

Conceptual Review on Dimensions of Digital Transformation in Modern Era

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Abstract- Digital disruption has become something of a cliché during the past few years and it is defined as the impact and effect of new digital technologies and new business models on the value propositions of existing goods and services and business models. With the increased impact of digital disruption industries are moving towards the core of Digital vortex and in order to evade the danger of disappearance from the market by moving towards the core, the concept of Digitalization has emerged and has become an important aspect and has become more than a technological shift. Alongside, the paper attempted to investigate and find an answer to the most crucial question "what to transform?" in a business to achieve a successful digital transformation. It has followed comprehensive literature review as the main research tool and the paper is framed as a concept paper with the discussion on empirical insights. Finally, it concludes the paper with some research directions and priorities for the future studies.

Index Terms- Digitalization, Digital Agility, Digital Business Models, Dimensions of Digital Transformation, Digital Transformation, Digital Orchestra, Digital Vortex,

I. INTRODUCTION

During the past decades there has been a huge improvement in technology and it has become an inseparable part of our everyday lives which has undoubtedly influenced and changed the way we function (Rassool & Dissanayake, 2019). The role of information technology has transitioned from being just an administrative tool to a one that drives organizational activities in a strategic way thereby supporting the realization of the business strategy (Morabito, 2016). Further, Hess, Matt, Benlian and Wiesböck, (2016), states that the market changing potential of digital and information technologies are not just limited to products, business processes, sales channels or supply chains but the entire business models are being reshaped and frequently overturned (Hess et al., 2016).

In this context, these advances in digital technologies inclusive of information, computing, communication and connectivity, have unleashed new opportunities for business model innovation. (Bharadwaj, Sawy, Pavlou, & Venkatraman, 2013) And the synchronization of IT strategy and the business strategy has resulted to emerge the concepts of Digitalization, Digital Business Strategy (DBS) and Digital Business Models to the market that enable work to be carried out across boundaries of time, distance, and function (Bharadwaj et al, 2013) .

Many researchers have defined digitalization in different perspectives. Kaplan, Waste, Wood-Harper and DeGross, 2004 define Digitalization, which is also known as Digital transformation as the changes associated with the application of digital technology in all aspects of human society (Kaplan et al., 2004). Meanwhile, Wade, (2015) describes digitalization as going paperless and application of digital aspect for all aspects of the society. Almost all the sectors and industries are influenced by the effects of this Digital transformation or Digitalization (Jurisic & Kermek, 2011). In the literature Digital business strategy (DBS) has defined as a fusion of business and the IT strategy of an organization and the incorporation of digital technologies in business strategy (Bharadwaj et al, 2013). On the other hand, a Digital Business Model (DBM) can be identified as a model that leverages on digital technology to improve several aspects of an organization, from how customers interact, how the value proposition is derived and/or how monetization happens (Cuofano, 2019).

Thus it is evident that today the "Digital" is the talk of the town. With all these improvements and being digital is the future of everything, and it is important that organizations consider digital transformation in their businesses because it is anticipated that companies that are unable to adapt to digital world will be victims of "Digital Darwinism" where companies who are resistant to Digital transformation may disappear and the most adaptable change oriented enterprises who are responsive to technological trends, will survive to remain on the competitive landscape (Schwartz, 2001).

Thus, as per a study done by MIT Centre for Digital Business and Capgemini consulting further emphasized, companies face common pressures from customers, competitors and employees to initiate or speed up the pace of their digital transformation. The study also

highlights that a successful digital transformation will come not from implementing new technologies, but transforming the organization and enable it to take the advantages that new technologies provide. A recent review of the literature on Digital transformation suggests that major digital transformation initiatives are centered on re-envisioning customer experience, operational processes and business models (MIT Center for Digital Business; Capgemini Consulting, 2011).

A. Purpose of the Study:

A growing body of literature has examined regarding Digital transformation and Digital business models which have got a high support in the industry in the form of industry reports from institutes such as research centers like the MIT Centre for Digital Business (Unruh & Kiron, 2017; Kane, 2016; Westerman & Bonnet, 2015; Weill & Woerner, 2017), research firms like Gartner (Karamouzis, Maurer, McIntyre, Perkins, Dulaney, Short, Taylor, 2014), technology advisory firms like Accenture (Accenture LLP, 2015) or Capgemini (MIT Center for Digital Business and Capgemini Consulting , 2011), and strategy consultancies such as McKinsey, BCG, and Bain.

However, from an academic point of view, Digital transformation and DBM are rather fragmented areas because of the existence of multiple and diverse areas of investigation. Literatures denote that most of the recent work related to Digital transformation and DBM are mainly focusing on certain aspects of Digital transformation such as challenges, drivers, success factors and business models and strategy (Ismail, Khater, & Zaki, 2017) However, although this approach is interesting, the dimensions of digital transformation which is one of the pivotal part in this subject area has not been dealt with in depth and has been recognized in the literature in an infant level. Therefore, still there is much room that require more in depth study in the area of dimensions of digital transformation in an organization.

As per the literature review justifies, application of Digital transformation in many industries and digital transformation strategy is a considerable empirical gap as per its dynamic nature (Rassool et al., 2019). Thus exploring Digital business transformation and the dimensions which should be addressed in the digital transformation process from a more strategic point of view should be improved in academic literature with valuable insights for managers on how to approach digital transformation and implement well defined digital transformation strategy in the organization (Hess et al., 2016).

In this context, the paper intends to investigate the concept of Digital transformation and Dimensions of digital transformation providing a holistic view on digital transformation strategy, based on an empirical study on available literature.

B. Methodology:

In this research the researcher follows a deductive approach where the explanations and arguments are supported by empirical evidences and associated theories. The researcher has reviewed journal articles, industry publications and reports from institutes such as research centers, technology advisory and strategy consultancies as well as report from credible web sites to understand "What is Digital transformation and what are the different dimensions of digital transformation that a firm can adopt in its DT process". Accordingly, literature review was employed as the main research tool. The paper is organized as a concept paper whilst arguments were empirically supported. Finally, the author discusses and conclude the paper postulating future research directions in line with the synthesized discussions.

II. THEORETICAL BACKGROUND

The paper presents the literature review considering digital transformation and dimensions of digital transformation as the main concept whilst supportive theoretical and empirical contents are presented in line.

A. Digitization:

There is an important difference between Digitization and Digitalization. Digitization refers to the conversion of information from analogue to digital world (Picard, 2011) or the automation of processes through information communication technologies (Hess et al., 2016). Digitization has paved the way for developing many approaches for business-IT alignment such as concepts for technology adoption, procedures for software selection, or data and information integration using information systems (Imgrund, Fischer, Janiesch, & Winkelmann, 2018). Further Imgrund et al., (2018), points out Digitization has resulted to significant improvements in organizations use of IT, implementation of IT strategies and information processing capabilities. Thus it can be understood that Digitization had put the first step to an extensive digital transformation process which is fuelled by the convergence of social, mobile, cloud, and smart

technologies and the growing need for big data applications, automation, and integration (Sebastian, Ross, Beath, Mocker, Moloney, & Fonstad, 2017).

B. Digitalization / Digital Transformation:

On the other hand Digitalization which is also known as Digital transformation is a combination of both procedures of Digitization and Digital innovation with an intention of improving existing products with advanced abilities (Yoo, Boland, Lyytinen, & Majchrzak, 2012). As per Holotiu and Beimborn, (2017), Digitalization explains the synchronization of business and IT strategy of an organization and the incorporation of information technology into the business strategy.

Figure 1: A Framework for Understanding Digitalization



Source: (Unruh & Kiron, 2017)

Strategy plays an important role in this digital transformation process. However literature denotes that there is a gap identified between digitalization and the strategic alignment. In the industry it can be seen a bigger variance between digital leaders and average performers when comparing the competitiveness. And according to Catlin, Scanlan, and Willmott (2015) this variance is caused by the strategy related factors.

As per the report "Digital Business Transformation" by Michael Wade (2015), currently the most significantly associated technologies with digital transformation are;

- Analytics tools and applications, including 'big data',
- Mobile tools and applications,
- Platforms upon which to build shareable digital capabilities, like cloud solutions and app marketplaces,
- Social media tools and applications,
- And the Internet of Things, including connected devices and 'smart' networks (Wade et al., 2015)

The synchronization of these technologies are referred as "Internet of Everything (IoE)" which has a profound impact on how organizations adapt digital transformation.

C. Key Dimensions of Digital Transformation:

As per a survey done by Global Center for Digital Business Transformation a set of questions which were top-of-mind for the hundreds of industry experts, CEOs and senior executives with whom they have engaged were; how this digital transformation need to be executed? Where to start? What is the sequencing of actions? And in different areas of the business, what precisely need to be changed, and to what extent? (Wade, Noronha, Macaulay, & Barbier, 2017). With the aim of finding an answer to the above questions, in the following sub-section the author reviews several conceptual and theoretical frameworks considered relevant to the subject of digital business transformation as well as different dimensions identified by different sources regarding technology adoption within the business environment.

According to Kavadia, Ladas, & Loch, (2016), a technology cannot transform an industry unless a business model can link in to an emerging market need (Kavadia et al., 2016). Thus by introducing Six keys to success framework Kavadia et al., (2016) identifies six elements a business model should possess in order to successfully digitally transform a business. The six keys employed by the framework

in linking technologies to markets are; a more personalised product/service offering, a closed-loop process, asset sharing, usage-based pricing, and a more collaborative ecosystem, an agile and adaptive organisation (Kavadia et al., 2016).

In 2015, Michael Wade propose a framework named as Digitalization Piano answering the critical question of digital transformation i.e. what to transform. In this framework Wade develop seven distinct categories addressing seven key areas of business that can be digitally transformed in an organization. Along with the categories some guiding questions are also being formed where by answering these questions a firm can draft the roadmap of transformation needs to one's firm. The seven categories are; Business Model (how the firm makes money), Structure (how the firm is organized), People (the people who work for the firm), Processes (how the firm do things), Offerings (Firm's products and services) and Engagement Model (how the firm engage with customers, suppliers, etc.) (Wade et al., 2015).

Aspects for a successful digital transformation was further argued by Berman, Korsten and Marshall, (2016), and according to his argument to achieve a successful digital transformation it is vital for an organization to accompany a new strategic focus, build new expertise and establish new ways of work. Further he emphasis that in order to achieve a successful transformation, it is a necessity to follow a bottom-up reinvention of strategy, operations and technology. Based on these arguments Berman et al. (2016) proposed The Digital Reinvention Framework further suggesting "an experience first" approach that focus on combining multiple digital technologies such as cloud computing, cognitive and analytics, mobile, Block chains, IoT etc (Berman et al., 2016).

By the same token, The Digital Innovation Strategy proposed by Nylen & Holmstrom (2015), emphasize the fact that organizations need to have a 360 degree holistic view of digital transformation in seeking to manage digital innovations in an organization. Thus the framework presented by Nylen et al., (2015) highlights five key areas to explore as user experience, value proposition, digital evolution scanning, skills, and improvisation. These five key areas are further categorized in to three major dimensions as the firm's products, its digital environment and organizational properties.

In addition to the above mentioned studies, Hess et al., (2016), states that a business can be digitally transformed in four key dimensions as the use of technology, changes in value creation, structural changes and financial dimension. (Hess et al., 2016). On the other hand as per a survey done by MIT Centre for Digital Business and Capgemini Consulting in 2011, they emphasize three key dimensions a business which can be digitally transformed which are Customer experience, operational processes and business models. In spite of the above mentioned aspects, in the Code Halo white paper and book published by Cognizant Technology Solutions Corver & Elkhuizen (2013), states that a digital transformation should often starts with the customer. It is a major part of any digitalization process to initiate with getting to know the customer better, improving the service levels and digitalize the customer experience. Thereby the process extends to three other dimensions such as digitizing operations, products and services and the organization (Corver et al., 2013).

Digital Transformation Framework is another framework that tried to find answers for the questions related to the dynamics of digital transformation within an organization (Matt, Hess, & Benlian, 2015). In this framework Matt et al., (2015) argues that there are four essential dimensions for a digital strategy. i.e. use of technologies, changes in value creation, structured changes, and financial aspects. The research further states that the core of an any digital strategy should be the financial aspect since in any organizations' strategic focus is primarily on sustainable growth and long run profits.

III. DISCUSSION

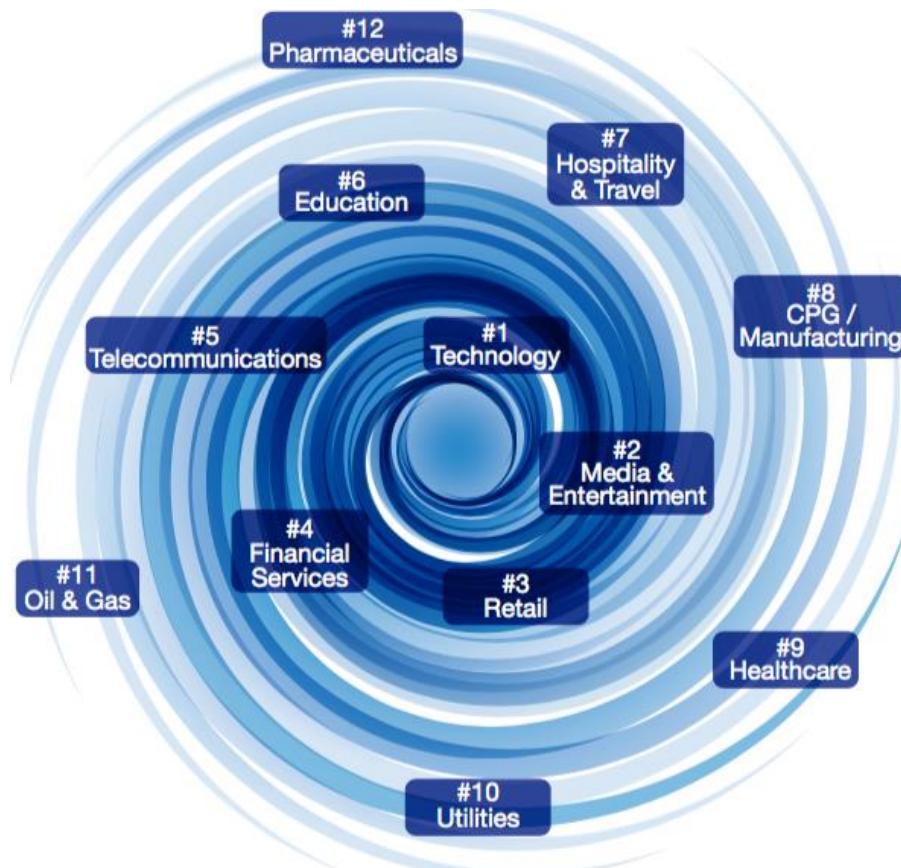
I. *Digital Disruption and Digital Vortex:*

Digital disruption are two words that shakes the minds and shivers down the spines of business firms regardless the industry or the capacity. The term digital disruption has become something of a cliché during the past few years and it is defined as the impact and effect of new digital technologies and new business models on the value propositions of existing goods and services and business models (Skog, Wimelius, & Sandberg, 2018; Wade et al., 2017). As an example, the digital camera business disrupted the film photography and photo processing business. However, it is very important that organizations embrace these digital disruptions and adopt and transform the businesses in order to gain the competitive edge in the market and those who are unable to adopt will be victims of "Digital Darwinism" and may disappears eventually (Schwartz, 2001).

In response to this digital disruption reality Global Center for Digital Business Transformation (DBT Center) publishes a book in 2017 named "Digital Vortex: How Today's Market Leaders Can Beat Disruptive Competitors at Their Own Game" and introduces the concept of Digital vortex which is an inevitable movement of industries towards a Digital center/core in which business models, offerings, and value chains are digitized to the maximum extent possible. The more towards the core of the vortex, the more intense the disruption, digitalization and competitive upheaval. The industries placed at the edge of the vortex are less impacted yet there is a

possibility of being pulled towards the center with the emergence of new technologies and new business model innovations (Wade et al., 2017).

Figure 2: Digital Vortex Industry Ranking – 2019

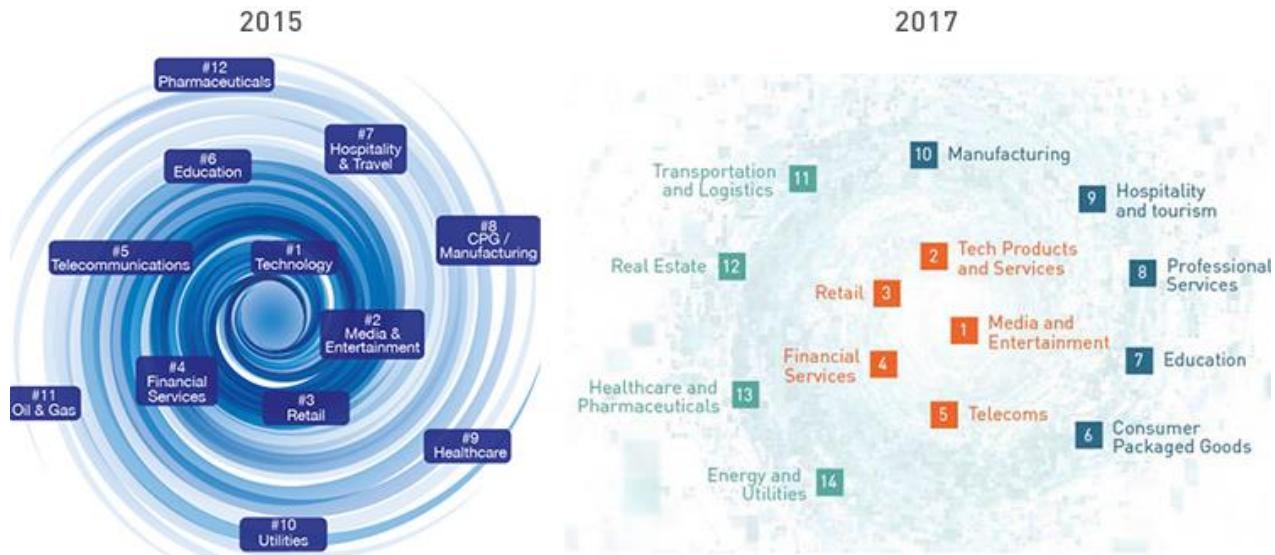


Source: (Wade, Yokoi, Shan, & Macaulay, 2019)

As per the cutting edge publication of Wade et al. (2019) as at 2019 January (shown in figure 2), the most vulnerable industries to digital disruption are media & entertainment, technology products & services, telecommunications, retail, and financial services. However, when compared to the publication done by Wade et al. (2017) the industries have not changed yet their relative positions have changed bringing them closer to the center indicating a high digital disruption in these industries and a major requirement of digital transformations.

But when compared to 2017 publication as shown in figure 3 the biggest jump has made by the transport and logistics industry towards digital vulnerability moving from 11th place to 7th place in 2019. Digitalization has disrupted many processes in transport and logistics industry including shipment methods, supporting services and cargo management (Wade et al., 2019). The emergence of logistics 4.0 has made the organizations use applications such as Enterprise Resource Planning (ERP), Warehouse Management Systems (WMS), Transportation Management Systems (TMS), Intelligent Transportation Systems (ITS), VANET Systems, sensor networks, drone points and business intelligence systems (Barreto, Amaralac, & Pereiraac, 2017).

Figure 3: Digital Vortex 2017 vs 2019



Source: (Wade, Shan, & Noronha, 2017)

Looking at the vortex it is very evident that other than the technology industry which is a very obvious factor of digital disruption, the next most vulnerable industry which needs rapid digital transformation is media and entertainment. It shows fast evolving consumer behaviors in the way they discover media, the way they consume media, the way they share media and the consumers pay for media (Wahid, 2019). Ranging from reading the daily newspaper to the digital subscription to a newspaper, from the basic Motorola phone to iPhone 11 Pro and from a simple Walkman to listen to your favorite song to the Spotify subscription the media and entertainment industry is going through a major transformation. According to the global entertainment and media outlook 2019-2023 by PwC, virtual reality, over-the-top (OTT) video (including streaming services like Netflix and Amazon Video) and Internet advertising will see the most annual growth between 2018 and 2023. Further by 2023, it's expected that media industry marketers will allocate over half of their budgets to digital advertising. Smartphone data consumption is expected to overtake that of fixed broadband by as early as 2020. Mobile is still growing rapidly in countries where it has not yet reached saturation.

The telecommunication industry is another very vulnerable industry which continues to face challenges with outmoded IT systems, organizational structures and corporate cultures. Moving two places forward towards the core in vortex, the industry need to well equipped to compete with strong digital capabilities such as Apple, Google and a variety of over-the-top (OTT) voice calling and messaging providers such as WhatsApp and Skype (Wade et al., 2019). Most of the top players have now started to capture new revenue opportunities through IoT, digital services and new business models and experiment with cross industry service creation and delivering. For example, Orange, the largest telecom operator in France, acquired a 65% stake in French insurer Groupama's banking unit in 2016 and launched a 100% mobile-only bank in 2017 (Friedrich & Meakin, 2016).

Adding to the list, the hospitality and tourism industry is another very digital disruptive industry which laid the platform to many new trends and pushes the organizations towards digital transformation. At present a customer can plan an entire trip "booking to bed time and home again" without any human interaction due to mobile integration technology (Newman, 2018). AI and chatbots are another very popular element in tourism sector today. As an example, Hotel Marriott is using AI-powered chat bots at nearly 5,000 hotels to do things like make reservation changes, and check on account balances or redemption vouchers. Furthermore, now using virtual reality the customers can visit and/or take look at anyplace even without leaving their house. More importantly technology has pushed hotels and restaurants to focus more on the quality of their service since the guests can share their opinions instantly via Facebook, Yelp, TripAdvisor and other travel review websites.

II. Digital Agility:

In order to grow in the digital vortex and avoid digital Darwinism companies need to develop digital business agility (Wade, Noronha, Macaulay, & Barbier, 2017) which is an essential aspect for creating digital business models. Digital business agility encompasses three continuous, interconnected, and mutually reinforcing capabilities: hyperawareness refers to accompanies ability to detect and monitor changes in its environment, informed decision making which refers to a company's ability to make the best decision in a given situation and fast execution i.e. a company's ability to carry out its plans quickly and effectively. However, as per the survey

done by Global Center for Digital Business Transformation, 2015-2017 its unfortunate that most companies lac the capabilities required to grow in the digital vortex.

One of the things holding the firms back from broader progress in digital transformation is the lack of a clear, industry-oriented roadmap. Thus as a solution for this matter Wade et al. and Global Center for Digital Business Transformation (2017) proposed a framework named Digital Orchestra which illustrates how to execute digital transformation in an organization and what to transform. One of the reasons why many firms do not succeed in Digital transformation is lack of clear understanding about their strategic direction and not having understood the fact that the business models and strategies need to create a value to the customers. As cited by Nwaiwu, (2018) a company must enhance three forms of values when creating their digital transformation and business model which can be listed as cost value, experience value, and platform value. Once a firm identifies the current and planned levels of cost value, experience value, and platform value offered and identifies what must be changed to bridge the gap and the strategy execution the next most important question is which parts of the organization are needed to execute the strategic direction.

III. Digital Orchestra – Dimensions of Digital Transformation:

However, when considering all the above mentioned theories and frameworks it can be understood that Digital transformation and its dimensions have been widely investigated and various approaches have been proposed by many previous authors. In this wide collection of frameworks various dimensions have identified answering the major question in Digital transformation, i.e. what to transform? Nonetheless the main weakness in their studies is that most of the models and frameworks are being focused on key business operations only.

But, as per the authors point of view a digital transformation strategy should serve as a central and a holistic concept that integrates every part of the business and even go beyond the borders. Thus, by analysing and summarizing all the frameworks and literatures and by looking at an organization in a 360 degree view, four key areas can be identified that need to be addressed in a digital transformation process which are the go-to market, engagement, organization and operations which bears a close resemblance to Digital Orchestra by Wade, (2017).

Under go-to market it is important to focus on what the company is offering to the customer and how these offering are being sold and distributed in the market. In go-to market two dimensions are identified as the offering and the channel. Organizations need to transform their physical offerings to digital offerings and drive new business models. In order to attain a successful digital transformation, it is important to understand that the offerings of a business should be able to eradicate the threat of digital vortex and digital disruption. Furthermore the answers for the questions such as whether the offerings are purely digital, or do they combine physical and digital elements, whether they are related to your traditional expertise and brand, or are they completely new should be understood. Further, it is a fact that the modern customers are increasingly using digital channels and platforms to interact, transact, share and purchase. Thus in order to engage such a customer "business needs to send the right message, at the right time, via the customer's preferred channel" (www.striata.com, n.d.). Thus the second dimension under go to market is the Channel, how the offerings are being sold and reach the customer point. It is important to understand how the channel strategy of a firms digital offerings differ from that of traditional products and services? In addition companies are learning and are motivated to promote their brand through digital channels since marketers are compelled to offer the best in order to win the best customers.

The second key area is the Engagement where a firms need to digitalize the ways of engaging with its key stakeholders. Engagement can be elaborated to three dimensions as customers, partners and workforce. "Transforming customer experience is the nirvana and holy grail of digital transformation", (www.ciopages.com, n.d.). By improving the customer experience a company can reap real benefits. However in almost in every sector of modern era delivering digitalized services and operations has become a prime factor in reshaping and improving the customer experience (Ehrlich, Fanderl, & Habric, 2017). Currently digital technology has transformed the consumer habits patterns largely. The new buyer is digitally savvy, constantly connected, and well aware of what they can do with the technology. As per the survey done by MIT Center for Digital Business and Capgemini Consulting in 2011 there is a hightning interst in many companies to build analytics capabilioty to understand customers in more detail. Also social media has become a major tool to understand the customer satisfiers and disstifiers for the companies. It is also important to consider how the organization engage a netwok of partners; i.e. suppliers, professional services firms, and digital agencies etc. The third important dimension under engagement is the workforce. One of the less touched yet the most impacted part of a company's digital transformation are the employees. (Larjovuori, Bordi, Mäkihiemi, & Tammi, 2016) states that technologies and capabilities itself is not sufficient to acheive a value creating digitalization in an organization but also a much eveloved managemnt and a leadership, organizational structure, service design and modified working processes (Larjovuori et al., 2016). In summary, all the employees at an organization should be virtually transformed for the digitalized working culture. Freedom, mobility and independance at work are some of the prominent factors considered by modern genaration employees (Saha & Pandita, 2017). Thus Digitalization enables the employees to be mobile, access work related information regardless the location or device they are using. The technologies such as e-mail, video conferencing and other colllaborative tools has now boceome manadatory aspects yet the organizationas must go beyod the traditional boundaries and reach technologies such

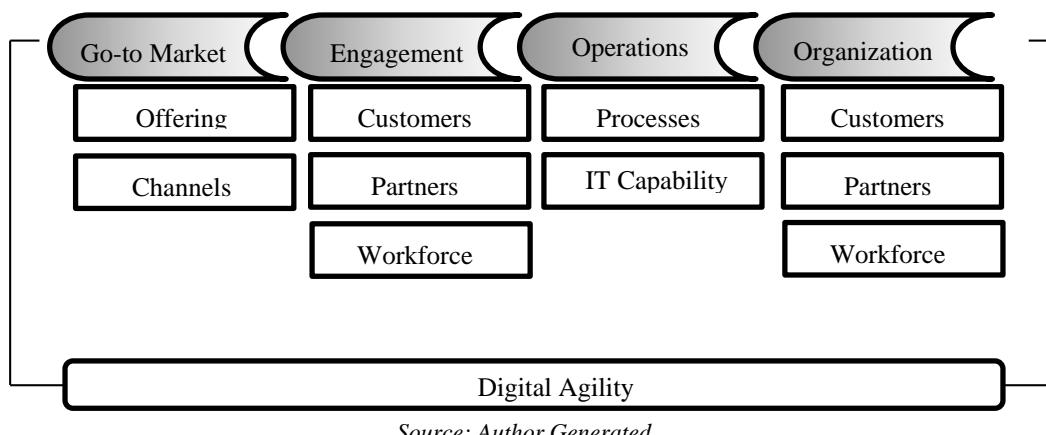
as cloud computing where the employees can enable on demand network access to a shared pool of configurable computing resources, Internet of things (IoT) where the internet working of physical devices, Big data and Data analysis (Schwertner, 2017).

The third key is Operations where the organization needs to consider how to modify the firms operations in order to align with the target digitalized business model. Under this, two main dimensions can be identified as the business process and IT capability of the firm. Business process digitalization incorporate with development of new capabilities that may facilitate achieving strategic objectives (Barnir, Gallaugher, & Auger, 2003) and identifying and capitalizing the opportunities available in digital platforms (Feeny, 2001). Present customer is already a very exposed digitized element who demands " Intuitive interfaces, around-the-clock availability, real-time fulfilment, personalized treatment, global consistency, and zero errors" (Markovitch & Willmott, 2014). ERP is a better solution enabled by the organizations to gain a quality output in transactional, financial, production and supply chain processes. (MIT Center for Digital Business; Capgemini Consulting, 2011) However to meet these high customer demands companies need to go beyond traditional and simple automation platforms to a reinvention of the entire business process to gain benefits beyond efficiency. This could incorporate automated production, designing capabilities, automated decision making capabilities, and fraud management in digital platforms etc. The second dimension under operations is the IT capability of the firm which is a fundamental building block of digital transformation process. The most fundamental requirement for a better digital transformation is having a digital platform of integrated data and processes (MIT Center for Digital Business and Capgemini Consulting, 2011). Companies also need strong capabilities and skills to deliver required IT solutions within the firm. For example, Mobile and social media, requires a frequentative approaches to learn about what will work in the market or workplace. As per the survey done by MIT Center for Digital Business and Capgemini Consulting in 2011, it revelas some IT departments even have established special units to track emerging technology skills and methods and innovation centers to track the digital disruption impact. Furthermore companies are engaing in analytics at varying levels of intensity and combine with integrated data in order to gain strategic advantage over competitors.

The fourth key is the Organization where the firm has to change and/or modify the organization in terms of its structure, incentives and culture. As the first step under organization aspect, the organizational structure needs to be taken in line with the transformation process. In this case the organization has multiple structural choices in order to support the digital transformation which are creating a separate business unit to develop disruptive business models, creating a separate business unit and integrate it with the existing business model or creating an entire new structure (Hess et al., 2016). Along with that establishing a strong company-wide coordination mechanism through communication and collaboration rules, along with the desired KPIs, are also of paramount importance to ensuring the firm is on the right path to transformation (Ismail et al., 2017). As the second dimension its being identified the incentives whereas deciding a reward system that enables and motivates the digital transformation across the department and ensuring cross functional collaboration. The third dimension can be identified as culture. Most of the firms who have initiated digital transformation process often experience failures due to inert organizational cultures that resist change (Hartl & Hess, 2017). Flexibility and agility are key managerial challenges that could be found in an organizational culture. Digital transformation can be highly supported and backed by organization cultures agility that facilitate the adoption of new management concepts and further it is very important to have open and change oriented mind-set which is required to master digital transformation.

Based on above discussion the author develops a framework for dimensions of digital transformation.

Figure 4: Dimensions of Digital Transformation



Source: Author Generated

IV. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

Digital transformation has gained a tremendous attention by corporate sector practitioners as well as scholars today due to its revolutionary impact of advance digital technologies on delivering excellent engagement with clients or finding ways in which the enterprises benefit from efficient processes (Rassool et al., 2019). Also with the rise of new technologies and dynamic markets and customers, all industries are taking initiatives to exploit and discover more “tech-benefits” through business model innovation, reengineering of product, processes and organizational structures etc., (Jurgielewicz, 2019).

However, by examining all the definitions, aspects, perspectives, dimensions and models discussed in the growing body of literature it can be identified three common crucial areas a company needs to focus on its digital strategy roadmap, which are go-to market, engagement, operations and organization factors (Bowersox, Closs, & Drayer, 2005; Wade, 2017). Further the author stress the fact that irrespective of the model or strategy used by the firms to digitally transform the organization, under the above mentioned key areas, there are ten dimensions a firm must be focusing and address and can be used as the basis in the process of formulating needs, gap identification and formulation of digital transformation process. i.e. Offering, Channels, Customers, Partners, Workforce, Processes, IT Capability, Structure, Incentive and Culture.

Furthermore in order to grow in the digital vortex and avoid digital Darwinism companies need to integrate and accompany digital business agility (Wade et al., 2017) along with the above discussed ten dimensions of digital transformation. Digital business agility encompasses three continuous, interconnected, and mutually reinforcing capabilities: hyperawareness, informed decision making and fast execution.

Digital transformation is a highly dynamic and a timely aspect which the organizations need to prioritize in its strategy formulation process. Thus the author emphasize and suggests future work need to be carried on embedding digital transformation in corporate strategy and disruptive business models which can help to evade the impact of digital vortex.

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