Organizational Barriers to Digital Transformation

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Abstract

Digital Transformation is changing the ICT industry and companies must act with speed to stay in the race. In order to be a credible business transformation partner, responding to industry changes and customer demands faster, companies today are transforming themselves and embarking on their digital journey and digitalization is high on every company’s agenda.

Most of these transformation initiatives fail or are progressing slowly and one major reason for this is organizational barriers to transformations. These barriers are challenging as organizations and employees react differently to change. Hence in this paper, I will study the transformation process and try to identify and understand the barriers and the most challenging stage of the transformation by interviewing eleven executives from across companies which are in various stages of their Digital Transformation journey. Even though significant number of barriers were identified in the Initiation and the Transition phases, the results indicate that each phase is equally important and is an outcome of the previous phase. By addressing barriers in the first two phases and taking concrete actions, the resistance can be reduced, and organizations can smoothly transition and transform ensuring that the organization and staff embrace the changes.

Several barriers to change and transformation were identified - Unclear Company Vision and Goal of the Transformation; Top Management, Leaders and their Leadership style; Project group, Organizational set-up and Agility; Change and Middle managers lacking expertise; Lack of Rewards and Incentives; Unclear Measurement systems, Lack of HR involvement and a strong Learning culture missing.

In this work with executives working across a variety of industries, the findings suggest that by putting people first and by running change management programs with more people-centric approaches can lead to dynamic results. The study revealed the need for top leaders and executives to present a united front, provide more autonomy, increase collaboration and transparency across project functions and structures. Middle managers and HR need to work together better supporting and coaching the employee’s individual development plans, tracking changes, creating an atmosphere that engages and energizes employees and by rewarding or incentivizing employees ensure that the changed behaviours stick and quickly spread throughout the organization. Siloed organizational structures were further identified as making the organizations obsolete and the transformation journey must begin by putting together diverse project teams encompassing the right capabilities and skills with a clear driver of change.

Keywords: Digital Transformation, Digitalization, Organizational Change, Change Management, Change Processes, Transformation, Barrier to Transformation
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Definitions and Abbreviations

**Organizational ambidexterity**: This term refers to an organization's ability to both explore and compete in new markets and technology areas as well as their ability to compete and exploit in mature markets and technologies. Implying new and changed organizational practices with a cross-functional and cross-department authority instead of the traditional set-ups, where on one hand organizations need to be more autonomous and flexible allowing some degree of experimentation and on the other hand organizations are prized for their control and efficiencies (O’Reilly, 2013; Hansen and Sia, 2015; Horlacher and Hess, 2016).

**Podular approach**: Pods can be defined as self-operated and independent units with a core team in the centre, making it easier to plan-build-run ideas and initiatives independently and effectively, thereby ensuring newer things and developments happen easily and faster (Abeysinghe, 2017).

**Platform Economy**: Social and economic activities facilitated with the help of digital or transaction platforms such as Baidu, Uber, Amazon (Kenney and Zysman, 2016; Vey *et al.*, 2017)(Andersson, Movin and Teigland, 2018).

**Digital Leaders**: These leaders besides having a good understanding of the underlying culture and possessing leadership capabilities, also have a clear digital strategy outlined which is needed to drive the transformation (Kane *et al.*, 2015)(McConnell, 2018).

**Organizational culture**: Can be defined as the organization's personality which eventually determines how employees within operate with their day to day activities (Armenakis and Lang, 2014).

**Digital Culture**: An environment with deep-rooted and shared norms, values and beliefs which usually characterize how companies support technology and encourage its use amongst employees to nurture and get the work done in the most effective fashion (Van der Bel, 2018).
1. Introduction

1.1 Background

“The pace of change will never be as slow again as it is today”. This sentiment was echoed by Hans Vestberg of Ericsson as well as several others. In the rapidly changing environment, many of today’s large incumbent companies face vulnerability despite having a solid past performance track record. Overreliance on past successes can be deceptive as what will make companies flourish in the future might be very different from what made them succeed in the past. These large incumbents are challenged and in preparing for their digital future, these companies are significantly increasing their transformation investments and embarking on their Digital Transformation journeys where their goal is business transformation by using digital capabilities (Andersson, Movin and Teigland, 2018). These companies are constantly changing along two dimensions – operational efficiency and customer experience; their goal being the same, to meet and satisfy their customers’ needs and demands while reducing costs (Weill and Woerner, 2018). Data from IDC survey, 2017 revealed that the Digital Transformation investments will increase by approximately 27% each year, counting from 2017 to 2020 inclusively and forecasts it to reach $6.3 trillion by 2020 (Tomić, 2017).

Digitalization is a global trend and all companies are experiencing it at varying intensity and speeds (Solis, 2017), some companies are in their early stages and some are a bit further afield (Westerman et al., 2011). What Venkat Venkatraman famously quoted in his book The Digital Matrix - “Past performance is no indicator of future returns” (Venkatraman, 2017, p. 6) holds true for almost all incumbents operating in traditional industries where the challenge is to optimize the company’s current performance while simultaneously ramping up the company’s potential for long term growth. The ICT incumbents are currently challenged (Andersson, Movin and Teigland, 2018) while the new digital age companies such as Amazon, Facebook, Apple lead the race.

There are several descriptions and definitions of Digital Transformation afloat as the number of leaders and organizations involved in it. Digital Transformation can be defined as the ongoing process of changing the ways existing companies carry out their businesses (Oestreicher-Singer and Zalmanson, 2011). A Digital Transformation journey is about customer centricity, experience and simplicity. All this is enabled through an open, collaborative, sharing culture with organizational agility which is supported by the latest modern technology. Since the Digital Transformation is changing industries, companies must act with speed to create new business opportunities, gain new profitable businesses, protect existing revenues which ultimately extend into newer ecosystems and platforms. Companies that have transformed successfully are almost 26% more profitable than their non digital peers (Westerman, Bonnet and McAfee, 2015a).
Many new challenges manifest themselves as soon as corporations embark on their digital journey. BCG explores in their ‘New Ways of Working’ series how the digital society is accelerating the pace of business, putting pressure on incumbents to act quickly by adopting entirely new ways of doing things. This goes beyond altering the fundamental behaviours and culture for everyone involved in the change, from employees to top leaders as well as revising the company’s organization structure and design, functional structures, introducing catalytic leaders who instil a sense of purpose as well as guide and encourage employees.

Most firms that were studied for this research had a platform mindset and planned on standardizing first which will enable them to eliminate most of their legacy products and systems (Fitzgerald et al., 2013). All this will ensure that companies can gain insights from data which will help better partner with their customers, help bring high degree of automation, data driven insights which help reduce costs, increase internal efficiencies and improve overall experiences.

1.1.1 Digital Transformation in the context of Industrialization

Industrialization is linked to economic development and how IT and other technology enablement leads to transforming businesses and countries. This section highlights Digital Transformation and why it is considered as the next industrial revolution.

In the last 50 years, Information Technology (Porter and Heppelmann, 2014b) adopted by organizations has profoundly transformed their businesses twice already, radically reshaping their competition and now they are standing at the edge of the third IT driven transformation and competition.

The first two waves not only helped in providing growth across all economy and it also helped organizations increase productivity while lowering their operational costs (Sánchez, 2017). In the last years, however, researchers, business managers and organizations (Henderson and Venkatraman, 1993) worldwide have acknowledged that the role Information Technology plays in firms has undergone a signification transformation as described below. Since the role of IT in firms has changed significantly, this has led to a strategic view that Information Technology strategy within organizations must be aligned with their overall business strategy (Davenport and Westerman, 2018). A historic and chronological view of the influence of IT as well as some analysis was provided by Porter and Heppelmann in their publication (Porter and Heppelmann, 2014a) and they describe the three waves as follows:

- The first wave of IT transformation was during the 1960-1970’s, about process automation. This helped automate individual activities in the value chain, ranging from order processing, computerized manufacture resource planning and bill payment. All this led to a surge in productivity since new amounts of data per activity could be captured and analysed.

- The rise of the internet drove the second wave of IT transformation in the 1990’s-2000, which led to ubiquitous global connectivity. This enabled integration and coordination across varying individual activities whether it was with customers, outside suppliers or through different channels. This wave enabled firms to closely integrate their globally distributed partners, suppliers and customers.
• The third wave of IT which is happening now, called the Digital Transformation driven by the emerging digital technologies where IT whether it be software, platform, processors, sensors, connectivity coupled with the product, thereby making IT an integral part of the product leading to *smart and connected products*. The technologies driving the Digital Transformation or acting as its catalyst includes Internet of Things, Artificial Intelligence, Big data analytics, Machine learning, Cloud computing, Robotics, Social media, Wearables, etc. all of which help drive dramatic improvements in the product performance and functionality (Deloitte, 2017; Ustundag and Cevikcan, 2018).

Put at a collective level, these technologies are transcending the various industry boundaries, disrupting established value chains and business models existing in industrial companies (Krolivets, 2017), unleashing a new wave of innovation, altering organizational and industry structures, transforming the way we do business and providing a new set of choices for customers and well as competitors. This Digital Transformation will lead us to new economic growth and only the companies which have positioned themselves and developed strategies to capture the benefits will successfully ride the third wave of transformation.

The background and introduction are followed by the systematic literature review. This is followed by the methodology, findings and results of the exploratory study. Digital Transformation in context of industrialization as well as sustainability are included and finally this is concluded with recommendations and suggestions for future research areas.

1.2 Research Problem

Despite the hype, many ICT companies in Sweden are struggling with progress and still have a long way to go (Westerman *et al.*, 2011). Though companies are talking about the greatest and latest technologies they have to offer, their organizations lack the skills and the mindsets needed to deal with this transformation (Van der Bel, 2018). Given the pace of change and the pressure to adapt, huge investments and efforts are being put in; however organizational readiness strategies have fallen short of achieving their objective and the organizational barriers pose an important challenge for companies. These shortcomings related to organizational resistance to change and ineffective leadership are leading to a slower pace of transformations. Companies must evaluate the existing organizational architecture as simply by overlaying the latest digital technology on their existing organizational capabilities might not lead to successes as seen in the past.

The findings from the MIT and Capgemini (Fitzgerald *et al.*, 2013) study concludes that the challenge to any Digital Transformation is people and management challenge, not just a technology challenge (Kane *et al.*, 2015; Van der Bel, 2018). Though every company as well as industry faces its own digital future, this paper is therefore not about a technology push. Companies can accrue the full benefits of digitalization if they recognize the opportunities as well as the challenges posed by digitalization (Sánchez, 2017).
The aim of this study is therefore, to analyse the barriers that companies are facing and by addressing these challenges through successful strategies, executives can drive successful Digital Transformation and re-design their organizations to reflect the new and powerful intersection that lies between machines and humans.

1.3 Practical and Theoretical Problem

This fast-growing pace of change is transforming the landscape and organizations today need to be agile and prepared to implement changes. Most of these transformation initiatives fail or are progressing slowly and one major reason for this is organizational barriers to transformations. There is a lot of research focusing on the Technology aspects of Digital Transformation (Bowman, 1996; Westerman, Bonnet and McAfee, 2015a, 2015b; Krolivets, 2017; Andersson, Movin and Teigland, 2018; Pflaum and Gölzer, 2018). There is however, limited knowledge on the organizational challenges faced by companies that hinders quick transformation. Hence this study aims to study the transformation process; identify which phase is the most challenging and identify the barriers within each phase by interviewing executives from companies which are in some stage of their Digital Transformation journey.

1.4 Research Aim and Contribution

This study aims to understand the transformation and change process and examine the organizational barriers to the Digital Transformation within ICT industries in Sweden. It will also investigate which is the most challenging stage of the transformation. Consequently, this study aims to provide insights into how the employee mindset and the different organizational settings play a role in successfully transforming the companies which can encourage and prepare the decision makers to successfully drive digitalization in their companies.

Research Objectives:

- Understanding the various phases of the change process.
- To identify the current challenges and barriers that are impeding the implementation of Digital Transformation programs within large ICT incumbents in Sweden.

To summarize, by studying the transformation process and identifying organizational barriers early in the process, this study could contribute and lead to better understanding of all the practical measures that can be taken in advance to prepare both the employees, leaders as well as the change agents, thereby ensuring success of the transformation initiatives.
1.5 Research Question

To address the extent and reasons behind why the Digital Transformation initiatives have considerably slower progress in ICT industries in Sweden and to achieve the above listed objectives, the following research question has been formulated:

*What are the organizational Barriers to Digital Transformation within ICT industries in Sweden?*

- Which are these barriers?
- Which phase of the transformation is the most challenging?

I believe that by studying and analyzing the transformation and change process in detail and by identifying the barriers to change by carrying out exploratory qualitative interviews will help in providing in-depth insights. The findings help raise awareness of the challenges and help the ICT companies to develop strategies which could help address the shortcomings for a faster and successful transformation.

1.6 Delimitations

This study focuses on the big incumbents within ICT; however, it does not focus on anyone specific company. Hence industry specific characteristics are not taken into consideration. The findings are in line with the literature revolving around organizational resistance and challenges to change and support what key authors such as Lewin (1958) and Kotter (1995) have stated.

Scholars have perceived change from both a revolutionary as well as an evolutionary perspective. In this paper, change was investigated from an evolutionary perspective following on the proposals by many scholars e.g. (Kotter 1995, Lewin 1958, Kanter 1989). Digitalization was perceived as a journey evolving and gradually moving through the different phases; encompassing the different members views and reactions through the journey or the change process.

This research looks to achieve its objectives and purpose, by evaluating the change process and its stages and evaluating the organizational barriers to successful transformation. Even though some companies are global actors, this study will focus on bigger incumbent ICT companies. Digitalization is focused in the context of Sweden and looking at local initiatives. It would be beneficial if the research context is extended to include other countries and specializations; to be able to identify further barriers.

Finally, during the interview sessions, the researcher realized that the respondents’ roles were not static and were changing both internally (roles evolving as during different stages of the study as well as result of organizational restructuring) as well as externally (move to other companies) during the period of the study.
2. Literature Review

This chapter aims to review the literature related to Digital Transformation, Organizational readiness for change, the Change process and management, in line with the research questions set by the study. The review will list and assess all the elements of resistance to change within the organization.

2.1 Digital Transformation in Industries in Sweden

The world around us is constantly changing and companies today need to radically revolutionize themselves every couple of years to stay relevant (Allen et al., 2007). Digital Transformation is becoming a hot topic for companies across the world (Van der Bel, 2018) and according to (Vey et al., 2017) it lies at the beginning of the fourth industrial revolution. Not surprisingly, this has been the number one topic on every business leader, researcher and every analyst mind the past few years (Andersson, Movin and Teigland, 2018). Internet, Technology have changed the business landscape and now this will be followed by the Digital Transformation which is about to change our understanding of the way we currently run businesses, it will impact our current ways of living, all this with unprecedented speed (Deloitte, 2017). Although many unnerving predictions and research on this transformation have been presented and how this Digital Transformation would impact companies, leading to fundamental and extensive transformations, still many individuals and firms fail to acknowledge the impact and the depth of current developments.

Companies are embracing transformation at different paces and for most there is still a long way to go (Westerman et al., 2011). All this would be hard to believe if it wasn’t for the fact that digital disruption has already happened in many industries and we can already see the consequences of new platform businesses entering the existing markets and dominating previously quite protected market places. We, are now living in a platform economy and companies worldwide are now building agile solutions and platforms relevant for the digital economy. Facebook, Airbnb, Uber are all well-known examples of the same (Sánchez, 2017).

Digital is not a product or a service – something that you can plug and play right into the existing organization. The way customers now select, buy and consume the different product and service offerings has changed rapidly. Digital Transformation is changing the ICT industry and all companies therefore must act with speed to stay ahead and relevant in the race (Thierry, 2016). Digital Transformation, at Ericsson is defined as ‘radically improving the way they do business with their customers as well as transformed ways of working internally by leveraging the power of the digital technology’ (Ericsson, 2018). It is about the use of technology to radically improve the reach and performance of companies.
Although the traditional large ICT firms such as Ericsson, Tele2, Telia Company and similar are truly different from the new digital entrants and start-ups, these companies have embarked on their Digital Transformation journey and see the need to speed up their transformation since (Westerman et al., 2011; Andersson, Movin and Teigland, 2018):

- These incumbents face common pressures from their customers, competitors, employees
- Need to increase their speed to remain competitive and to drive innovation
- Increase their agility to capture rapidly changing market opportunities
- Which in turn, present a new way to gain value from the large investments already made, even if the transformation implies new ways of working.
- Helps them redefine how functions work and interact, evolving their internal boundaries
- Helps these different organizations collaborate and share even more

To be a more credible Digital Transformation partner to their customers, many companies over the past years have embarked on their Digital Transformation journey but have been lacking in either speed of execution, alignment or prioritization. Transformation involves change and according to (Parviainen et al., 2017) the different facets of change management must be analysed and considered.

2.2 Organizational Change

This section begins with a high-level interpretation and debate of what organizational change implies in context of the Digital transformation.

Companies all over the world are transforming at different paces and with different results. Researchers agree that the change process by itself is complex (Jørgensen, 2008) (McConnell, 2018) and detailed analysis of study results from companies achieving change project success state that project success does not hinge primarily on technology, instead successful transformational projects depend largely on people (Dickerson, 2004). The current transformation landscape has placed more pressure on companies and their organizations – to change their technology, their systems, their traditional ways of working, their approaches to solutions has led to faster changes, which involves more than the formal organizational structure as it engages with many stakeholders (Andersson, Movin and Teigland, 2018). To survive and stay competitive, companies need to change and adapt their organization to become nimbler according to the rapidly changing external environment (EY, 2017). They need to invest in building and setting up an organization or workforce, equipped with capabilities to fulfil the needs of a digital company. Change and transformation are vital in building an organization that could ultimately prosper and thrive in the current digital age, where digital can be both an opportunity as well as a threat (Solis, 2017).
Although the importance of readiness for change (Cummings and Worley, 2009) (Choi and Ruona, 2011) and managing organizational change have been intensely debated and extensively recognized in the past decades, most of the research examines the change management processes within business organizations with little research on organizational barriers that slow down the progress effecting successful digitization. As businesses become more digital, it is imperative for underlying organizations to be radically redesigned as well. However, most companies are failing at this and changes like these are reduced as an exercise to simply cut costs (Catlin et al., 2017; Sánchez, 2017).

From previous research by (Quinn, 2017) digital technologies have the potential to transform the way people in existing organizations work (Kane et al., 2015) and Digital Transformation lies at the intersection of the emotional and rational worlds (seen in the figure below). Companies through digital advances and by improving on their traditional technologies – look forward to creating new ways of working, improved processes, creating new value propositions, thereby improving their customer relationships and creating customer value.

It has been seen that one of the main reasons for the consistently high failure rate is due to organizational barriers (Bovey and Hede, 2001; Smith, 2005)(Keller and Aiken, 2008). This topic is important to address as many organizations tend to focus majorly on the technical element of change and management usually has the tendency to neglect the equally important human element. So, why have organizational barriers topped the list of digitalization challenges? Digging deeper this involves majorly management behaviour and employee attitudes (Keller and Aiken, 2008). Barriers to transformation are synonymously associated with challenges, obstacles and resistance that hinder path to successful transformational change. To adapt to the changing environment and remain competitive, organizations need to be more receptive and proactive to change or else they go under. Therefore, any
attempt at introducing change, involves important challenges for leaders at all levels as well as for the organization (McConnell, 2018). Resistance is a normal response to change as change usually involves moving from the known to the unknown (Coghlan, 1993). Successfully managing organizational resistance and by addressing the human capital perspective to change is arguably of greater importance than managing other aspects of the Digital Transformation challenge and is crucial to the successful implementation of change.

To successfully lead any company through major transformation, it is crucial for its management to balance both the technology shift as well as the organizational and human capital within. The organizational barriers to Digital Transformation is seen as one of the biggest challenges that the big companies face in their transformation journey, it is of great relevance to study these barriers in detail. Such a study will help exemplify good triggers of organizational barriers for companies to take actions, help them simplify organizations and structures, defeat complexity, accelerate transformation and their growth. Therefore, this study aims to assess and establish the important organizational constraints and challenges that are hindering the Digital Transformation of traditional industrial companies in Sweden.

Research has highlighted that companies that have executed on their strategy and adopted digital are witnessing an increase in their shareholder and stakeholder values (Westerman et al., 2012; Westerman, Bonnet and McAfee, 2015a; Weill and Woerner, 2018). In other words, the better the company gets at managing the organizational barriers to change, the more successful it will become in its digital transformation endeavour.

Despite the importance of organizational change in context of Digital Transformation, such a change factor has been under-researched, and the failure of many big corporate transformation programs is often directly attributed to the employee resistance. While many studies have focussed on the technology aspect of the Digital Transformation, the literature has considerable limitations from the perspective of the challenges faces by organizations while undergoing their Digital Transformation journey.

2.3 Transformation Process and its Phases

This study will begin with a presentation of the Change process to provide the reader with an overview. In order to answer my research questions about the organizational barriers that most companies today face while going through their Digital Transformation journey and which phase was considered more challenging, this study will begin with an overview of the change process, studying the different phases, followed by identifying and defining the barriers within each phase.

The past decades have seen a boom in change management studies, which helped generate many models and theories, benefitting both companies and researchers by providing useful insights (Westerman et al., 2012; Grashow, Linsky and Heifetz, 2013; Westerman, Bonnet and McAfee, 2015a;
Lee and Edmondson, 2017; Solis, 2017). There is a breadth and depth of literature available on different models, theories and approaches of change management, consisting of comparable as well as generic views (Burnes and Bernard, 1996). These theories and concepts tend to focus on change importantly but also discuss other related areas such as leadership, organizational culture, decision making approaches.

According to (Saunders, Lewis and Thornhill, 2009), organizational change is a transformational process where a company moves from the known to the unknown. Change can be categorized as planned, which is a consequence of deliberate actions taken as a by-product of conscious reasoning and decision making or it could be carried out in an unplanned and spontaneous manner, which is termed as emergent change. For this study, change management is seen as a process of introducing changes in a structured way.

Child (Child and Smith, 1987) developed a clear framework which distinguishes between the different types of change and between the scope of the planned and emergent change, which is illustrated in the figure below. Change is classified and categorized as two dominant types, being emergent or planned approaches (Burnes, 2004)(Cummings and Worley, 2009).

<table>
<thead>
<tr>
<th>Approaches to organisational change</th>
<th>Planned</th>
<th>Emergent</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR</td>
<td>Organic development (eg start-up company)</td>
<td>whole org.</td>
</tr>
<tr>
<td>Radical Merger of departments</td>
<td>Changes to selection of new members made by teams</td>
<td>part org.</td>
</tr>
<tr>
<td>Annual targeted improvements</td>
<td>Organisational learning</td>
<td>whole org.</td>
</tr>
<tr>
<td>Incremental Changes agreed in staff performance plans</td>
<td>Continuous improvement through project teams</td>
<td>part org.</td>
</tr>
</tbody>
</table>

Figure 2: Approaches to organizational change – Source: Child (2005)

Within organizational change, (Anderson and Anderson, 2010) and Akerman (1997) helped make a comparison between different types of change in organizations such as Development Change, Transition Change and Transformational Change. Development change can be classified as either planned, emergent or incremental (Cummings and Worley, 2009); a type of change that will help address or enhance gaps in existing procedures. Transitional change on the other hand can be defined as one that is discontinuous, change that occurs infrequently, does into fit into the company’s existing or new
strategy and usually involves replacing an existing strategy. Transformation change is major and very different from the other two changes. It is significant and causes the organization to change their strategy, ways of working and its culture.

One of the most earliest and influential models (Cummings and Worley, 2009) to have received widespread attention is (Lewin, 1947, 1951) model – popularly known as Lewin’s Freeze Phases or Lewin’s Three Phase model and has been used as the underlying basis of many change management models, theories and company strategies for managing change (Burnes and Bernard, 1996). Lewin’s theory of organizational change, introduced in mid-20th century is much cited by organizations as well as by academics and researchers worldwide and is frequently used even today. This model is one of the widely used change management models and most companies tend to prefer this model to build their strategies when enacting any major change. This might be because this model perceives change as a sequential linear process although the whole change process is highly complex. This model also helps in assessing the forces that resist and those that take the transformation forward.

Figure 3: Lewin’s three stages change management model - Source: (Lewin, 1951)

Lewin recognized the three stages of change (depicted in the figure above) as:

**Unfreeze:** This is the most important stage since most people resist change, this is a period of thawing or unfreezing and must be initiated through adequate preparation and motivation.

**Change/ Transition:** This is the next stage where once in the transition period after the change was initiated, there will be reaction to the change which must be dealt with adequate reassurance since members within the organization are now embracing new ways of working and leadership, support and communication is necessary for this part of the process to be successful.

**Refreeze:** This is the final step which suggests stability once change is successfully implemented and accepted; change has become the new norm; the staff is refrozen, and the company operates under new guidelines.
Lewin’s work has been highly appraised as it also introduces the force field analysis at – assessing the driving and resisting forces in every stage and change situation. Lewin points that there are always two opposing sets of forces within every stage; the driving forces promoting change and the resisting forces hindering change. If change is to be successfully implemented, the principle behind these driving forces is that at any given situation the driving forces must far outweigh the resisting forces. Some of the positive elements of Lewin’s model suggest that tackling change is a multi-staged approach, which starts with studying and communicating the gap between the current and the end state; through adequate preparation - agreeing on a timeline and a plan to achieve the end results with the stakeholders, by minimizing the resisting forces and by maximizing the driving forces. Lewin’s model also attempts at reinforcing the importance of ensuring that change once successfully implemented, is accepted and maintained. This is a critical aspect for organizations today undergoing transformation that leaders and managers ensure that change is accepted and sustained, and members of the organization do not revert to the pre-change ways of working.

All these elements put together add a dimension of simplicity and make this change model practically relevant to this study. This model will build the foundation of the conceptual framework for this study. By embracing Lewin’s framework in this study, it will facilitate identification of the critical organizational barriers to transformation at every stage of the change process. For practical understanding of Lewin’s change process, the three phases can be interpreted and better understood as one which begins with the Initiation phase followed by Transition Phase and ends with the Governance Phase as depicted in the figure below.

Figure 4: Change Process Phases – Practical steps (based on Lewin’s model) as perceived in this study

However, in today’s complex and volatile environments, a lot has changed since Lewin’s model was first introduced and some critics question the validity of such a basic approach to deal with a complex issue such as change management when changes are occurring continuously and more frequently. This simply allows no time at all for the third phase - Refreeze of Lewin’s model to be accepted and maintained. According to them the rigidity of the Refreeze is not compatible with today’s chaotic processes and this model lacks flexibility to manage change effectively. Even though Lewin has written about the resisting forces in his work, less focus was put on identifying these forces and more on change process itself. Nevertheless, Lewin’s three-phase model essentially presents a simple and clear understanding of the change process.
The three stages of change have had a positive influence on many other change management frameworks and models and many scholars have adapted and further developed this model by managing the transition period. Following on from Lewin’s framework of unfreezing, transition and refreezing as key steps of the change process, several other change models were developed such as Kotter’s 8-step model, General Electric’s 7-Step Change Model. For instance, a planned change effort was effectively broken down into the following eight steps, related to Lewin’s model where the same idea is implicitly conveyed but the terms used are different.

![Figure 5: Planned change effort, Source: (French, Kast and Rosenzweig, 1985)](image)

Lewin’s 3 phase model has since its emergence been adapted and extended by many experts and scholars. Harvard university professor, John Kotter further enhanced and updated the model and created an 8-step model to effectively implement change, which is based on his practise with several organization going through change. Kotter observed that most change programs fail because of their inability to create a sense of urgency and therefore his first step aims to stress the need to establish a sense of urgency. Change is more likely to happen if it is led by a team dedicated to make the change happen. This is followed by the absence of a vision for change, followed by failure to communicate that vision. Implementation of changes require action from people and thus Kotter in this step emphasizes the importance of empowering employees with abilities to change. Since change and transformation programs take a long time to be accomplished, there is a need to create and achieve short-term achievable goals, consolidate on the improvements and continue the path to change and lastly ensure that these changes are embedded into the organization’s culture.

- Establish and Increase the urgency for change.
- Build a team dedicated to change.
- Create the vision for change.
- Communicate the vision.
- Empower staff with the ability to change.
• Create short term goals.
• Stay persistent and build on the change
• Make the change permanent

![Kotter's 8 Step Change Model](image)

*Figure 6: Kotter's 8 Step Change Model – Source: (Kotter, 1995)*

The above listed 8 steps can be classified into the unfreeze, transition and refreeze phases as depicted in the figure below:

![Comparison of Lewin and Kotter's Models](image)

*Figure 7: Kotter's 8 Step Change Model adapted from Lewin's Three Phases*

Since Lewin's three phase model emerged, there has been a surge in interest in change management models, many other experts have further extended, adapted and built on its practical implications – thus many subsequent models and theories emerged.
General Electric’s 7-Step Change Model (Von Der Linn, 2009) focusses initially on leadership where the change leader who is accountable for the whole process acts as a role model for the team. This is followed by communication ensuring that everyone understands the need for change. The rest of the steps are illustrated in the figure below:

![GE 7 Step Change Model](image)

*Figure 8: GE 7 Step Change Model – Source: (Von Der Linn, 2009)*

There are other change management theories (Burnes, 2005) which reflect the nature of change within the organization such as Jick’s (1991)10-Step Change Model (Dool, 2010), (Bullock and Batten, 1985) change model, Kanter, with Stein and Jick (Kanter, 1992) ‘The Ten Commandments for Executing Change’, (Dunphy and Stace, 1993) change model, (Nadler and Tushman, 1989) change model, (Cadle et al., 2004) Four Phases of Change, etc.

No ‘one size fits all’ models are feasible, and it is up to the organizations that lead the transformation to make the correct choices about which principles and models they need to follow. Before embarking on their journey, organizations must first reflect on the nature of change based on the type and nature of the problem they wish to address and in the context of how the change will occur and how the change will impact the organizational development to evaluate and investigate the change process and need to tailor their change management model accordingly. This depends on how companies intend to prepare the ground for the transformation, how they intend to set the foundation by engaging with their employees and stakeholders, address concerns, undergo the transition and development through motivation and support as well as how they want to reinforce the change through continuous training and development (Burnes and Bernard, 1996). The selected transformation path usually depends on firstly, the environment in which the industry operates; the strategic choice the company’s management wants to take and ultimately depends on the company’s existing circumstances (Weill and Woerner, 2018).
The extant literature contains several change management theories, assumptions and models which are used to lead the different change and transformation programs in different organizations and based on which the organizational challenges to change can be identified. However, it would be beyond the scope of this study to review each one of these theories.

2.4 Barriers to Transformation

2.4.1 Resistance

Despite many theories and models researched over decades and being made available on the planned change approach, handling change effectively has become a key competence need for most organizations. All organizations exist in different states at different times and according to (Cummings and Worley, 2009), companies which undertake a planned transformation approach move from one state to another.

Resistance is a challenge that organizations must face while undergoing transformations (Solis, 2017). Resistance to change is expected and is a natural reaction and each person reacts differently to it. In fact, a lack of resistance in an organization can indicate – that employees don’t trust that the changes will happen, or the transformation impacts them. Companies must identify and address these as early as possible rather than ignore resistance (Westerman et al., 2011). Individuals resist change and even though there is extensive research available on resistance, a good understanding of how resistance manifests and affects the individual mindsets while a company transforms is worth understanding. There are many ways in which resistance expresses itself in the organization. Change, whether positive or negative, disturbs people as people want stability (Keyes, 2000). Individuals resist change, as this involves changes in work practices, roles, responsibilities and their behaviours. Research conducted by (Bovey and Hede, 2001) in organizations that were implementing major transformations found Resistance from employees as the most mentioned obstacle. The authors further argue that it is equally important for management to focus on the human elements as much as they do on the technical elements.

The challenges and difficulties of implementing Digital Transformation is often done in line with employee’s resistance towards it (Solis, 2017). According to Kotter (1995), resistance is an obstacle in an organization’s structure that prevents change. Lewin’s work clearly outlines the concept that when any change is introduced, there will be forces of resistance opposing change and forces that drive change forward, and this resistance must be managed. Expanding on Lewin’s findings, (Kotter and Schlesinger, 2008) in their study identified a few sources of resistance to change. These could be related to habit, fear of the unknown, fear for negative economic impact, seeing only adverse outcomes associated with transforming and an overall low tolerance for change. Resistance to change broadly put could stem from a fear of losing something of value or importance (Grashow, Linsky and Heifetz, 2013). It is important to take all of these into account while devising effective change strategies.
Vast amounts of literature about employee negative attitudes towards implementation of a transformation program can be found. Resistance can be classified as being systemic (cognitive) or behavioural (emotional) where systemic implies lack of information, skills, knowledge or managerial capabilities needed and behavioural implies assumptions, perceptions and reactions. However, resistance is not only seen at employee level – the same is true for leaders who fear uncertainty and changing status quo (Kanter, 1989; Burdett, 1999). Study by (Bareil, 2004, 2013) includes senior management failure in committing and supporting change as the biggest inhibitor. According to a study by (Giangreco and Peccei, 2005), resistance is a form of dissent and if resistance is frequently expressed in implicit and passive ways, this could hamper the pace of progress of transformational programs.

Additionally, (Coch and French, 1948) provided a robust and rounded view of resistance to change. Resistance to change is not uniform amongst all employees and the way the change is managed effects the levels of resistance. According to them organizations must take change readiness seriously by first understanding the degree to which the change might interfere with existing employee norm, expectations and values and understand the psychological impact the change will have, which helps companies to tailor how they manage and prepare for upcoming change (Burnes, 2015). Some studies have also indicated that organizations must pay more attention to the change processes which shape employee perceptions of fairness and justice and in fostering positive relationships between supervisor and employees as these could in turn elicit either supportive or counter-productive reactions to change from the employees (Georgalis et al., 2015).

In summary, resistance is understood to be a negative reaction hindering successful transformation. It is believed that organizations that are successfully undergoing their change journeys have been able to strategically manage resistance from their employees. This can be done by identifying these barriers that lead to resistance. All barriers identified in the different stages have been highlighted in bold in the text below and finally summarized in the Appendix (Appendix 3).

2.4.2. Barriers in Initiation Phase

This phase is a precursor to the transformation process and it typically should include vision setting, communicating the vision effectively for better employee cooperation, planning and preparing. The success of any major transformation program implemented by any organization is reliant to a large extent on the initiation phase or the readiness level of the organization which includes the anticipation, awareness and readiness for the change.

Transformation projects need to make sense from the beginning. Many studies cite that employee readiness is influenced by the change message communicated (Allen et al., 2007). The communications conducted in this unfreezing state as per Lewin’s model is considered critical for this phase. (Armenakis, Harris and Mossholder, 1993) indicated that for change to happen, clear communication which stresses key message for change is a prerequisite. Key to successful change stems from communicating the vision for change and the reasoning behind it. The change process must be clarified before enactment of the
change. Venkatraman (Venkatraman, 2017) states the need for **purpose-driven mission and vision articulations** which clearly outlines the rationale behind the transformation in the future market as companies today cannot continue to rest on their legacy competitive positions. Purpose and Vision for transformation can be powerful and should be high on every management board’s agenda since purpose and performance are clearly linked (BCG, 2017). The change message should be well articulated since it energizes and guides organizations and teams especially in these times of overlapping transformations. Therefore, if the change message is not clear or well communicated, then the employees don’t feel as committed.

Valentine in her study (Valentine, 2016) stresses on the need to have a strong management board and leaders who can provide the needed **digital leadership** and governance oversight during this phase and help improve the bottom line results. It is important that leaders have good understanding and are aware of the disruption that the transformation is creating. It is important for the leaders on the top to be able to evaluate and contextualize the transformation against the company’s past and the present and **be able to diagnose the underlying culture** of the company. (Bruch, Gerber and Maier, 2005; Armenakis and Lang, 2014) in their studies believe that **failing to realize the underlying values, beliefs and assumptions** could lead to negative consequences for all stakeholders (O’Donnell and Boyle, 2008). By carrying a change which is in alignment with the existing organizational culture, individual uncertainties and anxieties can be reduced which helps with the transformation (Hill, 1988). A latest research by IDG (Edward Qualtrough, 2017) revealed that the traditional CIO roles needed changing, with **new digital leaders** (McConnell, 2018) **driving transformation** who do not fear taking risk or making mistakes and putting more focus on the cultural and people side of things (Program, 2017). Leaders should be able to mobilize the resources needed and be able to rapidly scale up the different transformation efforts; empowering employees in this journey while keeping oversight (Westerman et al., 2012). Digital leaders according to (Venkatraman, 2017) should be able to understand the digital business trends, translate this into resource allocations and work with others in the organization to implement it. Through their capability and through empowerment, the leader helps build the organization, team and the necessary ecosystem to implement the change. Also, the digital leaders should fully understand how, when and where to pivot in their transformation journeys. The **lack of new digital leaders, mind-sets and adaptive leadership style** can have huge consequences on the change and transformation process (Kane, Palmer and Phillips, Nguyen, 2016). According to Ronald Heifetz, these adaptive leaders while clearly differentiating authority from leadership, need to be able to understand the cultural forces and norms within, discover its implication and based on that construct supportive structures (Heifetz and Grashow, 2014).

Referring to Kotter’s guiding coalition – where he states that leaders play a key role in sustaining the commitment towards the change process, management and change **leaders should do what they support and feel committed to** as this will show creditability to the rest of the organization. Leaders must **‘walk the talk’** (McConnell, 2018), they must lead by example (Kane et al., 2015) and live the purpose (Canning, Kelly and Llp, 2013); the choices made by them at every level sends powerful signals to the rest of the organization and their role model behaviour is critical for the staff. (Jacobs, van Witteloostuijn and Christe-Zeyse, 2013) who studied leadership within organizational change initiatives, stated that leaders who suffer from **effective communication skills** and are unable to communicate the importance of the change
process fail to engage their employees and suffer from ineffective leadership. **Poor quality of information** can increase the employee resistance and therefore internal communication can be seen as an effective communication channel to address the same (Burdett, 1999)(Meredith Whalen, 2017). Leaders should be able to communicate and engage the different functional silos within the company and mobilize the frontline staff. **Leadership capability to communicate, effectively lead and govern in the digital world** while keeping oversight of all phases of the transformation from inception to governance is key. Jim Highsmith in his paper clearly identifies such executives (Highsmith, 2012); who not only have a passion for quality and believe in improving value but also believe in engaging, empowering and inspiring their staff. **Lack of sponsorship and support from top management** is discussed in several papers (Higgs and Rowland, 2005).

A study conducted by MIT and Capgemini Consulting (Fitzgerald et al., 2013) (Westerman et al., 2011) cited **lack of top level impetus** that prevents companies from implementing business changes. This is especially true if the company in question is already experiencing a slow-down, then the risks outweigh the potential benefits of the transformation project. It is therefore important for any company, before considering any major transformation program, that they first evaluate and determine their capacity and their readiness for change. There is a plethora of theories by Kotter (1995); Jick’s (1991), Kanter (1989) as mentioned earlier on best ways to manage this change which can aid in designing the right change as per the company’s situation.

Referring to Kotter’s discussion about forming a powerful guiding coalition, where he emphasizes a high risk for change in the organization not being taken seriously if not led by proactive change agents. These are the key people who can promote, drive and implement change through all the stages of the process. These **key people and change agents** (Solis, 2017) who provide the needed inspiration, energy and support need to be identified early on. (Armenakis, Mossholder and Harris, 1993) further states that the change agents can influence employee readiness and therefore it **is critical to understand people’s mindsets, behaviours and attitudes** during this initial step of the process. (Choi and Ruona, 2011) share a common understanding of individual readiness for change which highlights an individual’s assessment about the need for change, the benefits they might gain and assessment of their capacity to make this change.

(Grossman, 2015) (Choi and Ruona, 2011) emphasized the need to foster a learning culture as employees who perceive their company to have **a strong learning culture** (Senge, 1990; Boyd, 2017), have higher readiness for the transformation and change process. In his study (Weber and Weber, 2013) pointed out that an environment where employees have been involved not only in implementing the changes but also planning them can help increase employee commitment and reduce the resistance to change. He also pointed out that employees who received rewards, encouragement and supervisory support showed more support for management and their readiness towards the change effort increases.
2.4.3 Barriers in Transition Phase

According to the study by (Parviainen et al., 2017), digitalization should be considered as a systematic approach, where after the company has defined its position, goals and vision as explained in the Initiation phase, all other facets of managerial disputes, project group, organizational ambidexterity and change management should be considered.

The literature also points to the key role middle management plays in the transformation project. In this transition or implementation phase, the key people or the change leaders as mentioned earlier are to drive the transformation process. In the literature it was also found that many times the significance of change management is not understood correctly, and organizations expect the middle managers to lead the change. A study by (Buchanan, Claydon and Doyle, 1996) claimed that employees’ attitudes could be negatively affected if the middle management did not have the right expertise to handle this change. Studies suggest that change agents must possess the necessary competencies to perform effectively. Some authors argue that directive change strategies are rejected by employees who are in favour of more inclusiveness, openness and widespread communications. It is important that the change agents in this phase can listen, learn and understand from the rest of the employees and be their supporter (Solis, 2017). As the key people drive the change and are promoters of this change, it is of great importance that they can motivate the employees and address their concerns. Many change leadership competencies were identified by (Higgs and Rowland, 2005), which aimed at coaching and development of the team.

According to (Parviainen et al., 2017), in order to define the position and vision of the company, the digitalization impacts for the company must be analysed. This can be done by understanding current and upcoming trends of digitalization and their relevance to the current business organization and by understanding the organizational ambidexterity. Over the years, many scholars have stressed the importance of organizing less hierarchically; by decentralizing management and creating more self-managing organizations (Lee and Edmondson, 2017). (Roghé et al., 2016) believe this can reduce the gaps, encourage the employees and make the organization nimbler, leading to faster execution.

Inadequate organizational structures (De Smet and Gagnon, 2018) and project structures pose challenges to the transformation since they incorporate hierarchical rigidities and silo structures, leading to rigid communication and procedures between the different organizations. Also in the transition phase, it is important for leaders and change managers to ensure that organizations business and IT strategies are aligned and try to eliminate the big gaps between managers and employees (Manca et al., 2018). (Roghé et al., 2016) (Deloitte, 2017) clearly highlights the need for improving current organizational design. In response to a survey by BCG research carried out with approximately 1,100 employees and executives from different industries, it was concluded that by layering organizations and functions, closer connections are established between leaders driving change and the frontline staff, helping them to react quickly to the change and create collaborative environment. Another important barrier could be due to the teams driving change, sometime these are too small and not cross-functional (Lambert and Rosen, 2018). Employees try to reject agile methodologies since they
want to avoid being pushed out of their comfort zones (Wolpers, 2017). Such agile failures at team or organizational levels could create a barrier. As stated by professor Venkatraman in his book, all need to collaborate more to generate growth and create new capabilities. This would enable agile ways of working, empower and engage teams and employees and help them respond quickly to the changes.

Another important barrier that has been discussed in the literature is around the role of the Human Resources in orchestrating this shift and transformation (Barratt-Pugh, Bahn and Gakere, 2013). HR needs to adopt a more supportive role, helping develop employees as well as managers in building out diverse and disparate local teams for accelerating the change. HR can help build leadership capabilities and help transform managers into more successful change leaders (Solis, 2017).

2.4.4 Barriers in Governance Phase

In this stage managers need to establish clear goals early in the process, actively look for ways to achieve the objectives, keep the motivation levels high by rewarding the people with promotions and recognitions. Thus, the role of leaders significantly impacts the success of change.

Empowering leadership styles lead to more successful change programs as per study by (Higgs et al., 2007)(Higgs and Rowland, 2005). It is the effectively the leader’s mindset and beliefs which will ensure and facilitate the governance of the transformation and help the organization to reach the desired state by making the change stick. In the study by (Parry et al., 2014) suggests that sometimes during this phase of change due to strict deadlines, too much is requested of employees too fast, adding to resistance and causing stress within the organization. Kotter in his study mentioned that big transformations programs take time and leaders and top management responsible for driving change need to regularly focus on short-term victories and wins to keep the momentum. It is during this time commitment, support is seen as critical factors from change leaders. Short-term wins which instil a sense of urgency and help portray that the organization is moving forward, without which too many people easily give up during the journey of the transformation. Another important discovery that Kotter made from his study with various organizations was the common mistake that management usually makes after seeing the initial signs of success is to prematurely declare victory. This effectively kills the ongoing momentum, the resistors in this step of the process quickly take over, bringing the ongoing transformation to a halt.

Another two most researched barriers at this stage were found to be the corporate culture and poor management successions. It is therefore of great importance that the transformation program is aligned with the company’s culture. If there happens to be management change on the higher level, Kotter (1995) in his studies has stated that a bad succession decision where the new management does not see the transformation as in integral part of the organizations growing effort, can undermine years of hard work.
Finally, conscious efforts must be made by managers to show people how the new ways, approaches and methods can help improve the performance. (Goler et al., 2018) highlights the need to constantly **motivate and reward employees** through intrinsic or extrinsic motivators which drives a sense of belongingness and connection and promotes **learning and development** (Senge, 1990). Importance and lack of digital skills and expertise, which stretches across the organization from the employees to the C-suite was cited as a major barrier in a recent study by EY during the governance phase (EY, 2017). Dan Pink in his book *Drive: The Surprising Truth about What Motivates Us* cites research which indicates that extrinsic rewards do not work well in today’s uncertain environments and organizations should instead **focus on intrinsic motivation** during times of change (Kinley and Ben-Hur, 2017). Not having a **good performance or reward system** (Cummings and Worley, 2009) built into the organization can lead to and produce a great number of negative consequences (CEB, 2016).

Even though a one size of reward system does not fit all organizations, researchers have highlighted the need to align the rewards and incentives to the organizations strategic priorities (Kinley and Ben-Hur, 2017). Along with the digitalization of companies, the role of HR is fast changing (Deloitte, 2017) from one that is administrative to that of being a mentor by providing constant support and motivation to both the employees as well as the middle managers as well as play the important role of helping to involve the right talent (Ustundag and Cevikcan, 2018) and building more leadership skills within the staff; providing capabilities to drive successful change initiatives (Bruch, Gerber and Maier, 2005).
2.5 Conceptual Framework

The extant literature about the challenges and barriers related to organizational change that seem to effect companies during different phases of their transformation journey is summarized and visualized through the conceptual framework below; which helps to better understand and facilitates the research of the different barriers practically. The different kinds of barriers that seem to cause resistance as stated by Lewis are listed at the different stages of the change and transformation journey and if companies fail to address these challenges, it might lead to delayed or failed transformations.

Figure 9: Conceptual framework (based on Lewin’s model) and barriers identified through literature
3. Research Methodology

The research methodology as explained by (Collins and Hussey, 2013) in their book; defines the overall approach to the research, beginning with the theoretical framework, moving to the data collection and its analysis.

The objective of this study was to identify the barriers to Digital Transformation and to identify the more challenging stage of the transformation. Most companies while introducing change, base it on some prominent change model. This study is based on Lewin’s three phase model and by understanding the perspectives to transformation through the different stages, a conceptual framework was designed, and the organizational barriers were identified and highlighted in these phases. A systematic literature review was conducted to better understand the phenomenon of the Digital Transformation in context of large ICT incumbents and to clarify the definitions and dimensions of Digital Transformation and Organizational change in this context.

Based on the research question and the nature of the problem, an interpretivist paradigm has been selected for this study. The two most frequently used research paradigms dominating social sciences are positivism and interpretivism (Collins and Hussey, 2013). While on one hand the interpretivist seeks to gain knowledge based on the participant’s or actor’s own perspective while trying to understand the underlying social phenomena; on the other hand, a positivist aims to gain knowledge by identifying facts and causes behind the social phenomena and does not account for the subjective view of the participant or actor. Positivism enables the researcher to be objective, disregarding the subjective state of the individual where the researcher is detached from the study. Interpretivism enables the researcher to be subjective and considers individual’s and their perceptions, interpretation and understanding of the phenomena.

Since challenges and barriers to the Digital Transformation on companies were little explored in the literature, the study began by exploring interesting papers and journals linked to organizational barriers to change and the use of change management process while undergoing digitalization. Based on the outcome and to complement the knowledge, the study was followed by an exploratory, qualitative research. The exploratory interviews will help seek new insights by asking new questions and by assessing the results in a new light. This will help in complementing the theory and to better understand the barriers of Digital Transformation that companies today are facing.

This study is considered as a knowledge seeking investigation where the identified gaps are expanded to create new knowledge and bridge the gap in the present research areas on the digitalization process. Based on the research objectives, and after understanding the nature of the problem and reviewing the literature, this research has been structured and developed. This is done by re-visiting the research question and research objectives as stated in Chapter 1. This study aims to examine the organizational barriers to the Digital Transformation within ICT industries in Sweden and investigating which is the most challenging stage of the transformation. To address the extent and reasons behind why the Digital
Transformation initiatives have considerably slower progress in ICT industries in Sweden and to achieve the above listed objectives, the following research questions have been formulated:

*What are the organizational Barriers to Digital Transformation within ICT industries in Sweden?*

- Which are these barriers?
- Which phase of the transformation is the most challenging?

### 3.1 Research Approach

In most of the previous research based on organizational change, most of the studies have used semi-structured interviews (Higgs and Rowland, 2005; Allen et al., 2007; Price and Whiteley, 2014). Since the aim of this study is to provide a holistic understanding of the challenges and the barriers that are faced by the ICT companies while undergoing transformation, interviews conducted with executives in an environment where they could openly share their thoughts was found to be preferable. The semi-structured interviews planned to be conducted in this study will be more like a discussion where the interviewees can openly express the barriers that they have experienced, while their organizations are preparing or undertaking their Digital Transformation journey.

From the literature review, the important phases and several barriers experienced during the different phases have already been identified in advance. This data will in turn help in formulating the questions and can help make the whole interview process more systematic. The questions were phrased in a way that will help minimize the risk of the interviewees being lead in a certain direction. (Allen et al., 2007) and many other researchers have used this approach and this exploratory study was conducted similarly.

The interviewees were asked about their interpretation of the different transformation phases and approaches observed in their organizations using the questionnaire (found in Appendix 1). The barrier-phase map that was previously identified and mapped through the literature review was also used for the interview process. Once the semi-structured interviews were finalized, the interviewees were also asked to map the major barriers that they thought were critical against the barrier-phase mapping.

Finally, due to the limited timeframe interviews were carried out with respondents from five or six companies within Sweden only. With more time available for conducting the research, the possibility for collecting and analysing an expanded set of data would increase; providing broader, deeper and more valuable insights into the change initiatives and efforts arising due to the organization’s digitalization efforts.

### 3.2 Collection of Data

To fulfil the research objectives and be able to answer the research questions about which phase of the Digital Transformation was the most challenging and to investigate the barriers to digitalization, Lewin’s three phase model was used as a foundational element in the data gathering stage. Barriers to
Transformation were identified through literature and then these barriers were categorized into one of the three phases of Lewin’s model.

The data for this research was collected through executives belonging to different organizations that are implementing transformation initiatives and therefore requiring organizational change to some capacity. The interviews commenced by discussing about resistance, then continued to discuss the challenges seen by the respondents in the initiation phase, the transition phase and eventually in the governance phase. The aim was to capture and interpret the different barriers that the respondents perceive as being critical during the transformation initiatives experienced in their respective firms and in the different phases and based on their experiences. The conceptual framework and model created earlier through the literature review was used for guidance and outline. Questions around why some respondents found certain barriers to be more common or more problematic in a particular phase were also clarified with the help of follow-up questions.

A plan illustrating how the barriers as well as the most challenging transformation phase will be investigated is depicted in the table below (table 2). Since the aim of my research is to investigate and study the organizational barriers to digitalization through semi-structured interviews, previously done research will be translated and used as investigative parameters. Through this process, the aim will be to identify and collect key information which will enable in answering the research questions. Additionally, the respondents were asked to cluster the most commonly mentioned barriers to transformation in the barrier-phase map. Questions for the interview will be based on the conceptual model and will help link the literature with the empirical findings. This will also increase the validity of the research.

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data collection means</th>
<th>Plan for Identifying key information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which phase of the transformation process is perceived to be most challenging?</td>
<td>Semi structured interviews and barriers collected in the barrier-phase map</td>
<td>Based on respondents view and the number of the barriers collected in the different phases</td>
</tr>
<tr>
<td>What are the barriers to transformation?</td>
<td>Semi structured interviews with questions based on the conceptual framework</td>
<td>Identification of barriers to change and most frequently mentioned barriers by majority of respondents</td>
</tr>
</tbody>
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*Table 1. Plan illustrating how this will be investigated empirically*
3.3 The Respondents

For this study, the larger ICT incumbents which have either embarked upon their Digital transformation journey’s or are in some stage of the transformation were considered. The Swedish companies that would fit the description would typically be in the Telecom and the IT sectors. Respondents from five companies were selected to be best fit for this research considering the varying stages that these firms are in their Digital transformation initiatives.

A few executives were chosen from Volvo, Ericsson, Telia Company, Tele2 and Philips was selected for conducting the semi-structured interviews. The respondents chosen for the interviews had good understanding of organizational change and they belonged to companies that are progressing ahead with their Digital Transformation journeys at varying paces, experiencing different levels of success. Some of these companies are doing only the basics while others are transforming overall. Therefore, at some point these companies have faced different challenges, preventing them from transforming successfully. When conducting research, Kotter (1995) in his study emphasized the importance of including experts who have a good understanding of the transformation and the change process. An expert can be seen as either driver of the transformation, change agent, program driver, an analyst or one from the ranks of management but with the capacity to empower other members of the organization. These respondents can also be categorized as *internal or external*. In this study, all the respondents considered were internal.

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Company</th>
<th>Area of Expertise</th>
<th>Current Title</th>
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<tbody>
<tr>
<td>Anna Björesson Sandberg</td>
<td>Volvo</td>
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Anders Kjellson  | Tele2  | Change Management, Business Transformation  | Head of Business Change Management  
---|---|---|---
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Anonymous  | Philips  | Business and IT Transformation  | -NA-  
Magnus Fredholm  | Philips  | Business Transformation, Sales, Technology Specialist  | Systems Manager; Business Development Manager

Table 2. Description of the selected respondents

For the purpose of this research, it was preferred to conduct the interviews face-to-face, respondents based out or near to Stockholm were considered (Saunders, Lewis and Thornhill, 2009). Due to time constraints, I was unable to fully transcribe the interviews and in agreement and acceptance of my supervisors, I tried to partially transcribe and quote some; providing reliability and reducing the risk of misinterpretation. Information and description of the selected executives can be found in the table (Table 2) above.

3.4 Data Analysis

The primary aim of this research will be to provide some indicators of the different challenges and barriers faced by organizations in their journey towards digitalization and how the same are perceived empirically. Since this study is based on ICT industries and includes the companies which are currently undertaking or in some stage of their transformation journey, the conclusion and results can be applicable to all companies falling within the same bracket.

To answer the research question concerning the organizational barriers to Digitalization and which phase and barriers were considered as more challenging in comparison, this study took an inductive approach where the different executives from the different organizations shared their experience with transformation. Such an exploratory approach will help in collecting and analysing how transformations of this scale affects all within the organization be it the employee or the change maker itself.

3.5 Ethics, Social issues and Sustainability

Digitalization, bought on by the latest digital technologies can eventually become a revolution for sustainable development as it can address several critical challenges facing company’s world-over and can
help transform people as well as economies which enable global prosperity as well as help foster environmental integrity.

Digitalization and sustainability are key strategic imperatives for any organization and their leadership. Digital Transformation is not only assisting in faster processing of information, optimization of raw materials and supply chains but also helps reduce the energy consumption, impacting reduction in costs, improvement in productivity not only impacting the different organization’s profitability goals, but also resulting in sustainability benefits.

From an ethical perspective, being an Ericsson employee, I have obligations not to leak any company sensitive information. To address this, I carefully chose a research question as well as objectives in concurrence with my Ericsson supervisor as well as my thesis supervisor. Both my research objectives and questions do not need any sensitive data to be collected and analysed to derive relevant findings. Therefore, without violating my position or any ethical obligations, the contributions from this study can be used to enrich and further broaden the scope and understanding of the different barriers and preparing the decision makers for the change.

One might argue that the researcher while being part of an organization; which during the interval of the study is undertaking transformation initiatives internally, might lead to a situation causing social and ethical conflicting interests in terms of the objectives and contribution with the different roles. On one side I have the role of a researcher at KTH while on the other hand I am employed at Ericsson which according to some might be socially unfair as it would be harder for another researcher to conduct an equivalent research without similar access to the company. To address this dilemma, I chose to conduct my interviews with executives not only from Ericsson but also from other large incumbent companies; which does not make it unethical or unfair as any other individual could conduct the same study and in the worst case with some additional time.

Finally, to eliminate biases, I chose to interview executives from different large incumbent companies; the majority of whom I did not know beforehand. This takes away most of the biases however since it is impossible to eliminate biases completely, I chose to do conduct few pilot interview sessions which helped me take a neutral stance during the final sessions with the respondents and in not impacting the outcome or the eventual results. This was described in detail earlier under sub-sections Data Gathering and Data Analysis.
4. Empirical Results

The aim of this chapter is to present the results of data collected from the interviews in combination with the conceptual framework and the different change process phases as described by Lewin. The interviews were divided into four main sections where the first section (1) provides demographic information (age, gender, experience, rank, qualification) and how the experts view Digital Transformation, section (2) gauges opinion on the Transformation process and its phases section (3) gauges opinion regarding the resistance to change section (4) collects the frequently mentioned organizational barriers to transformation in the various phases.

4.1 Transformation Process and its Phases

To answer the first research question about which phase of the Digital Transformation journey has the most number of barriers – is it the Initiation phase, the Execution phase or the Governance phase; this study combines the results from the interview with the additionally captured inputs via the process map. This will provide a holistic view of the transformation process.

4.2 Barrier-Phase Mapping to evaluate the challenging phase of the transformation

Interviews are a method of data collection widely used to collect data in qualitative research (Bryman, 2004). The purpose with the interview process is to collect reliable data which is relevant to the objectives and aims of my research. Before commencing with each interview process, the respondents were briefed about the objectives of the study and were informed that their responses would be treated with confidentiality and will be used for the purpose of this study alone.

The respondents had varying opinions about which phase of the transformation they thought was the most challenging. Hence, after the interviews were conducted, it was decided only to present the organizational barrier that a set of respondents found to be critical in a particular phase. These barriers are listed in the figure below and captured through the Barrier-Phase mapping. Only the barriers that many of the respondents agreed to being challenging in the same phase have been selected and illustrated in the barrier phase mapping below. It can be visualized from the map that the organizations seem to struggle with most of the barriers in the Initiation and the Transition phase. This could be attributed to the fact that most of the executives belong to companies where the majority of the transformation initiatives are either in their very early or in execution i.e. transition stages of the journey. Not so many projects have reached the governance stages yet. Another finding is that since the Governance phase takes the longest, not all employees are involved from the first to the last stages of the transformation cycle.
4.3 Barriers to Transformation

To answer the second research question as to what the critical barriers to Digital Transformation are and how the executives perceived these in their companies, more detailed questions based on section 3 and 4 (stated under Empirical results above) were investigated with the executives. The results below are based on the data collected through the interview process. A total of seventy-one organizational barriers to transformation could be identified (full list available in Appendix 3). These barriers that were mentioned by majority of the interviewees through the various stages of the transformation process were later classified and categorized based on the number of occurrences. Some of the critical areas that emerged from the interviews are under listed below. The collected data was then processed in line with the questions and research aim and objectives set in Chapter 1.

4.3.1 Resistance

In close association with change and transformation is resistance to change and how companies cope with these barriers to transformation. Most respondents stated that resistance was a natural consequence of introducing change; whether the change is big or small. Respondent 6 explained how transformation or introduction of change in his company often became synonymous with another cost-cutting effort from top management.
“Change is difficult for employees and not everyone wants to change; including top management and leaders talking about transformation.” (Anonymous respondent)

Resistance can become an inconvenience and it is therefore important for organizations to invest and prepare their employees for the transformation and the digital future.

4.3.2 Barriers identified during the Initiation-Transition-Governance Phases

Based on the barriers and their categorization, seven critical areas can be identified; Top management, Leaders, their leadership style, the Company vision and Goal of the transformation, the Project group, Organizational set-up and agility, the Change and Middle managers lacking expertise, lack of Rewards and Incentives, unclear Measurement systems and lack of HR involvement. It is of interest to understand why these challenges seem to be more problematic than the rest.

4.3.2.1 The Company Vision and Goal of the Transformation

One of the most mentioned barriers to transformation and change was an unclear change message. Ten out of eleven respondents mentioned that the leaders and executives do not have a clear and common understanding of why this change is needed, what this change aims at, the consequences of the same if the company does not move ahead with the intended transformation. Respondent 5 said that a powerful change message should contain the what, where and why and should capture the underlying values and culture. Respondent 8 stated that the goal besides being market-driven, the focus while articulating mission and vision statements must be on how the company solves problems for their people as well as their customers.

“Stronger emphasis should be put on long-term goals if we need to succeed and maximize our efforts...” (Respondent 8)

According to respondent 1, many leaders do a superficial job of coining the vision and goal, reducing these to catchy phrases. Companies therefore, need to invest in carefully articulating and communicating the message, which will help guide and anchor the staff through the challenging times. Seven out of eleven respondents stressed the need for top leaders to ingrain the purpose into their employees’ behaviours. Respondent 1 and 6 also expressed the need for leaders to embody the vision in their words and deeds. They both expressed it as “Leaders need to walk the talk... “

Respondent 4 further adds that in these times of always on transformations, it is imperative for leaders and management to ensure that the vision and purpose is stressed upon as it brings the much-needed energy, alignment and clarity, which is becoming more important, especially to the millennials who are looking for cause and a sense of belongingness besides a job that provides them autonomy.
Respondents 2, 5, 7 felt that besides articulating the goal and the vision, companies fail to go take this forward by not communicating it effectively. According to them, when employees embrace the purpose, they strive to make it happen and faster business and successful results follow.

### 4.3.2.2 Top Management, Leaders and their Leadership style

Respondent 6 and 4 stressed the importance of leaders demonstrating their belief in the vision and goal of transformation. An example respondent 4 highlighted was that if transformation calls for collaboration and alignment, that should begin right at the top. Through the interviews, it was revealed that leaders today face a bigger challenge than their peers’ years ago; and fewer understand how to deal with the always on transformation phases.

“To deal with the complexity and fast-growing competition, traditional leadership styles pose a bigger challenge and leaders need to institute new management styles, taking risks, embracing ambiguity and making faster decisions.” (Respondent 10)

According to respondent 3 and 7, it is not uncommon to see that leaders are providing silo-based information and most of the time there are conflicting department priorities and goals. Without a united management front, resistance can build up which can put the whole change process on hold. For transformation to successfully happen, both business and IT leaders from the various functions need to be aligned, engage more frequently with the teams and support teams to achieve the results. Also, as respondent 2 said that the transformation efforts are not limited to IT as every part of business is now digital, hence this is not an agenda only for the traditional CIO or the CTO. He felt that emergent companies have newer empowered CXO’s who are responsible for leading the changes in their organizations and this is clearly lacking in the larger incumbents.

Leaders need to “walk the talk” (Respondent 1 & 6) and need to make decisions based on the culture of their organization. Leaders sometimes don’t understand how difficult it is for the staff to transition and therefore they need to be constantly enabling and empowering the teams while focussing on speed and quality. Their role-model behaviour serves as an example for the rest of the organization. Though the top management and leaders have received much attention during the interviews, only respondent 2 felt and strongly believed that he saw the transformation to begin from bottom-up where employees drive the change rather than the leaders.

Several others thought that the leaders need to be able to energize and inspire the staff and effectively engage them in the transformation program. Respondent 3 and 7 also claimed that the traditional managers focus on the plans with traditional command and control and with minimal changes but in times of volatility, leaders now need to be able to clarify direction amongst ambiguity, should have foresight and be able to take more risks, which as a result calls for new leadership styles and mindsets.
4.3.2.3 Project group, Organizational set-up and Agility

Respondents 3 and 9 said that there was a clear need for more collaboration and organizations need to put more focus on the program and project groups driving the change than on the individuals resisting the change. Most often management fails to put together the right group of people and in assigning an informal leader to the groups. Failing to assign clear roles and responsibilities to individuals in the teams driving transformation could impact the progress of the transformation. The teams need to be more heterogenous involving people with diverse backgrounds which span both the business as well as the technology thinking.

“Our leaders need to pivot away from and redesign the traditional functional structures into a model that is structured more around becoming customer centric and product centric, like those that you see at most start-ups today, having teams that are empowered enough and with the needed capabilities and skills.” (Respondent 11)

Respondent 7 expressed the need to put together a well composed organizational or project group; which is diverse enough to have the necessary talent, skills, background and mindset to drive change and helps the teams to collaborate more within.

“We initially began our transformation with a fairly functionally aligned and traditional organizational structure. Then as soon as we started to face hiccups, our top management began to study the set-ups of the digitally born companies and realised that they need to plot our processes and structures similar to how they were doing it... “(Respondent 7)

According to Respondent 1, “Our company has introduced agile methodologies in some of our R&D units and by deploying these the company has gained significant benefits. However, these were limited as the agile methodologies and ways need to be scaled across the teams and different units, get full anchoring from the teams driving the different transformation initiatives.”

Summing up what most of the respondents mentioned was the fact that the project teams driving change must become more empowered, less homogenous, contain people with the right capabilities and should look beyond managing schedules, budgets and scopes.

4.3.2.4 Change and Middle Managers lacking expertise

In times of digital changes, sometimes middle managers are chosen to embody the role of the champion or the change leader; and besides possessing people management capabilities, they are needed to have strong governance oversight as well as digital capabilities and strong communication skills, failure of these might lead to increased lead times for the transition.
Not getting the middle management or supervisor’s support as well as their involvement was ranked as the top barrier by respondents 1, 6 and 7. According to them, it is these middle managers or change managers play the role of coaching, liaising, communicating as well as advocating the change throughout the transition. These are the drivers and leaders who must be provided with the best trainings so that they can actively identify and manage employee resistance, if it occurs. HR and top management needs to help foster a culture that champions change and leadership building amongst employees according to Respondent 8.

Most middle management do not have strong digital competencies nor change management skills and therefore some of the right level and quality of information fails to make it from the top to the staff below. Respondent 2 and 6 believe that such elected change or middle managers need to significantly update their skills so that they can make the right recommendations and decisions. Also, what was expressed by expert 8 was that these elected champions need to be able to critically understand, review and clearly communicate the change and vision message to the staff below, in their smaller teams and set-ups. Most of the change managers fail to engage with the staff on a regular basis, preventing them from listening in to the people’s challenges faced during the transition and providing them with the support and boost that they require.

4.3.2.5 Lack of Rewards and Incentives

According to respondent 1, 5, 6, 9 and 11, there is now a shift in people’s expectations and employees are not as focussed now on being rewarded than they are on finding joy and fulfilment in their work. Companies are now realizing the limits of influencing their employees through carrots and sticks. Respondent 2 believes that extrinsic motivators play a more important role than the intrinsic motivators. Respondent 5 said that his company still believe in the long-term reward system, providing their best performing staff with long term benefits and incentives which clearly most employees had no means to influence or change.

Respondents 3, 8 and 11 feels that companies are usually tying the motivation to long-term rewards, which most employees have no control nor focus over. Either this could be changed this by tying incentives and rewards to people who embody the company’s vision and goals or then organizations need to inspire employees through extrinsic motivators, helping them overcome the challenge of mediocrity, bringing a change in their mindset.

According to Respondent 1, leaders as well as top management must now put more focus on their front-line, engage and support them more than before and reward their best performers for work well done. By doing so, employees not only feel more satisfied, respected and cared for but also more committed to give their best to the program.
4.3.2.6 Unclear Measurement Systems

Respondent 8 and 10 stated that most companies do not have a clear governance strategy in place. Most think they don’t need one which is a huge mistake and sometimes companies fail to retain oversight of all phases of the transformation initiative due to constant changes in management. According to Respondent 7, companies become too solution-focused and forget why they are undergoing transformation. Having unclear interim goals, follow-ups and measurements makes it difficult to evaluate if the transformation initiatives have been successful.

“There are no clear governance and engagement plans that help steer the transformation program through the course” (Respondent 10)

It is imperative to have management KPIs which continuously report against project outcomes as well as identify all risks; analysis of which gives a clear picture of what is not working, so that timely adjustments can be made. Having no clear project outcome or KPIs to measure them was clearly identified as a barrier. Such measurable targets when defined and used, can also be used by management to reward staff when needed.

4.3.2.7 Lack of HR involvement

The role of HR did not receive too much attention in the interviews. However, it is worth mentioning that some respondents (Respondent 2 and Respondent 9) felt that the human resources and the change agent’s roles were interchangeable, since the HR not only needs to understand the organization’s existing culture but can also play a crucial role during the transition phase by assisting the leaders and the line managers in facilitating and leading change. Respondent 1 said that a good way to embed the company’s vision could be by HR using this as a central focus while hiring, or by integrating it into the company’s learning and development activities.

Respondent 5 and 7 expressed that HR has a crucial role while the company transitions but are often claiming no responsibility during the change. According to them, HR could play an important role in the transition and governance phases by not only providing the needed support to the employees but can help in setting up the formal development plans and the trainings needed related to organizational change as well as in agile methodologies.

“HR needs to step up their game and assume more consultative and leadership roles than administrative role…..” (Respondent 9)

To summarize what the respondents voiced was the fact that the role of the HR varies a lot and besides providing training opportunities on the backend, the HR could provide a lot of coaching, support leadership with hiring the right talents and investigate changing the performance goals that are more aligned to the future digital landscape of their companies.
5. Findings

In theory everyone agrees that Digitalization is the way forward for all companies. However, in practice, this is a challenge as it requires not only engaged employees but also competent leadership and management. In the following two sub-sections, thoughts from both practitioners and researchers in relation to the barriers as well as the different stages of the Digital Transformation process will be analysed.

5.1 Transformation Process and its Phases

Even though all respondents agree that they have seen or experienced difficulties during the transformation initiatives, they also believe that change is a participative process where all the employees and staff need to be equally engaged for the benefit of the program. The Barrier-Phase mapping was used to capture the challenges that majority of the respondents believed were present in the different phases of the transformation process. The empirical results have revealed a bigger number of barriers (categorized into different areas) in the Initiation and the Transition phases as compared to the Governance phase. The most critical barriers listed by majority of the respondents were in the area of – Leaders, their leadership style and Top management; The Company Vision and Goal of the transformation, Project group, Organizational set-up and agility; Change and Middle managers lacking expertise; lack of Rewards and Incentives; unclear Measurement systems; lack of Human resources involvement.

A clear vision, an articulated change message, a clear goal for transformation and good communication strategy, new leadership styles and mindsets, stronger alignment at top management, defining clear measurement systems and leaders possessing effective communication can take the company successfully through the preparation phase. These barriers in these areas as stated by the respondents are essential to address in the first phase as they lead to employee resistance if not tackled effectively in the preparation and planning phases of the transformation. Strong evidence from both the empirical data as well as data from literature review indicates that the Initiation phase includes all the necessary planning, information, communication, top management and the leader. It is clearly important for the leaders to be able to diagnose the underlying culture and prepare for the transformation in alignment with the existing company culture.

The key challenging areas emphasized by the respondents in the Transition phase were a lack of organizational agility due to the sometimes old, multi divisional organizational set-up, lack of a well-composed project group, lack of agile ways of working, non-collaborative environments and lack of skilled middle as well as change managers. Lack of support from HR was also classified as part of the transition phase by majority interviewed executives except two. Based on the empirical data it is possible to conclude that this is an equally heavy phase as the Initiation phase, which involves a lot of reorganizations, organizational changes and therefore could lead to conflicts. This is the heavy phase where
maximum employee support and motivation is needed from leaders, middle management, sometimes the change managers and HR to get the employees attention and commitment to the transformation.

Empirical data reveals that employees and organizations accept and embrace the new behaviours and changes in the governance phase, which is in line with what Lewin (1958) and Kotter (1995) have previously stated. According to respondents, lack of rewards or incentives, lack of human resources support and missing learning culture were perceived as challenges in the governance phase. Important to note the fact that this phase takes longer time and not all employees go through and all the phases in that order. This finding is also supported by Kotter (1995) who believed companies let up too quickly which does not make the change stick. Lewin (1958) had emphasized the fact that for any new change or transformative behaviour to become the new norm takes some time which was also apparent from what the respondents mentioned - that the Governance stage usually lasts longer and companies either tend to move on with their next initiative even before the previous changes have set-in and not all employees are involved from the initiation to the final phase. Based on the overall impression from the respondents, it was clear that the Initiation and the Transition phases do not have to be challenging if the barriers arising in these stages are considered and addressed well in advance.

To summarize, a larger number of barriers were found in the Initiation and the Transition phases empirically. However, the larger number of barriers alone cannot justify that the Initiation and the Transition phases as being more challenging as the analysis also indicates each phase as being an outcome of the previous phase and that by addressing these barriers in each phase, employee resistance can be reduced, and transformation can be successful.

5.2 Barriers to Transformation

Due to limited time for this research, the biggest four areas including the barriers which were identified as being more challenging than the remaining areas by the respondents will be analysed. These are as listed below:

5.2.1 The Company Vision and Goal of the transformation

Results from the interviews indicate that in these times of strong transitions, most leaders and executives on the top fail to deliver a compelling and unique adaption narrative. The experts said that most of the times the transformation story delivered by the top management did not convincingly lay the foundation for future profitability and growth. The importance of communications conducted in the unfreezing phase of Lewin’s model as well seen by Kotter (1995) is fully supported by previous literature. Previous findings from (Bovey and Hede, 2001) have indicated that by defining a clear vision and goal, the transition from known to unknown becomes less difficult. Most of the respondents claimed that effectively communicating the vision, clarifying it to the employees before proceeding with the transition was an essential step. Setting up the vision and an articulated change message for going digital will further create
motivation according to (Kotter, 1995) which in turn clearly have an effect on resistance (Bovey and Hede, 2001). The importance of clarifying the change, the consequences and the vision effectively is supported by researchers and the leaders are entrusted with this role to convey the message. Several of the respondents claimed that setting the company vision and the goals of the transition played an important part of any change process. Vast amounts of literature (Venkatraman, 2017) support this and results from empirical data analysis explain why this is more critical. While clarifying the reason behind why the vision statement and goal can become a barrier led to the fact that sometimes companies find it difficult to construct the same. The vision for transformation should be created by positioning the company in response to market shifts; not based on operational efficiencies through lay-offs or risky trade-offs. Since the importance of not adapting the change message according to the different phases of the different initiatives and not maintaining the continuity of the communications cannot be supported via the literature, this research indicates that this barrier can be also be essential.

A clearly defined change message and shared understanding of strategy (Canning, Kelly and Llp, 2013) is crucial to any company's ability to align its staff and prepare them for change. Leaders and executive teams need to be aligned on their vision, purpose, operating model, growth, as well as consequences before sharing it with the workforce as poor quality of information can increase resistance. Most executive teams lack alignment, understanding and therefore buy-in of the same from the employees and are therefore not able to mobilize their resources for the same.

To summarize, the fact that a unique and clear vision statement and an articulated change message outlining goals are essential is supported by both the researchers as well as the practitioners. When leaders don’t have a shared mindset on the top, this becomes a challenge and trickles down and across the entire organization. The need for new digital or more adaptive leadership styles was also supported and expressed as being crucial for this transformative journey within the companies. It is key that leaders make the goals and vision real to people through a transparent approach, which fosters employee engagement by creating a shared mindset and promotes successful transition. Also, to keep the momentum up through the entire process, it is essential to keep the communication in the interim phases going and adapting it when necessary to the different stage of the engagement.

5.2.2 Project group, organizational set-up and agility

The key findings that emerged from the interviews clearly showed the benefits and the importance of a well composed project team that leads the transformation since digitalization leads to a lot of focus on internal organizational challenges. Majority of the respondents argued that the project group leading the change can become a barrier if the project members lack the right skills. Previous research (Kotter, 1995) (Joseph et al., 2012) has clearly highlighted the need to put together a capable team which drives the change. The benefits of identifying informal leaders, middle managers and internal change agents within this team who not only motivate the rest of the team as well as have a huge influence on them was clearly identified in the literature (Leppitt, 2006) as well as in the interviews with the experts. These leaders or change agents can be part of the project group (Klonk, Lehmann-Willenbrock and Kauffeld, 2014),
promoting and motivating the rest of the team along the way. Empirical data claims that most of the times, the significance of having a change agent is not completely understood and it falls upon the middle manager to drive the change. If the middle manager lacks expertise this can lead to negative results and this is supported by the literature (Buchanan, Claydon and Doyle, 1996). However, the need for the identified change agents or champions to be a part of the project team was not identified during the interview with the experts.

Lack of organizational agility was indicated as a challenge by both researchers as well as practitioners. Findings from previous research suggests that transformations are more likely to succeed when there is successful collaboration across the needed units and levels, internal organizational structures as well as responsibilities are aligned and there is some form of organizational agility in the company.

Organizational agility can be defined as the ability to quickly reconfigure processes, structure, people, strategy and technology towards more value creating opportunities. While undergoing digitization and leading transformation activities, organizational agility within the project teams was ranked as a high strategic priority by several respondents. Respondents felt that most team members lack working in agile ways which keeps them from moving fast. The project team are also often lacking in systematic execution and often lack discipline. This has been addressed though previous literature (Lee and Edmondson, 2017).

More than two thirds of the respondents in the interview spoke about the existing organizational design in the companies and how the existing structures hinder their companies from becoming agile as well as adopt agile ways of working. In previous literature by (Burchardi et al., 2016), support for agile ways of working was clearly essential for improving transparency and improving employee engagement. It also helps remove siloed business functions, which helps minimize handoffs between functions and boosts collaboration.

The standard form or multidivisional form of organizations realized by General Motors in 1920 is the most common template for big companies even today; where organizations are designed by splitting them into divisions thereby dividing all staff into functions and specialties. Such organizations even though designed for efficiency are however disconnected from the overall purpose of the business and the purpose of the transition. The findings demonstrate the importance of companies taking a podular approach to organizing versus divisional organization. It may not always be easy to create podular organizations, however some respondents believed that by creating such structures and mappings help create transparency and enable trust, which were both seen as key barriers during the interviews. Team members learn from each other while working closely together which provides team orientation and create self-organizing teams.

Digital Transformation requires strong integration between the business and the IT executives. This was identified to have a huge consequence on the progress of the transition. Only little research (research project from 2015 by MIT Sloan Management Review) indicated that companies with strained IT and business functions felt handicapped while conducting their transformation. In contrast, companies where strong relationships exist between IT and business teams, where IT can help business reach their goals
and business executives listen to IT as well as vice-versa are in stronger position to lead the Digital Transformation.

In summary, existing company structures were a bottleneck and the need for a flatter management structure, adopting a podular approach to organizing with a strong frontline focus can enable organizations to unlock value from hidden in existing operations, incorporate agile ways of working and promote collaboration. These challenges were supported both by the practitioners as well as the scholars. Also, the project and program teams as well as organizations driving the change can become a big obstacle to the change process if it is not populated with people who have the right blend of skillsets, with everyone having their roles and responsibilities clearly outlined. Overall if the process of change is applied with some planned vision and thought, it can make a huge difference to individual employees, teams as well as the whole organizational performance.

5.2.3 Top Management, Leaders and their leadership style

Upon analysis of the empirical results, a large number of barriers to change were found concerning the top management; the types of leaders, their mindset and their leadership styles. The empirical results from interviews show that the management is not always aligned and united at the top. According to respondents, when this happens, there is no strong leader and driver of the company’s transformation. When leaders are not united, aligned and committed, the employees start doubting their leaders and this may lead to resistance. This is in accordance with previous findings by (Safar et al., 2006).

During the interviews, most of the respondents argued that their organizations being the traditional incumbents were stuck in the adaptation process, implying that they were struggling with exploring new opportunities while simultaneously holding onto the old ways of working. This finding has been supported by previous research carried out with successful incumbent companies; where there is high pressure to continue with the old and successful routines as they have worked well in the past (Andersson, Movin and Teigland, 2018).

Though organizational agility and project set-up as analysed above is key to any change success, from the interviews it was clear that leaders often don’t understand or forget the difficulty that staff faces while transitioning. For companies to thrive and survive in this world of growing complexity and competition, achieving organizational agility needs different management styles. Growing agile organizations requires middle and upper management to also become agile and adopt new mindsets and adaptive leadership styles. There is a strong evidence from literature about the new leadership styles that are needed (Valentine, 2016) (Edward Qualtrough, 2017).

Lack of digital leadership and governance was brought up as the need of several organizations as according to respondents; as these are the leaders who clearly recognize that the future of their industry has no resemblance to its past; and they cannot continue along the well-known and predictable paths and live with past core competencies. Additionally, when the leaders have clearly understood the urgency to
embrace the future that digitalization brings and to leave behind the past legacy, they should be able to communicate the possibilities for the future (Fitzgerald et al., 2013). The need for more adaptive leadership roles was supported in the literature as well as collected through the empirical data (Heifetz and Grashow, 2014). Adaptive and the new age digital leaders while making use of diversity as well as experimentation, encourage action in the employees by disrupting the status quo and help the companies to gain momentum in the transformations.

Additionally, the interviews revealed gaps in the communication style of the leaders in both the Initiation as well as interim stages of the transformation. The literature further confirms this as leaders who suffer from effective communication skills are unable to engage their employees (Jacobs, van Witteloostuijn and Christe-Zeyse, 2013) and create the sense of urgency (Kotter, 1995) that is needed in any large transformative initiative. Leaders have a big influence over the rest of the organization and it was claimed during the interviews essentially all change in an organization; whether positive or negative starts at the top.

Another barrier identified through the empirical process is the barrier related to bad succession decisions and constantly changing strategies within the company. The experts also highlighted barriers that surfaced because of politics and internal struggles in the management team. Both these barriers have not been identified through previous research, the result from interview can only indicate that these two barriers are also critical to the transformation process.

In summary, the results indicate a lot of barriers concerning the leaders and top management, their mindset, abilities and leadership styles. If companies have a united and aligned management team on the top, new leadership mindsets and effective communication styles, this can have a huge influence on the employees and help promote and support the transformation program.

5.2.4 Change and Middle managers lacking expertise

While analysing the barriers stated by the experts under this area; many experts claimed that even though the company has a planned strategy and vision for transformation and an aligned management on top, many companies fail in their change programs since they fail to acknowledge early on the importance of champions and change agents. According to what they stated, middle management and the change leaders are usually lacking in the expertise.

The top leaders alone cannot transform the company and would need the support of middle managers and change leaders to unleash the initiatives; which guides their organizations confidently through this transition. These people are usually leading the change from the middle of the organizations and several respondents argued that these change leaders or champions heavily influence the organizations and play an important part of the project and team set-ups. This was identified through interviews as well as through literature (Leppitt, 2006) earlier. Not identifying these champions earlier in the transition process could be detrimental to the organization and has consequences on the way the rest of the team embraces
the changes (Solis, 2017).

Some executives hinted that the change managers in their organizations were effectively the same as their middle managers and this task of transition was also being led by the middle managers who failed to listen, learn and understand the employee’s perspective. Findings from the literature review (Kotter, 1995) (Solis, 2017) clearly demonstrate the need for electing change leaders and champions with the right skills. The change managers should be able to motivate the employees and address their concerns (Higgs and Rowland, 2005). The change leaders need to study and understand all the transformation initiatives and see if they could be refined. By matching the long-term outcome with the current capabilities, the gaps are identified resulting in creation of new capabilities and follow-up actions.

Middle managers are usually comfortable applying the tools and methods which worked well in the command and control era (Alberts and Nissen, 2009) where the organizations are generally set up to handle the technical challenges. In times of Digital Transformation, where predictive nature of challenges is replaced by uncertainty, such approaches fail, and middle managers need to be more comfortable with learning, experimentation and failure. The respondents also mentioned that the change leaders are usually unaware and should be able to recognize the organizational ambidexterity within the company. According to previous findings, failing to understand the organizations ambidexterity by leaders could lead to unclear digitalization impacts, position and vision statement creation (Parviainen et al., 2017).

In summary, middle managers now more than before need to embrace change, lead teams and be able to motivate. HR from this respect can adopt a more supportive role in either finding the right talent internally to guide the organization and help in transforming middle managers into more successful change leaders, in such times of change.

5.2.5 Lack of Rewards and Incentives

A lot of problems could be solved if the interest of employees and leaders was aligned to that of the business owners. Empirical data clearly highlights the need to be with the front-line in these times of change and reward people; who are leading by example and if their values identify with the organization’s mission.

This was essentially supported by both the practitioners as well as researchers (Senge, 1990; Deloitte, 2017; Kinley and Ben-Hur, 2017). According to empirical results today’s millennial generation are more committed and bring their whole selves to work if they feel a sense of belongingness and connection and are supported and motivated along the way. These people fail to see the benefits of long term incentives, usually set up by traditional incumbents; especially when they individually cannot influence the result. It is therefore of great importance that incumbent companies start to explore new ways of incentivizing their staff, similar to ones existing in their digital counterparts. The literature supports the need for such extrinsic motivators (Goler et al., 2018), which focus on the individuals need to be recognized for their
contribution and rewarded while intrinsic motivators focus more on the individuals need to find joy and connection in their work while they contribute as well as develop.

In summary there is a strong need to put in place a good incentive system to reward people and failing to act on this challenge might put the transformative efforts on risk. However, detail information on how these new aspects of motivators is lacking in the literature review.

5.3 Discussion

There were not as many barriers identified and therefore relatively lesser analysis and actions in the Governance phase as compared to the Initiation and the Transition phases; based on which it would be simple to say that the first two phases of any transformation program are the most challenging. However, the Governance phase is equally critical to any transformation and is an outcome of the first two phases. Important to note is that this might be because most executives interviewed for this study are more involved in the initial and transition phases (preparation and setting-up) of such programs in their companies and since such transformations efforts are carried out over several years, the same people in an organization might not be involved in all the three phases and therefore might have a different understanding of what this final phase entails.

In terms of the change process, all the respondents from different ICT companies perceived the transformation and change programs to be linear with different progressive stages. All experts interviewed had the same view of the change process which supports the findings by Lewin (1958), Kotter (1995) and other scholars and the empirical results were based on this assumption. According to the experts, resistance is the most challenging first reactions to any change program. The findings suggest that this resistance occurs and exists at all levels of the organization and it is not only the employees that react negatively to any transformation. Resistance can be seen starting at the top, affecting leaders and top managers alike, leading to misaligned messages, unclear vision and purpose. This conclusion is different compared to the studies done earlier which mainly focussed on the negative reaction of the staff below.

The barriers that were most mentioned were identified in the areas; the Company Vision and Goal of transformation, Top management and lack of digital leaders, Project team, Organizational design and agility, the role of change managers and middle managers, unclear Measurements systems, lack of Rewards and Incentives, lack of HR involvement. One of the common limitations that companies face is their inability to create and communicate a clear and meaningful vision and purpose. This is a surprising finding as one might assume that clarifying vision, setting goals and communicating to all the staff was the obvious first step taken before starting any change process. In this era of always-on transformations, organizations must ensure that their goal and vision for the digital future is inspired in their staff through purpose. The change message should be well articulated and not appear as a means of cost-cutting under the guise of transformation. The employee resistance can increase or be decreased depending on how the companies are managing these barriers.
Another finding worth highlighting is the need for change of existing siloed organizational design and structures in incumbent firms which hinders the functional set-up as well as the project teams from becoming more agile, thereby reducing trust, transparency and reducing collaboration which is most needed for companies to become future ready. Previous change management literature did not focus as much on the organizational design and structures but more on the individuals driving the change.

The need for new adaptive leadership styles and digital leaders with a different mindset than the role of traditional leader could play an important role in influencing and mobilizing staff was supported by this study. Change managers and middle management also play an important role and even though the different leadership roles have been discussed separately; what specifically is of importance is that it is upon the leaders to put their people first, through inclusive leadership capabilities and by instilling a culture of continuous learning enable capabilities in their staff to succeed during transformation.

Overall, this study supports the fact that some major barriers to successful transformation are mainly connected to people, leaders, mind-sets, organizational set-ups, inherent culture besides the technology aspect and that by understanding and preparing for this resistance; may help simplify and speed up the transformation journeys that most companies have embarked upon.

5.4 Recommendations

In response to the obstacles that the research and empirical data revealed, listed are some key findings and recommendations that leaders, executives and their organizations must consider and act upon during their transformation journey.

- **Leaders need to be clear on the vision and communicate the change message effectively**

The results showed that most companies failed to create a shared vision and purpose and communicate an articulated message of change. There was also a gap in aligning the vision amongst the top executives and failure to translate the vision through strategic actions.

As an important first step in the transformation journey, the large incumbent firms possessing an extensive catalogue of services and products need to evaluate where they are today compared to the rest of the industry and their path to transformation therefore will depend on the environment, circumstances and the management strategy. Leaders need to develop an authentic purpose, articulate and communicate it by crafting a story that resonates with employees as well as their customers; why the change is needed, what benefits are expected, the consequences of not becoming digitally capable and future ready as well as how the company plans to measure the transformation’s impact. This vision must be collectively aligned at the executive level, communicated, and supported by the top leadership; and finally led and governed by digital leaders.
• **Decide how and where to start: Setting up the organizational design, project teams and roles of Champions, Middle managers and HR**

Based on the research, another important challenge that most organizations face was a lack of agile and well composed project and organizational teams with a clear implementation plan. The misalignment between the normal ways of working within incumbent firms and agile ways can become a challenge if not tackled effectively. This could lead to employee resistance and lack of collaboration across the different units and levels organized in functional silos. Sometimes to overcome this challenge, change managers are introduced within the project who help co-create and imbibe agile and change mindsets. In some cases, companies select the middle managers for this task who lack the needed skills and expertise to motivate the change. In cases where these change managers, champions and middle managers fail to listen and understand the cultural and employee mindsets and behaviours could prove to be detrimental to moving forward with the transition.

Companies must therefore evaluate the existing organizational architecture as simply by overlaying the latest digital technologies on the existing organizational capabilities might not lead them to successes as seen in the past. Need for more organizational agility and podular approach to organizing can help in successfully driving change.

Also, the champions need to role-model the new behaviours and mind-sets, support and help in developing the needed skills which would be needed in the digitally ready organization. While the right transformation plan will vary by company depending on their vision and goal, companies must first identify the gaps and parts that they need to transform, prototyping changes, assessing and then scaling the transformation efforts. The teams need to constantly assess the resources needed along with the time frame, strengthening their action during the transition but also maintaining the momentum during the governance phase.

• **Embrace the magnitude of the transformation**

Though most companies are talking about the greatest and latest technologies they have to offer, their leaders and organizations lack the skills and the mindsets needed to deal with any change. Although the findings are specific to the different organizational settings, the study reveals the employee mindset, reactions and challenges faced with different settings; providing key insights to decision makers who drive the transformations to better understand, accept and prepare for sustainable organizational change; ensuring that the staff, middle managers and leaders have fully understood the magnitude of digitalization and are engaged.

Companies before embarking on their transformation efforts must evaluate the underlying culture and contextualize the transformation after taking the values, beliefs and assumptions into consideration.
6. Conclusion

6.1 Conclusion

New digital technologies act as a threat as well present opportunity for many companies big and small, who had their successes built in the pre-digital era. Failure to heed to the digitalization will leave these firms trailing behind competition. To support their digital vision, companies must rapidly embrace new processes, adopt agile methodologies, Ways of Working, new organizational structures as well as prepare the employees for change.

Since the Initiation and the Transition stages have recorded significantly larger number of barriers than those recorded in the Governance stage, it is possible to identify the Initiation and the Transition phases as the most challenging stages in the entire transformation journey. Scholars and consultants have largely argued that there is no point for a company to undergo a transformation exercise if many such barriers are identified to be critical in this initial phase. Even though the first two phases recorded significantly higher number of barriers, the findings from the study also indicate that each phase is an outcome of the previous phase in any transformation journey and by building the organizational capabilities and implementing new ways of working and addressing the barriers in each phase through new and more inclusive leadership capabilities, the internal resistance can be reduced, and the transition can be successful. Companies by addressing the concerns and barriers in the first two phases, can ensure that their organizations can smoothly transition into the Governance phase while embracing all the changes.

Furthermore, a lot of barriers were identified that lead to resistance as per Lewin’s model causing delays or failed transformations. Based on findings, we can conclude that barriers and resistance begin from the top and percolates down the line affecting the rest of the organization. Unsuccessful or slowly progressing transformation initiatives could largely depend on the set-up of the organization, the project group and lack of agility. The company vision and goal of transformation can become a challenge if not well articulated. Additionally, lack of expertise within top leaders, their mindsets and leadership styles, the middle management and change managers can cause frustration and slow down the progress. Lack of communication by leaders through all phases of the company’s transformation was identified as being crucial.

The key findings in this study were in line with literature related to organizational barriers to digitalization and the phases of the change process and support what some of the key researchers and authors such as Venkatraman (2017), Kotter (1995), Lewin (1958), Solis (2017), Ronald Heifetz (2014) etc. have previously stated. These research findings have further improved the understanding of the same and contributed by filling in the gaps with additional barriers seen over the years. Lastly, if companies are cautious of the barriers; it could significantly impact the possibilities of successful digital turn-arounds.
6.2 Limitations

Since I work for a company where Digital Transformation initiatives are currently being investigated and implemented, it would be fair to state that the researcher is not entirely independent of this study. Here, the researcher’s perspective and setting could impact the gathering and analysis of the data (DeWalt, DeWalt, Wayland, 1998) (Deutsche Forschungsgemeinschaft., 2000; Jorgensen, 2018). To reduce the possibility of bias while gathering data and to adopt a neutral stance while conducting the research, pilot study (Borg and Gall, 1989) and interview questions were first carried out with several executives.

Another limitation that could arise in the complex and more volatile environments of today’s organizational settings is based on the model selected; where Lewin’s model is considered to be too simplistic and some critics argue that since the transformation process is continuous and so chaotic that there is just not enough time to follow all the steps in the Unfreeze, Change and Refreeze phases of the transformation journey; and therefore the critical last part of Lewin’s model, the Governance phase which aims at change being accepted and bringing stability to the company as well as the staff, is just wishful thinking.

6.3 Areas and Suggestions for Further Research

The findings provide greater awareness of the weaknesses that highlight the need of addressing these issues by companies and the drivers of the transformation.

To gain better understanding of how to successfully drive Digital Transformation in different organizations with more complex setting, it would be necessary to investigate and gain better understanding of the change process from all angles especially in these turbulent times.

During this study, some key challenges that emerged were lack of effective Rewards and Incentives schemes; which could arise because of lack of appropriate measurement systems put in place. This is a topic where detail information was lacking in the literature review and that researchers can focus on in the future as it could play an important role in speeding up the whole transformation process.

Another important finding that emerged from this was how the lack of an aligned and articulated vision and strategy can have repercussions on the entire process. It would be worthwhile to investigate this further so that leaders can build, clarify and convey a good digital strategy towards their organization.

Finally, the methodology used in this study could be replicated and used to collect more barriers in a variety of different industries and different countries for comparison.
7. REFERENCES


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10. APPENDICES

8.1 APPENDIX 1

Interview questions:

Semi-structured interviews were scheduled and conducted in accordance with the convenience of the executives. Date and time was left to the executives to decide and choose based on their schedules. The length of the questionnaire was kept as short as possible to ensure that the experts did not have to spend too much time answering the questions.

The experts were assured that maximum level of confidentiality would be maintained during this study and data collection process. Data from the interviews, would be consolidated, and no specific reference or actual names if pointed out in the process would not be revealed unless consented to.

As pointed out by Collins and Hussey (Collins and Hussey, 2013) in their business research guide about the need to have friends or colleagues play the role of interviewees - there was a pilot interview study conducted with three colleagues and executives from one of the participating organization. This was done to ensure the validity and the reliability of the questionnaire, where the questions, the sequence of the questions, the content and timing was pre-tested to ensure that the executives have no problem in understanding the context and it also assists in collecting the right data needed for answering the research questions.

According to (Borg and Gall, 2007) piloting can be done to check reliability as well as validity of the questions. Pilot interview sessions helped improve the quality of the questionnaire as well as enhance the quality of the main research study. This also helps ensure that answers to the questions meet the objectives of the study (Nallaperumal, 2011; Collins and Hussey, 2013). All feedback regarding length of the questionnaire and linguistic ambiguity were addressed before finalizing the Interview questionnaire for the executives.

Introduction questions

1. Tell me a little bit about yourself, your background and your current role?
2. How long have you been here and your areas of expertise in this company?
3. Digital Transformation has become a cliché for any program that has new technology attached to it. Can you please tell me how it is defined over here?
4. Can you talk about your mandate and how digital is transforming this company?
5. What does Digital Transformation mean within the context of the organization you are in?
6. How old is your organization?
7. Have you been involved in any previous organizational change? Any experiences with organizational change (organizational re-structuring or transformation)
8. Were the changes implemented successfully in the org? Or did you face obstacles?

The Change Process

- Are there any difficulties you have seen in your company while introducing change initiatives?
- Does your company embrace the ongoing speed of change or are they more methodical about the transformation journey?
  - Is the program broken into smaller initiatives?
- Based on your experience, why do you think some companies are finding it so difficult to progress with their transformation journeys?
- Is it more because of a struggle adapting to the newer technology or the organizational readiness for change?
  - How does your company balance that tension while undergoing digital transformation?

The Transformation Process

We look at the entire transformation journey for companies split into the different phases of engagement – the Initiation Phase, the Execution Phase and finally ends with the Governance Phase where the organization has fully embraced this transformation.

Initiation Phase

- What according to you, needs to be considered during this preparation phase of the transformation journey?
- What are some major obstacles you have seen in starting off with such change initiatives?
- Does your company have clear project plans outlining all the steps that will be taken through the entire transformation journey?
  - Has this plan been effectively communicated to the employees?
- Was there an articulated change message?
- How is the vision and message of the reimagined and transformed organization created and communicated in your company?
  - What consequences do you see with not having an effective vision and transformation message?
  - Was this message effectively communicated by the leaders in your organization?
- Changes like this usually begin with some kind of executive endorsement and sponsorship. Let’s talk more about that here:
  - Is your executive team committed and aligned to make this happen?
  - How is the change message transferred into new actions and behaviours?
• Does your company use change agents during the transformation process?
  o If yes, what is their role? What problems do you see with using change agents?
  o Or, are the middle managers and team leaders playing the task of change agents? What problems do you see with that?
• How is emphasis put on working collaboratively across the organizational borders?

**Transition and Execution Phase**

• How did the organization have to change to deliver on the goals?
• What role does the leader have during this phase?
  o What key skills do leaders need in this phase?
• What role does the middle management have in this phase?
  o What key skills do middle managers need in this phase?
  o How do you ensure that the middle managers helped spread the message across the organization?
• What role do the Change managers have in this phase?
  o What key skills do Change agents need in this phase?
• What role does the Human Resource personnel have in this phase?
  o What is critical for HR to do in this phase?
• Is building relationships between IT and business an integral part of this transformation and how is this done?
• How are the teams working on the transformation set-up in your company?
• Is there a hybrid team of experts with diverse experience deployed on the project?
• How are the project teams put together – individuals with varied backgrounds bringing in different perspectives?
• Is there an effective system in place for monitoring the progress of the transformation program?

**Governance Phase**

• Have you experienced or heard of delays with the progress of the transformation program?
  o Do the initiatives/projects meet the expected timelines?
  o What are the reasons for delay?
  o Is this due to project delays?
• Has the role of the culture in your organization been carefully studied?
  o Is the culture aligned with the change initiatives?
  o Is the inherent culture in your organization built for one that this Digitalization is demanding?
• How is that new way of working and thinking spread across the organization in your company?
  o What can cause this to not happen or get delayed?
  o What is the role of the leader, middle manager or the change agent in ensuring that the changes adhere?
• How does your organization ensure ongoing support and encouragement?
• Is there a good incentive program in your company? How are individuals recognized?
Do you think rewarding individuals helps?
- How is the learning culture in your organization?

**Concluding Part**

- What are the lessons you have learned, this far?
- What advice would you give other organizations which are going through a similar situation?
8.2 APPENDIX 2

Organizational Barriers to Change and Transformation identified through literature:

1. The transformation process is not aligned with the company's existing culture
2. Not able to diagnose the underlying culture
3. Failing to realize the underlying values, beliefs and assumptions
4. Not understanding the employee mindsets', behaviours and attitudes
5. Lack of Digital leadership and oversight
6. Lack of leadership capability to communicate, lead as well as govern in the digital world
7. Lack of empowering and supportive leaders
8. Big gaps exist between employees and managers
9. Change message not well communicated resulting in poor quality of information being conveyed
10. Lack of articulated and purpose driven vision
11. Lack of top level impetus
12. Lack of sponsorship and support from top management
13. Leaders and Middle management lack effective communication skills
14. Bad succession decisions at management level can undermine the work carried out at the levels below
15. Not identifying the key people and the change agents responsible for the change early in the process
16. Middle managers play role of change agents
17. Middle management lacking the right expertise
18. Change agents unable to listen, learn and understand employee perspective before driving the transformation
19. Change agents unable to motivate the employees and address their concerns
20. Lack of organizational ambidexterity
21. Organizations business and IT are not aligned

22. Waterfall ways of working

23. Non-collaborative environments

24. Failure by HR to support building new skills and leadership capabilities

25. Homogenous project teams and groups

26. Siloed organizations preventing value creation

27. Stricter deadlines causing resistance and stress

28. HR fails to adopt a supportive role in the entire transformation journey

29. Employees not rewarded enough

30. Strong learning culture missing

31. Organization does not have a learning and development process in built
### Organizational Barriers identified by the experts

#### Barriers to Transformation (classified & categorized per area)

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<th>Transformation Process</th>
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#### The Company Vision and Goal of the transformation

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#### Top Management, Leaders and their leadership style

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