

***PROPUESTA DE EJES ESTRATÉGICOS PARA IDENTIFICAR
OPORTUNIDADES Y CAPACIDADES EN TRANSFORMACIÓN DIGITAL DE
LAS ORGANIZACIONES***

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**PROPOSAL OF STRATEGIC AXES TO IDENTIFY OPPORTUNITIES AND
CAPABILITIES IN DIGITAL TRANSFORMATION OF ORGANIZATIONS**

Fernando Prieto-Bustamante.
International University of La Rioja. Spain.
Fernando.prieto@usantotomas.edu.co

Mónica Andrea Cangrejo-Aguirre.
Universidad Santo Tomás, Bogotá. Colombia.
monicacangrejo@usantotomas.edu.co

David Felipe Segura-Feliciano.
Universidad Santo Tomás, Bogotá. Colombia.
david.segura@usantotomas.edu.co

Ingrid Julieth Estupiñan-Rios
Universidad Santo Tomás, Bogotá. Colombia.
ingridestupinan@usantotomas.edu.co

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Resumen - *En el presente artículo se realiza una recopilación y consolidación de una búsqueda de marcos de referencia a partir de fuentes como repositorios universitarios, informes de entidades públicas y privadas, revistas de tecnología, entre otras fuentes confiables que fortalecen y ofrecen valor a la investigación realizada. Para elegir los marcos más determinantes para la construcción del artículo, se plantearon tres (3) criterios de inclusión y cinco (5) criterios de exclusión, lo que ayudó a los autores a realizar un proceso de elección más específico y efectivo, obteniendo así nueve (9) marcos de referencia que cumplieron con los criterios planteados.*

De esta manera, se identificaron las fortalezas y debilidades de cada marco escogido, lo que llevó a realizar el análisis de los ejes estratégicos determinando los más frecuentes que los autores de estos plantearon dentro de su propuesta, permitiendo la construcción de una propuesta basada en los ejes más relevantes considerados para identificar las oportunidades y capacidades de la transformación digital en las organizaciones de cualquier sector, tamaño e independientemente si pertenecen o no a los negocios digitales, alcanzando como resultado cuatro (4) ejes estratégicos enfocados en el cliente. Enmarcando así la importancia que la transformación digital representa para las organizaciones que buscan quedarse en el mercado por un largo tiempo de forma rentable y así mismo los beneficios que esta transformación trae consigo al ser aplicada de forma adecuada en las organizaciones.

Finalmente, se presentan las conclusiones que los autores obtuvieron de la investigación realizada y se proponen algunas formas de continuar la investigación en trabajos futuros teniendo en cuenta que la transformación digital está en constante actualización respecto al mercado volátil de hoy en día.

Palabras clave: *Transformación digital, cultura, tecnología, ejes estratégicos, oportunidades.*

Abstract – *This article compiles and consolidates a search for reference frameworks from sources such as university repositories, reports from public and private entities, technology journals, among other reliable sources that strengthen and offer value to the research conducted. In order to choose the most decisive frameworks for the construction of the article, three (3) inclusion criteria and five (5) exclusion criteria were proposed, which helped the authors to make a more specific and effective choice process, thus obtaining nine (9) reference frameworks that met the criteria proposed.*

In this way, the strengths and weaknesses of each chosen framework were identified, which led to the analysis of the strategic axes determining the most frequent that the authors of these raised within their proposal, allowing the construction of a proposal based on the most relevant axes considered to identify the opportunities and capabilities of digital transformation in organizations of any sector, size and regardless of whether or not they belong to digital business, reaching as a result four (4) strategic axes focused on the customer. Thus framing the importance that digital transformation represents for organizations seeking to stay in the market for a long time in a profitable way and likewise the benefits that this transformation brings when applied properly in organizations.

Finally, the conclusions that the authors obtained from the research are presented and some ways to continue the research in future works are proposed, taking into account that the digital transformation is constantly updated with respect to today's volatile market.

Keywords: *Digital transformation, culture, technology, strategic axes, opportunities.*

1 INTRODUCTION

Nowadays, companies require fundamental processes to improve their processes and their delivery of value offer to the client, such as digital transformation, this is based on the business change that companies must undergo to adapt to the digital world, combining technology, digital and technological knowledge and skills, managing to improve its traditional processes, positioning the company at a high level of competitiveness, generating profitability and efficiency.

For this reason, the importance of effective digital transformation processes and strategies for companies of any size and sector is vital, this requires key strategic axes that the entire work team must consider in order to align the business model, the objectives and business vision with the entire digital transformation strategy, to generate value for internal and external customers, responding to demand in a new and updated way, continuously reaching new customers and their loyalty.

1.1 FRAMEWORK

The digital transformation process is not only about implementing technology, it is also about changing the culture of organizations and transforming them to achieve a transition and adoption to the new context offered by the industry. According to the consulting firm PwC, no sector can afford not to update itself in this new environment, and in this way it is understood that digitization can be a way to be more efficient, effective and innovative in the development of a task/process, such as Julio Cerazo highlights. [1]

Similarly, the international consultant recognizes that Digital Transformation includes new methods of solving problems, creating differential experiences and, in addition, contributes to the acceleration of company growth.

Due to the above, companies have recognized the importance of identifying the level of maturity they present in relation to the digital transformation process, for which numerous reference frameworks have emerged to implement and measure this process. The description and relevant characteristics of the nine (9) reference frameworks that were selected are presented below.

1.1.1 STRATEGY FOR THE IMPLEMENTATION OF THE DIGITAL TRANSFORMATION

Digital transformation is known as the adoption of technologies in all areas of a company, thus seeking the optimization of each of these, not only adopting technologies, but also changing the organizational culture, which can help innovation processes that contribute to the organization. All this is implemented to generate a better customer experience.

Digital transformation can only happen when the change has the power to penetrate the entire organization, this dimension requires business models and opportunities that must be driven mainly by the CEO.

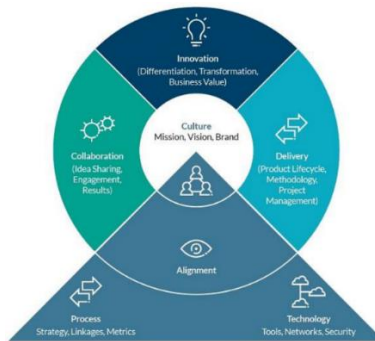


Fig. 1 Fields of influence for digital transformation. Font [2]

1.1.2 OECD DIGITAL GOVERNMENT INDEX 2019

Likewise, the OECD has been in charge of generating several recommendations towards a digital government for the countries that are members of this organization, it seeks to analyze the level of adoption in strategic approaches, public policy tools, implementation and supervision of digital government policies.

Openness and Engagement	Governance and Coordination	Capacities to Support Implementation
1. Openness, transparency and inclusiveness	5. Leadership and political commitment	9. Development of clear business cases
2. Engagement and participation in a multi-actor context in policy making and service delivery	6. Coherent use of digital technology across policy areas	10. Reinforced institutional capacities
3. Creation of a data-driven culture	7. Effective organizational and governance frameworks to coordinate	11. Procurement of digital technologies
4. Protecting privacy and ensuring security	8. Strengthen international cooperation with other governments	12. Legal and regulatory framework

Fig. 2 OECD Recommendation on Digital Government Strategies. Font [3]

This same seeks to improve the design and delivery of services by increasing the reliability of public institutions in the process of digital transformation. Therefore, the digital government policy framework should be measured, which helps to identify the most determining factors to achieve a high level of maturity in public sectors.

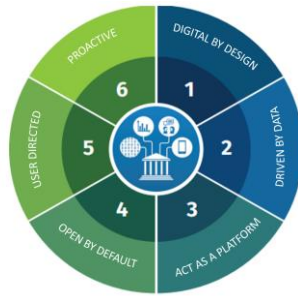


Fig. 3 OECD Digital Government Policy Framework. Font [3]

1.1.3 MATURITY MODEL FOR DIGITAL TRANSFORMATION

The MINTIC in collaboration with Innpulsa Colombia develop a maturity model for digital transformation, where they focus on MSMEs (medium-sized companies) and propose different stages that help digital transformation.



Fig. 4 Intervention model for MSMEs. Font [4]

In this way, five (5) categories are proposed that are made up of sixteen (16) processes which are focused on the two (2) which are the Digital Business and Enablers for Digital Transformation.

Table I Categories and processes towards digital transformation. Font [4]

Process Categories	Process
Innovation of Products and Services	1. Design and development of new P/S
	2. Design and development of more efficient processes
Customer Relationship	3. Relationship with the sales force and distribution
	4. Capture of customers and orders
	5. customer service and loyalty
Operations and service provision	6. Operations planning
	7. Quality management
	8. Production process or service provision or project execution
	9. Maintenance management
	10. Outbound logistics
Collaborative Supply Chain	11. Purchase process
	12. Supply management
	13. Collaboration with allies
Smart Management	14. People management
	15. Administrative and financial management
	16. Technology and security management

In the case of measuring the level of maturity for digital transformation, there are different parameters that help identify the current state of the organization during the diagnostic test:

1. Identify the key processes in generating value for MSMEs.
2. Rate the level of digitization of your processes.
3. Rate the level of enablers of the organization and its collaborators.
4. Analysis of the level of maturity for Digital Transformation.

1.1.4 DIGITAL TRANSFORMATION: A ROADMAP FOR BILLION-DOLLAR ORGANIZATIONS
 Capgemini Consulting and MIT conducted a study where they interviewed different companies to find out how they handle digital transformation within them. Fig 5 shows the areas which they consider to be the most important and which are digitally transforming, these are: The experience customer, operational processes and business models.

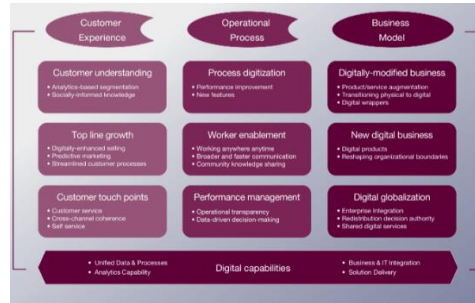


Fig. 5 Building blocks of digital transformation. Font [5]

Also, to achieve a good implementation of the digital transformation, companies must have bidirectional omnichannel throughout the company, ensuring that each employee is capable of responding to the requirements of the employees, which was not the case before.

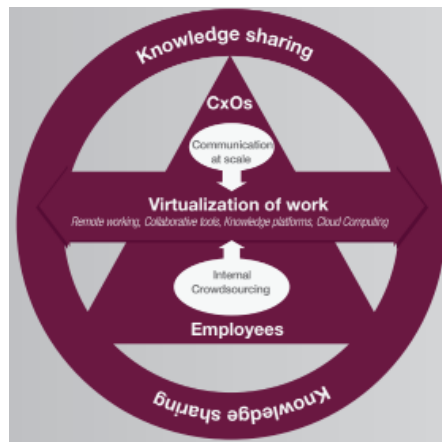


Fig. 6 Digital transformation creates a virtuous circle of knowledge sharing. Font [5]

This implementation model is also based on pillars that ensure a successful digital transformation and become a fundamental component for its growth and strengthening, which is why in Fig 6 you can see two parts for digital transformation, the first is represented by the inner box. The what, this is made up of essential elements for the transformation that together represent the digital intensity of the organization. And the second represented by the outer box, the how, is based on leaders guiding and helping everyone in this process.

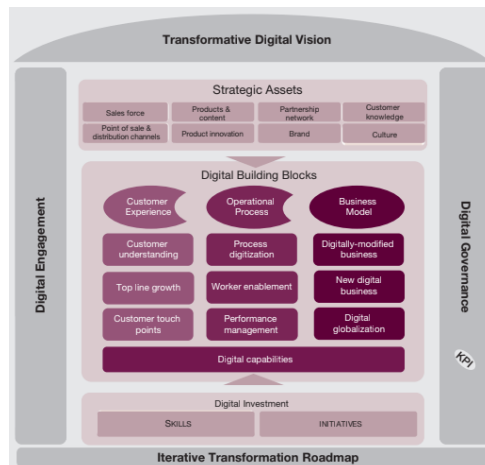


Fig. 7 Digital transformation model. Font [5]

1.1.5 DIGITAL MATURITY INDEX OF COMPANIES

Incipy together with inesdi carried out a study on the state and degree of maturity in Spain, through fourteen (14) essential indicators for digital transformation, which can be seen in Figs 8 and 9.



Fig. 8 Key indicators for digital transformation. Font [6]

State	Concept
State 1	Companies that have certain digital initiatives that are different, independent and dispersed in the company.
State 2	Companies that are beginning to formalize a digital plan in a specific area of the company
State 3	Companies that are working on the Digital Roadmap in a holistic and integrated way
State 4	Companies that are implementing the Digital Transformation Plan on several fronts with digital leaders in key positions
State 5	Companies that have developed their digital business. Innovative, agile, flexible, connected, collaborative and open organizations that continuously adapt to changes

Fig. 9 States of digital maturity. Font [6]

1.1.6 DIGITAL TRANSFORMATION – CINTEL PROPOSAL

A digital transformation measurement model is proposed, which seeks for companies to know how they are carrying out these processes. Where different aspects are evaluated within each component:

- Operating efficiency:
 - Digitization of processes.
 - Worker empowerment.
 - Quality management.

- Design and Delivery of Products and Services:
 - Social design of products and services.
 - Innovation of products and services.
 - Delivery of products and services.

These components are the ones that are sought for companies to implement and can generate an internal and external benefit, in this way the maturity index is proposed, where the importance of implementing each component is given, as shown in Fig 10

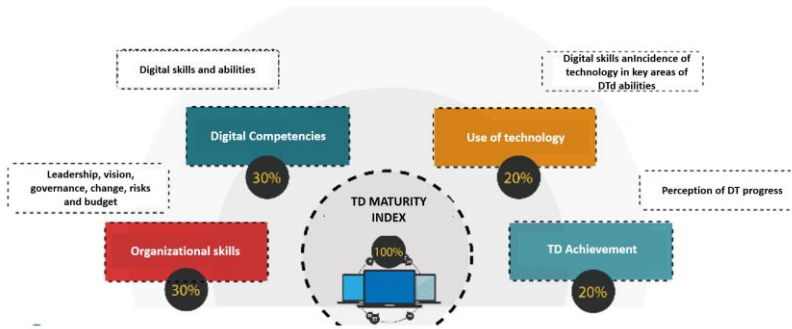


Fig. 10 Digital Transformation Maturity Index. Font [7]

1.1.7 DIGITAL TRANSFORMATION CENTERS – MATURITY MODEL FOR DIGITAL TRANSFORMATION

Entities such as Innpulsa and MinTIC present business development projects, where they present the enablers for transformation, which are elements that facilitate and accelerate the transformation of companies. In this way, the following Table presents the categories of digital enablers:

Table II Categories of Digital Enablers. Font [8]

Categories	Process
Digital Transformation Strategy	Strategic level of digital transformation
	New business models
	Digital transformation path
Digital Transformation Culture	Development of digital skills
	Organization for digital transformation
	Digital innovation processes
Surveillance and monitoring of Technology	Identification of critical technology
	technology mastery
	Management of digital transformation projects

TD Strategy:

Identification of the vision that the company has, the opportunities offered by digital technologies that contribute to the business, for which the strategic importance given to DT, new business models and DT route is evaluated.

TD Culture:

Evaluates the development of digital skills. organization for TD and digital innovation processes.

Surveillance and monitoring of technology:

It evaluates processes of how critical technologies for the business are identified, what domain the company has of critical technologies and how DT projects are managed.

After that, the Digital Transformation Maturity Model is proposed to evaluate the position of a company in relation to it, to achieve this, the model is based on three (3) parameters:

1. Criticality of the process for the company
2. Digitization level
3. Level of Digital Enablers

1.1.8 ON THE DIGITAL TRANSFORMATION AND ITS SOCIOECONOMIC IMPACT

To carry out the process of digital transformation in companies, RocaSalvaterlla in 2014 proposes four (4) stages:

1. Processes: Bear in mind that the processes evolve according to the benefits obtained and exceed the investment value.

2. Points of contact with the client: The current client demands attention 24/7 all year round. Therefore, it must have segmented databases, as well as personalization and user experience, but taking into account that the public is increasingly informed.

3. Services and products: By mechanizing the processes and points of contact with the client, the products and/or services offered are mechanized.

4. Business model: Achieve success.

Eight (8) competencies that a professional must develop for digital transformation in an integral way in organizations:

1. Digital savvy
2. Information management
3. Digital communication
4. Networking
5. Continuous learning
6. Strategic vision
7. Network leadership
8. Customer orientation

1.1.9 DIGITAL TRANSFORMATION: THE DEFINITIVE GUIDE

Digital transformation arises from the need to do things differently, making use of emerging technologies, new business models, best practices, and a change in business mentality, which leads to "keeping the organization competitive and productive." [9]] This process is "An organizational or business strategy to promote a continuous and systematic culture and mentality, in order to put the organization at the service of customers, employees and shareholders, using digital tools and a series of methodologies and best practices for this purpose. practices that inexorably lead to a new experience and way of working in the so-called digital era or economy." [9]

In this way, what makes it possible to carry out digital transformation processes in companies are:

- Use of digital media
- Zero papers (Paperless)
- Transformation of team jobs

The drivers of digital transformation within companies:

- Cultural change
- Optimized and digitized business processes
- Increase the profitability of the company
- Motivated and prepared employee

In this way, the author explains that StrateDigital "is a framework, framework or reference to guide the managers of organizations in the definition, planning, organization and implementation of transformations or changes driven by digital technologies." [9]

StrateDigital

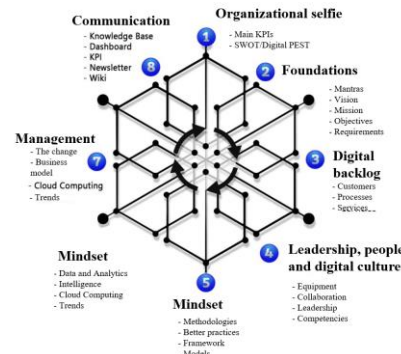


Fig. 11 StrateDigital. Font [9]

In addition, as bases of this framework are the processes of analysis, definition, design, implementation, control and communication of digital strategies in companies that systematically lead to changes in leadership and company culture. In this way, it takes into account principles of innovation, management and technology, which leads to continuous improvement when carrying out activities (KAIZEN), also improving the relationship and experience with the company's stakeholders, which is reflected in business results.

2 METHODOLOGY

To achieve the objective of this article, the corresponding bibliographic review of the reference frameworks oriented towards the strategic axes or main characteristics that are necessary to measure or evaluate the state of maturity of the organization in the face of digital transformation processes was carried out.

2.1 INCLUSION AND EXCLUSION CRITERIA

CI 1. Reliable source, such as articles from scientific journals, university degree papers and national and international entities (public or private).

CI 2. At least three (3) strategic axes within the process to be analyzed, proposed by the author.

CI 3. Justification of each strategic axis proposed by the author of the framework.

On the other hand, the exclusion criteria proposed for the reference framework review are:

CE 1. Documents that do not have an empirical basis

CE 2. Complete books

CE 3. Documents that include keywords, but do not provide relevant information to support.

CE 4. Incomplete documents or with viewing restriction.

CE 5. Texts that are not directly related to the review of reference frameworks.

2.2 DATA EXTRACTION

In Table III, a synthesis of the reference frameworks described above was made, in this way the strengths and weaknesses that each one presents in the development of the digital transformation process in companies were identified

Table III Comparative table of reference frameworks for Digital Transformation. Font. Own Elaboration

FRAMEWORK	AUTHOR	CHARACTERISTICS	STRENGTHS	WEAKNESSES
Strategy for the implementation of Digital Transformation	Camila Lima	<ul style="list-style-type: none"> Generates a change process that helps companies adapt to the digital market. Improve existing processes. Transforms the business model. Collaboration of the entire work team. 	<ul style="list-style-type: none"> Impacts any area of the organization. Accompaniment of leaders to adapt to change. 	Adapt to changing consumer trends.

OECD Digital Government Index 2019	OECD	Determining factors to reach a high level of maturity: 1. Digital by design 2. Data-driven 3. Act as a platform 4. Open by default 5. User Driven 6. Proactive	<ul style="list-style-type: none"> It is based on data governance. Improve the design and delivery of services, increasing the reliability of public institutions in the process of digital transformation. 	It focuses on the public sector.
Maturity Model for Digital Transformation	MinTIC e Innpulsa	Processes and categories towards digital transformation: <ul style="list-style-type: none"> Innovation of Products and Services Customer relationship Operations and service provision Collaborative Supply Chain. Smart Management Security technology management. 	<ul style="list-style-type: none"> It is attached to any company belonging to different sectors. Identifies the key aspects to take into account when measuring the level of maturity. 	It is limited to basing the model in two dimensions
Digital Transformation: A Roadmap for Billion-dollar Organization	Cappameni Consulting & MIT	<ul style="list-style-type: none"> Focuses on the user experience, processes and business model. Change the digital vision of companies. Competitive business models. 	<ul style="list-style-type: none"> Bidirectional omnichannel throughout the company. Improves the digital skills of workers. 	Abrupt changes in processes that employees do not fully adapt.
Digital Maturity Index of Companies	INCIPY & INESDI	Primary indicators for digital transformation: Vision, culture and leadership <ul style="list-style-type: none"> Digital roadmap Senior leadership of the Digital Transformation Plan. Dedicated budget People <ul style="list-style-type: none"> Training and digital skills. Internal Digital Communication Adoption of collaborative tools Customers <ul style="list-style-type: none"> Comprehensive strategy in relation to the client. Brand/product digital strategy Digital ecosystem CRM for Relational Plan Online communication in real time Online sale Online customer experience evaluation Business share from 	<ul style="list-style-type: none"> Bases the fourteen (14) indicators on four (4) relevant and basic pillars for any company. Helps identify opportunities and take the necessary steps to achieve a good level of digital transformation maturity. 	The four (4) pillars that they identified may have some margin of error since they were obtained from interviews.
Digital Transformation according to Cintel	Cintel	Aspects evaluated within each component: <ul style="list-style-type: none"> Operating efficiency: Design and Delivery of Products and Services: 	It is based on different perspectives, such as business model perspective, P&S design and delivery perspective, and operational efficiency.	The model is proposed for long-term execution.
Digital Transformation Centers – Maturity Model for Digital Transformation	Innpulsa & MinTic	<ul style="list-style-type: none"> Seeks to deliver value to customers. Generate a strategic plan towards digital transformation. Offers training for leaders as well as for employees. 	<ul style="list-style-type: none"> Increase in sales. Improves customer experience and loyalty. Seek continuous improvement. 	They do not ensure that the digital transformation process is successful.
On Digital Transformation and its Socioeconomic Impact	RocaSalvaterlla	Stages to carry out the digital transformation process. <ul style="list-style-type: none"> Processes Customer contact points Services and products Business model 	It proposes a process that helps companies to identify in which aspects it receives benefits when being implemented.	Focuses primarily on a socioeconomic background
Digital Transformation: The Definitive Guide	ITMadrid	Drivers of digital transformation in companies: <ul style="list-style-type: none"> Cultural change Optimized and digitized business processes Increase the profitability of the company Motivated and prepared employee 	<ul style="list-style-type: none"> Shows the importance of carrying out digital transformation processes in companies. Proposes a sequence of steps to carry out the digital transformation process. 	It focuses mainly on digital strategies, which does not allow taking into account the base processes established in the company.

As a common strength between the reference frameworks, it was possible to identify:

- Identify opportunities
- Processes are proposed based on the needs
- It is applicable transversally in organizations

On the other hand, in terms of common weaknesses, it was found that:

- They are limited in few dimensions
- Proposals are long-term
- The proposals are not specific and without measurement indicators.

The following table identifies the strategic axes that each frame of reference analyzed has, of these ten (10) axes were highlighted, which are the most mentioned within the reviewed frameworks.

Table IV Strategic axes applied in the revised reference frameworks. Font. Own elaboration

FRAMEWORK	STRATEGIC AXES									
	Culture	Change Management	Process	Business Model	Design and Delivery of products/services	Strategy	People	Vision	Customer Experience	Data
Strategy for the implementation of Digital Transformation	X	X	X	X			X			
OECD Digital Government Index 2019	X						X			X
Maturity Model for Digital Transformation	X		X		X		X		X	
Digital Transformation: A Roadmap for Billion-dollar Organization	X			X			X	X	X	
Digital Maturity Index of Companies					X	X	X		X	
Digital Transformation according to Cintel	X		X		X		X			
Digital Transformation Centers – Maturity Model for Digital Transformation						X	X			
On Digital Transformation and its Socioeconomic Impact			X	X	X		X		X	
Digital Transformation: The Definitive Guide	X		X				X			

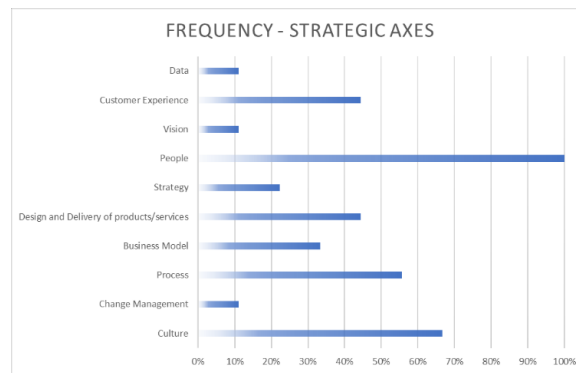


Fig. 12 Frequency of strategic axes in the reference frameworks. Font. Own elaboration

The review of the strategic axes applied in the reference frameworks makes it possible to identify which are the most common and used strategic axes, where People is the common and recurring axis in the reference frameworks analyzed with a frequency of 100%, followed by Culture with a frequency of 67%, Processes with a frequency of 56%, Customer Experience and Design and Delivery of P/S with a frequency of 44%; On the other hand, there are Business Model with a frequency of 33%, Strategy with a frequency of 22% and Finally Change Management, Data and Vision with a frequency of 11% as can be seen in Fig 12.

2.3 DATA ANALYSIS

According to the review and bibliographic analysis, one hundred twenty-three (123) frames of reference were evaluated, of which five hundred nineteen (59) belong to Digital Transformation. In this way, the flowchart is presented (Fig 13) aligned to each process where the search and selection process of the theoretical frameworks found is summarized, as well as the inclusion and exclusion process according to the individual analysis of the titles, abstracts and full texts.

According to this, the Digital Transformation reference frames selected were nine (9), the selection process can be seen in Fig 13.

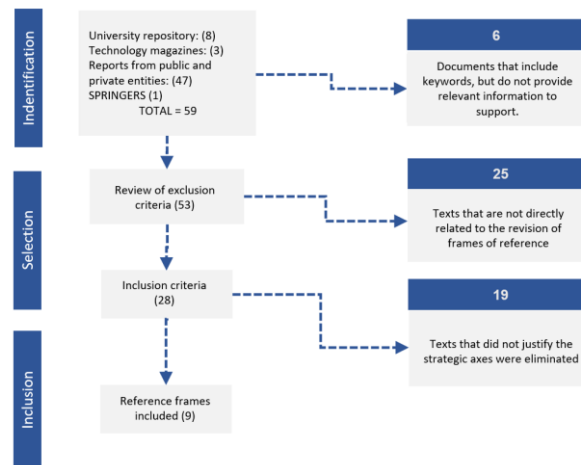


Fig. 13 Diagram of the selection criteria for Digital Transformation Font Own elaboration

In this way, it was possible to identify which reference frameworks, based on the inclusion criteria, should be considered for the development and construction of this article, in addition to adding value thanks to the consolidation of already existing information.

3 RESULTS

Of the aforementioned digital transformation models, the instruments of four (4) of them were analyzed, because they were the most complete and important, in addition to the fact that some models were based on the same instrument to measure the digital transformation and others simply were not. they add value. Bearing in mind that of these revised instruments, the different strategic axes that each model seeks to measure were compared to diagnose digital transformation in companies. The characteristics of each axis and the most relevant questions of the aforementioned instruments are shown below.

Products and/or services: Seeks to know how companies are providing the service or how they are adding value to customers, as well as what are the strategies they carry out to improve the user experience, since they are in the process of receiving a product or service as in the after-sales process. Some of these questions were:

- For the development of web applications and mobile apps for your brand, have you previously done UX and UI design?
- How do you get feedback on your product or service from the market?
- The company's products and/or services are increasingly adapted to the needs of customers and the demands of the digital age.
- Do you have the ability to customize products or services for each customer?
- Does the company use technology to communicate its value proposition and/or streamline business with customers?
- Know the requirements of customers.
- Incorporate intelligence into the Product/Service.

Client: For companies it is very important to focus on the client, that is why for the measurement of this strategic axis, it is found out how the communication with the client is, how the client perceives the company, in addition to how the client receives a good care when you need it. Here are some questions that reflect this:

- Do you use automation tools in digital channels?
- Interact with sales/distribution channels.
- Make yourself known to current and potential customers.
- How do you inform your customers about the status of their orders?
- Provide after-sales service.
- Does the company apply surveys to measure the level of customer satisfaction?

- The company has sufficient service channels that provide commercial and technical support.
- How do you get clients?

Processes: For digital transformation, processes play a fundamental part, because it optimizes tasks and improves the productivity of the company, so it is important to know what tools are used in the processes, how they are managed, what benefits follow-up brings. processes, among others.

- The company's processes generate reliable information and respond in a timely manner to customer requirements.
- What is your level of technology in the operation of your processes?
- The company's processes digitally integrate suppliers or third parties
- The processes in the company are highly integrated, standardized and supported by information technologies.
- Has the company integrated and optimized the Demand Planning processes with the Production Planning and the entire Logistics Chain?
- Collect data from the industrial process.
- Production quality management.

People: The workers fulfill an important performance, because they are in charge of knowing how the internal processes work, the business model, the technologies they use, among others. Therefore, companies must be aware of the skills that each one has to offer and be able to train them so that they know and use the tools that they provide.

- Is your work team certified for the use of different digital tools?
- Educate and train people.
- Manage workflows.
- Do you know the digital skills required for your employees?
- How do you facilitate communication between people in the company?
- The leaders of the company are characterized by having digital knowledge, innovation, appropriation and adaptation.
- Employees are always willing to facilitate change.
- The company has collaborative digital tools that allow interaction with the internal customer.

Strategy: For digital transformation, it is not enough to have technology if it is not applied in the best way, which is why the strategy and vision must be focused on the exponential growth of the company, likewise all employees must know said vision. to facilitate the process.

- Is there a strategy regarding investment, changes, acquisitions, hiring, updating or digital training of the company?
- The company's steering committee considers digital transformation a priority
- To ensure the implementation of a digital transformation project, the company allocates financial resources, personnel, time and technology.
- What is your level of data integration between the operational area and the information systems?
- What results have you obtained in the last 3 years derived from the adoption of digital technologies (profits, customer satisfaction, new income, efficiency, quality, cost reduction)?
- Do you have defined projects that allow you to transform the company from the adoption of digital technologies in your company in the short/medium term?

Technology: This is one of the most important components throughout this process, because it helps companies store information, be more competitive, improve the experience of workers and customers, facilitate the implementation and development of new projects and can help create new business models.

- Is there an identification of the necessary technologies to be competitive within your business?
- What is your level of information system implementation in your company?
- The company collects and processes data that is used for predictive analysis to respond to customer needs.
- The company has adopted disruptive technologies

- Does the company make backup copies?
- What is your level of implementation of solutions to perform data analysis and management?
- What degree of control do you have of those critical technologies that are necessary within your business?

This allowed the construction of the proposal of strategic axes mentioned above, achieving captures which are the most relevant axes within the digital transformation in organizations..

3.1 MODEL PROPOSAL OF STRATEGIC AXES OF DIGITAL TRANSFORMATION

Based on the review and respective analysis of the reference frameworks related to Digital Transformation, Table IV was made, which facilitated the process of identifying the four (4) strategic axes that manage to make this differential component for organizations. that they implement it properly. In this way, in Fig 14, the chosen components are observed.

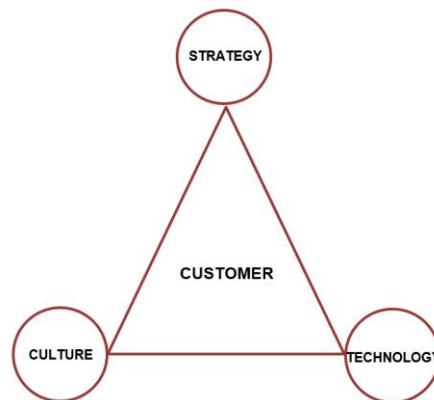


Fig. 14 Strategic axes for the construction of Digital Transformation instruments. Font. Own Elaboration

As shown in Fig 14, the digital transformation processes must focus on the customer because it depends on them that the brand is positioned competitively, in addition, today they demand a high level of service and experience, therefore Organizations have a great challenge and opportunity to offer a high-level Customer Experience (Cx), so it is necessary for them to build a winning strategy, defining the direction in which the company wants to go based on its objectives.

In addition, if the company works in an effective organizational culture, it is possible to maintain stable other aspects or strategic axes that are directly linked to the Customer Experience (Cx), since if there are internal communication channels that contribute

Additionally, by having a culture that contributes to both the internal and external client, the company can identify important results since it has alignment of the different perspectives of the team with the objectives that are sought to be met, also improving its digital skills, optimizing its activities and offering better customer service, based on internal dissemination channels and strategies directly linked to the Customer Experience (Cx).

On the other hand, to carry out digital transformation processes that add value to the organization's customer, it is essential to propose winning strategies that contribute to the improvement of operational and administrative processes, responding to the demand and needs that the market demands. through the technological component that every organization must currently consider, thus allowing the measurement, optimization and updating of these.

4 DISCUSSION AND CONCLUSIONS

Through the analysis of the reference frameworks, it was possible to identify that the strategic axes that are least considered are vision, change management and data, they are the axes that are only taken into account in a reference framework, which shows a lack of importance of these axes in the digital transformation in organizations.

It is important to discuss whether more inclusion criteria should be considered within the document search and reference frameworks, however, this allowed the consolidation of information that was of great value to the development of the article.

It should be considered that the digital transformation encompasses many axes at a general level, in addition to the fact that this concept has evolved over the years, which is why a recurring update must be maintained regarding the main strategic axes in order to identify more the opportunities and capabilities in organizations.

5 REFERENCES

- [1] PWC. La transformación digital en las ONG. Conceptos, soluciones y casos prácticos. En: PwC. 2017. p. 12. Disponible: <https://www.pwc.es/es/fundacion/assets/transformacion-digital-en-las-ong-pwc-esade-iis.pdf>
- [2] LIMA, Camila. Estrategia para la implementación de la Transformación Digital. Buenos Aires: Universidad de San Andrés, 2020. 137 p. Disponible en: <https://repositorio.udes.edu.ar/jspui/bitstream/10908/18679/1/%5BP%5D%5BW%5D%20M.%20Ges%20Lima%2C%20Camila.pdf>
- [3] OCDE. (2019). Índice de Gobierno Digital OCDE 2019. Disponible en: <https://www.oecd.org/gov/digital-government/digital-government-index-2019-highlights-es.pdf>
- [4] MODELO DE MADUREZ PARA LA TRANSFORMACIÓN DIGITAL En: INNPULSA COLOMBIA – INNPULSA DIGITAL MINTIC – DIRECCION DE TRANSFORMACIÓN DIGITAL. 2019. Disponible en: https://centrosdetransformaciondigital.gov.co/695/articles-78552_archivo_pdf.pdf
- [5] DIGITAL TRANSFORMATION: A ROADMAP FOR BILLION-DOLLAR ORGANIZATIONS. (s. f.). Capgemini Consulting, 68. Recuperado de: https://www.capgemini.com/wp-content/uploads/2017/07/Digital_Transformation__A_Road-Map_for_Billion-Dollar_Organizations.pdf
- [6] Índice De Madurez Digital De Las Empresas. 1er Estudio En España (2017). Incipy Your Digital Strategy Partner. Recuperado de: https://www.incipy.com/ebooks/Estudio_Indice_Madurez_Digital.pdf
- [7] Castaño Gonzalez, M. (2016). Nivel de Madurez de Transformación Digital en las Empresas. Cintel, 39. Recuperado de: <https://cintel.co/wp-content/uploads/2016/09/Indice-Madurez-Transformacion-Digital-CINTEL.pdf>
- [8] IDOM - Tecnalia Colombia. (2018) Modelo De Madurez Para La Transformación Digital. Recuperado de: <https://camaraarmenia.org.co/wp-content/uploads/2020/08/Modelo-de-transformación-digital.pdf>
- [9] IT Madrid. (2022). Transformación Digital: La Guía Definitiva (2022). Digital School, 10. Recuperado de: <https://www.itmadrid.com/transformacion-digital-la-guia-definitiva-2022/>
- [10] 10 Claves Para El Debate Sobre La Transformación Digital Y Su Impacto Socioeconómico. (2013). adigital Roca Salvatella, 32. Recuperado de: <https://es.slideshare.net/carlosmagro/10-claves-para-el-debate-sobre-la-transformacion-digital-y-su-impacto-socioeconomico>
- [11] A Framework for Digital Business Transformation. (2014). Cognizant, (10). Recuperado de: <https://www.cognizant.com/us/en/archives/whitepapers/documents/a-framework-for-digital-business-transformation-codex-1048.pdf>
- [12] A Step By Step Guide To Digital Transformation. (s. f.). ionology, 14. Recuperado de: <https://www.ionology.com/wp-new/wp-content/uploads/2020/04/Step-by-Step-Guide-New.pdf>
- [13] An Introduction in 10 slides to Digital Customer Experience Digital. Two steps ahead. (2014). Capgemini. Recuperado de: <https://www.slideshare.net/capgemini/an-introduction-in-10-slides-to-digital-customer-experience>
- [14] Bollard, A., Larrea, E., Singla, A. y Sood, R. (s. f.). The Next-Generation Operating Model For The Digital World. Digital Mckinsey, 8. Recuperado de: <https://www.the-digital-insurer.com/wp-content/uploads/2018/01/1151-Next-gen-operating-model-for-digital-McKinsey.pdf>
- [15] Castellanos Reyes, D. P. (2018). PLAN DE MEJORA PARA LA TRANSFORMACIÓN DIGITAL EN UNA EMPRESA DE TELECOMUNICACIONES [Mestría]. Universidad Externado de Colombia. Recuperado de: <https://bdigital.uexternado.edu.co/server/api/core/bitstreams/5a863484-2b05-4f3b-8041-6c7ebf5dab74/content>
- [16] CÓDIGO DE ÉTICA INNPULSA COLOMBIA – INNPULSA DIGITAL MINTIC – DIRECCION DE TRANSFORMACIÓN DIGITAL. (2019). Recuperado de: <https://camaraarmenia.org.co/wp-content/uploads/2020/08/MANUAL-DE-OPERACION-CTDE.pdf>
- [17] Digital transformation for 2020 and beyond A global telecommunications study. (2020). Recuperado de: https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/tmt/tmt-pdfs/ey-digital-transformation-for-2020-and-beyond.pdf
- [18] Digital Transformation Initiative In collaboration with Accenture. (2018). World Economic Forum. Recuperado de: <https://reports.weforum.org/digital-transformation/wp-content/blogs.dir/94/mp/files/pages/files/dti-executive-summary-20180510.pdf>

- [19] Digital Transformation Initiative Telecommunications Industry In collaboration with Accenture. (2017). World Economic Forum. Recuperado de: <https://reports.weforum.org/digital-transformation/wp-content/blogs.dir/94/mp/files/pages/files/dti-telecommunications-industry-white-paper.pdf>
- [20] Digitalización y crecimiento El reto de la transformación digital de las empresas. Harvard Deusto Business Review, 14. Recuperado de: <https://es.scribd.com/document/503821053/Digitalizacion-y-crecimiento-El-reto-de-la-transformacion-digital-de-las-empresas>
- [21] Gill, J., Sharma, D. y Kwan, A. (2019). Scaling up XaaS Transforming your business to market, sell, and transact as-a-service offerings. Deloitte, 16. Recuperado de: <https://www2.deloitte.com/us/en/insights/focus/industry-4-0/anything-as-a-service-xaas-solutions-transformation.html>
- [22] Guilén Rojas, E. A. (2020). Propuesta de Modelo de Transformación Digital para el Instituto Distrital de Participación y Acción Comunal. Universidad Externado de Colombia. Recuperado de: <https://bdigital.uexternado.edu.co/server/api/core/bitstreams/6fcdeba0-8799-431f-9143-45145fe0e86e/content>
- [23] IDOM. (2019). Manual De Operación Innpulsa Colombia – Innpulsa Digital Mintic – Dirección De Transformación Digital. Centros de Transformación Digital, 92. Recuperado de: <https://camaraarmenia.org.co/wp-content/uploads/2020/08/MANUAL-DE-OPERACION-CTDE.pdf>
- [24] IMPLICATIONS OF THE DIGITAL TRANSFORMATION FOR THE BUSINESS SECTOR. (2018). Conference summary, 9. Recuperado de: <https://www.oecd.org/sti/ind/digital-transformation-business-sector-summary.pdf>
- [25] Índice De Madurez Digital De Las Empresas: 2o Estudio En España. (2018). Incipy Your Digital Strategy Partner. Recuperado de: <https://www.informeticplus.com/indice-de-madurez-digital-de-las-empresas-2o-estudio-en-espana-incipy-e-inesdi>
- [26] indice de transformación digital. (2018). PMG Business Imp, (40). Recuperado de: <https://www.pmgchile.com/lanzamiento-de-indice-de-transformacion-digital-de-empresas-2018/>
- [27] Kane, G., Palmer, D., Nguyen Phillips, A., Kiron, D. y Buckley, N. (s. f.). Coming of Age Digitally. En Deloitte Insights. Recuperado de: <https://www2.deloitte.com/content/dam/Deloitte/mx/Documents/technology/Coming-of-age-digitally.pdf>
- [28] Key Issues For Digital Transformation In The G20. (2017). OECD - Better Policies for Better a Lives. Recuperado de: <https://www.oecd.org/g20/key-issues-for-digital-transformation-in-the-g20.pdf>
- [29] La Transformación Digital De Los Negocios: Digital Business. (s. f.). BlackSip, VTEX, 48.
- [30] La transformación digital de Transports Metropolitans de Barcelona (TMB). (2014). Recuperado de: https://www.rocasalvatella.com/app/uploads/2014/03/tmb_espanol4.pdf
- [31] La Transformación Digital. (2021). CEIB - Consejo de Empresarios Iberoamericanos.La Transformación Digital. (2021). CEIB - Consejo de Empresarios Iberoamericanos. Recuperado de: <https://www.andi.com.co/Uploads/INFTD.pdf>
- [32] MillwardBrown, K. (2017). 3ER ESTUDIO DE COMPETENCIAS DIGITALES EN LA EMPRESA ESPAÑOLA. ICEMD. Recuperado de: <https://www.ticpymes.es/sitesresources/files/839/54.pdf>
- [33] Perdomo-Charry, G. (mayo de 2020). Transformación Digital. 2. Lectura. Tema Digital Transformation. Recuperado de: <https://es.scribd.com/document/514848181/2-Lectura-Tema-Digital-Transformation>
- [34] Reinventar la empresa en la era digital. (2015). BBVA. Recuperado de: <https://www.bbvaopenmind.com/wp-content/uploads/2015/01/BBVA-OpenMind-libro-Reinventar-la-Empresa-en-la-Era-Digital-empresa-innovacion1-1.pdf>
- [35] Roca, G. (2014). Los 4 pasos de la Transformación Digital Rocasalvatella.pdf. Roca Salvatella, 6. Recuperado de: <https://www.rocasalvatella.com/estudio-radar-senior/>
- [36] Román, S. (s. f.). Transformación Digital de las Organizaciones. OBS Business School - Universidad de Barcelona, 57.
- [37] Roza, C. (2020). Transformación Digital de Negocios. Una guía para usted.
- [38] Sánchez, E. Guía de la Transformación Digital. (2017). Cintel. Recuperado de: <https://cintel.co/wp-content/uploads/2018/07/Guía-de-la-Transformación-Digital-CINTEL.pdf>
- [39] Sánchez, M. y Guilá, O. (s. f.). Transformación en Recursos Humanos. Critería Consultoría de Recursos Humanos, (18).
- [40] Schallmo, D. y Williams, C. (2018). Digital Transformation Now! Guiding the Successful Digitalization of Your Business Model. Springer, (80). Recuperado de: <https://link.springer.com/book/10.1007/978-3-319-72844-5>
- [41] THE BEST OF ICEMD ANNUAL DIGITAL BUSINESS SUMMIT. (s. f.). ICEMD - Instituto Economía Digital. Recuperado de: <https://docplayer.es/11251235-The-best-of-icemd-annual-digital-business-summit.html>
- [42] The Race Against Digital Darwinism. (2016). Altimeter. Recuperado de: <https://insights.prophet.com/six-stages-of-digital-transformation-2016>
- [43] TRANSFORMACIÓN DE UNIDADES DE DESARROLLO EMPRESARIAL EN CTDEs Modelo de Transformación digital: Arquitectura. (s. f.). IDOM, 19.
- [44] TRANSFORMACIÓN DIGITAL. (p. 62). CINTEL.
- [45] Unlocking Digital Value to Society: A new framework for growth In collaboration with Accenture. (2017). World Economic Forum. Recuperado de: <https://reports.weforum.org/digital-transformation/wp-content/blogs.dir/94/mp/files/pages/files/dti-unlocking-digital-value-to-society-white-paper.pdf>

- [46] Westerman, G., Bonnet, D. y McAfee, A. (2014). The Nine Elements of Digital Transformation. MT Sloan Management Review, 9. Recuperado de: https://sloanreview.mit.edu/article/the-nine-elements-of-digital-transformation/?use_credit=2ee2b82af4bb59ba0c5773d149146e05
- [47] Westerman, G., Bonnet, D. y McAfee, A. (2014). The Nine Elements of Digital Transformation. MT Sloan Management Review, 9. Recuperado de: <https://www.oecd-ilibrary.org/docserver/5ade2bba-en.pdf?expires=1665103188&id=id&accname=guest&checksum=5390235E868BEE5A93B3359D2D8A5AB6>
- [48] World Economic Forum Digital Transformation Initiative In collaboration with Accenture TELECOMMUNICATIONS INDUSTRY. (2017). World Economic Forum.
- [49] World Economic Forum Digital Transformation Initiative. (2017). World Economic Forum. Recuperado de: <https://reports.weforum.org/digital-transformation/wp-content/blogs.dir/94/mp/files/pages/files/dti-unlocking-digital-value-to-society-slideshare.pdf>
- [50] World Economic Forum White Paper Digital Transformation of Industries: In collaboration with Accenture Digital Enterprise. (2016). World Economic Forum. Recuperado de: <https://reports.weforum.org/digital-transformation/wp-content/blogs.dir/94/mp/files/pages/files/digital-enterprise-narrative-final-january-2016.pdf>