**TM Forum Best Practice**

**30 Strategic KPIs for Digital Transformation**

**GB1013**

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# Executive Summary

Although digital transformation encompasses the application of new technologies and related business transformation programs, it's important to tie them to well-defined and established performance metrics of the organization.  Identifying and defining metrics to measure digital maturity can be a challenge as digital transformation ambitions and journeys can be different for every organization such that settling on best practice standards is a continuous process.

This guidebook presents a set of well-critiqued key performance indicators (KPIs) and associated metrics that can be a starting point to framing an organization's fundamental digital transformation business score card. Adopting and using performance indicators for digital transformation requires a culture change at the executive level, since very often resistance to measure digital transformation successes and therefore digital maturity is due to fear of repercussion.

Relevant questions must be asked to help in optimizing strategic management of digital transformation initiatives aimed at improving digital maturity. Questions need to be regularized during exco meetings to make it an organizational focal point to align digital initiatives with its corporate and business goals. Some foundational questions include:

1. What is the organization's target digital destination?
2. How is the organization going to get to the digital destination?
3. What is the benefit to getting to the target digital destination?
4. How do we measure the organization's progress getting to the destination?
5. Where are we right now in the journey to get to that digital destination?

The set of top 30 KPIs identified in this guidebook presents a set of foundational KPIs that are best practice and span any digital maturity management program. These KPIs present an organization with what is needed to effectively choreograph all its resources in order to effectively drive its business goals taking into consideration how investments into digital technologies fulfill its total value of ownership for digital investments.

The top 30 Strategic KPIs highlighted in GB1013 v1.0.1 are visualized in the supporting poster and is available for [download here.](https://www.tmforum.org/resources/posters/30-strategic-kpis-for-digital-transformation-poster/)

While 30 KPIs have been provided, the industry working group does not expect all these KPIs to be mandated. Measuring what matters by way of the digital maturity journey will be part of the exercise organizations must undergo to define what is on their business score cards. The reflection of specific KPIs on a business score card will change over time based on its strategy, level of digital maturity and operating environment.

# Introduction

This guidebook establishes a set of strategic and top KPIs that are foundational to planning, executing and realizing business value from digital maturation programs.

The KPIs will be reviewed annually in order to align them with the evolution of digital transformation across member industries.

## Scope

* Periodically assess and Identify a set of top performance indicators that are key to strategic management of digital transformation and digital maturity ambitions. These top performance indicators shall be considered foundational because organizations can create derivative KPIs from them in order to align them with strategic goals.
* Establish standardized definitions for each strategic KPIs with a common framework to reflect relevance to digital and the scope in an organization.
* Formalize clearly what is being measured for each KPI from a digital maturity context in alignment with industry trends.
* Continuously review and agree on an industry-wide computation for each KPI and ensure they are clear and void of subjective interpretation.
* Periodically validate each strategic KPIs objectiveness for benchmarking digital maturity.

## Objectives

The scope of this guidebook is a framework of strategic key performance indicators that will help TM Forum members, and industry at large, to make decisions, take actions, and define measurable outcomes for their digital maturity ambitions.

# Digital Maturity and KPIs

Periodically organizations review and optimize their business strategies in order to effectively utilize their people, resources and digital technologies in achieving the most optimal business outcome. As digital strategies essentially become core to business strategy, focus on digital investments' impact on operational efficiency, customer and ultimately revenue is key to improving digital maturity.

KPIs that pass the scrutiny are assessed by a simple questioning methodology that ensures they satisfy all or most of the selection questions used in identifying them as best practices for the industry. The periodic review process is based on an AS S.M.A.R.T model which is:

* Avoids vanity or fancy KPIs metrics - these are metrics that may be good at a functional level but do not actually impact on business value.
* Simple enough and relevant to key business execs (at least CEO, CFO, and COO) so there is buy-in (SMART).
* Integrate more Leading measures (Computation includes use of, as much as possible, relevant leading measures).
* Identifies clear Accountability and/or responsibility (with ownership, benefits and rewards).
* Drive for Action for digital maturity (either to sustain or improve based on the organization's strategy).
* Measure them on a Monthly or at most Quarterly basis (as input to drive action and steer progress towards set targets).

The traditional KPIs of revenue, cost, and customer experience/satisfaction are needed but these are not enough to manage digital maturity. To focus on the relevant indicators that help in evaluating the digital maturity of a digital transformation journey, additional KPIs are required to enable support the value to business. It is not a race for digital maturity, thus a balance must be reached where digital investments deliver the best and optimal organization value. By focusing on the organization and its strategy, measuring digital maturity can enable manage digital investments mindful of the "law of diminishing returns".

Some supporting "leading measures" that support digital maturity strategic KPIs in this guidebook are:

* Team capacity to get a sense of level of agility
* Training and skills acquisition for employees, contractors and partners
* Customer effort score
* Safe-to-fail environment which impact on time to market for new features/products
* Rate of acquiring customers
* Rate of change of customer behavior (say by improving digital channel adoption etc.)
* Percentage of revenue from digital channels
* etc.

Measuring to manage digital maturity should be a part of the culture of an organization. How fast digital-transformation changes happen in the organization reflects on its ambition and internal culture. Addressing concerns of culture that boarder on collaboration, agility, safe to innovate, continuous learning etc. can impact on level of resistance to change, and thus know which KPIs are strategic. The next section provides a description of version 1 of the top digital maturity strategic KPIs.

# DMM Top Strategic KPIs

## Overview

### What makes a KPI Strategic?

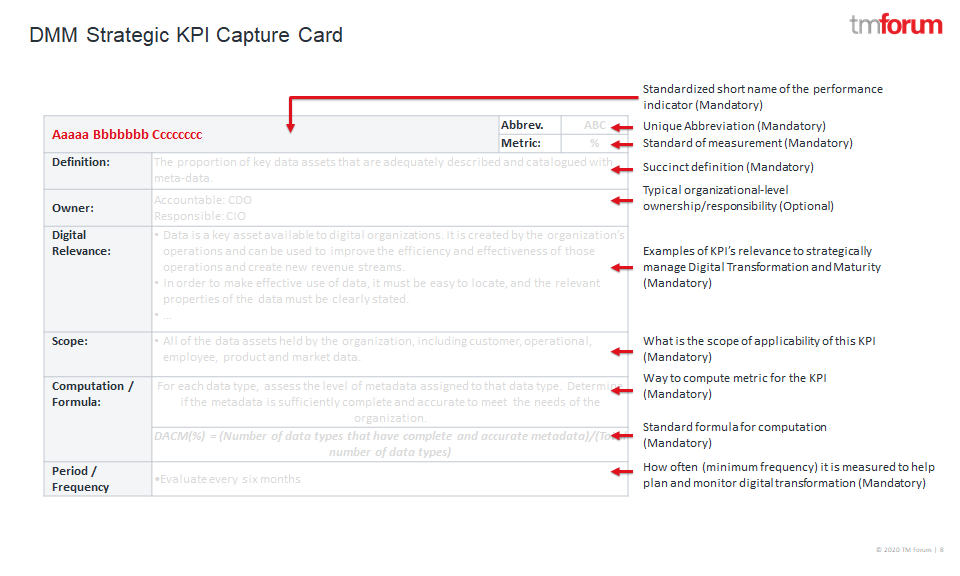
Strategic KPIs provide a means to monitor progress or trends toward a stated destination. Defining or selecting strategic KPIs is about matching the strategy goals of an organization to a set relevant and core performance milestones to manage achieving a digital transformation ambition. To arrive at the set of strategic KPIs included in this guidebook, TM Forum members and Certified DMM partners will continually evaluate best practices of top performing companies based on practice and experience to maintain this repository. The approach taken to identify these as Strategic KPIs follows a series of questions and reviews to nominate an overall set of KPIs relevant to digital maturation and correlating them the digital maturity dimensions in order to apply a test of relevance. The correlation is not normative. It serves as high level guidance of what an organization should essentially look out for based on the implications to a dimension. An organization's corporate and business strategy are ultimately key to finalize the set of KPIs that facilitate strategic management of a digital journey.

The following are the top set of influencing factors to the selection of this set of top strategic KPIs:

1. The KPI must have a sense of impacting top-line and bottom line of an organization's strategy.
2. The KPI must help the organization advance business performance milestones using its digital transformation program.
3. The KPI should be able to expose gaps or challenges in achieving digital transformation objectives in alignment with the strategy.
4. The KPIs must provide valuable measures that enable management of digital maturation in a beneficial way.
5. The KPI must provide an indication of situation as is vs. target based on inputs to enabling "digital" and also outputs from being "digital".

### KPI Description Card

The Description Card provides a simple framework to standardize KPIs. The figure below provides a member-approved format that defines the KPI, Optional Ownership, Digital Relevance, Scope of Applicability, Computation and Formula and Periodic/Frequency of measure.



## KPIs By Dimension

### Customer

|  |  |  |
| --- | --- | --- |
| 3.2.1.1 Customer Lifetime Value | Abbrev. | CLV |
|  | **Metric** | **$** |
| **Definition:** | **Customer Lifetime Value represents the total amount of money that the customer is expected to spend with the organization during their entire relationship minus the cost to acquire and serve them.** | |
| **Owner:** | * CMO | |
| **Digital Relevance:** | * Key benefits of digital transformation are improving customer loyalty and spend, while reducing cost to acquire and serve. These aspects are all reflected in customer lifetime value. * CLV is a good lagging measure of Digital Transformation progress and its business impact. * CLV can be used to manage and prioritize Digital Transformation investments, including identifying which customers to focus on. * The sum of the CLV across all customers represents the overall value of the business (aside from any separate investments) | |
| **Scope:** | * All customers | |
| **Computation / Formula:** | CLV is the sum of the discounted revenue expected during the lifetime of the relationship with the customer minus the sum of the discounted cost to serve and the acquisition cost. | |
| _scroll_external/attachments/image2020-11-17_15-40-47-0af1e13f7bccf39323354154fc2cb678ae9ee9343e7aafa5d8fa1fec41e8faf1.png  Notes:-   * Revenue Cost-to-Serve, and Retention-Rate should be based on a period of 1 month. * Cost-to-Serve should include any retention costs. * Retention-Rate = 1 - Churn Rate * Cost-to-Acquire should include marketing and sales costs, plus any costs associated with special offers (Free gifts etc.) * Where possible this should be evaluated individually for each customer. * More elaborate models can factor in the additional value of an individual customer based on their influence over others' purchasing decisions. | |
| **Period / Frequency** | Monthly | |

|  |  |  |
| --- | --- | --- |
| 3.2.1.2 Net Promoter Score | Abbrev. | NPS |
|  | **Metric** | **#** |
| **Definition:** | **Net Promoter Score is a proxy measure for customer satisfaction and loyalty based on the likelihood of customers being willing to recommend a product or brand.** | |
| **Owner:** | * CEO * CMO | |
| **Digital Relevance:** | * A key benefit of digital transformation is that customer satisfaction and loyalty should increase. This will be reflected in higher NPS scores. * NPS is a good predictor of revenue. * NPS is a good lagging measure of digital transformation progress, particularly investments focused on digitalization. | |
| **Scope:** | * A random selection of all customers should be surveyed. | |
| **Computation / Formula:** | Randomly selected customers are asked to respond to the question “On a scale of 0 to 10, how likely are you to recommend X to a friend or colleague?” , where X is a product or brand. Sample size should be greater than 500.  Promoters are defined as those responding with 9 or 10. Detractors are defined as those responding 0 to 6. The NPS score is calculated as % Promoters - % Detractors. | |
| ***_scroll_external/attachments/image2020-7-27_18-26-10-2a10b68eb914c7a0fa9545c4b3e2a8f521e5ccc14bc27e53fe5c233f804b59b5.png***  Notes:-   * Percentage Promoters is the proportion of customers responding 9 or 10 to the survey question. * Percentage Detractors is the proportion of customers responding between 0 and 6 to the survey question. * NPS can have any value between +100 and -100. | |
| **Period / Frequency** | Monthly | |

| **3.2.1.3 First Response Time** | **Abbrev.** | **FRT** |
| --- | --- | --- |
| **Metric** | **Minutes** |
| **Definition:** | **First Response Time is the time (duration) it takes an organization to provide an initial meaningful reply to a customer request.** | |
| **Owner:** | * COO * CMO (And Chief Customer Officer) | |
| **Digital Relevance:** | * A benefit of digital transformation is that response time to customers should decrease. This is reflected in FRT. * FRT can be used to track and manage digital transformation progress, including the relative performance of different channels. | |
| **Scope:** | * All customer requests over all channels. | |
| **Computation / Formula:** | The time to first response begins when the customer makes the initial request and ends when a meaningful response is sent or offered to the customer. A “meaningful” response is defined as a response which either fully handles the request or advances progress towards fully handling the request. Default responses acknowledging receipt of the request are not counted as a meaningful response.  To avoid extreme outliers skewing the data, it is recommended that both the mean and the median of first response time distribution is reported. | |
| **_scroll_external/attachments/image2020-7-27_18-27-57-c6dfb8f6129ef2e4452806817c88ac23e3c94c46a3965356908b13e52e91b2d9.png**  Notes:-   * 'Time request was made' is the time the request was received by the organization. * 'Time when a meaningful response is given' is the time the customer receives a response relevant to their request. * The mean and median is calculated from the distribution of the FRTs of all customer requests responded to during the measurement period. | |
| **Period / Frequency** | Monthly | |

| **3.2.1.4 Churn Rate** | **Abbrev.** | **CHR** |
| --- | --- | --- |
| **Metric** | **%** |
| **Definition:** | **Churn Rate is a measure of customer turnover.** | |
| **Owner:** | * CMO | |
| **Digital Relevance:** | * A key benefit of digital transformation is that customer loyalty is improved. This should be reflected in reduced churn rate. * Churn can be used to track and manage digital transformation progress. * Digital transformation will provide greater insights into "why customers churn" in order to improve this metric. | |
| **Scope:** | * All customers | |
| **Computation / Formula:** | Calculated by dividing the total number of customers that have cancelled a digital service/product by the total number of customers active at the start of the period. | |
| *_scroll_external/attachments/image2020-7-29_14-44-44-ad0b2ef9339a4b3b17f7c12e92394aca81529cbcf0ab64a624314d465304aa7a.png*  Notes:-   * Churn Rate can be calculated for a specific product/service, or for the overall relationship with the organization | |
| **Period / Frequency** | Monthly | |

|  |  |  |
| --- | --- | --- |
| **3.2.1.5 Customer Acquisition Cost** | **Abbrev.** | **CAC** |
| **Metric** | **$PC** |
| **Definition:** | **Customer Acquisition Cost (CAC) is a measure of an organization's average expense towards gaining a single customer.**  **This KPI** includes marketing and sales expenses, campaign and advertising spending, as well as salaries and overhead, associated with the efforts to attract prospects, aiming and converting them into new customers, within a certain time period; then divided by the actual number of new customers in the same time period. | |
| **Owner:** | * COO * CMO | |
| **Digital Relevance:** | * A key benefit of digital transformation is that customer acquisition cost should reduce. * Customer acquisition costs can be used to track and manage digital transformation progress. | |
| **Scope:** | * All Customers | |
| **Computation / Formula:** | Cost of customer acquisition is the total sales and marketing expenses divided by the total number of customers acquired over a given period. | |
| _scroll_external/attachments/image2020-7-27_18-31-9-76ef847f51e7e354a7eb839136fa0b8111fa7e9aada162bb460b1c962407d7f4.png | |
| **Period / Frequency** | Quarterly | |

### Strategy

| **3.2.2.1 Customer Self-service Success** | **Abbrev.** | **CSS** |
| --- | --- | --- |
| **Metric** | **%** |
| **Definition:** | **Customer Self-service Success measures the proportion of customer service requests which are successfully completed over self-service channels without the need for direct human support.** | |
| **Owner:** | * CMO | |
| **Digital Relevance:** | * Automation is a key to efficient and low-cost operational processes, handling enquiries with self-service channels lowers staff costs. * Customers nowadays are looking for fast responses and help when having problems or questions without needing to wait for human agents. * A high success rate is important to encourage adoption of digital self-service channels. | |
| **Scope:** | Applies to all customer service requests, including account queries and account modifications. Self-service channels include all channels where direct human interaction is not required including IVR, Chatbots, Voice Assistants, Web, App, SMS, SS. | |
| **Computation / Formula:** | Customer Service Request is a request for service by existing customers and users. This would typically be an account query, an account modification or a problem report.  A successful outcome occurs when the service request is completed without the user needing to seek human assistance. | |
| _scroll_external/attachments/image2020-11-17_15-30-33-2c12755891ebe139ed4c2b60471a27bc563c960b59e30fe34ec062a529f5132d.png | |
| **Period / Frequency** | Monthly | |

| **3.2.2.2 Return On Investment** | **Abbrev.** | **ROI** |
| --- | --- | --- |
| **Metric** | **%** |
| **Definition:** | **Return On Investment is a measure of the gain or loss from an investment relative to its cost.** | |
| **Owner:** | * CFO * CDO | |
| **Digital Relevance:** | * Investments in Digital transformation projects includes investments into culture change, customer-related initiatives, operations, technology and data. * Organizations will measure the impact of these investments into digital initiatives using ROI. | |
| **Scope:** | * Applies to all digital investments | |
| **Computation / Formula:** | To calculate ROI, the benefit (or return) of an investment is divided by the cost of the investment.  The result is expressed as a percentage or a ratio. In traditional IT, the Cost of Investment would consist of hardware deployment & software development costs. | |
| _scroll_external/attachments/image2020-7-27_18-8-52-1cca0f177ca77be4e5cafb920a0de0bd3ff63dcd8271a1cd6ac670f1647db2b2.png | |
| **Period / Frequency** | Aligned with investment / project life-cycle | |

| **3.2.2.3 Revenue generated by Digital Investment** | **Abbrev.** | **RDI** |
| --- | --- | --- |
| **Metric** | **%** |
| **Definition:** | **Revenue generated by Digital Investment measures the amount of additional revenue created as a result of digital investment.** | |
| **Owner:** | * CFO * CDO | |
| **Digital Relevance:** | * A key potential benefit of digital transformation is maintaining and increasing revenues. * Valuable in prioritizing digital initiatives | |
| **Scope:** | * Applies to all digital transformation investments | |
| **Computation / Formula:** | Total revenue attributed to digital investments divided by total revenue. | |
| ***_scroll_external/attachments/image2020-7-27_18-4-58-a4636ce3e416594a136927d214c6ce6385362f2c502f0ef5923662ebdd32fc13.png***  Notes:-   * Digital investments must be well-defined * Revenue attribution to digital investments must be direct revenue. | |
| **Period / Frequency** | Monthly | |

| **3.2.3.4 Brand Affinity Score** | **Abbrev.** | **BAS** |
| --- | --- | --- |
| **Metric** | **#** |
| **Definition:** | **Brand Affinity Score represents the aggregate feeling of actual and potential customers about a brand.** | |
| **Owner:** | * CMO | |
| **Digital Relevance:** | * Evaluates impact and relevance of digital initiatives to consumers. * A strong digital brand can lead to higher net margins. * Digital channels such as social media offer an enterprise many new opportunities to build (and damage) its brand through increased influence over, and engagement with, customers and potential customers. * By assessing how customers feel about a brand, Brand Affinity Score helps an organization to manage and optimize its brand building efforts. | |
| **Scope:** | * All existing customers. * All potential customers of the brand. The criteria for identifying "potential customers" should be determined by the marketing team in alignment with the business and brand strategy. | |
| **Computation / Formula:** | A random sample of at least 500 potential customers should be asked the question "How do you feel about *brand x?*".  Response is a scale between **-5** to **+5** *(where: -5 rating is "I hate it", +5 rating is "I love it", 0 rating is neutral)* | |
| ***_scroll_external/attachments/image2020-7-27_17-57-0-fc6865b727638efa2bd5c8ea9518e683323f96c78e0539a38627ebefd449c817.png*** | |
| **Period / Frequency** | Quarterly | |

| **3.2.2.5 Revenue generated with digital Ecosystem Partners** | **Abbrev.** | **REP** |
| --- | --- | --- |
| **Metric** | % |
| **Definition:** | **Revenue generated with Ecosystem Partners is a measure of the proportion of enterprise revenue generated from services jointly delivered with one or more digital ecosystem partner.** | |
| **Owner:** | * CDO * CFO | |
| **Digital Relevance:** | * This metric indicates how much revenue is created as a result of digital ecosystem engagement and can be used to guide investment decisions as well as to track the business impact of existing digital transformation investments. * Revenue is generated with Ecosystem partners by two methods: Selling services and capabilities via APIs and offering new services to consumers which include services and capabilities offered by ecosystem partners. * Ultimately, an enterprise can transform to become a platform-based service provider, increasing revenues and margins by offering a comprehensive set of services to its customer base. | |
| **Scope:** | * All products and services delivered jointly with at least one digital ecosystem partner. | |
| **Computation / Formula:** | Proportion of total revenue generated jointly with digital ecosystem partners. | |
| _scroll_external/attachments/image2020-7-27_17-57-13-685368b4e194b81bd9a77ca978d6dc38d7653d1a430d8fab9fe97e01ce0b17be.png  Notes:-   * A Digital Ecosystem Partner can be a consumer, or reseller purposes | |
| **Period / Frequency** | Monthly | |

### Culture

| **3.2.3.1 Internal Net Promoter Score** | **Abbrev.** | **INPS** |
| --- | --- | --- |
| **Metric** | **#** |
| Definition: | **Internal Net Promoter Score is a measure to evaluate the extent to which employees are willing to recommend the company and its digital products/services.** | |
| Owner: | * CHRO * COO | |
| Digital Relevance: | * Has a direct impact on the digital performance of the company. Use INPS to gauge the health of an organization's work environment. * Effective in managing work climate using simple surveys (Companies such as Google, Zappos, USAA, Lego and Costco are labelled as ‘legendary brands’ because they have brought out the most amazing product through obsession about the customer experience as well as employee experience). * Turn employees into digital transformation promoters. (Engaged employees' experiences in high-performing cultures usually stay longer and drive more profitability). * Effective in achieving lower employee turnover by helping to form a benchmark. * Effective as a leading measure for an organization's work environment. | |
| Scope: | * Direct employees * In-direct employees (employees of outsourced activities e.g., Call centers, Field staff, non-core backoffice processes etc.) | |
| Computation / Formula: | INPS is calculated based on responses to a single question: How likely is it that you would recommend our company, its digital products & services to friends and colleagues?  Calculated by subtracting the percentage of employees who are detractors from the percentage of employees who are promoters. | |
| _scroll_external/attachments/image2020-7-29_14-53-37-aae84c70b083ab24e6d0884755331a17ed708a2f51ab9dcd11d132a7fb255e4d.png  Notes:-   * Percentage Promoters is the proportion of employees responding 9 or 10 to the survey question * Percentage Detractors is the proportion of employees responding between 0 and 6 to the survey question * INPS can have any value between +100 and -100. | |
| Period / Frequency | Quarterly | |

| **3.2.3.2 Digital Match of Skills Needed** | **Abbrev.** | **DSN** |
| --- | --- | --- |
| **Metric** | % |
| Definition: | **Digital Match of Skills Needed is a measure of the availability of staff with the skills needed to deliver digital initiatives (including products and services).** | |
| Owner: | * COO * CDO | |
| Digital Relevance: | * Has a direct impact on the operational and financial performance of the company. * Helps to evaluate project performance rate e.g., Quality, Timeliness, Cost. | |
| Scope: | * Focus on all direct employees and employees of outsourced activities e.g., call centers. | |
| Computation / Formula: | Line managers are required to make a direct assessment of the skills needed to develop, deliver and support digital products and services.  Assessment of their availability is made and a list developed to show the delta between required and available people with skills and competencies.  The real-time availability of required skills and competencies is then added and used as the basis of strategy to either develop or the buy the skills and competencies. | |
| _scroll_external/attachments/image2020-11-18_15-44-6-a1eb7702135d2c8a0b7d8bb9d4bb3877567877d5f1b2ba4db5423063830ecd10.png | |
| Period / Frequency | * Quarterly * Also, On Demand (This metric requires frequent update for managers to keep track of any perceived lack of the required skills and competencies) | |

| **3.2.3.3. Employee Effort Score** | **Abbrev.** | **EES** |
| --- | --- | --- |
| **Metric** | **#** |
| Definition: | **Employee Effort Score measures the ease with which employees feel they can execute their tasks.**  Effectiveness and efficiency are factors impacting "ease of executing tasks", and this includes the degree of difficulty experienced by an employee in developing, delivering and/or supporting digital products and services of the company. | |
| Owner: | * COO * CHRO | |
| Digital Relevance: | * The effort required by employees to perform their tasks, related to organizational factors, including processes and workflows can be improved or hindered by digital tools. * Evaluate how digital technologies enables employees to perform their tasks and schedules easily. * Measures how easy it is for an employee to do their work accordingly. * Critical to the successful delivery of quality digital products and services. * Indirectly measures ability to drive customer loyalty. (E.g., Customer Service representatives who prevent callbacks reduce the amount of customer effort and callback-related costs.) * Impacts on cost to operate a business. | |
| Scope: | * Employee job scheduling. * Focus on all direct employees and employees of outsourced activities e.g., call centers. | |
| Computation / Formula: | EES is collected by employee survey using ‘On a scale of 1 to 7 how easy does the company make it to perform your daily work?’. | |
| **_scroll_external/attachments/image2020-7-29_15-26-25-ff501a76ac7469aa114dfd500cb497ec4a195cd25e5e2a544bab2c9c4b1562f7.png**  Notes: -   * Employees responding to the survey should reflect the organization as a whole, its size and core business. * On a scale of 1 to 7, 1 is very easy, and 7 is very hard. | |
| Period / Frequency | Quarterly | |

| **3.2.3.4 Workforce involved in Digital Initiatives** | **Abbrev.** | **WDI** |
| --- | --- | --- |
| **Metric** | ***%*** |
| Definition: | **Workforce involved in Digital Initiatives measures the proportion of total working time spent developing, delivering, or supporting digital initiatives.** | |
| Owner: | * COO * CDO | |
| Digital Relevance: | * This metric gives an indication of the current adoption of digital engagement across the business and is an indicator towards commitment to digital transformation. | |
| Scope: | * Direct workforce. * In-direct workforce for outsourced activities e.g., Call centers, Security and all supporting activities. | |
| Computation / Formula: | Employees working time spent engaged in the development, delivery and support of digital products and services expressed as a percentage of total working time. | |
| ***_scroll_external/attachments/image2020-7-27_17-11-21-faabcee74dbd94786d04bfd326412ed1ea1a17e588294aaa8abe5dceef1ccb93.png***  Notes: -   * Digital initiatives must be well-defined | |
| Period / Frequency | On-demand | |

| **3.2.3.5 Training budget for Digital Initiatives** | **Abbrev.** | **TDI** |
| --- | --- | --- |
| **Metric** | ***%*** |
| Definition: | **Training budget for Digital Initiatives measures the percentage of the training budget allocated and spent on digital initiatives.** | |
| Owner: | * CHRO * Heads of Lines of Business | |
| Digital Relevance: | * Effective in managing skills development. * Can be used as a leading indicator for digital learning outcomes. * Indicates a commitment to the development of required digital skills and competencies. | |
| Scope: | * Direct employees. * In-direct workforce for outsourced activities e.g., Call centers, Security and all supporting activities. | |
| Computation / Formula: | Calculated by determining the cost of employee training focused on Digital initiatives over the total training budget, (may include the labor cost of employee hours spent in training class, associated travel costs, course fees, learning management system operation cost, and time spent administering employee training, such as setting-up courses and printing certificates) per employee. | |
| ***_scroll_external/attachments/image2020-7-29_15-41-43-a79cd5e59bf9c6f93584e13f8840dd2361b43156cc756fd2010830d8e57fc81c.png*** | |
| Period / Frequency | Monthly | |

### Operations

| **3.2.4.1 Time-to-Market** | **Abbrev.:** | **TTM** |
| --- | --- | --- |
| **Metric:** | **H/D/M** |
| **Definition:** | **Time-to-Market measures the time taken to move a new or enhanced product or service from concept to general availability.** | |
| **Owner:** | * CCO * CMO * CPO etc. | |
| **Digital Relevance:** | * Digital transformation leverages digital technologies to ideate, design, develop, test, and introduce them to users/customers. With the use of digital technologies, organizations can effectively improve their velocity of execution. * TTM as KPI can measure and be used to manage the impact of investments in digital initiatives. * The KPI helps to focus on needs and expectations of customers using prioritization to incrementally deliver what’s needed when it’s needed. | |
| **Scope:** | * Measures lead times for any activity or event undertaken by the organization e.g., Time to formulate tactical strategies, time to release a new product or time to recover etc. * Enumerates the efficiency of a value stream. * Use of newer technologies may provide a better speed to market where culture of the organization permits. | |
| **Computation / Formula:** | Compute the time difference from product/service ideation to the general availability gate being passed. | |
| *_scroll_external/attachments/image2020-11-17_15-51-5-233c44cc9098034750aa0ec5d447eb6740e513b90bf0b894829d8016fa04aeb7.png* | |
| **Period / Frequency** | Quarterly | |

| **3.2.4.2 Average Response Time** | **Abbrev.:** | **ART** |
| --- | --- | --- |
| **Metric:** | **s/m/H/D** |
| **Definition:** | **Average Response Time is the amount of time it takes to provide results to a request made by a user or customer.** | |
| **Owner:** | * COO * CMO | |
| **Digital Relevance:** | * A leading indicator to evaluate the effectiveness of a digitized process or a value stage/value stream. * Reduction of response time for service delivery can positively impact on customer experience, customer satisfaction and reduce churn. * Feedback from customer service functions, such as ‘First Response Time’ using digital channels can improve adoption and help optimize operating costs. * Useful to manage time-to-feedback to a user’s/customers for all channels. | |
| **Scope:** | * All operational value streams or value stages (incident response, feedback time etc.) in an organization. * Covers all end-users, including devices, employees, partners, users and customers. * Evaluates channel interaction performance (e.g., Call center, Service desk, Website, Mobile application etc.) * Includes time it takes to meet the needs / request of a user or customer, First Response Time (FRT) etc. * Useful tool to benchmark time it takes to process request vs competition. | |
| **Computation / Formula:** | Measure the time between a specified start event and stop event (where the start of the measurement is set to an input from a user, customer or device) and divide it by the total number of responses during the time window.  It can be computed per interaction at a touch point and divide by the total number of interaction touchpoints. For every execution of ‘request by type’, a unique response time can be computed and averaged. | |
| **_scroll_external/attachments/image2020-6-18_16-59-46-e40d428ed89cced42bfa7bc17a03bcf5b0dd02321da1fa2e277316536b508264.png**  Notes:-   * tend: when the response is provided * tstart: start time for a request for response * n: Total number of requests * Normalize time to one series – minutes / Hours / Days / Weeks or Months when benchmarking | |
| **Period / Frequency** | Monthly | |

| **3.2.4.3 Active Usage Rate** | **Abbrev.:** | **AUR** |
| --- | --- | --- |
| **Metric:** | **%** |
| **Definition:** | **Average Usage Rate is the measure of how many users out of a user base actively interact with a digital channel (Website, Chatbot, kiosk etc.) or digital product.** | |
| **Owner:** | * CMO * Product Manager | |
| **Digital Relevance:** | * Digital products and service performance and success can be evaluated using AUR. * Gauging AUR over time can help to manage capacity and performance, as well as enable an understanding of customer interests or satisfaction with a product or service. * Can be good leading indicator for how effective a digital product or service is to customers / users. * Can be used as a yard stick for migrating customers or users from a traditional usage mode to digital. * Also effective in evaluating whether a given digital product or service is of interest to the target base. | |
| **Scope:** | * Applies to Users of a feature, service or product, subscribers to a service, an organization's customers etc. * Measures success or failure of a service, feature, or product (e.g., App, Website, etc.) as it relates to subscriptions or User e.g. Customer Adoption Rate, Partner Adoption Rate, App Adoption Rate etc. * Products, Services, managers can compare active usage vs total base in order to optimize strategy execution. * Usage rate by number of downloads over a fixed time period of an App in a well-defined period. * Number of users calling into a call center versus total base within a well-defined period. | |
| **Computation / Formula:** | Count the unique users or unique usage events that meet a well-defined criteria for "Active" and divide that by the total users or usage. | |
| _scroll_external/attachments/image2020-6-18_11-53-48-055b27e836b5b2f686900b3fbbdf808cfaf0ec5e6384bc0d50de7592a51c8372.png  Notes:-   * UniqueUserst: Number of unique (active) users that interact with a product or service in a time window * TotalUsers: Total unique users | |
| **Period / Frequency** | Monthly | |

| **3.2.4.4.Cost-to-Serve** | **Abbrev.:** | **CTS** |
| --- | --- | --- |
| **Metric:** | **$** |
| **Definition:** | **Cost-to-Serve is a measure of the total cost of servicing users or customers.** | |
| **Owner:** | * CFO * COO | |
| **Digital Relevance:** | * Determines a customers’ actual value to the organization’s business and serves as a means to evaluate the effectiveness of digital transformation investments. * Provides aggregate analysis for ‘Activity Based Costs’ that altogether support delivery of services to customers or segments or by channels. * Use of digital technologies can help to shift high labor costs into mechanized costs which can reduce cost-to-serve. * Newer digital technologies can improve cost-to-serve, such as use of digital social channels for customer helpdesk which offloads cost-to-serve from the direct management by the organization. * A leading indicator to evaluate profitability for digitizing value stream. * Improves profitability of digital projects and helps to prioritize short-term actions. | |
| **Scope:** | * Applicable to internal users and external customers. * Covers labor costs and all inputs to a functioning value stream * Impact on all organization objects (channels, process, data, actors, employees, partners etc.) involved in delivering service to internal and external customers. * Increases transparency to managing and controlling costs of services (sets targets and benchmarks against them). * Analyzes costs throughout a value stream (e.g., Supply chain) based on the end user / customer (existing/new). | |
| **Computation / Formula:** | Sum all the Activity Based Costs (ABCs) involved in serving a customer or user in a market. | |
| _scroll_external/attachments/image2020-7-29_16-51-1-b6df4cc53cd38ae34e1c53c44c4fd22949a7ac02d98bf23d46e3c098ca5f580b.png  Notes:-   * ABC: Activity Based Cost is an Accounting measure to identify direct and indirect costs related to value stages in a value stream. [*https://stats.oecd.org/Index.aspx?DataSetCode=RMW*](https://stats.oecd.org/Index.aspx?DataSetCode=RMW) | |
| ***Period / Frequency*** | Monthly | |

### Data

| **3.2.5.1 Economic Value of Data Assets** | **Abbrev.** | **EVDA** |
| --- | --- | --- |
| **Metric** | **$** |
| Definition: | **Economic Value of Data Assets is a measure of the monetary value of all the data assets owned by the organization evaluated using an income approach.** | |
| Owner: | * CFO * CDO/CIO | |
| Digital Relevance: | * Data is a key asset available to digital organizations. It is created by the organization’s operations or can be obtained from third-parties. Data can be used to improve the efficiency and effectiveness of the organization's operations, as well as allowing new revenue streams to be created. * Placing a monetary value on the organization’s data assets helps to ensure that the organization develops and protects those assets in accordance with their value. * A mature digital organization should have a full understanding of the value of its data assets. | |
| Scope: | All of the data assets held by the organization, including customer, operational, employee, product and market data. This includes third-party data. | |
| Computation / Formula: | For all data assets, calculate the total incremental $ revenue achieved by exploiting each data asset (minus any associated cost) plus the total $ operational savings achieved by exploiting each data asset. | |
| _scroll_external/attachments/image2020-7-29_16-56-50-140f4fb9aa2519477669149eb95bf6152aa58a84f68bb169e891fbf46d11033b.png  Notes:-   * Incremental Revenue must be related to use of data assets * Associated Costs must be related to facilitating use of data assets * Operational Savings must be outcome of use of data assets | |
| Period / Frequency | Quarterly | |

| **3.2.5.2 Data Democratization Index** | **Abbrev.** | **DDI** |
| --- | --- | --- |
| **Metric** | **%** |
| Definition: | **Data Democratization Index measures the mean proportion of required data that stakeholders feel they are immediately able to access in a usable format.** | |
| Owner: | * CDO * CIO | |
| Digital Relevance: | * Data is a key asset available to digital organizations. It is created by the organization’s operations and can be used to improve the efficiency and effectiveness of those operations. * Data can often be protected by gatekeepers who can be reluctant to share it with those who need it. * A mature digital organization should allow all **stakeholders** to have ready access to the data they need to effectively and efficiently perform their roles, within the constraints of data privacy and security requirements. | |
| Scope: | All employees of the organization whose work can be made more efficient and/or effective through ready access to the organization’s data. The organization’s data includes customer, operational, employee, product and market data which can be shared internally without violating legitimate privacy or security concerns. | |
| Computation / Formula: | For all employees, assess the proportion of required data which they each feel they have convenient access to. Calculate the overall mean of this value across all employees.  The measurement is done via a questionnaire / survey where the question "Do you have the data required to do your job well" is asked with a binary answer expected. | |
| _scroll_external/attachments/image2020-7-27_16-32-26-a570e36996fab365f4c0fe7104527ba01db90dc75de2f65785bd362fd9fc4f98.png  Notes:-   * Sample size for survey should be representative of the Organization business. * An ample sample size is effective for objective enumeration | |
| Period / Frequency | Quarterly | |

| **3.2.5.3 Data Integrity** | **Abbrev.** | **DI** |
| --- | --- | --- |
| **Metric** | **%** |
| Definition: | **Data Integrity measures the proportion of each data type held by the organization that is "fit for purpose".** | |
| Owner: | * CDO (Accountable) * CIO (Responsible) | |
| Digital Relevance: | * Data is a key asset available to digital organizations. It is created by the organization’s operations and can be used to improve the efficiency and effectiveness of those operations. * Data can often be invalid due to many causes such as collection errors (bias, equipment faults, design faults), lack of timeliness, and formatting errors. * Inaccurate data can lead to poor decisions and poor operational performance, so it is important that the level of data validity is known and continually improved. * This metric helps the enterprise to manage and improve the validity of its data with the aim of improving operational performance. | |
| Scope: | * All of the Data assets (including customer, operational, employee, product and market data). * Regulatory requirement for data storage. | |
| Computation / Formula: | For each data type, take a representative sample of values and evaluate the validity of each value against the purposes for which it is intended. Validity should be reported against each data type. | |
| _scroll_external/attachments/image2020-7-29_17-10-25-c574555f8c27d7e860b35431f9cf94d89a67bfb7f54792ddadf32a1ac8c7d149.png  Notes:-   * Data Objects Sample Size must be representative of the organization's core business. * A Valid Data Object is defined based on the core Business of the organization. * Use same time period for both numerator and denominator. | |
| Period / Frequency | Quarterly | |

| **3.2.5.4 Revenue from Data Monetization** | **Abbrev.** | **RDM** |
| --- | --- | --- |
| **Metric** | **%** |
| Definition: | **Revenue from Data Monetization measures the proportion of revenue obtained from external monetization of data.** | |
| Owner: | * CFO (Accountable) * CMO (Responsible) | |
| Digital Relevance: | * Data is a key asset available to digital organizations. It is created by the organization’s operations, and the information it contains can often offer value to third parties. * Supplying data and/or derived information to third parties can lead to additional revenue for the organization to become a line of business. * Data and information disclosure must be compliant to privacy and security requirements. | |
| Scope: | * Any Data object that can be offered as a product to be consumed and invoiced. * Revenue of the organization derived from the sale of Data and/or information. | |
| Computation / Formula: | Divide the revenue of the organization derived from the sale of data and/or information by the total revenue of the organization. | |
| ***_scroll_external/attachments/image2020-7-27_16-12-41-fd7ec220b486b28554259c9be65c22cc3b5b0e30b743f4ce3d758b6c0648c5b2.png***  Notes:-   * A sale is direct if it is identified as an invoiceable product. * Use same time period for both numerator and denominator. | |
| Period / Frequency | Quarterly | |

| **3.2.5.5 Key Data Assets Covered by Metadata** | **Abbrev.** | **DCM** |
| --- | --- | --- |
| **Metric** | **%** |
| Definition: | **Key Data Assets covered by Meta-data is a measure of the proportion of key data assets that are adequately described and cataloged with meta-data.** | |
| Owner: | * CIO * CDO | |
| Digital Relevance: | * Data is a key asset available to digital organizations. It is created by the organization’s operations and can be used to improve the efficiency and effectiveness of those operations, as well as allowing new revenue streams to be created. * In order to make effective use of data, it must be easy to locate, and the relevant properties of the data must be clearly stated. * Metadata is used to guide the storage and retrieval of each data item as well as describing the relevant characteristics of the data item. | |
| Scope: | * All the data assets held by the organization, including customer, operational, employee, product and market data. | |
| Computation / Formula: | For EACH data type, assess the level of metadata assigned to that data type. Determine if the metadata is sufficiently complete and accurate to meet the needs of the organization. | |
| _scroll_external/attachments/image2020-7-29_17-18-21-2c40c2c23966b7d1e678347a60bc3152c659aadcd91e2d9731c904aafb4952ea.png  Notes:-   * Metadata completeness is established with data user/owner. * Use same time period for both numerator and denominator. | |
| Period / Frequency | Quarterly | |

| **3.2.5.6 Compliance to Data Regulations and Policies** | **Abbrev.** | **CDR** |
| --- | --- | --- |
| **Metric** | **%** |
| Definition: | **Compliance to Data Regulations and Policies measures the proportion of processes using data that are fully compliant with data-related regulations and policies.** | |
| Description/ Owner: | * COO (Responsible Party for measurement) * CFO (Accountable) | |
| Digital Relevance: | * Data is a key asset available to digital organizations. It is created by the organization’s operations and can be used to improve the efficiency and effectiveness of those operations. * There are many stringent regulations in place which specify how data should be handled from both a security and privacy perspective. * Failure to comply to these regulations when handling and storing data can lead to severe financial penalties and reputational damage. * It is therefore important to measure and improve the level of compliance. | |
| Scope: | * All regulations * Business license obligation * All data life-cycle management processes performed by an organization. | |
| Computation / Formula: | For EVERY organizational process that handles data, audit the process to assess whether the process is fully compliant to all relevant data handling regulations and policies. (Any failures should be immediately addressed through targeted action plans with senior level accountability) | |
| ***_scroll_external/attachments/image2020-7-29_17-25-3-c5dbfa9689f19f2ff1bbd292309954eb6c8a1164705f4e58a52046499526fa62.png***  Notes:-   * Data-related regulations refers to regulations that cover all activities related to collection, processing and storage of data. Nuances with regards to markets may apply. * A data-related regulations and policy is counted as a regulation or policy that can be audited for compliance. * Use same time period for both numerator and denominator. | |
| Period / Frequency | Quarterly | |

### Technology

| **3.2.6.1 Digital User Journeys** | **Abbrev.** | **DUJ** |
| --- | --- | --- |
| **Metric** | **%** |
| Definition: | **Digital User Journeys is an indicator of the proportion of user/customer journeys that can be wholly carried out over digital channels without human interaction.** | |
| Owner: | * CDO * CMO | |
| Digital Relevance: | * Use of digital technologies enhance all internal User interactions based on value-targeted workflows that constitute Journeys to continually improve productivity. * Use of digital technologies to enhance all external customers interactions with the organization based on outcome-targeted workflows. | |
| Scope: | * All internal User journeys. * All customers journeys. * All channels (Sales, Customer Care, Call Centers, Support Centers, Helpdesk etc.). Users and customer have interactions within and with (respectively) organizations during everyday transactions via different media/mediums. | |
| Computation / Formula: | Total number of digital user/customer journeys versus the total number of user/customer journeys. | |
| _scroll_external/attachments/image2020-10-21_16-48-0-b4e96a6a2b8f14b04c90cb12b13c4c02fe38ede4a7911906389739e108c83a5d.png  Notes:-   * Use TM Forum definition of a Customer/User Journey. * Use same time period for both numerator and denominator. | |
| Period / Frequency | Quarterly | |

|  |  |  |
| --- | --- | --- |
| **App Market Performance\*** | **Abbrev.** | **AMP** |
| **Metric** | **[#, #D, #R, %]** |
| Definition: | **App Market Performance reflects the quality and usability of an app based on indicators such as the App’s star rating, total count of downloads/installs, total number of ratings and the average sentiment from users.**  *\*The use of Mobile App Rating Scale (MARS) is being reviewed as a replacement for this metric.*  *For more information about MARS, please reference:*   * [*https://eprints.qut.edu.au/84696/*](https://eprints.qut.edu.au/84696/) * [*https://mhealth.jmir.org/2020/3/e14479/*](https://mhealth.jmir.org/2020/3/e14479/) | |
| *Owner:* | * CMO * Project/Program Manager or Product Manager | |
| Digital Relevance: | * App store and digital service ratings and reviews are an important factor when it comes to app visibility and conversions. They provide users’ feedback and demonstrate how exactly the app ranks on the market. * In the world of apps, ranking is just as important when it comes to standing out in a sea of more than 1.3 million apps. Approximately 63% of users find an app through general browsing in the App Store. A higher ranking gives an app more exposure and brings more traffic and downloads. * App Ranking signals the user adoption and perception of an App or digital product/service. It is influential for organic adoption of digital products/services. | |
| Scope: | * Apps in App stores. * Digital products and services (Spot surveys to collect user feedback) . * Digital feedback collected monthly for app experience. | |
| Computation / Formula: | App market performance is a reflected by four KPIs collected via App stores that provide: Overall Store "Star rating" (_scroll_external/icons/star_yellow-23d025e6b304088a3808962106d9f0bdc01eecd9583ea417a1965462a8a50f70.svg), Total Count of Rating (#R), Total Download or installs (#D), Average Positive feedback sentiment (%) | |
| _scroll_external/attachments/image2020-7-29_17-47-14-26f9b11cfd6e904ec1ca7a9722e019cfb3b1e8cc26df178ee6321d18c620363e.png  Notes:-   * Overall "Star Ratings" (_scroll_external/icons/star_yellow-23d025e6b304088a3808962106d9f0bdc01eecd9583ea417a1965462a8a50f70.svg): Average number of stars from the App store. * Total Count of Ratings (#R): Is the number of review ratings received. * Total Downloads or Installs (#D): Is the number of downloads or installs or users of the App, digital product or service. * Average feedback Sentiment (%): Is the overall positive feedback received. | |
| Period / Frequency | Monthly | |

| **3.2.6.3 Adoption of DevOps (CI/CD)** | **Abbrev.** | **AoD** |
| --- | --- | --- |
| **Metric** | **%** |
| Definition: | **Adoption of DevOps is a measure to indicate the level of adoption of DevOps (CI/CD) in operations and in technology delivery related projects within the organization.** | |
| Owner: | * COO * PMO/CTO/CIO | |
| Digital Relevance: | * The adoption of DevOps and CI/CD methods by the organization in support of the evolution and delivery of technology related projects, as well as in operations and production environment. * In a competitive world in which organizations and entire industries are becoming more and more digitally enabled as a condition to thrive and survive, the development, adoption and operation of new technologies requires shorter, faster and more agile implementation cycles, therefore the adoption of methods such as DevOps and CI/CD is crucial. | |
| Scope: | * IT and Technology/Infrastructure development projects within the organization, along with operations and production environment | |
| Computation / Formula: | Total number of IT and Technology/Infrastructure development projects run with DevOps CI/CD methods, versus total number of IT and Technology/Infrastructure development projects within the organization. | |
| _scroll_external/attachments/image2020-7-27_14-33-24-d467ef6343665a58cd3f70baf5c60dac0d4fd8a445dae45b28737c9422973a15.png  Notes:-   * Use same time period for both numerator and denominator. | |
| Period / Frequency | Quarterly | |

| **3.2.6.4 Process Automation Rate** | **Abbrev.** | **PAR** |
| --- | --- | --- |
| **Metric** | **%** |
| Definition: | **Process Automation Rate is the proportion of processes within the organization that are automated.**  **Process Automation includes the use of Robotic Process Automation (RPA) methods, AI-enabled or embedding into Processes, Non-intervened processes, etc.** | |
| Owner: | * CDO * CTO/CIO | |
| Digital Relevance: | * A key enabler of digital transformation is the technology-enabled automation of business and operational processes. * PAR is effective in business/operations transformation for digital. * Increases service quality and optimizes operating efficiencies and costs for fulfilment and assurance. * Facilitates work environment and productivity (consistent support, optimized work schedules, decreasing amount of errors, improves repeatability) | |
| Scope: | * All organization workflows. * All Business Processes. * Transactional / Tactical processes (Operations, Manufacturing and Production). * Strategic processes (e.g., Market intelligence gathering). * IT and Operations Management Processes (ITIL, Fraud Management, Revenue Assurance, Collections, Credit control, Billing, Customer Operations etc.) | |
| Computation / Formula: | Automation proportion of all processes within the organization.  Automation proportion is the share of process steps that are automated.  Process Automation is when there is no human assistance (e.g., human decision making on the process from a service provider side) involved in the process steps. | |
| _scroll_external/attachments/image2020-7-29_17-58-31-88d9d9147db4d1f04349ec631474ccc5c7a3c7d8f662819f08e18c1380792e39.pngNotes:-   * Processes must be organized and reported with same leveling. * Use same time period for both numerator and denominator. | |
| Period / Frequency | Quarterly | |

| **3.2.6.5 Net Carbon Footprint Per Customer** | **Abbrev.** | **NCF** |
| --- | --- | --- |
| **Metric** | **Kg/Cust** |
| Definition: | **Net Carbon Footprint is the difference between emissions and absorption of carbon, per customer served, within a time period.** | |
| Owner: | * CEO / COO * CTO | |
| Digital Relevance: | * All product and services. * The carbon footprint for all value chain activities (The amount of carbon dioxide equivalent released into the atmosphere as a result of the activities of the organization. Carbon footprint is measured as how many tons of carbon dioxide (CO2) are emitted per year by the organization and it takes into consideration all other noxious greenhouse gases like methane. * Technologies utilize energy to drive outcomes. Reducing energy utilization per effort required to product a digital outcome is effective in managing the productivity efficiency in an organization and helps its balance sheets. * The transmission of data via the internet contributes to 4% of greenhouse gas emissions. This is due to the deployment of data centers that rely heavily on fossil energy to run.   (E.g., In a minute that 150,000,000 emails are sent, a staggering 600,000 kg of carbon dioxide is released to the atmosphere. Translating to 232,258 kg of CO2 emissions every 60 seconds. Source: <https://www.viessmann.co.uk/heating-advice/the-worlds-digital-carbon-footprint>) | |
| Scope: | * Greenhouse gases (GHG) due to operations and production of goods and services. * Gasoline consumptions (Automobile, Generators, etc.) * Data Centers. * Physical sites (Shops, Kiosks, Sites, Call centers etc.) * Machinery (Generator, Inverters, Heating/Cooling infrastructure etc.) * Greenhouse gases emitted / absorbed directly and indirectly (related to the operations of the organization e.g., installation of network infrastructure, but not the manufacturing of it) from the organization’s activities within a set of boundaries which are represented by the operations "footprint" of the organization. | |
| Computation / Formula: | It is calculated as a difference of carbon emission to carbon absorption.  Carbon Footprint calculators for reference:   * Carbon Footprint: <http://carbonfootprint.com/calculator.aspx> * Nature: <https://www.nature.org/en-us/get-involved/how-to-help/carbon-footprint-calculator/> * ICAO: <https://www.icao.int/environmental-protection/Carbonoffset/Pages/default.aspx> | |
| _scroll_external/attachments/image2020-11-18_9-42-12-212ed7f5ec6e572d5a3ef87665f93382a4d54d95f9a93df9fe8900fe168afe6c.png  Notes:-   * Total amount of Green House Gas in Kg of Carbon dioxide. * Total amount of Life Cycle Assessment in tons of carbon equivalent. * Use same time period for emission and absorption. | |
| Period / Frequency | Quarterly | |

# Benchmarking

The DMM Strategic KPIs provides an effective means to comparing your organization's performance against clearly identified reference points. Using the Strategic KPIs as decision-making and monitoring tools, organizations can track performance in relation to digital transformation or digital maturity strategic goals.

## Context Setting

The strategic KPIs provided in this guidebook support benchmarking when tracking performance in context to **"self"** (e.g., by way of direction in which performance is trending or based on a set strategy target) or with **"others"** (peers, competitors, leading light entities).

The digital maturity of an organization must be based on well-established goals in order to manage and prioritize digital investments and steer strategic initiatives towards achieving business goals. Using benchmarking, organizations can identify KPIs that are relevant to their digital journeys and avoid the trap where focus on KPIs lack translation into measurable benefits. law of diminishing returns.

## Normalizing and Baselining KPIs

*This section will be covered in the next iteration where KPIs will be normalized for objective benchmarks.*

# Administrative Appendix

## Document History

### Version History

|  |  |  |  |
| --- | --- | --- | --- |
| Version Number | Date Modified | Modified by: | Description of changes |
| 1.0.0 | July-2020 |  | Initial Release |
| 1.0.1 | 23-Nov-2020 | Emmanuel A. Otchere | Editorial |
| 1.0.1 | 18-Jan-2021 | Adrienne Walcott | Updated to reflect TM Forum Approved Status |

### Release History

|  |  |  |  |
| --- | --- | --- | --- |
| **Release Number** | **Date Modified** | **Modified by:** | **Description of changes** |
| Pre-production | July-2020 |  | Initial Document |
| Production | 23-Sep-2020 | Adrienne Walcott | Updated to reflect TM Forum Approved Status |
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# Customer Dimension

| **Customer Retention Rate** | **Abbrev.** | **CRR** |
| --- | --- | --- |
| **Metric** | **%** |
| **Definition:** | Retaining customers in-between purchases, is all about continuing the customer journey to another outcome. A warming- up for their next purchase and keeping the CSP brand on top of their mind.  Acquiring new customers cost roughly between 5 to 25 times more than it takes to retain a customer.  Most successful ecommerce businesses get more than half of their revenue from repeat customers. Controlling customer retention rates show what percentage of your customers have stayed with CSP brand over a given period of time. | |
| **Owner:** | The standard marketing model use price as the value object that guide customers and convert them for the next purchase.  The (digital) personalized customer journey has all kind of value objects to capture the customers’ interest; for example, community, friends, interest, latest activities of the journey(s). | |
| **Digital Relevance:** | From digital journey perspective, stay aware about your customer desires & intents: explore all things that make a customer engagement a relevant & personalized interaction.  And per engagement, provide some value for the customer/community.  When taking a customer journey-based view, integrating data and matching customer identities through customer journey analytics, and making this single customer view available in real-time, you can easily bridge the disconnect between customer expectations and customer experience.  The result turns into better retention, increased loyalty, greater customer satisfaction, improved process efficiencies and enhanced customer service and support levels. | |
| **Scope:** | CRR can be calculated on an annual, monthly or weekly basis. | |
| **Computation / Formula:** | **Customer Retention Rate =**  **((CE (#\_customers at end of period) – CN (#\_new-customers acquired during period)) / CS (#\_customers at start of period)) x 100** | |
| The resulting number is % | |
| **Period / Frequency** | Frequently for different periods. Continuously as in a digital retention customer journey outcome tracking. | |

|  |  |  |
| --- | --- | --- |
| Customer Journey Context Score | Abbrev. | CJSS |
|  | **Metric** | **%** |
| **Definition:** | Customer experience overtakes price and product as key brand differentiator.  • The number of key performance indicators (KPIs) applicable in CX environments might be overwhelming. However, when thinking about customer experience and how it leads to business success, break down the total experience in smaller insights based on CSP’s unique goals.  • In this context, develop a goal-oriented approach to determine which KPIs are better suited to measure the performance. If, for example, telco’s unique goal is to be an ‘IDSP’ , you identify *customer attraction*, *engagement*, and *retention* as three strategic metrics of the customer experience.  • Design customer engagements based on a customer journey path that is in line with a business story line to the promised outcome. Monitor journey step successes and improve customer interactions.  • Capture and learn from customer (retention) profile behaviors.  • Design engagements based on customer profile characteristics.  • Design customer attraction through stimulating achievements. Create rewards and flexibility in the journey path. Learn from recent customer interactions, allowing them to change their approach and observe outcome results.  • Facilitate learning and development of customer-facing engagements. Regularly share, discuss and build new patterns from customer feedback.  • Design customer retention based on integrating the voice of the customer into ongoing improvement. This continuous learning process starts when a customer’s feedback is compared with the customer-facing engagement and ends when the business story outcome closes the loop with the original customer journey in response to the customer intent. The journey process elevates customer feedback as a guide to larger structural improvements and empowers employees to provide better business stories. | |
| **Owner:** | • The Ownership is a common responsibility of business and IT.  • CIO is responsible for the IT that can handle the journey and journey data, modeling AI/ML and the visualization of the score  • CMO is responsible for designing the business story line in journeys and create, together with IT, relevant data objects.  • CFO is responsible for realizing the CEM strategy and that involves objectively measuring and managing these experience objectives and their underpinning external and internal KPIs.  • CEO is responsible for the right Customer Experience Assurance governance structure to benchmarks internal and external standards (Customer Journey Success Index: express the concern of lack of customer journey success in the CSP business on a scale of 0 to 100, with 100 is most impacted) and initiates the necessary improvement steps as well as measuring against the digital maturity index “DMM”. | |
| **Digital Relevance:** | • In a digital context, customer journey steps (CJS) create relevant value when customers’ experience is measured from an outside-in view and on the fly''. The measurement results reflect monitoring the customer perception and facilitate learning & improving of the customer journey. With the individual end-user aggregated data of successful or abandoned journeys, you build a view of customer perception life cycle that impact directly positive or negative customer life cycle value.  • Monitoring customer sentiments across all CJS’s within the journey helps to understand where customers get frustrated. The calculated score elevates customer experience as a value to a pattern that amplifies journey stages experience in a continuous journey life cycle of growing customer relationship. Improved customer relationship will positively contribute to customer life cycle value.  • The digital relevance can be expressed in a first level, digital customer KPIs (sentiment, abandoned journey or basket, etc.) are mapped into KPIs (e.g. for one customer journey stage) for a specific journey context (e.g. selling video service). In a second step, the KQI might be processed in order to obtain a Quality of Experience - related perception learning decisions with real-time measurements, making use of ML algorithms. Then, the improvement of the content and engagements in the journeys - are visualized in real-time and historical data in terms of customer journey step score. The score drives learning, customer perception insights  & improvements. AI/ML make visible the strong & weak elements in the journey. | |
| **Scope:** | * Start with prioritizing and chose the key journey’s for calculating CJS success value of the company. * Define a goal with a business story line that creates an outcome achievement for each customer journey step. * **E.g.** "reach the achievement", when #n-customers participate and reach the achievement;   1. Identify and define achievement levels for each customer journey step, JS,.   2. Achievement level 1 for JS1: for example, when expressed in points: 20   3. Achievement level 2 for JS2: for example, when expressed in points: 30   4. Achievement level 3 for JS3: for example, when expressed in points: 40   5. And, when #n customers reach Achievement level 1, #m customers reach Achievement level 2, #k customers reach Achievement level 3, then #N customers are reaching all achievement levels:   6. #N-customers = #k < #m < #n customers that reach achievements < #C-customer who participated to the Journey * Determine the value of each customer journey step in context of the achievement and overall outcome achievement path. * **D**efine as criteria to enumerate value   1. the number of customers that apply and participate for an achievement in that journey step;   2. the number of customers > no. of total achievements > threshold level{(n + m +k) x 20)},   3. The total value of the customer journey can be expressed in summing up the customer states of all journey steps, from start (intent) to the outcome.   Total value = f(#Z, #N, threshold level)   4. Assume one achievement per journey step.   + The value per Journey step, JS, is no. of customers that apply and participate for an achievement in that journey step; only no of customers that reach the achievement level, ALi, per step.   1. If there are 1 to S journey steps, then the total value is expressed by:   2. Sum(i=1toS){#Z(JSi) x ALi} = Total value for the Journey and #Zs are the #-customers that finished the last journey step, so, past the whole Journey. When #Zs > #N(threshold #) the Journey is successfully improved.  1. When Ctotaal x Value\_total is maximum that can be achieved than: 2. Sum(i=1toS){#Z(JSi) x ALi} / Ctotaal x Value\_total < 1  * Pattern [customer profile, achievement goal(threshold), Total value(threshold)] = type customers that reach defined threshold achievement goal and reach threshold total value above threshold level). * When journey step achievement is adapted and if Journey success > 1, then more customers(type profile) will experience a positive Journey. * Then: * The Journey success improves when * Sum(i=1toS){#Z(JSi) x ALi} / Cthreshold x Value\_threshold > 1 * The Journey success deteriorated when * Sum(i=1toS){#Z(JSi) x ALi} / Cthreshold x Value\_threshold < 1 * After some AI learning, you can predict how many customers (profile type) will fulfil the pattern. Different profile type customers score more or less in terms of achievements, overall outcome and total value. You can even demonstrate where certain customer types step out the Journey or do not reach the achievements anymore and probably loose trust or interest in continuing the journey. * With a determined reached business goal and the sum of values of each journey step in context of the overall outcome path, you determine the value of the whole Journey (Value\_Journey). When you have applied the learned pattern through AI, you have created a base level, a threshold level, for more or less Journey successes. The following customers that run the Journey form a feedback mechanism based on customer behavior/profile in context of the journey goal & outcome. This helps you, overtime, to monitor the success of the specific Journeys. | |
| **Computation / Formula:**  (in development) | ***Total value for the Journey = Journey Value Score = ∑ (i){#Z(JSi) x AL(JSi)}***  ***i = 1 …S*** | |
| CJS success value (adapt??):  = ∑ {pattern(C\_profile, CJSn) x #Customers\_CJSn} / Journey Value Score  n = 1 …M (journey steps) | |
| **Period / Frequency** | Monthly | |

# Appendix II: Sample Surveys to Measure Some KPIs v1.0.1

## Template for Single Customer View Assessment

**Survey questions**: Answers are expressed in levels and/or calculated first in a % and mapped to the levels: Initiating, Emerging, Performing, Advancing, Leading.

|  |  |
| --- | --- |
| # | Sample Question |
| 1 | **Are you actively monitor the consistency, accuracy, completeness and validity of your single customer data view?** |
| 2 | **Do you have in place and applying?**  Quality of data scoring, data retention policies, customer metrics, detect anomalies, advanced profiling, rules & policy engine, data workflow management, unified dashboard (data objects in unified data clusters), address the business & IT view, broad customer data coverage in context of perspectives? |
| 3 | **Are you giving unified dashboard (data objects in unified data clusters and addressing business & IT views) access to all teams?**  Some teams have access to a customer perspective view of the Single Customer view) / all teams have access to the Single Customer view |
| 4 | **Are agents using the customer perspective view to resolve queries quickly and make customers feel valued?**  The number of team members (e.g., agents) using a customer perspective view of the single customer view] / [total number of team members (e.g. agents) using the single customer view] |
| 5 | **Are agents using the customer perspective view for making data driven decisions for their next supporting advice step?** |

Source: Orange

## Template for Net Promoter Score (NPS) Assessment

To be developed in later release.

## Template for Internal NPS (INPS) Assessment

To be developed in later release.

## Template for Employee Effort Score (EES) Assessment

To be developed in later release.

## Template for Data Quality Index (DQI) Assessment

To be developed in later release.