources</li> <li>- Methodology Selection</li> </ul> |
| ELABORATION  | <ul style="list-style-type: none"> <li>- Dimensional data model design</li> <li>- Definition of dimensions and facts</li> <li>- ETL process design</li> <li>- Tool choice</li> </ul>      |
| CONSTRUCTION | <ul style="list-style-type: none"> <li>- Implementation of the ETL process</li> <li>- Loading data into DwH</li> <li>- Testing and validation</li> </ul>                                  |
| TRANSITION   | <ul style="list-style-type: none"> <li>- DwH in production</li> <li>- Monitoring</li> </ul>   |

To achieve our first objective, the initiation phase was carried out, in which we focused on identifying the project objectives, evaluating the needs and defining the business data sources, during this phase we carried out the variable analysis for the implementation of the solution, the use of methodology that adapts to the need of the problem was considered. To fulfill the second objective, we carried out the modeling of the data, dimensions and facts, during the phase the dimensional model of the tables was defined. In the construction phase we focus on the development of the solution applying the ETL process, in the transition phase, the DwH is delivered to the institution for validation and its implementation in production is prepared.

### 3. Results and discussion

The CIP-CDSMT currently has a business intelligence system to manage and have control over the payments of its members. After carrying out an analysis of those involved, it was identified that the system they use does not show specific characteristics that allow for control. on the management of delinquency, this is because the records found are not treated or transformed in a structural way, which allows having a holistic view of their reports in higher quality.

According to [7], [8] misuse of methodologies and tools that allow modeling DwH, leads to a significant decrease in the effectiveness of its application. This translates into a deficiency in obtaining accurate and timely information, generating data quality problems, information redundancy and a deficiency in its integration into information systems, affecting the organization's ability to compete in an increasingly driven environment. by data and accurate information, limiting market interpretation and organizational growth.

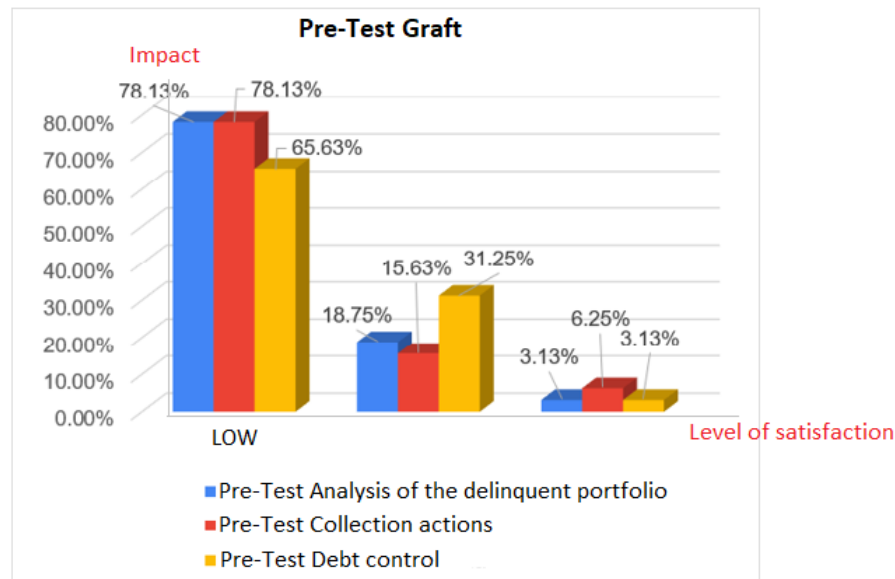
To evaluate the, a questionnaire with 16 questions was applied. The objective of the instrument was to collect the opinion of the CIP-CDSMT board of directors on the organization's delinquency management; the result is presented below with respect to the characterization of the current situation (Table 2).

**Table 2** Result of the application of the questionnaire

| People Surveyed | Score Obtained | State    | Ideal Score |
|-----------------|----------------|----------|-------------|
| 32              | 55             | Marginal | 100         |

Table 2 shows the average score of 55 in the application of the instrument, indicating a level of uncertainty in the appropriate use of the IN used for decision making in the organization, indicating that the management and efficiency of the reports does not allow decisions to be made. of quality, which leads to a low percentage of disqualified members.

Furthermore, considering that the instrument was divided by three criteria, which were delinquent portfolio, collection actions and debt control, thus managing to address the problem from a comprehensive perspective, allowing the strengths and weaknesses in each of these aspects to be identified, it was visualized in figure 2.



**Figure 2** Pre-Test graph of responses in form.

Based on the above, the purpose of the implementation of the DwH was to see the impact it would have regarding the satisfaction of the CIP-CDSMT's delinquency management, focusing on addressing the challenges it faces.

### 3.1. DwH Implementation

The implementation of a Data Warehouse is a complex process that requires careful planning and effective execution because it is a centralized repository of data that is used to support business decision making. It allows organizations to store and analyze data from various sources, providing valuable information to improve efficiency, productivity, and profitability[9].

For the construction of a Data Warehouse, important aspects must be considered, for example, its composition, where multiple data marts make up a DwH, being small groups of data that allow sharing a more specific distribution of information[10]. It is essential to have the methodology that best adapts to the objectives of the DwH, this implies recognizing the availability of data, cost and time. Considering all of the above, the Kimball methodology was considered, based on the construction of a dimensional data model from collected data, which allows the DwH to be adapted to the changing needs of the organization.

To fulfill our second study objective and offer a solution to the existing problem, we developed a Data Warehouse using the star schema data model. This approach allowed us to organize more efficiently and optimize analytical queries, as seen below in (Figure 3)

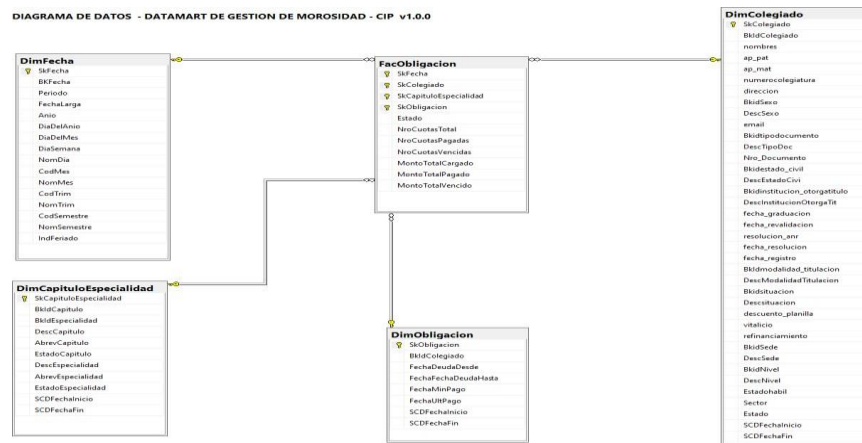


Figure 3 Delinquency management datamart star schema data model.

Figure 3 shows the diagram of the data used to develop the Data Warehouse. With the creation of the datamart, the wide range of data obtained was reduced, allowing the storage of information on CIP members, their obligations, and their delinquency situation, these being the important points to consider choosing the necessary measures in decision-making.

For this purpose, an architecture was structured for its construction, which is divided into three layers, each with its own components and processes that will allow the development of the proposed solution, as visualized in (Figure 4).

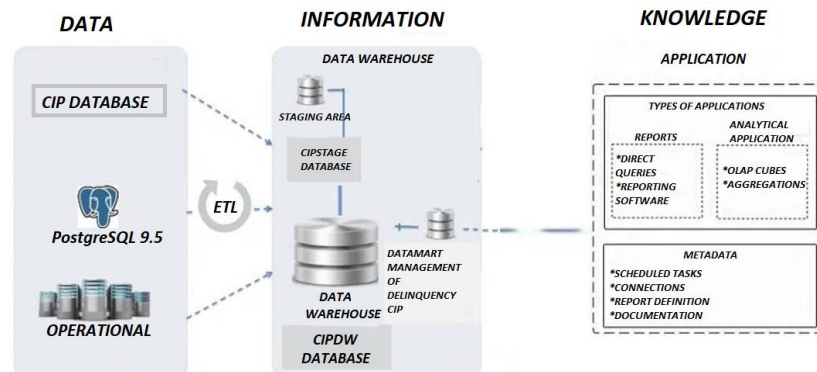
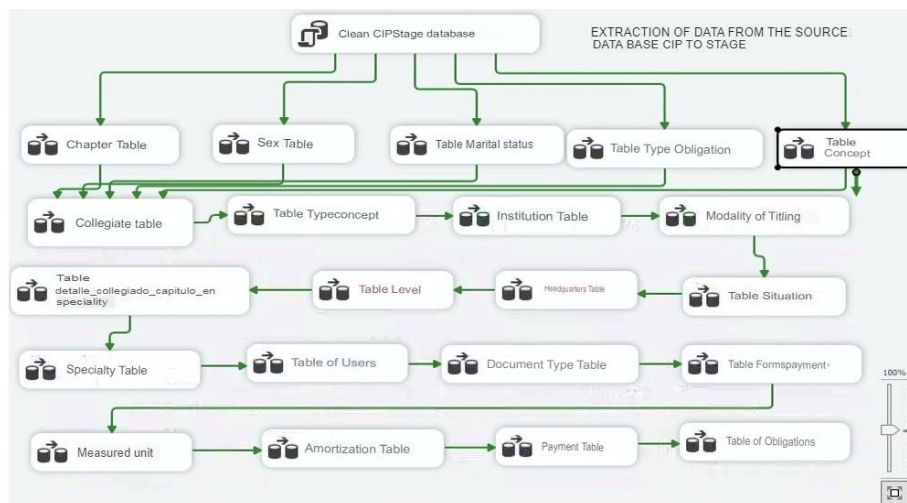


Figure 4 Solution construction architecture.

The first layer begins with the systematic collection of information through the company's internal sources (database). To carry out this process, it was necessary to use cleaning mechanisms as well as data validation to ensure the integrity and accuracy of the information. Prior to the second stage, the ETL process (Extraction, Transformation and Loading) was carried out, which helped to process and work with the data source to transform it and achieve compatibility with the common objective, to then be loaded into our DwH.

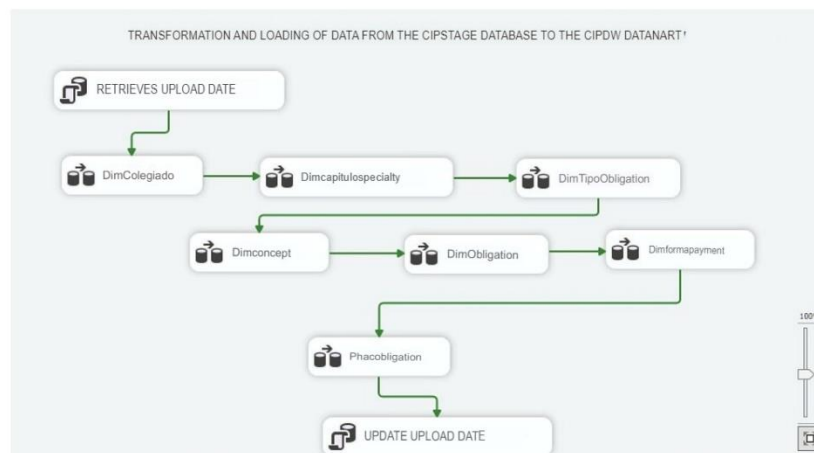
In the data extraction process, the most relevant information was collected, it is located in various sources of origin, this stage was crucial to guarantee the necessary use of the data to ensure the integrity and consistency of the information, which was subsequently processed in the data transformation phase, its structure is displayed in (Figure 5).



**Figure 5** Development of the ETL data extraction process.

Figure 5 shows the flow chart that organizes the data process based on the information from the CIP to a storage, being useful for understanding the steps involved in the process and knowing what data will be extracted and transformed.

The data transformation and loading process was where we prepared the information, which was subsequently analyzed and inconsistent data was cleaned, to generate consolidated and structured information in the data. In addition, formats were unified and the data from the various tables were consolidated, being for the analysis in the final database, as shown in (Figure 6).



**Figure 6** Development of the ETL process for data transformation and loading.

Figure 6 shows the DwH data diagram, where the table of facts and dimensions is structured and the relationships between tables are established, established through foreign keys, where this organization allowed structuring data to obtain information on factors that index in collections, enabling strategic decision making.

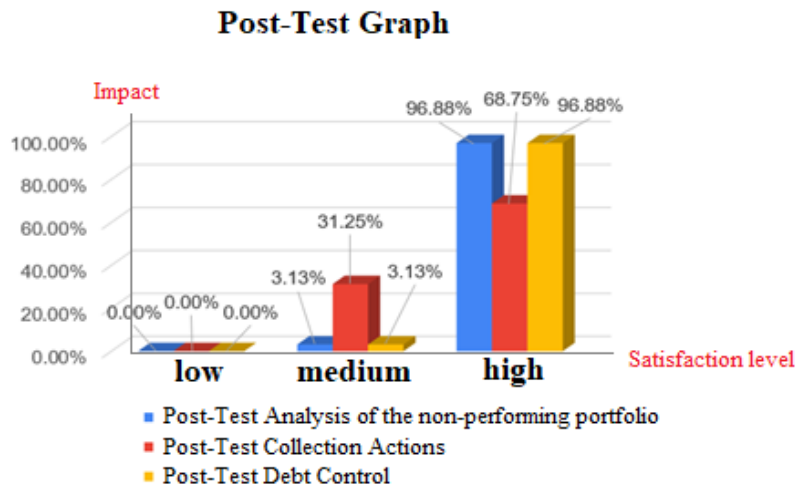
**3.2. Evaluate the impact of the implementation of a DwH on the satisfaction of the CIP-CDSMT delinquency management.**

Within the framework of our third objective, we will seek to analyze the impact of the implementation of a DwH on debt control, which translates into CIP-CDSMT delinquency management, as show in (Table 3).

**Table 3** Result of the application of the post-test questionnaire

| People Surveyed | Score Obtained | State    | Ideal Score |
|-----------------|----------------|----------|-------------|
| 32              | 92             | Marginal | 100         |

Table 3 reflects the results obtained after the implementation of the DwH. With a score of 92, an almost perfect score, demonstrating that the solution has been efficient, satisfying the user's needs, presenting levels of acceptability and usability, showing that the tool is valuable for decision making; Furthermore, Fig. 7 graphically shows the significant change on each of the criteria considered based on the instrument used in the solution.



**Figure 7** Post-Test graph of responses in form.

For [11] statistics, it is “the science responsible for the collection, organization, representation, analysis and interpretation of data formed in an investigation about events, individuals or groups of these, to draw precise conclusions or future assessments.” That is why we apply inferential statistics to process and evaluate the study data.

Initially, to consider what type of statistics we would use in the study, that is, whether we will use parametric or non-parametric statistics, we took into account the objective of the research, being to measure the impact of the implementation of DwH in the context of our variable, parametric statistics were used, using the parametric T test, due to the nature of the measurements, the distribution of the data, and the sensitivity of the test to detect differences in the means between two different time points (before and after the implementation of the DwH).

**Table 4** T test for paired samples on the variable satisfaction with delinquency management.

|                                       |                      | Paired differences |                    |                     |   |          |        |    |                  |
|---------------------------------------|----------------------|--------------------|--------------------|---------------------|---|----------|--------|----|------------------|
|                                       |                      | Half               | Standard deviation | Mean standard error | 95% confidence interval of the difference |          | t      | gl | Sig. (bilateral) |
|                                       |                      |                    |                    |                     | Lower                                     | Superior |        |    |                  |
| Satisfaction with bad debt management | Post test - Pre test | 32,969             | 10,918             | 1,930               | 29,033                                    | 36,905   | 17,083 | 31 | ,000             |

The data in Table 4 allows us to corroborate that the main objective set has been met, because the implementation of the DwH influenced the satisfaction of the CIP-CDSMT's delinquency management. This is eventually since the value obtained in (Sig.) is less than 0.05.

#### 4. Conclusions

The implementation of the DwH, as part of the elaboration of the solution, was just efficiently, adapting without difficulties, this evidenced in Table 3, this allowed improvements on information management, understanding results and facilitating analysis of the data, leading to improvement actions. In addition, that the application of Student's T-test for related samples (by the comparison of the same sample in two different periods), presented in Table 4, was concludes that the study has managed to improve satisfaction with the management of delinquency of the CIP-CDSMT under the DwH implementation. This has led the organization to have a greater impact on decision making and operational efficiency.

As a result, we can affirm that the DwH developed has had a positive effect on the satisfaction of the CIP-CDSMT's delinquency management, not only demonstrating that the use of this type of solutions facilitates the management of information, but also that it is an effective way to provide knowledge regarding business needs.

The proposed solution has been designed carefully considering the data and information, so we recommend the use of solutions related to the implementation or implementation of DwH on organizational problems, this will allow companies to make strategic decisions based on results, promoting their growth and sustained success (long-term success achieved through continuous improvement and adaptation to change).

## 5. Declaration of competing interest

I (We) declare that I (we) have no significant competing interests including financial or non-financial, professional, or personal interests interfering with the full and objective presentation of the work described in this manuscript.

## 6. Acknowledgements

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## 8. Author contributions

Alexander Romero Chuquital developed the process of creating the DWH, John Jeanfranco Melendres Velasco contributed with the writing of the article, formal analysis and structural design of the solution and Miguel Angel Valles-Coral support in the development of research as an advisor.

## 9. Data availability statement

the authors confirm that the data supporting the findings of this study are available within the article and/or its supplementary materials.

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RESOLUCIÓN N° 0962-2022/UPeU-FIA-CF-T

Lima, Ñaña 27 de setiembre de 2022

**VISTO:**

El expediente de **John Jeanfranco Melendres Velasco**, identificado(a) con Código Universitario N° 201812161 y **Alexander Romero Chuqital**, identificado(a) con Código Universitario N° 201812167, de la Escuela Profesional de Ingeniería de Sistemas de la Facultad de Ingeniería y Arquitectura de la Universidad Peruana Unión;

**CONSIDERANDO**

Que la Universidad Peruana Unión tiene autonomía académica, administrativa y normativa, dentro del ámbito establecido por la Ley Universitaria N° 30220 y el Estatuto de la Universidad;

Que la Facultad de Ingeniería y Arquitectura de la Universidad Peruana Unión, mediante sus reglamentos académicos y administrativos, ha establecido las formas y procedimientos para la aprobación e inscripción del perfil de proyecto de tesis en formato artículo y la designación o nombramiento del asesor para la obtención del título profesional;

Que **John Jeanfranco Melendres Velasco** y **Alexander Romero Chuqital**, han solicitado: la inscripción del perfil de proyecto de tesis titulado "Implantación de data Warehouse y su relación con la satisfacción de la gestión de la morosidad del CIP-CDSMT" y la designación del Asesor, encargado de orientar y asesorar la ejecución del perfil de proyecto de tesis en formato artículo;

Estando a lo acordado en la sesión del Consejo de la Facultad de Ingeniería y Arquitectura de la Universidad Peruana Unión, celebrada el 27 de setiembre de 2022, y en aplicación del Estatuto y el Reglamento General de Investigación de la Universidad;

**SE RESUELVE:**

Aprobar el perfil de proyecto de tesis en formato artículo titulado "**Implantación de data Warehouse y su relación con la satisfacción de la gestión de la morosidad del CIP-CDSMT**" y disponer su inscripción en el registro correspondiente, designar a **Dr. Miguel Ángel Valles Coral** como ASESOR para que oriente y asesore la ejecución del perfil de proyecto de tesis en formato artículo el cual fue dictaminado por: **Mg. Sergio Omar Valladares Castillo** y **Mg. Marco Antonio Ruiz Grandez**, otorgándoles un plazo máximo de doce (12) meses para la ejecución.

Regístrese, comuníquese y archívese.



Dra. Erika Inés Acuña Salinas  
**DECANA**



Dr. Santiago Ramírez López  
**SECRETARIO ACADÉMICO**

CC:

-Interesado

Asesor

Dirección General de Investigación

Archivo

## INSTRUMENTOS

### Cuestionario sobre satisfacción de la gestión de la morosidad en el Colegio de Ingenieros del Perú-Consejo Departamental San Martín Tarapoto

Muy buenos días/tardes estimado colegiado, el presente instrumento tiene por finalidad recabar información que permita vislumbrar su nivel de satisfacción a la fecha respecto a la gestión de la morosidad llevada a cabo por el CIP-CDSMT, para ello, se le solicita su participación sincera y objetiva.

#### Indicaciones

Para iniciar, tenga en cuenta que el presente instrumento será llenado de manera anónima, por lo que no deberá de preocuparse por que se revele su identidad.

Por favor sírvase llenar primero los siguientes datos:

**ÁREA:** ..... **FECHA:** ..... **EDAD:** .....  
**SEXO:** Femenino ( ) Masculino ( ) **ETAPA:** Pre test ( ) Post test ( )

Una vez llenado los datos generales, por favor responda marcando con una “X” a las preguntas que se le mostrarán a continuación, teniendo en cuenta para ello las siguientes opciones de respuesta:

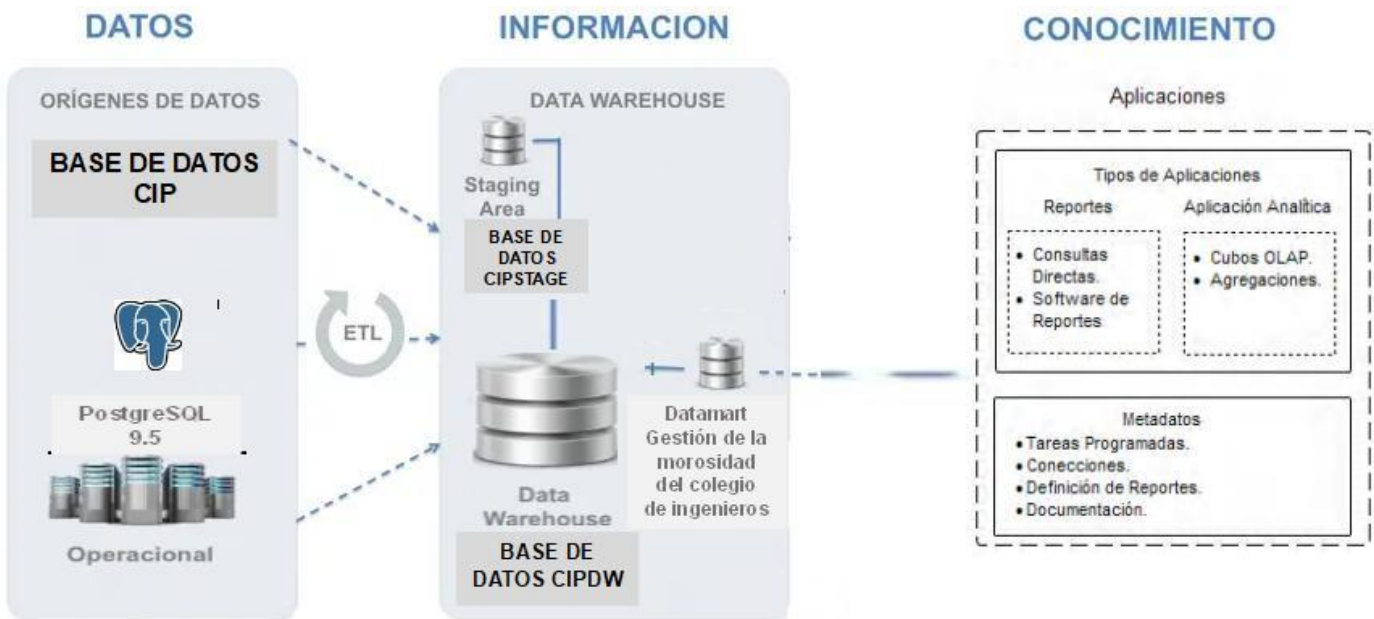
| Respuesta   | 1                        | 2             | 3           | 4          | 5                     |
|-------------|--------------------------|---------------|-------------|------------|-----------------------|
| Equivalente | Totalmente en desacuerdo | En desacuerdo | Indiferente | De acuerdo | Totalmente de acuerdo |

| Análisis de la cartera morosa |  | Opción de respuesta |   |   |   |   |
|-------------------------------|--|---------------------|---|---|---|---|
| N°                            | Ítems  | 1                   | 2 | 3 | 4 | 5 |
| 01                            | ¿Qué tan satisfecho se encuentra con el tiempo en el que se identifica la cantidad de deudores existentes?   |                     |   |   |   |   |
| 02                            | ¿Qué tan satisfecho se encuentra con el control que tiene actualmente con los deudores de la entidad?  |                     |   |   |   |   |
| 03                            | ¿Qué tan satisfecho se encuentra con el tiempo que le toma a la entidad el identificar el valor de la deuda por cada individuo?                                |                     |   |   |   |   |
| 04                            | ¿Cuál es su grado de satisfacción respecto al tiempo tomado para calcular la mora por cada capítulo?   |                     |   |   |   |   |
| 05                            | ¿Cuál es su grado de satisfacción respecto a que el CIP-CDSMT cuente con un perfil físico o virtual de cada colegiado respecto a su cumplimiento en los pagos? |                     |   |   |   |   |

|                             |   |                            |          |          |          |          |
|-----------------------------|---|----------------------------|----------|----------|----------|----------|
| <b>06</b>                   | ¿Cuál es su grado de satisfacción respecto al tiempo que le toma generar actualmente un perfil de cada colegiado deudor de la entidad?  |                            |          |          |          |          |
| <b>Acciones de cobranza</b> |   | <b>Opción de respuesta</b> |          |          |          |          |
| <b>N°</b>                   | <b>Ítems</b>  | <b>1</b>                   | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| <b>07</b>                   | ¿Qué tan satisfecho se encuentra con el tiempo que le toma entregar notificaciones de manera tradicional (llamadas o mensajes de texto) o virtual a los deudores?                             |                            |          |          |          |          |
| <b>08</b>                   | ¿Cuál es su grado de satisfacción respecto al tiempo tomado para que el personal designado notifique a cada deudor de su mora?  |                            |          |          |          |          |
| <b>09</b>                   | ¿Qué tan satisfecho se encuentra con el tiempo que le toma a cada capítulo el poder actualizar los datos de contacto de cada deudor?  |                            |          |          |          |          |
| <b>10</b>                   | ¿Cuál es su grado de satisfacción respecto al tiempo tomado para poder contactarse con el deudor?   |                            |          |          |          |          |
| <b>11</b>                   | ¿Se encuentra satisfecho con la estrategia de entregar pequeños útiles con la marca de la entidad a los socios que pagan de manera puntual?   |                            |          |          |          |          |
| <b>12</b>                   | ¿Qué tan satisfactorio encuentra el poder entregar descuentos a los socios que paguen a tiempo su mora?   |                            |          |          |          |          |
| <b>Control de la deuda</b>  |   | <b>Opción de respuesta</b> |          |          |          |          |
| <b>N°</b>                   | <b>Ítems</b>  | <b>1</b>                   | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| <b>13</b>                   | ¿Qué tan satisfecho se encuentra de contar con un recordatorio físico o virtual de los tiempos de cobro por cada capítulo?  |                            |          |          |          |          |
| <b>14</b>                   | ¿Cuán satisfecho se encuentra con el tiempo que toma el poder hacer efectivo el cobro de una deuda?   |                            |          |          |          |          |
| <b>15</b>                   | ¿Cuál es su grado de satisfacción respecto al tiempo que le toma a la entidad el informar a los colegiados de las políticas, multas y penalidades en que incurrirá por el impago de su deuda? |                            |          |          |          |          |
| <b>16</b>                   | ¿Se encuentra satisfecho con las decisiones que toma el CIP-CDSMT frente a quienes incumplen con el pago de sus deudas?   |                            |          |          |          |          |

**ANEXOS**


# ARQUITECTURA DATA WAREHOUSE CIP





# JOB, PROCESO ETL DE TRANSFORMACION Y CARGA DE DATOS

| Name   | Status      | Policy Health State |
|--|-------------|---------------------|
| JOB - ETL DE EXTRAXION DE DATOS CIP              | Not running |                     |
| JOB - ETL DE TRANSFORMACION Y CARGA DE DATOS CIP | Not running |                     |
| SSIS Server Maintenance Job                      | Not running |                     |
| syspolicy_purge_history                          | Not running |                     |

Start Jobs - PÓTIÑIANO\OTICS

 **1 Remaining** 2 Total 0 Error  
1 Success 0 Warning

Details:

| Action  | Status         | Message |
|---|----------------|---------|
|  Start Job 'JOB - ETL DE TRANSFORMACION Y CARGA DE DATOS CIP'    | Success        |         |
|  Execute job 'JOB - ETL DE TRANSFORMACION Y CARGA DE DATOS CIP' | In progress... |         |

[Close](#)

JOB - ETL DE TRANSFORMACION Y CARGA DE D...

Status: Not running

# DIAGRAMA DATAMART GESTION MOROSIDAD CIP

DIAGRAMA DE DATOS - DATAMART DE GESTION DE MOROSIDAD - CIP v1.0.0

