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Methodology for assessing an organization's readiness for the digital transition

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Abstract. This article is devoted to the evaluation of the analysis of the level of effectiveness of some of the indicators that exist for the digital transition of the organization. It is based on the OECD Digital Transition Indicators, which measure digital transformation at the national level, as well as five key metrics for decision makers: return on digital investment, percentage of annual technology budget dedicated to disruptive digital initiatives, time needed to create a digital applications, the percentage of leader incentives associated with digital constructs that create value, and finally retaining or promoting the best technical talent. Multiple business visions are analyzed using the same KPIs. The conclusions of this article are given at the end of the article.

Key words: digital transition, digitization, digital economy, digital investment, technology, management, digital transformation, investment, electronic commerce, technology budget.

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Методика оценки готовности организации к цифровому переходу

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Аннотация. Данная статья посвящена оценке анализа уровня эффективности некоторых показателей, которые существуют для цифрового перехода организации. В качестве основы используются показатели проекта ОЭСР «цифровой переход», которые измеряют цифровую трансформацию на национальном уровне, а также пять основных показателей для руководителей: отдача от цифровых инвестиций, доля годового технологического бюджета, выделяемого на разрушительные цифровые инициативы, время, необходимое для создания цифрового приложения, процент стимулов лидеров, связанных с цифровыми конструкциями, которые создают ценность, и, наконец, сохранение или продвижение лучших технических талантов. Несколько бизнес-видений анализируются с использованием одних и тех же KPIs. Выводы этой статьи приводятся в конце статьи.

Ключевые слова: цифровой переход, оцифровка, цифровая экономика, цифровые инвестиции, технологии, управление, цифровая трансформация, электронная коммерция, технологический бюджет.

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Introduction

Weigh the progress of this digital transformation can be hard work and often causes doubtl without a clear answer; and the fact that digital transformation goes far beyond a simple shift to e-Commerce, the use of blockchain or investing ridiculous amounts of money in the introduction of new technologies, rather than proceeding on the ideological level

of the whole company, which should serve as a guiding principle that drives the entire value chain of the company, how we can measure our progress and take reasonable solution on it, as it is possible to quantify the issues which often seem quite qualitative in nature?

This article is intended to serve as a useful, coherent and practical guidance for assessing the impact of digital transformation on business and, therefore, to ensure that digital transformation was carried out correctly or to this ideology was

internalized at deeper levels to the right to direct its impact on what is required for each enterprise: tangible results [Métricas de Una Transformación... 2021]

Given the scale and complexity of digital transformation, measurement is crucial to ensure that all the costs and efforts of digital investments pay off with the best return. Managers should monitor these five metrics to accurately assess an organization's digital progress: return on digital investment, % of the annual technology budget spent on disruptive digital initiatives, time taken to build a digital app, % of leadership incentives associated with digital constructs that create value, and retention/promotion of top tech talent [Cómo medir el éxito... 2021]

Fundamentals for managers

1. Digital return on investment

Measuring the effectiveness of digital investments is essential. Executive directors should consider not only the value of priority digital initiatives, but also the collective support of initiatives for the strategic goals of the organization. It should also be borne in mind that there is no such thing as sitting still; doing little or no investment in competition means staying still. Thus, digital investments also try to avoid losses. While the biggest benefits for many companies come from channeling digital investment into growth initiatives, a bold approach to improving efficiency can also deliver impressive results.

To maximize profit, we recommend converting one business domain at a time and expanding it. "Domain" here refers to a key process, such as a customer's journey. For example, a marketing domain for a consumer goods company may include customer acquisition, pricing, cross-selling, and retention [ibid].

There is a prevailing idea that for a successful digital transformation, huge investments must be made, since all processes are supposed to be digitized in parallel. The reality is that trying to digitize all the activities that make up the value chain at the same time is not only impractical, but also does not allow us to properly weigh the impact of digitization on the results obtained: it is much more convenient to start with one process or task, trying to automate it as much as possible, and expand from there.

Focusing on digitizing one part of the chain at a time gives the company the opportunity, in

addition to what has already been discussed, to weigh the impact of new tools used in it in isolation, being able to check the correctness of its work and compare the results obtained during the period before its inclusion. This measure mitigates biases when conducting this kind of return on investment analysis, undermining the impact of other areas, since changes will only occur one at a time.

Digital transformation is a phenomenon that changes the way we do and understand business, marking a real point of comparison, giving complete dominance in any type of market to those companies that properly incorporate it into their processes, and crippling those who don't accept half against their success. Digitization is poorly seen as an obstacle in the way of those old cutting companies that come from a similar past [Métricas de Una Transformación... 2021].

2. Percentage of the annual technology budget allocated to disruptive digital initiatives

Organizations that spend only a small portion of their technology budgets creating opportunities for disruptive digital initiatives have little chance of generating favorable returns on digital investment. Business technologies are moving from a monolithic IT architecture to technologies such as microservices or custom application development. These tools and approaches allow teams to quickly create products and services that will generate maximum value. In the banking industry, for example, many banks spend about 92% of their digital budgets on infrastructure and maintenance, leaving only 8% on business improvement initiatives that can drive growth. This is not a sustainable paradigm for any business, given the current pace of innovation and disruption [Cómo medir el éxito... 2021].

Major strategic consulting companies in the world tend to recommend that companies, in an effort to motivate their clients to use new and different business opportunities, simultaneously invest in 3-5 bold ideas, fully use the technological opportunities available to the business, ultimately act as developers of innovations and influence the infinite impact of any project. This recommendation implicitly and secretly implies an even broader and more relevant recommendation: direct a significant amount of money to technology offerings and your digital transformation.

In 2019, digital transformation investment

exceeded \$ 2 trillion figures, accounting for 40% of total technology investment internationally, and yet it is estimated that only 7% of companies have fully integrated digital transformation into their processes

As such, the share of investment of the company's budget should not be used as the minimum for adequate digital transformation due to various requirements and features of different niche markets that require more or less effort to digitize in order to remain competent competitors (according to Mckinsey, the figure for the banking sector needs to be at least 25%, more than 3 times what they are currently investing in digital efforts); however, everything niche market require significant investment in the what will their future, and, most likely, your company has underinvested. Experts urge everyone to seriously discuss this topic internally, present implementations that may change it in the future, and be prepared to invest significant amounts in increasing the digital value of your company, because you can be sure that your competition will continue [Measuring the Digital Transformation 2019]

3. Time required to create a digital app

The speed with which ideas are translated into tools that can be used in the enterprise is a key thing in a digital organization. In a fast-paced world, delay means giving a in to competition or, even worse, creating a tool that is outdated before being used. Even so, many organizations don't know much about how to measure this area. It is noted that many organizations still take up to two years or more to complete digital applications, mainly because they lack flexible continuous delivery processes and struggle with overly burdensome documentation and non-functional requirements such as security. However, while new products can be improved, they must provide a proper customer experience from the very beginning, no matter how quickly they were made.

This metric is the responsibility of the business unit that sponsors the development of digital tools and the technical leader of the organization. The CEO's role is to keep abreast of key deliverables and deadlines, and work with technical management to explore all digital initiatives across the organization to identify areas where deadlines are longer. Too long timelines may indicate that the organization is not institutionalizing best practices, which is a

necessary step in positioning the organization for long-term digital success [Delgado 2016].

In this regard, managers need to know how long it takes to create applications that are actually used, as well as measure the % of built applications that actually enter the market. In many cases, companies create centers of excellence that produce numerous analytical models, but most of them never scale and do not see widespread use [Cómo medir el éxito... 2021].

4. Percentage of incentives from leaders related to digital constructs that create value

The CEO must ensure that all of the organization's leaders are responsible for digital transformation. Matching incentives is key to achieving these goals. Importantly, this includes linking digital incentives between these leaders, including the organization's chief technology officer.

Organizations that develop their digital and analytics capabilities will often have multiple technology leaders. However, the ability to mobilize a technology organization to support enterprise goals should ultimately belong to the Director of Technology(CTO), who typically oversees resources, production guidelines, information security, and technology development protocols.

For some organizations, this may require a fundamental rethink of the CTO role. This position in digital – born companies oversees all products, from design to delivery; they oversee all technological development; and they are very focused on flexible and fast delivery.

In many cases, your incentive compensation is linked to new application designs, cycle time, and generated business value, which makes it clear where your priorities should be [Dolganova 2019].

In an era of technological disruption, the CEO must empower and drive the CTO's mindset of being a builder and change agent, not just an IT executive. Readjusting incentives and changing your mindset to create value can have a huge impact on culture, pace, and business [Cómo medir el éxito... 2021].

5. Retain / promote the best technical talent

The ability to attract and retain exceptional technical talent is by far the most important driver of long-term success in this increasingly digital age [Fernández 2017].

Implementing digital metrics for performance evaluation

If an organization's management is digitally

focused, setting a strategy for digitizing processes, professional talent, products, services, marketing, etc., it goes without saying that the observation and measurement of results should also be reoriented in this regard [Gileva 2019].

For example, if we are running a multi-channel sales campaign, it is just as important to know the revenue level and units sold, to know how certain channels have contributed to sales, to determine the return on investment (ROI). To do this, we need to set accurate digital indicators [De Haes 2020].

There are many indicators that we can adopt, depending on the specific transformation project. Examples include the following:

- Total number of searches in online engines.
- The number of hits to our website classified by origin (RRSS, search engines, directly or through promotions...).
- Click rate, which is calculated for an online ad about the number of exhibitions.
- Indicators of employees' use of digital tools.
- Indicators of digital content acceptance, consumption, and distribution.
- Satisfaction and repetition of the digital consumer.
- Cybersecurity indicators (number of attack attempts, number of security flaws...).
- Service quality indicators, SLA, uptime/service drops [Measuring the Digital Transformation 2019].

As already mentioned, all our digital transformation initiatives should have clear goals. These goals should be continuously and flexibly tracked based on digital metrics and data-driven performance indicators. Process monitoring allows us to identify the processes that have the greatest impact and represent a real improvement for the organization [Petrova 2019].

We can set many digital indicators. The most appropriate ones will depend on the type of organization or business and may be related to the company's image, sales, employee engagement, and so on.

In any case, for proper follow-up work, we must:

- 1) Identify digital metrics that will allow us to evaluate the effectiveness of each digital transformation initiative.
- 2) set goals to be achieved that can be measured using these indicators.
- 3) analysis of the evolution of indicators

4) draw conclusions about whether the initiative is successful, should improve, or has failed.

5) decide accordingly with the result.

6) show the results and make obvious the changes associated with the implementation of any digital transformation initiative [Transformación digital n.d./2021].

Conclusions

Setting up metrics to measure an organization's digital transformation is quite a challenge. Digital transformation has different aspects for each company and sector, so there are no universal KPIs (Key Performance Indicators in English). It also represents a big cultural change, so there is often fear and resistance. Some departments may believe that metrics are designed to make them look bad or lead to layoffs [Khokhlov 2019].

The question of where the measurement is performed is also a problem. Are you in the CIO's area of expertise? But then how does he or she translate their KPIs into useful information for the company's management? Digital transformation KPIs should be simple and fast [Khokhlov]¹.

The essence of digital transformation is cross-cutting and affects many departments, so it's best to centralize and simplify metrics. This may put district directors out of their comfort zone, but a good KPI of the region does not always mean that the data is useful for the entire business as a whole. Ultimately, good digital transformation KPIs should be simple and help the organization's management so that they can make decisions more efficiently and quickly. You should decide to consider a few KPIs that are simple and straightforward, as this is the best way to maintain good leadership in the company [Delgado 2016].

All businesses are basically equal. Digital transformation paths have been taken by companies around the world for decades. Do you focus only on your own point of view, or do you consider the ideal mission and culture for your company? ask yourself if you measure the following key performance indicators in any way:

- Return on investment. The entire management team will be interested in the famous ROI.
- Cost control. This is one of the most important levers for business development.

¹ Cómo medir la evolución de la transformación digital. *Ungoti*: [website]. Available at: <https://ungoti.com/es/blog/medir-evolucion-transformacion-digital/> (accessed 12/14/2021).

- Quality. If we do it better, we will have more success.
- Performance and agility. Are we ready to adapt to big market changes?
- Customer satisfaction and experience. We are nothing without our customers.
- Innovation. Every company must innovate to stay ahead of the curve.

To assess the success of a digital transformation strategy, you need to break down the long-term plan into small projects with specific KPIs that answer the above questions and many others. Usually, we will take into account traditional indicators of revenue, costs, and customer satisfaction, but much more is needed. Very roughly, these may be other KPIs that are worth paying attention to:

Focused on the organization

- Amount of marketing expenses for digital channels
- Level of participation and positioning of the organization in the market
- Digital maturity level, training and experience of partners, employees and managers
- Percentage of revenue using digital channels

- Contribution and participation of company departments in digital initiatives
- Customer-focused and business management
- Speed of acquiring new customers
- Improving the user experience
- Increase customer engagement in digital channels
- Reduce time to market for new products
- Changing the client / user behavior

Focused on innovation

- Innovative ideas that are implemented and your level of success
- New products or services released to the market (percentage of revenue)
- New business models adopted for different markets
- New applications, technologies and innovative solutions
- Innovative methodologies and adaptation to new situations or markets².

² Cómo medir la evolución de la transformación digital. *Ungoti*: [website]. Available at: <https://ungoti.com/es/blog/medir-evolucion-transformacion-digital/> (accessed 12/14/2021).

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