ABSTRACT This paper describes the lived experiences of experts who have taken a holistic approach to driving transformation in various organizations. The primary goal of the paper is to outline, at a high level, key insights and observations that are critically important to implementing Digital Business Transformation (DBT). The authors have undertaken primary interviews in which interviewees were asked to share their experience and opinions regarding organizational prerequisites for embarking on DBT, misconceptions about DBT, and the challenges to implementing DBT. These insights were analyzed and clustered and this paper articulates six lessons they have learned during the transformations. These lessons relate to Chief Executive Officer (CEO) commitment and the need for change leadership, the best team to drive the implementation successfully, the perception and behavior of stakeholders before, during and after the transformation, the importance of choosing the best digital platform to suit the business and the increased importance of relationships in the business ecosystem. We present the findings in a holistic framework and organizations seriously considering DBT implementation in their own business may consider these insights to be a good starting point.

INDEX TERMS DBT, digital enterprise transformation, digital transformation, leadership.

I. INTRODUCTION

The competitive dynamics of modern organizations have changed significantly over the past few years [1]. Technological advancement has resulted in changing expectations of customers, which forces enterprises to transform themselves. Digital transformation is at the forefront of organizations looking to adapt to the changing digital environment [2]. Hanelt and others [3] propose a “malleable organizational design,” i.e. one that is easily influenced and changed.

There are many misconceptions regarding the transformation of businesses in the digital era, and gaining a holistic view of what’s required for transformation is essential for success [4], [5], [6], [7].

The transformation of businesses for the digital economy is often referred to as digital transformation. In this paper, we adopt the term ‘digital business transformation’, to emphasize the transformation of the business, not the digital aspect. We refer to this as ‘DBT’. For large enterprises, digital transformation relates to the transformation of multiple organizational units, often in different geographical areas. Sometimes the term ‘digital enterprise transformation’ is used in the context of large organizations.
There is a difference between DBT and other initiatives such as continuous process improvement, new product installation, and digitalization. These other approaches focus on implementing emerging technologies to enhance process efficiency and productivity. According to the literature, DBT also includes improvements in business models, customer experiences, competencies, and seizing business opportunities by taking advantage of the changes and opportunities offered by digital technologies. While a large body of research on DBT exists, the DBT field is fragmented, with limited studies exploring all facets of DBT [8]. A transformation is messy, disruptive, and exceptionally difficult to implement; it requires a holistic approach to succeed [9]. It is essential to take time to reflect and learn from mistakes, learn from successes, and use that as input for the next step. The research question for the study was:

RQ: What are the most important lessons that experts learned about DBT through their extensive experience?

This article may be particularly useful for executives and managers looking to transform their business for the digital economy by learning from others.

II. BACKGROUND

A. DIGITAL BUSINESS TRANSFORMATION

The pace of disruption and change seems to be increasing in all organizations [10]. Continuous innovations disrupting traditional business models, an extension of business eco-systems, and customers’ preference for digital experiences make it imperative for organizations to consider the prospects of digital technologies [11]. Organizations harnessing digital technology resources may have many motives, such as meeting stakeholder expectations, including compliance [12], simplifying processes, innovating [13], preparing for risks and competition [14], while improving business models [11], [15], [16].

DBT is a continuous process that aims to improve a firm’s value proposition by triggering significant changes to its resources through combinations of digital technologies [17]. DBT refers to a profound transformation of business by implementing the latest digital technologies to improve business processes [9], procedures, company culture [14], and customer experiences [13], [18]. DBT is widely recognized as a digital technology-based improvement of doing business to survive in the digital era [19], [20]. Westerman et al. [21] argue that the two dimensions of DBT are the level and maturity of adoptions of digital technologies and transformation management capabilities, which address leadership, culture, change management, and governance.

B. MISCONCEPTIONS ABOUT DBT

Various misconceptions about DBT resonate amongst some academics and practitioners, including: i) DBT is all about technology; ii) it is an isolated, one-off project that follows a traditional approach and requires firm-wide change [22]; iii) most businesses already have a good digital strategy [23]; iv) DBT is a separate “thing” that is added to the existing business model [4], [7]; employees will accept the transformation without resistance [14], [24]. Skinner [22] states that “those who treat digital as a project to delegate will never get there”.

Bindra [25] adds that it is often believed that DBT is led and owned by the Chief Information Officer/Chief Digital Officer, that DBT is not linked to business metrics, that DBT and digitization are the same, and that DBT is quick and easy to implement [25]. The mistaken belief that, because digital technologies cause business disruptions and challenges, the business solutions also lie in digital technologies is referred to by Kane [5] as the ‘technology fallacy.’ Instead, he focuses on the ‘softer’ aspects of digital transformation “because we didn’t feel like they were getting enough attention in the marketplace relative to their importance” [5].

C. A HOLISTIC VIEW OF DBT

All companies should go on a DBT journey, but many approach it the wrong way by missing some pieces of the puzzle. Björkdahl [23] posits that “many firms are far from ready to benefit from digitalization and are mainly focused on achieving greater efficiency through digitalization rather than pursuing a growth agenda.”

Doan [26] advocates for a ‘comprehensive approach’ to digital transformation where the business is treated as a unified whole, the digital goal is outcome-focused and human-centered, and organizations adopt an “experimental scale-later approach.” Although IT is the backbone of digital execution [25] and there is a plethora of new technologies that enable DBT [27], DBT is not all about technology. It is relatively easy to implement new technology, but it is difficult to change the way an organization does business, and the way employees work together. The CIO does not own DBT. The transformation owner is the CEO or the Board [14], [25].

DBT is not a one-off project that can be completed in a short period of time but a corporate-wide undertaking with involvement from all stakeholders [28]. Various authors [4], [7], [25] posit that a holistic view should be taken during the transformation. It involves a change in the entire work logic [19], [28] and how organizations create value for their customers. Bruhn [7] refers to DBT as “massive and confusing”.

DBT involves the development of new business models [29], the forming of new alliances and ecosystems [30], [31], value creation through new and innovative products or services [29], and improvement of customer experience [28]. In fact, people fuel (or prevent) DBT [20], [32] and without understanding the impact on people or their experiences, the benefits of the technology will result in wasted investments [33]. The most successful DBTs start with a shift in mindset at the employee, leadership, and organization levels [20], [30], [34]. This shift produces a culture change that allows the company to be more agile, risk-tolerant, experimental, and collaborative [5], [34].
The success of DBT heavily depends on the capabilities of leadership, the right mindset, and talent development [32], [35], [36]. Corporate leaders are heavily involved in creating a new vision, strategy, process, divisions, and culture that can encourage their employees to innovate and experiment with new technologies and business models [13], [37]. As companies become more digitally mature, they have more confidence that their leadership has what it takes going forward [5].

III. RESEARCH APPROACH

A. METHOD

An interpretive qualitative research approach was chosen to investigate the practice-based leadership lessons that impact DBT at the strategic level to get a rich understanding of the experiences and perspectives of DBT experts [38]. In this inductive study, the authors started with a set of observations, developed an interview protocol, conducted the interviews, coded the results, analyzed the results, and presented them in this paper. The research participants were selected through purposive sampling, which is considered as an important non-probability sampling technique [39]. Each of our research participants was selected based on their years of business and IT experience, and their active involvement in leading DBT projects. The expert insights reflect a deep understanding arrived from many years of experience in DBT projects implementation. As a result, these insights are deeper and more meaningful than can be expected from one or more independent case studies.

B. PARTICIPANTS

Five experts, each with more than ten years’ DBT specific experience, were selected to participate in the study (Table 1).

TABLE 1. Interviewees.

| Code | Experience | Role                  | Other/Former Roles                        |
|------|------------|-----------------------|-------------------------------------------|
| E1   | >35 years  | IT Professional       | CIO, COO, Admin. Management               |
|      |            |                       | DT Strategist, Change and Innovation Leader, Lean/Agile/SCRUM coach |
| E2   | >34 years  | CEO, Change Provocateur |                                           |
| E3   | >14 years  | Management Consultant | Global Consultant                        |
| E4   | >15 years  | Chief Transformation Officer | CTO, CIO, Consultant                     |
| E5   | >20 years  | DBT Consultant        | CM, DBT Leader                           |

C. DATA COLLECTION AND ANALYSIS

Due to the qualitative nature of the study, data were collected via personal interviews to allow in-depth exploration of the interviewees’ lived experiences and lessons they have learned during DBT initiatives in various organizations. The interview protocol consisted of the following question:

What lessons have you learned through your experience with Digital Business Transformation implementations?

In your answer, please refer to some misconceptions about DBT, challenges of implementing DBT, and prerequisites for embarking on a DBT journey (referred to as ‘DBT readiness’).

Participants’ perspectives were sought rather than statistical significance. The individual semi-structured open-ended interviews were conducted online via Zoom or Microsoft Teams, each lasting approximately one hour. Participants engaged in a discussion about personal experiences regarding organizational transformations. Participants were asked to share specific scenarios related to DBT implementation and the lessons they learned from these. Each interview was audio-recorded and transcribed verbatim.

The data were analyzed manually. The researchers first listened to each audio recording to develop a holistic sense of the data. The authors then individually reviewed each interview transcript to detect similarities or differences between their experience, as articulated by the interviewees. The researchers also used their judgement to interpret the data while consciously avoiding enforcing their preconceived ideas on the data, i.e., not allowing their meanings and interpretations to influence the opinions of the interview participants [39]. True to the nature of qualitative research, the authors did not aim to gather generalizable results.

D. ETHICAL CONSIDERATIONS

During the research, attention was paid to considering the confidentiality of sensitive corporate information. The Ethics committee of a university approved the research project. Prior to conducting the interviews, consent was sought, confidentiality agreements were signed, and security provisions were undertaken. Participants understood that their involvement in the study was entirely voluntary and that they could withdraw from the research project at any stage without consequence to their career or personal status. Names of individuals and organizations remain unidentified.

IV. FINDINGS

The research question aimed to elicit the experience and lessons learned by the experts during various DBT initiatives. In answering the question, the interviewees confirmed that there are many misconceptions about DBT, that DBT efforts are complex, and that a holistic approach to DBT is required. They referred to their experiences and their comments and their suggestions were analyzed and clustered, culminating in a total of six lessons learned. We present the six integrated lessons in the rest of this section. The findings are presented in a holistic framework in the Discussion section.

A. LESSON 1: THERE ARE VARIOUS DRIVERS OF DBT

The first lesson related to the drivers of transformation, i.e. what makes it necessary for an organization to transform the way they conduct their business.
The experts indicated that organizations need to experience a ‘burning platform’ to increase the urgency to transform. A burning platform means something that is totally broken; if you do not fix it, you are going out of business, or it’s going to cost you millions and millions of dollars. (E4)

Without such a compelling reason to transform, the effort will be simply too much, and the organization will revert to the old way of doing things. E1 agrees that “if your risk appetite is more averse than your burning platform, you’re unlikely to do a successful digital transformation”. E2 added that the organization’s risk is increased in the short term to decrease the risk over the longer term. A publicly listed organization should therefore communicate to stakeholders that it is investing in DBT, not because it’s good for them now, but because it’s good as a long-term investor.

A change in customer expectations and behavior is an important driver of transformation. The availability of digital technologies has largely changed the social landscape, and customers think and behave differently. Customers’ expectations are different, and they now want to help themselves without the interference of an intermediary. E2 said that “therefore, we can’t approach business in the same way as we always did” (E2). E5 added a reference to agility:

Organizations should reorganize themselves in an agile way so that if there are new requirements, they can deliver within a month at the most, with the new functions that are desired (E5).

E5 found that the primary reaction to a DBT initiative is that people think it is “just another hype, that it will blow over”. Based on the lesson he learned, he always schedules a session with the whole organization, with all employees present:

I say this is our game, this is our aim, this is what we’re looking for, and we’re right at this point in our journey towards that aim. There needs to be a very strong and clear message to the organization; why are we doing this? (E5)

Disruptive innovation, i.e. the development of new technologies and methods, also creates a need for transformation. E2 commented that disruptive innovation leads to “true” transformation. He believes that most of the initiatives often branded as digital transformation are actually - what Clayton Christiansen would have called - ‘efficiency innovation’ initiatives where the focus is on profit, not on fundamental transformation. The organization’s drive to innovate and transform should therefore not be a one-time effort but an ongoing effort and it “should be within the organization’s DNA to respond to changes in its environment”. 

B. LESSON 2: TRANSFORMATION DEPENDS ON DEDICATED EXECUTIVES AND CHANGE LEADERSHIP

The next lesson relates to the experts’ comments that transforming a business places high demands on the leadership of the organization. It requires complete CEO commitment and ‘change leadership’. The CEO must be fully committed to the transformation. If the CEO is not fully committed and cannot convince the executive and the board to support the transformation program, the organization’s chances of success are meagre. The CEO must be prepared to lead the change, even at personal cost and personal risk to themselves. E1 commented; “In my experience, if a CEO doesn’t hold the line, an organization will back out of the transformation - it is just too hard” (E1). E2 thinks that the role of executive management should change to an “enabler, a motivator, a solver of problems, a permission-giver to break the rules”. E4 agreed that the most important role player should be the CEO:

You need someone brave enough to drive [DBT] through the organization. If it’s not believed or led at that level, you’re never going to get that executive team and the people below them to buy in. (E4)

Transformation is different from mere change or continuous improvement; it requires ‘change leadership’. Continuous improvement means that the organization does the same thing, just better. Transformation is about doing something completely different. E2 used a good analogy:

The purpose of digital transformation is to create beautiful butterflies, not to make faster caterpillars. [...] The enemy of transformation is that we’re not willing to think about doing something entirely different. (E2)

Organizations want to be more agile, yet they don’t know precisely what it means. E5 said, “they focus on getting solutions implemented; instead, they should focus on implementing the change in the organization”. (E5)

Current success can be a barrier to DBT. Digitization initiatives are essential, but they lead organizations - especially incumbent organizations with a long track record - to a false sense of comfort.

They believe they’re doing something well and, therefore, they are okay. They’re not because what they’re doing is not what will enable them to survive long-term. (E2)

Change leadership, not change management, is needed on every level in the organization. People at the top of organizations should take a more significant change leadership role; they must inspire, motivate, teach, and develop people (E2).

C. LESSON 3: DBT HAS TO BE DRIVEN BY A FOCUSED TEAM THAT IS ESTABLISHED ESPECIALLY FOR THE TRANSFORMATION

A transformation team should be created to drive the transformation. It is hard for the people who are doing the current manual tasks to envisage a future where they would not be performing the tasks and to try and build a new business operations model while still running the old, manual operating system. It is better to appoint a separate transformation team, consisting either of existing staff or new staff, that will focus on the future model. E1 says the change team must sometimes “go dark” while designing the new organization and then transition the rest of the organization over to the ‘transformed organization’:

We trained up a specific team of people and assigned a particular executive to transformation to create that business’s old thinking/new thinking understanding. Where my role is to
hold the leaders in the business to the latest thinking, their job is to create the change in their parts of the organization.

This will mean that the employees can remain “focused on today and today’s problems”, while the transformation team is focused on “tomorrow”, i.e. the future business operations model (E1). E3 and E5 agree that one person should not lead the transformation alone. E5 refers to a team of “change agents” who can help their colleagues understand the principles and values of DBT and who can resolve issues effectively.

**D. LESSON 4: DBT IS NOT MAINLY ABOUT TECHNOLOGY BUT MORE ABOUT PEOPLE AND THE ORGANIZATIONAL CULTURE**

DBT does not focus on technology, nor is it driven by the IT department. E2 believes that digital transformation is the wrong term, as it focuses the attention on digital tools. As a consultant, E2 is often asked to get involved in the DBT projects. However, his experience is that 80 percent of projects they are asked to get involved with are not DBT; they are merely a digitization project. E2 indicated that he does not discard the benefit of digitization but emphasised that it is not “transformative in nature”:

“[Digitization] can be fobbed off to the technology part of the organization, without realizing their important role in changing the organization’s direction and ethos. (E2)

Transformation disrupts the workforce and leads to resistance to change. It is exceptionally difficult for human beings to change their way of thinking. People constantly want to revert to their old ways. E1 found that employees were very relieved when the ‘program’ was finished, and they could go back to the old ways:

You can’t go back; you need to go forward. This ‘old thinking’ concept has become part of the subsequent programs that I’ve run. I’m helping [organizations] understand that we were doing something fundamentally different in the organization. (E1)

E1 thinks that some people will benefit from the transformation, and some will not benefit in short to medium term, which leads to resistance to change.

I made the mistake of thinking the benefits would translate to the entire business and that the whole business will have a level of sympathy and understanding for the disruption caused by understanding the [potential] benefit. However, people in some areas were not going to benefit from the disruption. (E1)

Client-facing areas such as product services and sales will benefit from a system supporting them and providing data to justify their decisions. Customer satisfaction will be improved due to higher accuracy, self-service, speed, and efficiency in the system. On the other hand, support areas such as finance, legal compliance, and Human Resources (HR) will experience a higher level of risk and stress for no potential gain. HR will have to execute an entire workplace transition plan and deal with disruption across every role and person in the organization.

DBT means a fully automated straight-through processing system where low-value, high-volume transactions are automated. E2 and E3 experienced resistance as people believe the organization wants to do things more efficiently by automating it and taking work away from people.

E2 believes that the biggest challenge in transforming an organization is middle management, as they are invested in maintaining the status quo and will therefore oppose the changes the most. He suggested:

You need to start with a very innovative re-education process with middle management show them that you’ve got a better future for them. If we say to them that we’re going to automate all the supervisory work they do as a manager, they will ensure that the project fails. (E2)

E4 believes the most significant resistance will come from the CIO.

[The CIO] is going to be your biggest naysayer, the person that is not going to come along. (E4)

It is important that the people should think and behave differently. The real effort will therefore lie in changing the organizational culture. E3 posits that the success of the transformation depends on whether the people in the organization have a ‘disruptive mindset’. This ‘culture change’ is where the organization should spend extensive time and thinking.

Eighty percent of the focus should be people’s side of things. Digital transformation is a mindset, adoption of the new culture. (E3)

Both E1 and E5 agreed that a cultural change, or rather a “cultural revolution” is required. According to E5, such a change culture results from changed behavior, so he always focuses on the behavior that management teams and professionals adopt.

**E. LESSON 5: THE DIGITAL PLATFORM ‘IS’ THE BUSINESS**

To be a digital business, managers need to set the business up so that the digital platform is the core of the business’ activities. A digital platform expert organization almost always provides the platform. E1 said that one of the lessons she learned was to “let the specialists do their thing. If you’re an insurance company, you specialize in insurance, you do insurance. If you’re a technology company, you provide the digital platform”. The systems will be supported by people with as minimal manual process as possible. E4 commented that “actually, your platform ‘is’ your business and your people support the platform”. E1 commented that it is therefore vital that the platform is provided by a trusted member of the digital ecosystem.

The platform should be adopted, not adapted. If organizations buy a digital platform, bring it in-house and customize (adapt) it heavily, they will find themselves in a position where they are unable to make legislative changes or quickly respond to market changes (such as COVID) very quickly. E1 added:

So, I’m trying to help the organization understand that we have to separate the business rules from the process and give the digital platform vendor the business rules, not the process.
We are adopting their processes and adapting them for our business rules. (E1)

F. LESSON 6: DBT REQUIRES THE CREATION OF AN ECOSYSTEM

Leaders, executives and boards must understand that a vendor is a partner in the ecosystem, they have strengths and weaknesses, and that the organization needs to mitigate as many of their weaknesses as possible. The business is moved to a digital platform owned and operated by a partner. E1 used an analogy to explain the principle of such a long-term partnership:

It’s like we’re putting our baby in their pram, so we want to make sure that it is a roadworthy pram and it’s being pushed well. Suppose you’re going to be putting every system, every part of your business into a platform. In that case it’s a longer-term relationship, so [...] building sound partnering guiding principles into the contract is critical. (E1)

E5 referred to working with agile partners and agreed that this has an impact on the way contracts are drawn up:

When I look at many contracts, they are still related to the old world where we were working on projects [...] with fixed dates and deadlines and fixed scope, projects that are not always agile. Sometimes those contracts inhibit the actual change that you would like to see. (E5)

V. DISCUSSION

The research found that both Digitization and DBT are important, yet they are different. Digitization is about improving a process, i.e., making it faster and/or cheaper by using digital tools and technologies. It is about efficiencies and saving costs, but it will not make a business a digital one. For that, one has to digitally transform the entire business. DBT is a customer-centric initiative, i.e., it focuses on how digital technologies and information can enhance an organization’s existing assets and capabilities to create new customer value and organizational culture. DBT will only be successful if business models, customer experience, people, culture, and talent are considered.

The experts believe that DBT should not be attempted if the organization is not ready. Based on the lessons learned, as articulated by the interviewees and literature, it is possible to determine whether an organization is ‘ready to transform’. According to experts and academic researchers, an organization needs CEO commitment and accountability, while a team of capable executives should champion and sponsor the transformation. Their ability to get the rest of the leadership and workforce’s confidence and hold them to the transformation is a key differentiator between success and failure. A management team should drive and be accountable for the transformation. This team may include the chief information officer, the financial officer, and the sales and marketing managers, but they should not be held ultimately accountable.

Researchers have acknowledged that there are two essential parts of DBT, namely technology and people, with the people aspect being the most challenging. DBT also seems to be more about strategy than technology. Organizations often mistakenly think that digital technologies are the drivers of DBT. This misconception is referred to as the ‘technology fallacy’. The experience of the DBT experts participating in the interviews confirmed that people are critical in the transformation (lesson 4). They emphasized that technology should not be the focal point of DBT, but that the technological platform should be provided by a firm specializing in technology platforms (lesson 5). In referring to the common misconception that DBT is only about technology, some experts even stated that DBT is ‘not about technology at all’ (lesson 3).

From the interviews, it became clear that a digitally transformed organization is much flatter than a traditional organization, less hierarchical. The teams within the digitally transformed organization are more self-organizing. They can make decisions independently and implement solutions that fit the requirements. Furthermore, the management left in those organizations is much more focused on working according to a vision, a mission, the principles, and the values that go with that vision and mission. The organization’s management should also be able to break down traditional barriers and adapt the processes and the procedures to the new way of working. Work patterns need to be adjusted, and that changes to communication and collaboration are required for DBT success. The message about digital transformation will likely compete with other day-to-day communications, so it needs to be embedded in everything leaders do. Transformation also creates partners in the ecosystem (lesson 6), resulting in innovation and value creation for all stakeholders.

The organization also needs a pain point, also referred to as a ‘burning platform’, because a business that is not in a ‘do or die’ situation is unlikely to experience the urgency for change. Another critical question is how much money the organization has, as DBT is expensive. The organization will have to run new systems parallel with old, bring on new types of people and skills while transitioning some of the existing people and skills. Another prerequisite for transformation is time. If people do not want to allocate time, they do not want the transformation. The organization also needs capacity, i.e., change agents on all levels in the organization, management level, team level, professional level. The most important question relates to what the organization wants to achieve with the transformation, where they want to be at the end of the year, and the organization must be clear and constantly repeat why it is going through DBT.

The research suggests that leaders develop a roadmap for transformation that indicates where the organization wants to be in three to five years’ time. The organization needs a ‘true north star’, as it will be a difficult journey (E1). If the leader cannot constantly remind themselves of the reason for the transformation, they will abandon the journey at some stage. The CEO, therefore, plays a very important role in the transformation, and managers and leaders will be facing many future challenges.
Based on the findings and literature described in this paper, the critical prerequisites or readiness for transformation are summarized below. If these prerequisites are not in place, the organization is not ready, and the transformation should not even be attempted. The critical prerequisites for starting a transformation: i) Absolute CEO support and accountability; ii) A team of dedicated senior managers to drive the transformation; iii) A clear understanding that DBT is more about people than technology, iv) A burning platform to motivate the organization to persist despite the difficulties; v) Enough money to see the process through; vi) Enough time to dedicate to the transformation.

The six lessons learned are summarized in Table 2, including some support from the literature. The literature references are not exhaustive due to the plethora of information about DBT.

**TABLE 2. Lessons learned from digital business transformation efforts.**

| Lesson Learned                                      | Supportive Literature                        |
|----------------------------------------------------|---------------------------------------------|
| There are various drivers of DBT                   | Eden et al., 2019; Philip, 2021 Westerman & Bonnet, 2014; Skinner, 2017; Westerman & Bonnet, 2014. Wielgos et al., 2021 |
| DBT requires a burning platform. The risk of the organization is increased in the short term to decrease the risk over the longer term. Customer expectations and behavior are essential drivers of transformation. Disruptive innovation creates a need for transformation. | Cortellazzo, Bruni & Zampieri, 2019; Hanelt et al., 2021; Hess et al., 2016; Larjovuori et al. 2018; Philip, 2019; Stonehouse & Konina, 2019; Schwarzmüller et al. 2018 |
| Transformation depends on dedicated leaders and change leadership | Cortellazzo, et al., 2019; Eden, et al., 2019 |
| The CEO must be fully committed; else the digital transformation will fail. Transformation is different from change. Change leadership, not change management, is needed. | Eden, et al., 2019; Kane et al. 2015; Kane, 2019; Mugge, 2020; Cortellazzo et al., 2019; Eden et al., 2019; Varnhey, D., 2020; Westerman & Bonnet., 2014; |
| The transformation has to be driven by a focused team that is created just for the transformation. | Hanelt et al., 2021; Subramaniam et al., 2019; Westerman, 2021 |
| DBT is not mainly about technology but more about people and the organizational culture. Digital transformation disrupts the workforce and leads to resistance to change. The real effort lies in changing the culture of the organization. | Hanelt et al., 2021; Subramaniam et al., 2019; Westerman, 2021 |
| The digital platform ‘is’ the business.            | Hanelt et al., 2021; Mugge, 2020; Tomicic Furjan et al., 2020; Subramaniam, 2019 |
| Transformation requires the creation of ecosystem where partners trust each other and communicate well. | |

The framework enhances the theory by elaborating on some of the key aspects of DBT efforts (Table 2). The framework also has managerial implications and can be used as one of the key resources enabling organizations to navigate their way on their DBT journey.

The framework consists of four stages: i) Understanding DBT – here, the misconceptions of DBT, as recalled by the experts, while talking about the lessons learned, need to be understood; ii) Considering DBT – prerequisites of DBT are identified as requirements that need to be in place before an organization considers embarking on a DBT journey; iii) Implementing DBT – challenges to be overcome are identified and lessons learned divided into three clusters are presented – WHY there is a need for transformation, HOW is the transformation done, and WHO is responsible and accountable for the transformation. This results into iv) A transformed organization. The structure of the framework is visualized in Figure 1.

**FIGURE 1. The DBT framework.**

Organizations will only understand the true meaning of DBT if they are able to recognize and address the misconceptions about the topic. According to the participants, there are prerequisites for an organization to be regarded as ready to transform. Before the organization is ready to transform, it should not even consider embarking on a DBT journey. During the DBT implementation, organizations experience various challenges and very valuable lessons are continuously learned, which results in a transformed organization. This is a continuous process. The components of the framework are detailed further.

**A. THE FRAMEWORK: STAGE 1**

**DBT Misconceptions**

- The benefits will translate to the entire business and the entire business will have a level of sympathy and understanding for the disruption (E1)
- The organization wants to do things more efficiently by automating them and taking work away from people (E2, E3)
- Transformation is the same as continuous improvement
- Current success means that transformation is not necessary
- The organization must take all the employees with them on the journey of transformation
- One person can lead the transformation (E3, E5)
The digital platform should be adapted to the business needs
DBT focuses on technology
Digitization is the same as transformation
Organizations will transform despite not having an urgent problem that is fueling the transformation
Transformation is possible without innovation
Efficiency innovation that addresses the need for profit increase is the same as transformation (E2)
DBT is a one-off project
Organizations can transform with limited dedicated money and time (E1)
Transformation is quick and easy

B. THE FRAMEWORK: STAGE 2
Readiness for transformation
- Absolute CEO support and accountability
  - A team of dedicated senior managers to drive the transformation
  - A clear understanding that DBT is more about people than technology
  - A burning platform to motivate the organization to persist despite the difficulties
  - Enough time to dedicate to the transformation and money to see the process through

C. THE FRAMEWORK: STAGE 3
DBT Challenges
- Customers think and behave differently, and their expectations are different
- It is exceptionally difficult for a human being to change that way of thinking
- There needs to be a very strong and clear message to the organization; why are we doing this?
- You need someone who is brave enough to drive DBT through the organization
- The CEO must be prepared to lead the change, even at personal cost and personal risk to themselves
- There is a need for a re-education process with middle management
- A cultural change, or rather a “cultural revolution” is required (E1, E5)
- Managers focus on getting solutions implemented; instead, they should focus on having the change implemented in the organization (E5)
- People at the top of organizations must inspire people, motivate people, teach people, and develop people
- The change team must ‘go dark’ while designing the new organization and then transition the rest of the organization over to the ’transformed organization’
- A team of ‘change agents’ need to help their colleagues understand the principles and values of DBT and who can resolve issues effectively
- The business must be set up in such a way that the digital platform is the core of business activities
- Leave the specialists to do their thing (E1)
- The platform should be adopted, not adapted; organizations are adopting the optimized processes and adapting them for their business rules (E2)
- A vendor should be regarded as a partner in the ecosystem
- People think and behave differently.
- Need strong leadership to convince stakeholders that it is investing in DBT, not because it’s good for them now, but because it’s good as a long-term investor.
- Change should become part of the DNA of the organization
- Transformation requires time and money
- A strategy or roadmap to transform is required

Lessons learned
WHY
- Customer expectations and behavior are important drivers of transformation (Lesson 1)
- Disruptive innovation creates a need for transformation (Lesson 1)

HOW
- The real effort lies in changing the organizational culture (Lesson 4)
- Transformation is different from mere change or continuous improvement; it requires ‘change leadership’, not change management (Lesson 2)
- The digital platform ‘is’ the business and is provided by a digital platform expert organization (Lesson 5)
- DBT is not mainly about technology - it is not an IT project to be run by IT (Lesson 4)
- The risk of the organization is increased in the short term to decrease the risk over the longer term (Lesson 1)

WHO
- The CEO must be fully committed to the transformation (Lesson 2)
- Transformation disrupts the workforce and leads to resistance to change (Lesson 4)
- DBT should be done by a focused team (Lesson 3)
- DBT in the digital economy requires the creation of an ecosystem (Lesson 6)

The results presented here provide managers with valuable insights into the dynamics of DBT and suggest important leadership skills required to master these. The holistic framework proposed in this study may be useful for those organizations who need to embark on a comprehensive DT transformation of the whole business.

VI. LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH
The research focused on interviews with five DBT experts who have been drivers of DBT efforts in organizations. It should be mentioned that interviewees provided only their perspective of DBT in the organizations they have been involved with. Even though our data set is small, each participant could share invaluable experiences based on up many
years of experience spanning up to 35 years. Taking the vast experience of the participants into account, this study’s relevance is that it paves the way for further qualitative or quantitative studies on DBT.

It should also be acknowledged that research of this nature is seldom (if ever) free of bias. Given the qualitative nature of the research, it was not the intention to make the findings generalizable, but to elicit the views and lived experiences of the participants who were interviewed in this research. This can be perceived as a limitation of the research presented in this paper. On the other hand, it presents an opportunity for future research with a larger research sample by involving more DBT experts. Another approach could be to focus on the experiences of top-level executives and leaders responsible for DBT in their organizations. Such a study can take a qualitative or quantitative approach.

Although the results of this research are applicable to organizations from all sectors, the experience and results from certain sectors may be slightly different from others. The viewpoints of employees who are impacted by the transformation, have not been included in this study. Other opportunities for future research include i) focusing on one or more industry sectors, ii) comparing the sectors, iii) including employees’ perceptions in the research.

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