# Assessing the State of Corporate Digital Transformation: Results and Implications From a Global Survey

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**Abstract:** Digitalization has a significant impact on value-creating organizations of all sectors. New business models and processes are becoming established, the development of products and services is changing as well as the interaction with customers, partners and suppliers. As these changes create new requirements for companies, they need to reorient and adapt to them. To structure the topic of corporate digital transformation with its many individual elements, which can either be digitized and networked/integrated or create the conditions for the digital transformation of further elements, a reference framework has been developed that covers the essential value creation elements of a company in the context of digital transformation. Based on this framework, a self-assessment tool ('Digital Transformation Assessment (DTA)') was developed to carry out a survey on the current status of corporate digital transformation globally. This contribution outlines the key analysis results, through an applied and observational research, within the timeframe from 2020 to 2023, based on a quanti-qualitative analysis of answers from over 880 companies worldwide. The paper contributes to the literature on digital transformation by verifying through the analysis of the results that effective digital transformation requires not only investments in technology, but also a holistic approach that encompasses organizational, cultural, and strategic changes. Therefore, the role of leaders and the creation of a digital transformation-oriented corporate culture are keys to driving success in this process.

**Keywords:** Digital Transformation, Self-assessment, Survey, Model

## 1. Introduction

Digital transformation is a process of change (Ismail et al. 2018) that companies need to engage in to master digitization. It is driven by the adoption of new information and communication technologies, however goes beyond automation. It offers benefits and opportunities, but also present significant challenges for organizations. It has strong effects on the business environment, driving rapid change, volatility, uncertainty and complexity. Thus, the responsiveness and adaptability of organizations becomes crucial to maintaining their long-term competitiveness (Westerman et al. 2011). Therefore, it is necessary for organizations to systematically assess their progress in digital transformation and establish effective pathways by defining action items, setting priorities, and developing a strategic vision for the digital age (Back and Berghaus 2016).

This digital transformation strategy should be approached holistically, involving multiple stakeholders and embracing different domains of the organization, through an oriented corporate culture, encouraged by its leadership. This ensures a shared understanding of the areas to be addressed and enables proper prioritization of digital transformation initiatives. For this, it is essential to have a comprehensive understanding of the factors and obstacles affecting the process.

These factors can be classified as internal and external. Internal drivers are related to the organizational level and are reflected in revenue reduction, financial pressure on the core business, social and economic benefits for stakeholders, efficiency and productivity gains, innovation, and differentiation from competitors. While, external drivers are influenced by the socioeconomic environment and include emerging technologies such as mobility, Internet of Things (IoT), data analytics and big data, cloud computing, as well as customer expectations, globalization with a focus on digital competition, and innovative startups (Ismail et al. 2017).

As a consequence in the business environment, organizations are required to systematically assess the progress of their digital transformation and establish effective paths to achieve the desired levels of digital maturity (Westerman et al. 2011). In the literature digital transformation has also been receiving attention (acatech 2013; Bockshecker et al. 2018; Freitas Junior et al. 2016; Jackson 2015), and yet it is important to note that there is no one-size-fits-all approach to digital transformation. The specific steps that organizations need to take to digitally transform will vary depending on their business context.

This paper aims to perform a data analysis on the global state of digital transformation in order to identify significant queries related to the digital transformation process.

## 2. Methodology

Digital Transformation Assessment analysis is based on a quanti-qualitative framework and has been conducted as an applied and observational research–since June 2020. Even though the survey framework has been previously developed, it is important to clarify its construction, since the data is the result of the same research. In order to create the questionnaires' statements a process following an exploratory approach was conducted. This involved a model selection (1), model analysis (2), model creation (3), Questionnaire Development and Online Self-Assessment Tool development (4).

The first three steps (1-3) resulted in a model creation, which covered seven relevant dimensions (see The step (4) combined the aforementioned model into a practical form: a usable tool, by means of a standardized questionnaire, which allowed for the online assessment of the status quo of the digital transformation of organizations. For this purpose, design aspects were taken into consideration, as well as the form and scope of the questions, the order of presentation and their content, and the wording of the questions, also called statements.

Table 1) that contribute to the fundamental and holistic understanding of an organization and its development in the context of digital transformation, based on relevant models from the fields of "Organizational Development", "Digital Transformation" and "Industry 4.0".

The step (4) combined the aforementioned model into a practical form: a usable tool, by means of a standardized questionnaire, which allowed for the online assessment of the status quo of the digital transformation of organizations. For this purpose, design aspects were taken into consideration, as well as the form and scope of the questions, the order of presentation and their content, and the wording of the questions, also called statements.

**Table 1: Dimensions and items of the Digital Transformation Assessment (DTA) questionnaire**

| Dimension | Items purpose | No. items |
|---|---|---|
| **Corporate Strategy** | It analyzes digitalization as an integral part of business strategy, as well as defined roles and responsibilities, measurable objectives, and monitoring of digital transformation in the company. | 4 (status quo) + 2 (relevance) |
| **Leadership & Corporate Culture** | A review of top and middle management commitment, employee openness to digital change, participatory culture, and internal communication for the company's digital transformation. | 5 (status quo) + 2 (relevance) |
| **Organization & Processes** | It evaluates the use of innovative forms of work, of interdisciplinary cooperation, process analyses and continuous improvement through the use of digital technologies and digital process models. | 4 (status quo) + 2 (relevance) |
| **Employees & Competences** | This dimension assesses professional, socio-communicative, and personal skills of employees, systematic evaluation of skills, training in digitalization, and use of digital technologies in human resource management. | 6 (status quo) + 2 (relevance) |
| **Technology** | Network of digital technology investments is evaluated, as well as IT infrastructure upgrades, IT security rules and standards, data integration, the use of business collaboration technologies, and its investments. | 5 (status quo) + 2 (relevance) |
| **Products & Services** | Regular analysis of market potentials for further development of the business model, analysis of usage data, stakeholder integration for product and service development, diversification of the own portfolio through digital product and service innovations. | 4 (status quo) + 2 (relevance) |
| **Supply Chain & Networks** | Customer management and digital customer interfaces, supplier management and digital supplier interfaces, and maintaining a network of digitization experts are analyzed. | 5 (status quo) + 2 (relevance) |

The digital transformation performance is assessed in three types of values: status quo, relevance today and relevance in the future. Regarding the status quo of each dimension, participants were asked to select their agreement with the 33 evaluation items (see Table 1 to correlate the number of statements to each dimension. Note they are in the order they appear in the survey). For each item, one could choose on a scale between "Strongly agree" (5) to "Strongly disagree" (1). In advance, the results of these are offering the actual state of each question, in a micro level, and each dimension, in a macro level, when adding all the questions related to one field together. Each dimension was rated in terms of their current relevance on a scale from 1 (not important) to 10 (most important). The relevance in the future concerns the participant's view on how the relevance of the dimension would change in the next 5 years against the background of the advancing digitalization, following a scale between -2 (will decrease strongly) to 2 (will increase strongly).

There was also a concern to collect the demographic and structural data that allow in-depth comparisons with relevant peer groups. The following structural data is collected for the purposes of this study: Company data: (i) location (by country), (ii) industry sector (by NACE code), (iii) annual revenue, (iv) number of employees, (v) age of organization, (vi) type of products (e.g., customized, standard products), (vii) main target markets (e.g., B2B, B2C). And respondent data: (i) job title, (ii) department/function, (iii) age of the person.

The data is first on a global level regarding dimensions status quo, in addition to its relevance today and in the future. Moreover, the top 25% average performances responses are put into comparison with the better and worst statements against the general performances' statements. In a further analysis the status quo of the results of the different regions were analyzed, followed by the industry sectors, the size of the companies, and the management level.

## 3. Data Sample

Over a timespan of almost 3 years from June 2020 - June 2023, the survey gathered 881 responses from 72 different countries and 20 different industry sections.

Figure 1 displays the distribution of participating companies by the companies' location, industry sections, size of the company and participant's management level. Regarding regional representation, Europe had the highest number of responses at 48% with the majority of answers coming from Germany, Lithuania and Ireland (Republic). 32% of responses come from Asia, led by India, Singapore and Malaysia. The American continent represented 16% of responses, mostly coming from the United States and Brazil. Finally, a small but existent participation can be found in Africa and Oceania, where both represent around 2% of all answers.

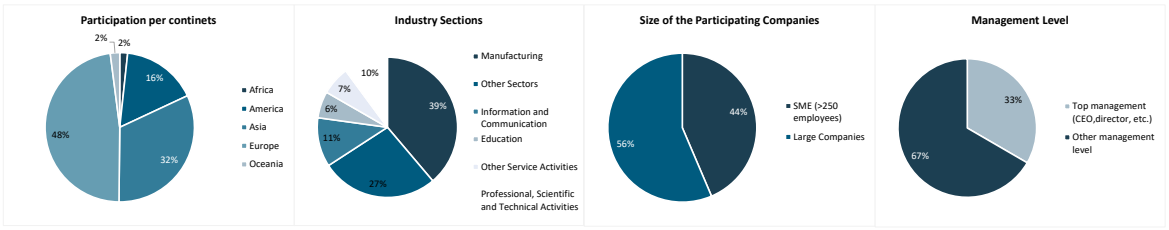


**Figure 1: Classification of answers by continents, industry sections, size of company and management level**

Regarding industry sections, between over 620 different companies and 20 different sectors, the manufacturing sector leads the highest participation with 40% of all responses while IC represents 11%. Other sectors account for 49%.

Just under half of answers come from Small and Medium Enterprises (SMEs) with less than 250 employees while 56% come from large companies. As for the management level, 33% came from participants in top management (CEO, director, etc.) while 67% belong to other levels of management, such as middle management (head of department etc.), lower management (project manager, team leader etc.) and those employees without management tasks (shop floor employees, skilled workers, etc.).

## 4. Data Analysis

In this section, the survey results are analyzed in five sub-sections regarding the overall results and the filtered responses from continents, industry section, size of companies, and management level.

### 4.1 Overall Results

The global analysis of the status quo in the seven dimensions in terms of digital transformation show that Technology is assessed as most developed by the respondents with an average score of 3.41 out of 5, followed by Leadership & Corporate Culture. Most participants further agree that dimensions of Supply Chain & Networks, as well as Employees & Competences, perform poorly. The overall average score for all seven dimensions is 3.18. Find below (Figure 2) the averages for each dimension.

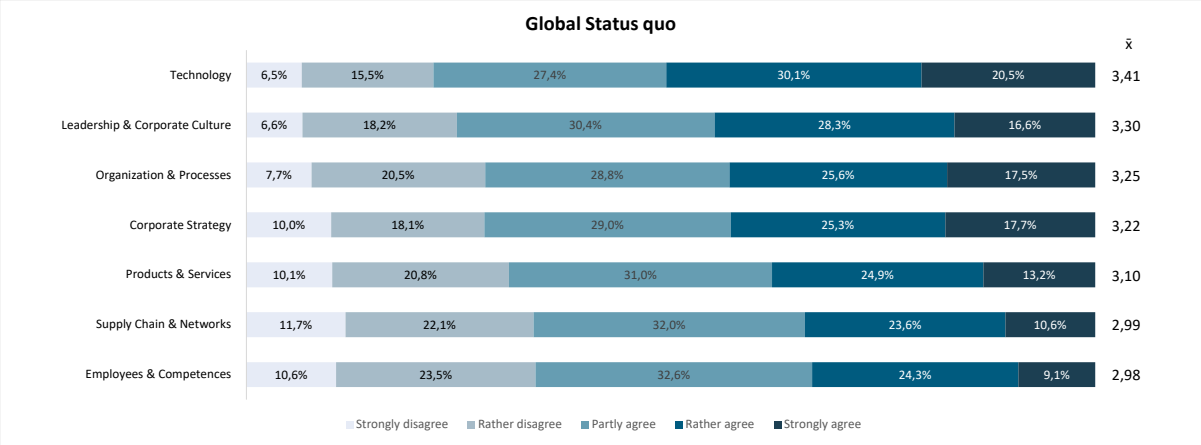


**Figure 2: Global Status quo**

Concerning relevancies today and in the next five years: companies also reported the two dimensions Technology, and Leadership & Corporate Culture as more relevant than the other dimensions. Among the participants, Employees & Competences are considered average in terms of current relevance. Technology and Organizations & Processes are expected to gain more relevance in the future. Conversely, Supply Chain & Networks, as well as Products & Services, are projected to become less relevant compared to other dimensions. Employees & Competences maintain moderate relevance in the participants' perceptions for the next five years.

Careful consideration was given to the performance not only of the dimensions as a whole, but also of each individual statement, in order to prevent them from being obscured by the aggregated averages. To this end, a strategy was adopted of comparing the five best and five worst assessment items, both at an overall level and among the top 25% of averages (see Table 2 and Table 3). This approach allowed a more precise analysis of dimensions status quo, identifying strengths and weaknesses in a more focused way.

The first quartile consists of 220 responses from 174 different companies, with 56% from Europe, 32% from Asia and 10% from America. Nearly 40% are from the manufacturing sectors and 20% from the IC sector, while the rest is dispersed among the other sections. 57% are large companies and the remaining 43% are SMEs. Among the respondents, 34% are from top management (CEO, director, etc.) and the other 66% are from other management levels.

**Table 2: Status quo statements with the most and least global agreement**

| Global | Dimension | Question no. | Statement | Average |
|---|---|---|---|---|
| best performances | Technology | Q022 | Our company has the necessary standards and regulations for IT security. | 3,82 |
| | Leadership & Corporate Culture | Q005 | The top management is actively driving the digital transformation in our company. | 3,76 |
| | Organization & Processes | Q010 | In our company, we make extensive use of the flexibility of new forms of work and organization made possible by digital technologies. | 3,71 |
| | Corporate Strategy | Q001 | Digitalization is a central component of our corporate strategy. | 3,68 |
| | Leadership & Corporate Culture | Q006 | The middle management actively supports the change processes that are necessary for the success of the digital transformation. | 3,46 |
| worst performances | Corporate Strategy | Q004 | The degree to which our activities in connection with the digital transformation have achieved their objectives is regularly reviewed. | 2,93 |
| | Supply Chain & Networks | Q033 | We use the regular exchange with external experts and partners to develop additional knowledge in the field of digitalization. | 2,92 |
| | Supply Chain & Networks | Q031 | For our supplier management, we make extensive use of digital software solutions. | 2,87 |

| Global | Dimension | Question no. | Statement | Average |
|---|---|---|---|---|
| | Supply Chain & Networks | Q032 | Our company comprehensively optimizes the digital interfaces to its suppliers. | 2,77 |
| | Employees & Competences | Q017 | We regularly evaluate the status of the digital competencies of our employees in order to be able to react to the changed requirements through digitalization. | 2,56 |

**Table 3: Status quo statements with the highest and lowest agreement of the top 25% answers**

| Top 25% | Dimension | Question no. | Statement | Average |
|---|---|---|---|---|
| best performances | Corporate Strategy | Q001 | Digitalization is a central component of our corporate strategy. | 4,61 |
| | Leadership & Corporate Culture | Q005 | The top management is actively driving the digital transformation in our company. | 4,61 |
| | Technology | Q022 | Our company has the necessary standards and regulations for IT security. | 4,55 |
| | Organization & Processes | Q010 | In our company, we make extensive use of the flexibility of new forms of work and organization made possible by digital technologies. | 4,47 |
| | Technology | Q020 | We invest long-term in new digital solutions to systematically improve existing technologies in the company. | 4,36 |
| worst performances | Employees & Competences | Q016 | The personal skills of our employees are sufficiently well developed to successfully master the challenges of digitalization. | 3,94 |
| | Employees & Competences | Q014 | The professional and methodical competencies of our employees are sufficiently well developed to successfully master the challenges of digitalization. | 3,92 |
| | Supply Chain & Networks | Q031 | For our supplier management, we make extensive use of digital software solutions. | 3,88 |
| | Supply Chain & Networks | Q032 | Our company comprehensively optimizes the digital interfaces to its suppliers. | 3,76 |
| | Employees & Competences | Q017 | We regularly evaluate the status of the digital competencies of our employees in order to be able to react to the changed requirements through digitalization. | 3,52 |

### 4.2 Regional Differences

The results have been classified according to the continent in which the companies are placed. Table 4 shows the status quo for each continent.

Europe, Asia, and Africa outperform the global data averages in terms of digital transformation. Europe, Asia and Africa seem to be more advanced in the digital transformation, when compared to the global data averages. In case of Europe, the continent emerges as the leading region in both research participation and digital transformation performance, standing out particularly in the Technology dimension, while Supply Chain & Networks was the worst performing dimension. These results can also be found for Asia as the second-best performing continent. Participants from Africa assessed the best performance in Products & Services and Supply Chain & Networks as the worst. In America, Technology was rated best and the Employees & Competences least developed. In the case of Oceania, the dimension of Corporate Strategy was considered the one with best performance, while the least developed was Products & Services.

**Table 4: Continents' status quo**

| Continents' status quo | | | | | |
|---|---|---|---|---|---|
| Europe | Asia | Africa | *Global* | America | Oceania |
| 3,24 | 3,19 | 3,19 | *3,18* | 3,01 | 2,93 |

### 4.3 Differences by Industry Sections

When examining the data across different industrial sectors, two sectors, Manufacturing and Information and Communication, were chosen for analysis due to their substantial representation in the database, accounting for half of the data sample. The remaining sectors were grouped together as "others".

Across all sectors, Technology demonstrates the highest performance, while Employees & Competences exhibit the lowest performance. Moreover, in terms of overall performance, the IC sector outperforms the manufacturing sector, followed by the aggregate performance of the other sectors.

**Table 5: Industry Section status quo**

| | Dimension | Average |
|---|---|---|
| Manufacturing | Technology | 3,39 |
| | Leadership & Corporate Culture | 3,33 |
| | Organization & Processes | 3,29 |
| | Corporate Strategy | 3,21 |
| | Products & Services | 3,04 |
| | Employees & Competences | 2,92 |
| | Supply Chain & Networks | 2,91 |
| | Total Average | 3,16 |

| | Dimension | Average |
|---|---|---|
| Information and Communication | Technology | 3,77 |
| | Products & Services | 3,51 |
| | Leadership & Corporate Culture | 3,51 |
| | Organization & Processes | 3,50 |
| | Corporate Strategy | 3,45 |
| | Supply Chain & Networks | 3,34 |
| | Employees & Competences | 3,31 |
| | Total Average | 3,49 |

| | Dimension | Average |
|---|---|---|
| Other sectors | Technology | 3,37 |
| | Leadership & Corporate Culture | 3,22 |
| | Corporate Strategy | 3,19 |
| | Organization & Processes | 3,15 |
| | Products & Services | 3,05 |
| | Supply Chain & Networks | 2,97 |
| | Employees & Competences | 2,95 |
| | Total Average | 3,13 |

The detailed analysis of the companies' statements for Technology allows a deeper look into the best performing dimension, see Figure 3. As the average results suggest, larger differences in the assessment of the individual statements come to light too.

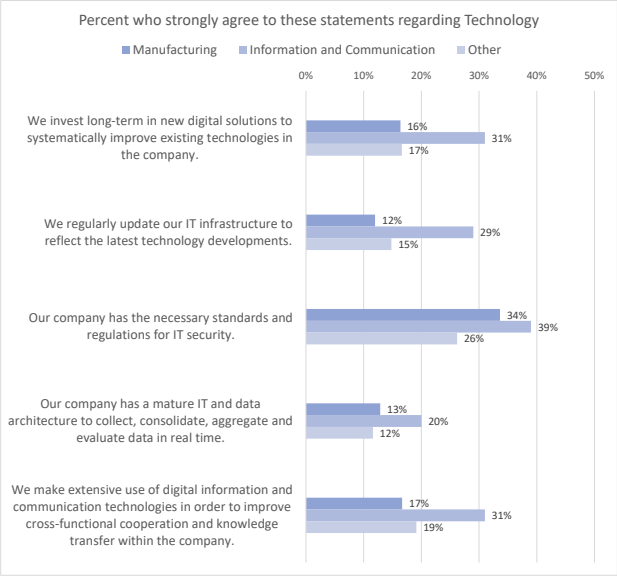


**Figure 3: Agreement with Technology statements by industry section**

IC companies also make most extensive use of the flexibility of new forms of work and organization made possible by digital technology (46% IC / 28% Manufacturing). It is apparent that a great amount of companies strongly agrees to have the necessary standards and regulation for IT security independently of industry section. One thirds of the enterprises from the Information and Communication industry section gives strong agreement to each investing long-term in new digital solutions to systematically improve existing technologies in the

company, regularly updating their IT infrastructure and making extensive use of digital information and communication technologies.

39% of IC firms agree that senior management is actively driving digital transformation in their company, with good support from employees who are actively and comprehensively involved in the ongoing process of shaping digital transformation. This is being especially supported in IC firms with more targeted communication of activities towards the digital transformation of the company. This is thus related to the better performance of companies in the IC sector, than the others.

### 4.4 Differences in Company Sizes

The data sample is split into 56% large companies and 44% SMEs. SMEs perform best in Leadership and Corporate Culture, while respondents in larger companies rated Technology highly. However, both SMEs and large companies identified Supply Chain & Networks, as well as Employees & Competences, as their lowest performing dimensions in digital transformation. Larger companies had higher average dimensions compared to SMEs.

**Table 6: Status quo by size of companies**

| | Dimension | Average |
|---|---|---|
| Larger Companies | Technology | 3,51 |
| | Leadership and Corporate Culture | 3,28 |
| | Organization and Processes | 3,26 |
| | Corporate Strategy | 3,26 |
| | Products and Services | 3,15 |
| | Supply Chain and Networks | 3,06 |
| | Employees and Competences | 2,96 |
| | Total Average | 3,21 |

| | Dimension | Average |
|---|---|---|
| SME | Leadership and Corporate Culture | 3,32 |
| | Technology | 3,32 |
| | Organization and Processes | 3,23 |
| | Corporate Strategy | 3,18 |
| | Products and Services | 3,04 |
| | Employees and Competences | 3,00 |
| | Supply Chain and Networks | 2,90 |
| | Total Average | 3,14 |

In addition, the data has pointed out that larger companies have better developed frameworks of necessary regulations and standards for IT security, invest long-term more often in new digital solutions to systematically improve existing technologies in the company and agree more to regularly update their IT infrastructure to reflect the latest technology developments.

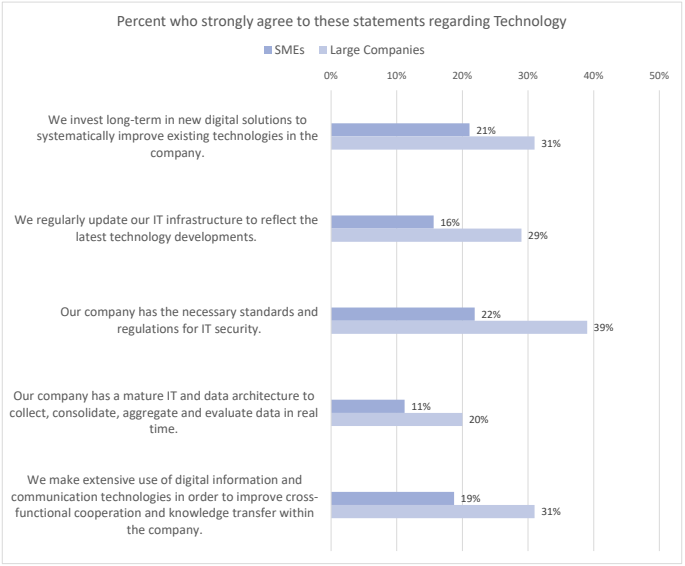


**Figure 4: Agreement with Technology statements by company size**

### 4.5 Differences in Management Level

When analyzing the data by management level, about 33% of the respondents are from the top management level, while 67% belong to lower levels of management.

Perceptions of participants from the top management tend to be more pessimistic about their company. For all management levels technology is the best evaluated dimension. For participants from top management Supply Chain & Networks was considered the one with the lowest performing dimension, while, for the other levels, Employees & Competences.

**Table 7: Management Level Status quo**

| | *Dimension* | *Average* |
|---|---|---|
| **Top Management** | Technology | 3,41 |
| | Leadership and Corporate Culture | 3,34 |
| | Organization and Processes | 3,25 |
| | Corporate Strategy | 3,24 |
| | Products and Services | 3,06 |
| | Employees and Competences | 2,95 |
| | Supply Chain and Networks | 2,89 |
| | *Total Average* | *3,16* |

| | *Dimension* | *Average* |
|---|---|---|
| **Other levels** | Technology | 3,43 |
| | Leadership and Corporate Culture | 3,28 |
| | Organization and Processes | 3,24 |
| | Corporate Strategy | 3,22 |
| | Products and Services | 3,12 |
| | Supply Chain and Networks | 3,04 |
| | Employees and Competences | 2,99 |
| | *Total Average* | *3,19* |

## 5. Discussion

The survey data analyzed indicate that the dimensions are in a developing state of status quo. Among the participants, the Technology dimension is widely regarded as the best performing in terms of digital transformation, followed by Leadership & Corporate Culture.

On the top performers' side, regarding the Technology dimension, it is logical that participants evaluated it favorably, considering that digital transformation is closely linked to the adoption and utilization of advanced technologies. However, it is important to question whether this assessment may be biased, despite efforts to ensure impartiality and obtain a comprehensive understanding of digital transformation through the evaluation of other dimensions.

The finding that Leadership & Corporate Culture is highly valued indicates a potential trend towards fostering a corporate culture focused on digital transformation. This highlights the influence of leadership at various organizational levels. Yet, it is worth noting that the Employees & Competences dimension was rated as the lowest performing. This may suggest communication challenges, inadequate preparation or even a pessimistic perspective where other dimensions are considered better than the actual work or activities. This situation can get even worse, as the data reveals that most companies do not consider this dimension highly relevant.

Simultaneously, both top management and other levels ranked Leadership & Corporate Culture as the second most important dimension, second only to Technology. On the other hand, other levels, rated Employees & Competences as the least developed dimension. Conversely, when the same question was posed to top management, they acknowledged the dimension's developmental need, yet did not perceive it as the worst. This supports the theory that a digital transformation-oriented corporate culture, established by leadership, exists.

Therefore, on the side of worst performances, the participants widely agreed that the Employees & Competences dimension exhibited the lowest performance in terms of digital transformation, closely followed by the Supply Chain and Networks dimension. This pattern was observed consistently across various perspectives. The lower performance in Supply Chain & Networks can be attributed to its perceived lack of current relevance and its expected maintenance for the future. The data indicates a significantly lower average score for this dimension, with an average of 2.99, compared to the overall average of 3.18 for all seven dimensions.

This result is nevertheless a matter of concern, considering that most of the participating companies are in the manufacturing sector. Efficient supply chain management and networks are crucial for operations in the manufacturing sector as manufacturing activities involve the transformation of materials. Additionally, Al-Shboul et al. (2017) emphasizes that effective supply chain management practices have a positive impact on supply chain performance, thereby contributing to the overall performance of firms in the manufacturing sector. In the current business scenario, supply chain management has become a crucial strategy to increase profitability and maintain the competitiveness of companies.

That said, when comparing the manufacturing sector with the information and communication sector, it is possible to observe a more advanced performance in terms of digital transformation of the latter sector. This disparity can be attributed to the inherently technological nature of activities in the information and communication sector. In contrast, the manufacturing sector faces challenges in adopting new technologies, often due to the presence of repetitive or manual processes (Vogelsang et al. 2019). The physical nature of production and the complexity of manufacturing processes can hinder the immediate and complete implementation of digital transformation in this sector.

To facilitate effective digital transformation in the manufacturing industry, specific challenges must be addressed. These include modernizing production systems, incorporating advanced technologies, enhancing equipment connectivity, and equipping employees with the necessary skills for process digitization. Vogelsang et al. (2019) classifies these factors as "Major barriers to DT" in the manufacturing sector, encompassing missing skills, technical barriers, individual barriers, organizational and cultural barriers, and environmental barriers.

Additionally, the data reveal that the dimensions with the lowest performance in the manufacturing sector (Supply Chain and Networks, Employees and Competences, and Products and Services) exhibit lower averages compared to the three worst-performing dimensions in other sectors. Nevertheless, the sector's strong performances in other dimensions compensate for these lower values, securing a second-place ranking in terms of status quo among the applied filters. Here, note that beyond the information and communication and manufacturing sectors, other industries may be at varying stages of development in their digital transformation journeys. These industries may encounter different needs and challenges, which can impact their capacity to adopt and implement digital transformation practices comprehensively.

When comparing the performance of companies of different sizes in this research, one observes that large companies presented superior results in relation to the SMEs evaluated. This discrepancy may be related to the fact that “SMEs are typically at a disadvantage with respect to large firms when accessing finance, owing to opacity, under-collateralization, high transaction costs and lack of financial skills” (OECD 2022, p. 2) facing challenges and limitations also in terms of digital transformation, while larger companies usually have a more robust structure and more abundant financial resources to drive in.

While in large companies the Technology dimension was evaluated as the best performing, in SMEs the first place was attributed to the Leadership and Corporate Culture dimension. This can be interpreted in two ways. First, the status quo of the large companies corroborates the theory that they perform better due to their more robust infrastructure, which is evidenced by the high level of digital transformation attributed to this dimension (with an average of 3.51 on a scale of 5), significantly higher than the overall average (3.21), indicating a lean and thriving organizational structure. Second, it is possible to consider that the Leadership and Corporate Culture dimension is seen as having a higher status quo in SMEs due to the characteristic corporate structure of these companies. In these smaller organizations, hierarchical relationships are closer and employees generally have a more horizontal structure, a view corroborated by Schein (2017), who explains that there is an inverse relationship between the team’s direct and fluid communication and growth of companies. Thus, in SMEs, employees receive more easily the messages transmitted by leaders, which may contribute to a better assessment of this dimension in this case.

Back in the broader context, it was found that the European continent showed a more advanced level of digital transformation compared to the other continents, followed by Asia. Importantly, these continents also contributed the highest proportion of survey participation. Although it is possible to hypothesize a bias due to this unequal distribution, this fact proves to be significant, as it correlates with the results obtained from the top quartile answers mentioned before. Once, approximately 56% of the participants in this quartile were from the European continent, while about 32% were from Asia.

It was also possible to compare the general results with the quartile (25%) of best performance among the respondents. It was observed that technology is still considered the most developed dimension. However, a special feature of this comparison should be highlighted: while, in general, the best evaluated statement was "Our company has the necessary standards and regulations for IT security ", in the top 25% companies there is a special attention to Corporate Strategy and Leadership & Corporate Culture. When analyzing the statements separately, the top two were "Digitalization is a central component of our corporate strategy." and "The top management is actively driving the digital transformation in our company." which may indicate that the best-developed companies are linked to a management that is oriented and active toward digital transformation.

## 6. Conclusion

Digital transformation encompasses a comprehensive change in companies' operational strategies, enabling them to adapt to an intensely competitive business landscape. By analyzing the mentioned points, one can come to some important conclusions on the topic of digital transformation in enterprises. First, it is clear that many companies tend to focus only on the "digital" part of the transformation, neglecting the dimension of the word "transformation" itself. This reinforces the importance of adopting a systemic and comprehensive perspective on digital transformation, considering not only the technologies used, but also the organizational and cultural changes required. Afterall, transformation stands for altering traditional ways of doing business through the redefinition of business processes and relationships environment (Vogelsang et al. 2019)). However, it is valid to reinforce the power of the Technology dimension, as it is essential to have knowledge of it to take advantage of the opportunities it provides, as transformation does not occur without individuals capable of dealing with technologies (Ghezzi et al. 2022)

Second, companies that demonstrate a deeper understanding of digital transformation, valuing both the technology and the organizational transformations, tend to outperform in this process. This quality is shared both by employees, who play a key role in implementing the changes, and by corporate leaders, who have a direct influence on the strategic direction of the company. Endorsing the concept already presented in the literature that “successful DT does not happen bottom up. It must be driven from the top” (Westerman. et al. 2011, p. 5)

Finally, it is clear that the presence of strong leadership and a digital transformation-oriented corporate culture are key factors for success in this context. The creation of corporate strategies aligned to digital transformation is key for the company to stand out in this constantly evolving field, in agreement with Peter Drucker, who states, when saying “Culture Eats Strategy for Breakfast” that the organizational culture can determine a company's destination in the digital transformation journey. Afterall, “considering that the dynamics of the DT process are based on an organization’s ability to establish appropriate routines to operate digitally, it strongly relates to organizational culture” (Ghezzi et al. 2022, pp. 4).

Therefore, one can conclude that effective digital transformation requires not only investments in technology, but also a holistic approach that encompasses organizational, cultural, and strategic changes. The role of leaders and the creation of a digital transformation-oriented corporate culture are key to driving success in this process.

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