Framework for an Integrated Project Management and Change Management Team to Achieve Sustainable Digital Transformation

Pranav Kulkarni[1], Abbott J Haron[2]* and Dalia Habil[3]

[1]Master of Business Research student, Excelsia College, Sydney Australia
[2]Deputy Director of Research, Excelsia College, Sydney Australia
[3]Master of Business Research Supervisor, Excelsia College, Sydney Australia

Abstract

The latest trend in transforming a business to achieve operational efficiency is through Digital Transformation. To achieve this, both processes and technology within an organization need to strongly align. Successful digital transformation depends not only on technical aspects but also on human assets within the organization. Studies linked to this area of research have concluded that one of the major causes for failure of digital transformation includeshuman aspects involved within the change and not the technical maturity alone.There is a need to develop a holistic approach to tackle this problem, and this research is aimed at studying the human aspects of digital transformation. This research seeks to answer:To simplify digital transformation within an organization, how can the change management team and project management team be integrated for a seamless transitioning?The researcher will conduct a qualitative study to understand the concept of digital transformation from the perspective of project managers and change managers, their ability to tackle the change process, their understanding of Digitizationand need for digitisation from their standpoint. The interview process will be conducted in a semi-structured manner in organizations undergoing digital transformation where leaders working in upper management levels, or executives will be interviewed. Based on the data collected, a thematic analysis will be done, and an integrated framework will be developed to be used as a guideline for project management and change management teams.

Introduction

Currently, traditional organizations face a risk of being obsolete due to the disruptive technologies that are pushed to market and the need for adaptive change management processes at the organizational level has become ever more critical [1,2]. The method of change has become more frequent and complex, andorganizationsmust deal with the ever-changing needs of customers and businesses. They must often be in a position to change their business model, and the duration for change is ever decreasing. To stay competitive within their sector, organizationsmust innovate and revamp their business continually.

However, "to transform to a seamless and contextually relevant digitized organization, the organizations would also require changing their deeply entrenched habits" [3]. There is a resistance to change from the employees as well as a lack of support from management teams towards the change, which results in a 70% failure in change management programmes [4]. Another challenge is the consequences of digital change, it might not only impact on "the loss of control over the customer relationship, increased competition and the threat of commoditization" but it can also lead to additional complexities like "the need to engage digital stakeholders, namely with suppliers, partners and employees" [5].

The role of employees, managers and end-users significantly affects the success rate since their expectations are harder to manage when compared to technical aspects involved in the change [5]. Resistance to change

initiative seems to be a significant factor that causes gaps in organizational change [5]. Although we have seen management teams finding innovative solutions to the change management process, the methodology itself is not up to date and is still in the era of the analogue world [6]. This is not suitable for the current business world since being in front of the competition requires quick thinking and easily adaptable practices [1]. Hence, to solve current challenges that will be confronted in change cycles, it is advisable that project management and change management teams should work together in an integrated manner and replace the old frameworks [7]. This has increased complexity for Project Managers since they must plan for changes related to digitisation within their projects' scope.

Justification of the Research

Projects implementing digital transformation are designed and planned to have higher regard to the deployment of technology,which involves more scrutiny on the technical aspects of the project [8]. However, managing the human element of the project is regarded as the more difficult challenge to handle. Implementation of change from an organizational perspective remains a question which requires further research. The change management framework is stuck in traditional ways and cannot be easily applied for complex projects undergoing Digitization [4]. The Project Management Institute PMBOK guide provides a guide for best practices for project managers. The guide is in its sixth edition, and it still does not have a concrete framework for change management processes related to digitization. Although there is a consensus that a single framework cannot be used for all organizations undergoing the change process, most of the researches to date are in the rudimentary phase and cannot be applied for all changes or all organizations [9]. Thus, for initiating a change process, there should be models developed depending on the capability of the organization, type of change required, the organization sector and sector type [9].

Thus, this research aims to fill the gap between project management and change management teams by providing a framework to integrate both groups to achieve seamless Figure 1.

Review of Literature

Digitization can be defined as "the process of changing from analog to digital form, which causes changes of established patterns and complementary innovations in our economy and society" [10] where breakthroughs in technologies like cybersecurity, mobile computing, social media, cyber-human systems, cyber-physical systems, Internet of Things, cloud computing, big data analytics, etc… have become significant drivers for change [10].

For the past few decades, the biggest driver for change in an organization is due to the growth of Information and Communication Technology of which Enterprise Resource Planning (ERP) has become the primary tool for integrating business processes. Rahnavard and Bozorgkhoub [2] and directing strategic growth while also supporting their on-going business [11]. Based on the adoption criteria of tools for digital transformation by the organization, the change process can impact both functions and processes Internally and Externally [12].

Changing business processes with the help of technology is called digital transformation and is simply described as 'the integration of digital technologies into the business' [13] or "the increasing adoption of digital tools and technologies by an organization to fundamentally alter both its internal and external processes and functions" [14]. However, researchers have come to an agreement that technology is not the only factor in the digital transformation, which changes. It also concerns on areas
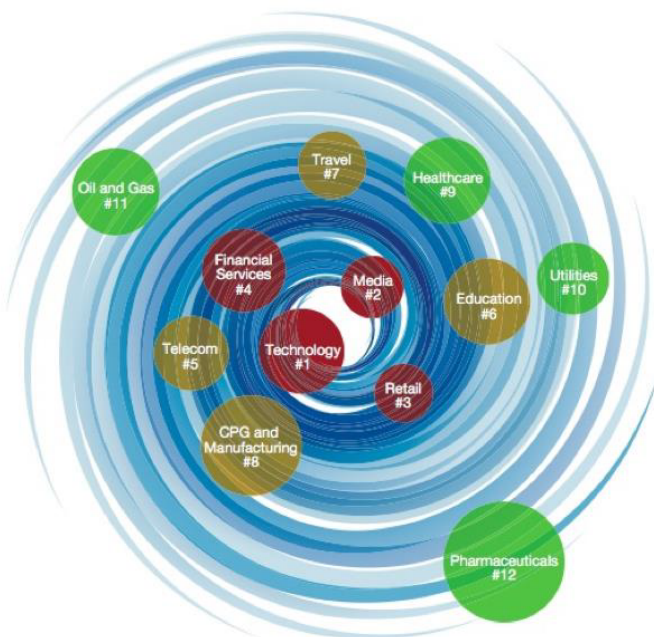
of the organization where changes will influence the interaction between individuals and conventional methods of doing business.

Digital transformation represents a "global accelerated process of technical adaptation by individuals, businesses, societies and nations" [15]. Organizational change is the foundation of digital business transformation. Maedche [16] requires a reliable framework connecting technology, processes and people to enable successful transformational change [14]. The benefits of these changes are being looked at internally within the organizations where Digitization can be involved. The impact on an organization due to the effects of Digitization has also reshaped the thinking of many researchers [17]. For businesses to stay relevant, they need to show capability in consuming, buying and selling software services with lesser human interventions. Digitization Researchers believe that Digitization will result in a decrease in the number of employees involved in the new process. However, there are contrasting data reported by McKinsey Global Institute (2016) stating, "data flows and digitization have raised net employment within countries rather than reducing it" (McKinsey Global Institute, 2016. p.78), highlighting the benefits of Digitization. It also shows that the benefit of Digitization is in creating a more impactful way of working by "accelerating the pace of change that organizations face" [18]. Digital transformation impacts mainly on improvements in productivity, time-saving and cost [14,19].

Identification and definition of key terms

Agile methodologies, Change management, project management, Digitization, digital transformation, organizational culture.organization

Evaluation of current theory and practice

The studies conducted within the gambit of integration of PM and CM is conceptual and has limited studies to support them. Below Table 1 summarizes the existing studies.

Research Objective and Question

The aim of the research is to find an answer to the following question:

To simplify digital transformation within an organization, how can the change management team and project management team be integrated for a seamless transition?

Additionally, to answer this research question, the following objectives will be considered:

- Explore the effect on businesses that are undergoing Digitization, the factors which initiate change and the difference between these factors with other change process initiatives which are not related to Digitization.

- Identify tools, framework, philosophy and processes used by managers to implement change processes required for digital transformation by interviewing managers involved in the digital transformation.

Figure 1. Digital disruption and affected industries (Source: Mckinsey Global Institute report).

Table 1. Evaluation of current theory and practice.

Author	Journal	Significant Points	Methodology
Schech-Storz, M. (2013)	Organizational change success in project management: A comparative analysis of two models of change	The high rate of failure from both PM & CM Success rates where high when CM approach was leveraged in PM techniques	150 PMI members were asked to fill a questionnaire
Hornstein, H. (2015)	The integration of project management and organizational change management is now a necessity	OCM should be included as a project success factor OCM skills should be included as part of PM skills OCM impacts the success of the project and should be managed	Data referenced from the Association of Project Management (APM) and PMI
Gudergan, G. et al. (2019)	Patterns of Digitization – What differentiates digitally mature organizations?	Commitment and courage needed for a total restructure on the part of project managers Digital maturity is a natural process and requires time Digital transformation offers various setting options that must be continuously and consistently adjusted	The total number of multi-answer-based responses of 559 participant

- To fill the gap and create a framework that will be used for a specific type of change in anorganizationthat is focussed on Digitization.

Statement of the Research Problem

To simplify digital transformation within an organization, how can the change management team and project management team be integrated for a seamless transition?

Statement of Proposed Research Methodology

Research philosophy

Ontology: The research aims to understand the concept of digital transformation from the perspective of project managers and change managers, their ability to tackle the change process, their understanding of digitization and needfor it from their standpoint, which is a very subjective topic. It can be debated that the technical aspect of digital transformation is purely objective, but the people involved in the process and their adaptability makes it more of a subjective topic. Additionally, the role and position of the management team and their interaction and interpretation of the change process are also subjective. The way each member views digital transformation would be very different, and the choices that these individuals would vary based on their world view. The study will stick to the standpoint of subjectivism as an ontological position due to the inherent nature of actors and their opinions, experiences and approaches.

Epistemology: The researcher will be using the stance of interpretivism since the objective of the research is to understand how the relevant actors behave, adjust, understand and implement the digital transformation process in their organization using a qualitative semi-structured interview-based approach. From the lens of interpretivism, the aim is to come to an understanding of unique characteristics in a project and the tools and techniques which will be utilized by the individuals to accommodate the change process. No research is purely objective due to the researcher's value system, which leads to the results being interpretive, no matter how hard research tries to minimize their biases [20]. Additionally, the nature of the digital transformation topic is very context specific. It cannot be conformed to any rigid scientific approach, which makes the approach of interpretivism the ideal approach to answer the researcher's questions, i.e., to fill the gap and create a framework which will be used for a specific type of change in anorganization which is focussed on Digitization.

Axiology: As mentioned above, the views of the researcher also will affect the result of the research [21]. Having worked in an organizationthat deals with digital media services, the researcher is quite knowledgeable about the challenges faced by traditional broadcasting companies and the challenges that they faced during their change process. The experience gained during this transformation has influenced the author's choice of research question and objective, along with the review of literature which has broadened the world view of the researcher on digital transformation theories. The focus of this research will be on aligning ideas learned through research articles with the data gathered from the interview process and minimizing researchers' biases as much as possible. The interview process will be conducted in a semi-structured manner where about 10 to 15 leaders working in the upper management level, or executives will be interviewed. The first couple of interviews will be considered as a pilot test. They will be conducted among peer researches to help concretize a format for the interview process, build a framework on which questions shall be asked to formalise the interview process and have higher reliability of data collected [22]. Given the nature of the research, the interview process is expected to last for 30 to 45 minutes, and the session will be broadly divided into three parts to cover the concept of Digitization, leadership style and the intersectionality. Given the complexity of the subject, the leaders being

interviewed will be given an adequate amount of notice to organise their thoughts on the three broad areas mentioned above.

Research Design

The research approach adopted here is pictorially represented in Figure 2, which was inspired by Saunders [21]. The purpose of this research is to fill the gap and create a framework that will be used for a specific type of change in anorganizationthat is focussed on Digitization. The aim is to fill the gap and create a framework that will be used for a specific type of change in anorganization which is focussed on Digitization and is neither to test any theory nor creation of any new ideas. The objective is to extract the core essence of existing theories and build a new framework using these theories as building blocks. The approach of abduction is best suited to tackle this question since the nature of the research is exploratory and tries to tie patterns from existing literature with empirical research themes [21]. Additionally, due to the subjective nature of the research where the world view and approach of project managers and change managers in digital transformation, the viewpoints that will be used in the study are all in line with the philosophical ideas of ontology, epistemology and axiology.

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Research Strategy

When integrating digitization in an already complex business world, a qualitative approach is better suited as it provides more room to garner insights from leaders through long-form interviews where the researcher can ask questions which can be crucial to each individual's philosophical approach in leading his or herorganization. This will help in gathering deeper insights due to the exploratory nature of the interview process [24]. The interview process will be conducted in a semi-structured manner where about 5 to 10 leaders working in upper management level, or executives will be interviewed. The first couple of interviews will be considered as a pilot test and will be conducted among peer researches to help concretize a format for the interview process, build a framework on which questions shall be asked in order to formalise the interview process and have higher reliability of data collected [24]. Given the nature of the research, the interview process is
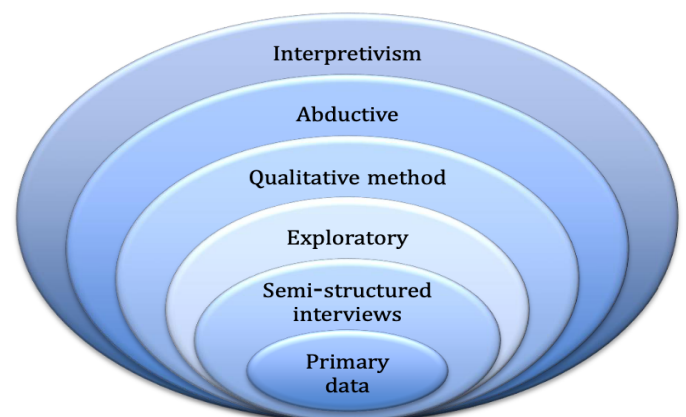

Figure 2. Research Onion (Source: Inspired by Saunders).

expected to last for 30 to 45 minutes, and the session will be broadly divided into three parts to cover the concept of Digitization, the leadership style and the intersectionality. Additionally, given the complexity of the subject, the leaders being interviewed will be given an adequate amount of notice to organise their thoughts on the three broad areas mentioned above. The rate at which leaders in their early 30's acclimatises to Digitization might be drastically different compared to older generations. The interview questions will be moulded based on the leaders understanding of the concept of Digitization. The other trait to consider is the level of influence digitization has on these leaders. It is safe to assume that younger leaders would be much more tech-savvy than the older generation and their capabilities when it comes to technology would be much higher than that of the more senior leaders. However, given the experience of the older generation leaders, the adaptability rate might be even higher than that of younger leaders when it comes to change. The third trait to consider is how digitization affects their leadership style and their philosophy.

Statement of data sources and data collection methods

In order to ensure data reliability, it is better to gather data from a broader spectrum oforganization than concentrating on just one area which will thereby satisfy the research question. The purpose of this research is to fill the gap and create a framework which will be used for a specific type of change in an organization which is focussed on Digitization, so a concentrated pool of leaders working within a particular industry might provide deep insight on different philosophies which drive leaders to initiate or make this shift to Digitization [25]. However, the researcher understands that this leaves a gap in research where the result cannot be generalized to a higher degree for all sectors. This could be part of future research.

The sample size will contain 5 to 10 leaders from different verticals within anorganization and is not limited to leaders who define the technology stack of their respectiveorganization. The other criteria for the selection of the sample are to maintain gender ratio where an attempt will be made to keep the balance. The industries who are the pioneers for this digitization are insurance, banking, telecom and media industries, as mentioned by Jari Collin who states that these are examples of pioneering sectors that are in the middle of digital transformation." The researcher will be concentrating on these domains to set upan interview with the industry leaders, mainly due to the researchers understanding and experience within these domains.

Given the scarcity of time of these leaders, the ideal way to reach out to them would be through LinkedIn to initiate a conversation, followed by discussions through email where the topic of conversation will be introduced and if agreeable with the interviewee, further communication will be conducted to set up an interview. The researcher would prefer to have a video conference or a phone call to limit any unnecessary human to human physical interaction during these times of COVID 19. The people who will be interviewed will be provided with the broad structure of the interview process prior to the actual interview so that they will be able to understand the nature of the research and organise their thoughts accordingly. These will be done to facilitate an immersive interaction which would help the researcher to gather as much data as possible [25]. The researcher will also state in email communications that the conversations will be recorded, and any privacy concerns raised will be adhered to strictly.

Evaluation of all ethical considerations

Another area of consideration should be on the level of openness the leader would have when questions related to technology are asked. Since most of the leaders would be from upper management or executives, they have the responsibility of being knowledgeable in their area of expertise and also in the concept of change to Digitization and the impact this would have on their company. To understand the implications, they would have to be knowledgeableabout the idea of Digitization itself. There could be scenarios where the interviewee might have to consider maintaining his/her image and fail to admit their lack of knowledge in this domain. The researcher needs to consider their circumstances and must develop interview questions and a way where both parties are comfortable with the nature of questions.

The research will be conducted in Australia and the interviewees would be selected from within this region. Due to the limitation of the study, a generalisation of the study should be avoided. This is mostly due to the biases that both the researcher and the interviewees might have; due to their cultural and geographical limitations. Due to these circumstances, care must be taken to consider the ethical aspects of the research. Each leader interviewed will be clearly informed about the purpose of the research; interview and questionnaire will be conducted only after mutual consent.The interviewed leaders would also be made aware of the privacy of the data, and any conflict of interest would be agreed upon prior to the interview [24]. The interview will be conducted over video conference or audio conference and will be recorded. This information will be provided during the process of setting up calendar dates with the interviewee.

Statement of Expected Research Contribution

The academic contribution of this study not only intends to provide an extended framework to integrate project management and change management but will also contribute to future studies in the similar domain by providing primary data which is gathered from interviews. The study also intends to provide this framework as a guide for project managers involved in the digital transformation change initiatives.

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