Enhancing Value Creation through Digital Transformation

Architecting Project Management for Embracing Disruptions – Digital Transformation

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ABSTRACT

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Large organizations in the world are currently grappling with profound disruptions related to technology and competition that is taking place in the world all around us. In order for the organizations to survive in the future they need to acknowledge, understand, maneuver and manage the disruption carefully. The existing operating model of the organizations may not be sufficient to manage these disruptions effectively.

The focus on machine learning, AI, big data, analytics, agility, block chain and digital has led to additional disruptions. The role of the Project Managers has also been disrupted and changed considerably on account of the disruption. Organizations can survive for the future through the optimization of its operating model through a project based digital transformation approach.

This paper has been developed based on the live experience and the real time implementation that is proven at the workplace, especially for large enterprises in the IT domain.

This paper will focus on the following areas –

a) Why Disruption? How to focus on the bigger Purpose

b) How a digital transformation can manage the disruptions effectively

c) How to aid the digital transformation through Agility and Innovation

d) How do anti-fragility, removal of Retrospective coherence and Klein bottle concept enhance the focus of a digital transformation

e) Role based organization design to manage disruptions effectively

f) Proposed framework (tools, technology, structure, roles) to address these issues

g) Benefits of using the framework

By adopting a suitable framework, the organization will be able to reinvent itself to meet the changing market requirements.

INTRODUCTION

Digital transformation is a fundamental change in how an organization delivers business value to its customers. It is a radical focus on how an organization uses technology, processes and people to fundamentally change the way it is doing business. Digital transformation is perceived to lead to enhanced value creation provided all the other existing attributes and constraints are managed appropriately.

Large organizations in the world are currently contending with profound disruptions related to technology and competition that is taking place in the world all around us. In order for the organizations to survive in the future they need to acknowledge, understand, maneuver and manage the disruptions carefully. The existing operating model of the organizations may not be sufficient to manage these disruptions effectively. Hence, the focus on digital transformation which changes and reshapes the organization to effectively meet the disruptive threats in the market place.

The change that occurs when new business models and digital technologies affect the value proposition of existing goods and services is called as digital disruption. A successful digital transformation includes enabling the business to manage large amounts of "big data" – which is the capability to analyse all aspects of the behavior of the customer and use those insights to manage the growth of the business line. Digital disruption is a transformation that is caused by emerging business models and digital technologies. These innovative new models and technologies impact the value of the existing products and services offered by the organization.

Digital disruption is an opportunity for the organizations to reshape their business areas. It is no longer a hypothetical state across all the industrial domains and it is a reality today... One of the key steps in this transformation is extending the concept of digital disruption beyond the IT department and into business operations. The whole organization is impacted by the digital transformation and it should not be restricted only to the IT department. The focus on machine learning, AI, big data, analytics, agility, block chain and digital has also led to additional disruptions. In business, a disruptive innovation is an innovation that establishes and creates a new market and value network and it eventually leads to the disruption of the existing market and value networks, thereby dislocating established market-leading organizations and products. Figure A gives the details pertaining to the reign of digital disruption in the near future.

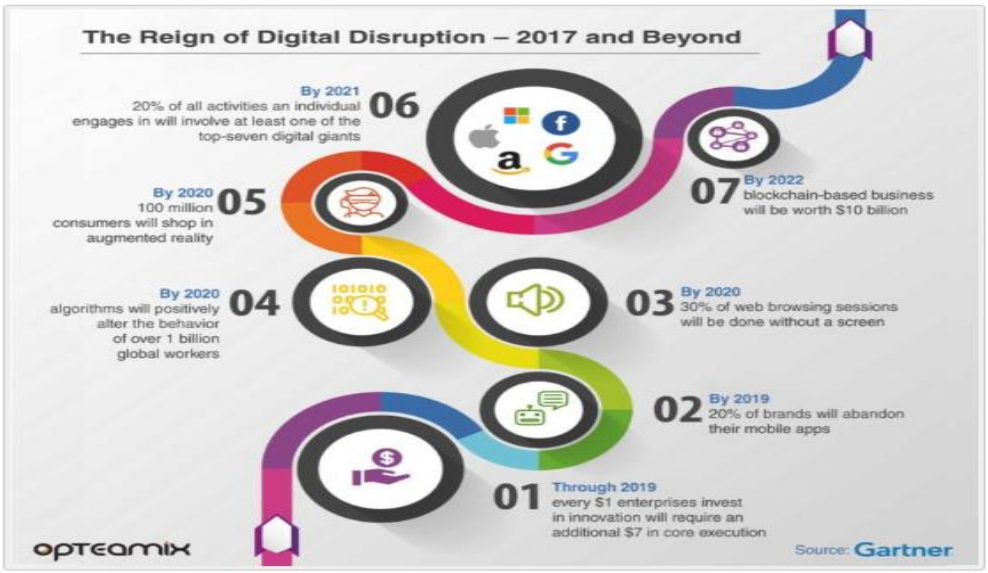


Fig A – State of Digital Disruption

Large organizations and enterprises are unable to quickly respond to the market place changes and disruptions due to the inherent nature and size of the organizations and the existing processes which are completely inadequate to meet the changing needs of the market place. Hence, organizations are looking at how to go digital and which processes aid the digital transformation. One of the important processes which aids digital is agile process along

with innovation. Agile is considered the product of similar forces that are powering digital transformations and also by itself, agile is a major force in the modernization and digitization of businesses. One of the main advantages which organizations expect from a digital transformation is the ability to deliver faster to the customer, apart from other improvements. The bigger purpose of disruption is to focus on how the organization can manage these disruptions through an effective digital transformation strategy.

Hence, Organizations can hope to survive for the future through the optimization of its operating model through a program based digital transformation approach.

This paper has been developed based on the live experience and the real time implementation that is proven at the workplace, especially for large enterprises in the IT domain.

This paper focuses on the following areas –

a) Why Disruption and How a digital transformation can manage the disruptions effectively

b) How to aid the digital transformation through Agility, Innovation and other related concepts

c) Role based organization design to manage disruptions effectively

d) Proposed framework (tools, technology, structure, roles) to address these issues and the Benefits of using the framework

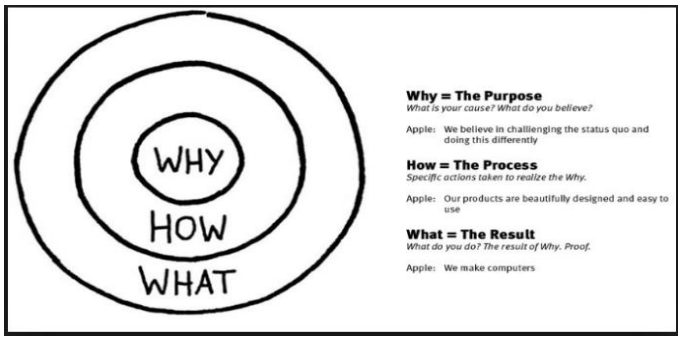
By adopting a suitable framework, the organization will be able to reinvent itself to meet the changing market requirements.

DETAILS OF THE PAPER

Background

The following steps give the specific strategy followed by organizations with which I had been associated earlier as part of the digital transformation initiative.

In a rapidly changing digital marketplace, having a product development process that takes months to bring the product to the market is a serious disadvantage for the large enterprises/organizations. Given the nature and type of disruptions and competitive forces that are constantly affecting the organization, it is imperative for the organization to take the help of additional techniques and strategies to effectively deal with these types of disruptions. In order to manage these aspects, large enterprises follow a digital transformation strategy. The three fundamental questions that an organization asks is (Figure B) –



Source – Concept of Golden Circle, Simon Sinek

Fig B – Concept of Golden Circle

The focus on the golden circle concept enables the organization to focus on the purpose and the reasons for having a digital transformation strategy –

The focus on WHY gives the Vision for the organization

The focus on WHAT gives the Plan for the organization and the

The focus on HOW gives the Action Plan to be taken by the organization to achieve the goal.

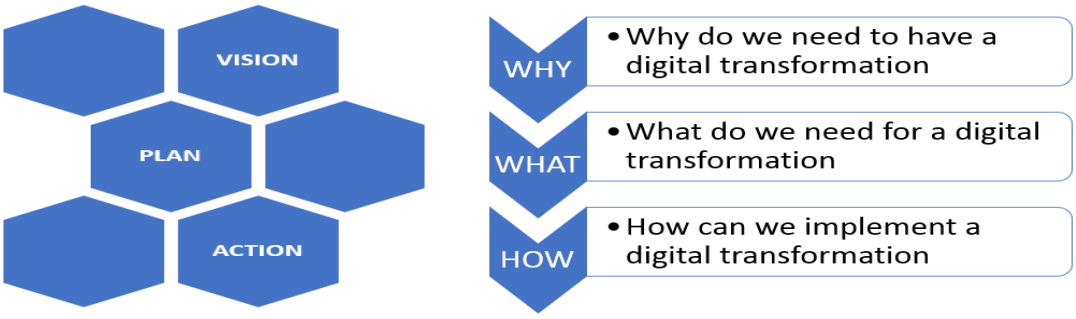


Fig C – Key Questions asked by the Organization before a Digital Transformation

Figure C gives the Key Questions to be asked before starting a Digital Transformation and it gives the strategy for asking the key questions by an organization before embarking on a digital transformation initiative. The focus of the organization is on improving effectiveness, efficiency, release cycle time and other parameters which enable the organization to meet and exceed the customer expectations as compared to other competitors and also cope with the rapid changes in the digital market place.

Proposed Solution

Figure D gives the proposed framework for achieving value creation through digital transformation in a large IT enterprise --

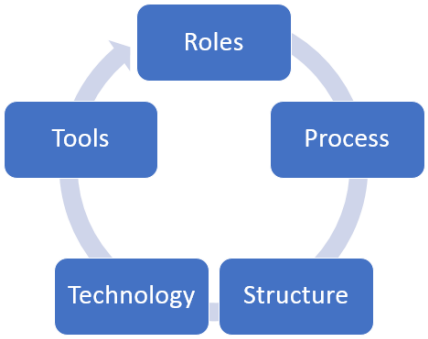


Fig D – Proposed Framework for achieving value creation through Digital Transformation in a Large Enterprise

The five Pillars identified for enhancing value creation through digital transformation are –

1. **Roles** – The various roles that are present in an organization. Roles depict the shift in the organizational focus and how they affect the mindset of the people in the organization. Roles enable an organization to focus on the activities at hand instead of trying to appease people by having many designations which do not add much value to the organization. Roles enable the organization to be customer centric which is outward focused whereas designations focus on the employee gratification aspect and is inward focused. Hence, an agile and growth mindset is needed to enable the organization to move towards a digital transformation. E.g. the focus on roles leads to a Role Based Organization (RBO) which enables the focus on the customer and the activities and the various roles are played out by different members and at the back end it is mapped to a specific set of designations by the HR department. Another example is the Project Manager job which has got transformed into three roles – Scrum team, Agile Master and the Product Owner. For very large projects, the Senior Project Manager/Director job still exists but the number of positions has become very less and it is mainly viewed as an overall coordination role as the teams are considered as self-organized teams.

2. **Process** – Agile process aids the digital transformation of an organization. If the organization is following processes that don't aid the digital transformation, then the organization will feel that the digital transformation is not yielding significant benefits. All the departments in the organization should be operating together as one and there should not be any silos in an organization. It is very difficult to break the silos in an organization and these silos get formed early in the life of the organization. E.g. DevOps process strategy at the ground level ensures the collaboration between dev and ops departments and there is seamless integration and which leads to better time to market for the organization thereby aiding the digital transformation. Another example is the formation of feature teams as part of the agile process, which ensures the focus on DevOps members and the breaking of silos in the organization. Similarly, the merging of business operations and IT leads to further breaking of silos in the organization. Focus on Innovation process leads to new disruptive ideas being identified and which may have a potential spin off as a mini business line in the future.

3. **Structure** - Culture eats Strategy for breakfast was coined by Peter Drucker. Similarly, culture follows structure (Figure E).

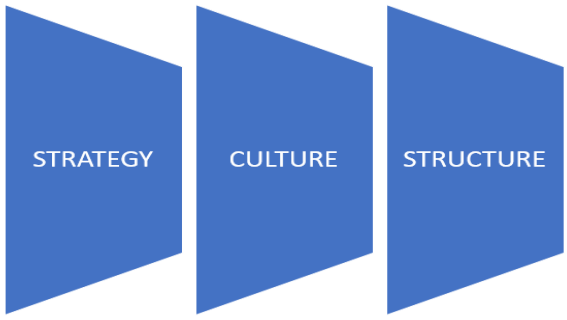


Fig E – Link between Strategy, Culture and Structure

The link between strategy, culture and structure is very important as this highlights the drastic changes that are needed in an organization in order to embrace the agile mindset and implement a digital transformation at the work place. The structure of the organization influences the culture of the organization and the strategy of the organization. In order for the organization to be able to embrace the digital focus, the multiple levels of hierarchy in the organization must be reduced to the minimum so that the organization can behave like a lean startup. This is extremely difficult in an organization that is extremely large with multiple levels of hierarchy. Hence, drastic changes are needed at the structural level to implement this transformation. E.g. The existing designations in the organization with myriad levels are changed to a specific set of levels with the changes in the HR policies and multiple roles are introduced and which are mapped to these designations thereby leading to a focus on the customer and the activities as compared to the people and which leads to dissatisfaction among the employees. The digital transformation strategy is generally led by the Senior Leadership and the concept of roles makes it an equal playing field with all the other employees and also leads to buy-in of the initiative. An industry example is the case of Amazon which has a structure, culture and strategy that is completely focused on the customer outcomes and which is buoyed by a digital transformation program.

4. **Technology** – The fourth pillar of the digital transformation strategy is technology. Large organizations use myriad types of technologies to meet their customer goals. Digital transformation enables the usage of different technologies to enable the meeting of the digital goals of the organization. The digital transformation initiative harnesses the very technologies which led to digital disruption in the first place. The usage of technologies ensures that the organization is able to cope with the ever-increasing changes in the market place. E.g. An automation strategy with the right tools enables the digital transformation of the organization.

5. **Tools** – The last and fifth pillar of the digital transformation strategy is tools. The focus on tools enables quick process completion and it always goes hand in hand with technology. Tools and technology ensure that the digital transformation is executed at the ground level and which actually translates the goals defined at the higher level. E.g. DevOps tools usage at the ground level leads to continuous integration and continuous delivery with continuous deployment that enables release cycle time and aids the digital transformation.

Other Areas that aid Digital Transformation

Apart from the above pillars that aid digital transformation, there are other areas that aid digital transformation as given below –

1. **Anti-Fragile** -- Antifragility is a property of the systems which leads to an increase in their capability to thrive and do better as a result of shock, volatility, stressors, noise, mistakes, faults or failures. It is a concept that was developed by Prof. Nassim Nicholas Taleb in his book Antifragile. Anti-Fragility helps large organizations to thrive due to greater competition and stress. This builds the inherent robustness needed to manage the digital transformation of the organization where the organization has to manage both internal and external changes. Additionally, digital transformation strategies are built for the long terms as specific changes cannot be undertaken in a short period of time. Hence, anti-fragility is a useful property of an organization undertaking a digital transformation initiative.

2. **Removal of Retrospective Coherence** – Retrospective Coherence is a thinking fallacy that comes from the veracity of retrospective coherence. The mistake we make is due to the fact that because we can look back in time to understand the causes of our current condition, we can therefore also see forward in time and thereby affect the causes of a future condition. However, organizations and teams are Complex Adaptive Systems (CAS) which are emergent. Hence, we can never be definite about what the future holds for us even if we can trace how we go to this place. This is a very important concept to understand as during the implementation or creation of the digital transformation strategy, there is a tendency to observe other organizations which have undergone digital transformation and then try to copy a similar strategy. However, this rarely succeeds as due to retrospective coherence and the fact that organizations and teams are complex adaptive systems, the outcome can never be forecasted. The systems are emergent and context specific and therefore, copying other systems cannot guarantee success. Another example is when the organization tries to find out how a specific event occurred successfully after it has occurred or tries to attribute some cause for the failure of an event, they are again guilty of retrospective coherence. There is no sure way to find out what actually caused the success or the failure of the event, in this case, a specific transformation and therefore each organization needs to work out its own strategy to create success and which is emergent and context specific. Hence, the creation of a framework to achieve a successful digital transformation in an organization only indicates a higher probability of success if the framework is used within the context as systems are emergent and the outcome cannot be predicted with certainty. Thus, the focus on the removal of retrospective coherence during a digital transformation initiative.

3. **Klein Bottle concept --** The Klein bottle was initially explained by the German mathematician Felix Klein. It is generally described as a closed non-orientable surface that has no inside or outside. This metaphor as applied to an organization undergoing digital transformation indicates the organization has a single point of contact with the customer for any specific transaction. E.g. agile feature teams are considered to develop the product end to end with the product owner also available for the team and co-located with the team to explain the requirements of the product. Apart from this, the structure of the organization and the roles of the organization are restructured such that there is a seamless connect with the customer. This ensures the shortest possible time in which the product is delivered to the customer with no boundaries between the customer and the team delivering the product / service to the customer. It is difficult for an organization to reach this level but the organizations try to reach near to this level as much as possible. The nearer they reach to this level, the more successful will the digital transformation be. An example of a klein bottle is shown in Figure F.

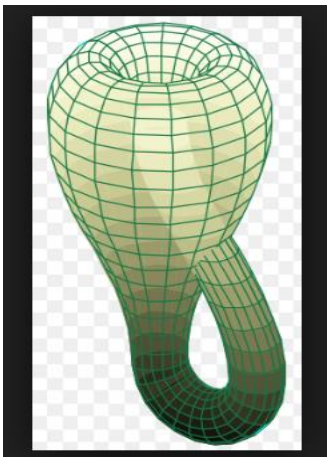


Fig F – Klein Bottle

Thus, the understanding of these concepts enhances the focus on the digital transformation with a higher probability of success.

Challenges in implementing Digital Transformation

The key challenges observed while implementing digital challenges are –

1. Working in Silos – working in silos reduces the effectiveness of the digital transformation. Hence, the organization must ensure that the silos are broken and the whole organization is working seamlessly to deliver the best possible service/product to the customer.
2. Poor Communication – Communication is one of the most important success factors for the digital transformation initiative. Poor communication could lead to wrong perceptions, mix-ups and failure of the digital transformation. The communication should be consistent and repeated so that all the members in the organization understand the why of the digital transformation.
3. Too much focus on the digital aspect of the transformation – Digital initiatives should not be considered because it is the current fad or flavor of the season. If the focus and why of the digital aspect is not clear, the technology will not give the intended value to the organization in meeting the customer requirements.

Methodology/Process Followed

The framework indicated in Figure D was used to embark on the digital transformation. By following a framework which encapsulated the key concepts of the digital transformation, the probability of success becomes greater. Generally, the digital transformation initiative is a multi-year initiative and it takes many years for the initiative to be highly successful for large organizations. However, quick and immediate payback at periodic intervals enables the organization to ensure that the digital initiative is ongoing over a multi-year period.

Key steps followed are –

1. Define the multi-year digital transformation program with approved business case and funding and a clearly enunciated and focused strategy that is communicated to all the stakeholders and the communication is repeated at periodical intervals to keep the focus ongoing on the digital transformation.

2. Indicate the various milestones within the program.
3. Focus on sub-programs like agile, devops, smart automation, machine learning, artificial intelligence and ensure that these milestones are linked to the main program.
4. Ensure periodic checks and governance meetings to know the progress at different milestones across different programs.
5. Consolidate all the sub programs at the overall level to know the success of the program.
6. Define specific metrics for the various initiatives and at the overall level so that the progress of the digital initiative can be tracked.
7. Obtain feedback from the customer regarding the changes observed by them in the delivery, response and other factors of the organization over a period of time.
8. Focus on the return on investment and the payback period. Metrics related to effectiveness and efficiency along with other metrics are tracked through dashboards at the enterprise level and which can be broken down to the granular level.
9. Communicate periodically regarding the success points and other improvements to all the stakeholders.
10. Decide on the strategy to be followed each year based on the actual feedback from the customer, employees and in the field and course correct accordingly.
11. Monitor and run the program till closure. Subsequently, focus on the sustenance of the program over the life of the enterprise.

Critical Success Factors (CSF)

The Critical Success Factors (CSF) for a digital transformation are –

1. Agile Innovation - In order to ensure that the investment in digital technology can be turned into concrete business value requires a 'fail fast' culture and a profound understanding of the customer experience.
2. All the initiatives need to be viewed seriously as it is difficult to know beforehand which digital initiative will succeed.
3. Focus on the customer – Customer first approach should not be forgotten as the digital initiative was taken up mainly to meet the changing market and customer requirements in the first place.
4. Focus on the build-measure-learn (BML) loop of the lean startup movement so that the digital initiatives can be guided appropriately.

Quantified Benefits to Business

All the above concepts and steps have been observed and tested in various large organizations, e.g. retail, healthcare, mortgage and in the banking industries, especially for end to end IT business solutions.
The approximate quantified benefits observed for Business are –

Outcomes and Benefits Observed for Business
Improved customer satisfaction
20-30% Improved Predictability
20-30% Better Quality
20-30% Improved cost efficiency and 10-20% FTE savings
20% Improved Productivity
Improved RoI (return on investment)
Innovation Focus and Fail Fast culture
Growth Mindset and Improved employee satisfaction
Retention of Employees due to varied opportunities

Lessons Learnt

1. Communication is the key for a successful digital transformation initiative to avoid any confusion and wrong perceptions.
2. Appropriate focus on the digital aspects to avoid over focusing on it at the expense of other variables.
3. Usage of a framework to avoid re-inventing the wheel during implementation and customizing it based on the feedback received from the customers and other stakeholders and undertaking course correction, as needed.
4. Highlighting the success points of the transformation at periodic intervals and managing the improvement points through governance and follow-ups.
5. Building and sustaining the program on a regular basis.

CONCLUSION

Digital Transformation Initiatives are multi-year programs covering many variables, concepts and attributes and affecting the whole enterprise. Hence, care must be taken to formulate a cohesive and strong digital transformation program taking into account all the needs of the stakeholders and the customers and adopting an appropriate framework which maximizes the success of the initiative and brings the much needed RoI and outcomes as outlined in the Vision and mission statements of the program.

The framework indicated in the paper is observed in different domains and all the steps have been executed and it has been practically applied and well proven in large enterprises in the IT domain in different industries – healthcare, banking, financial services and related areas.

By embracing the above approach, large IT enterprises can hope to maximize the possibility of enhancing value creation through a successful digital transformation program and manage to respond to the changes in the digital marketplace and endure to remain a significant player in the industry.

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