

# Impact of COVID-19 Pandemic on the Digital Transformation Journey of Organizations

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*This empirical study investigates the impact of COVID-19 on the digital transformation journey of organizations by deriving themes from the experiences of experts who have been part of this journey. The study used content analysis as a preferred qualitative research methodology. Twenty-six in-depth interviews were conducted with executives of large organizations in India by using a semi-structured open-ended interview questionnaire. The data was content analyzed for themes. The findings indicate that though the pandemic was not a trigger to the digital transformation, it accelerated the transformation and boosted digital entrepreneurship. The pandemic gave rise to more collaborative ways of working. This research will support the addition of the pandemic and subsequent changes in customer behavior to the factors that impact the digital transformation.*

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## Introduction

The COVID-19 pandemic has brought a crisis in the corporate world which has prompted firms to boost their ways of working, the quality of their products, enhanced customer services, and develop various strategies for running businesses. Companies before COVID-19 followed digital transformation strategies to improve their internal and external organizational factors (Hess et al., 2016). The COVID-19 pandemic was a wild period of instability. It was a period of enhanced use of digital technologies (Karabag, 2020). Before the pandemic, organizations were aware of digital transformation. However, the implementation process of these digital technologies was faster for most of them due to different factors. These factors were the complexity of implementation and the cost of implementation of these technologies (Scott, 2020). The pandemic made organizations believe that digital transformation is a priority for most of them and that accelerated digital transfor-

mation will help organizations improve sales and enhance customer service as customer behavior was also changing.

During the pandemic, digital transformation was turned into a priority and an urgency globally (Lesser et al., 2020). Organizations are now forced to rethink their business models and plans. This is to ensure a crisis similar to the COVID-19 pandemic is controlled well and the impact is as small as possible. This will also ensure that customer service is not disrupted and the customers continue to receive sufficient services. It is a wake-up call to organizations and various institutes.

The objective of this paper is to understand the impact of the pandemic on the digital transformation journey of various organizations. We have used a qualitative research methodology to understand how COVID-19 has impacted the organizations and the various functions/processes in the organizations.

**Table 1 Positive impact of Covid-19**

S.No.	Impact
1	Launch of digital learning platforms for education and training
2	Telecare services in organizations to monitor the health of employees and track Pandemic cases
3	Contactless payments and digital scanning to access electronic data – restaurant menus, providing feedback etc
4	Digitization of financial functions
5	Launch of collaboration management systems to manage emergencies, pandemic safe distancing
6	Internet of Things, wearables, social media, cloud platforms, Bluetooth device connectivity

Source: Authors' compilation from interview processes and research

While COVID-19 had many positive impacts, several negative impacts were also observed in organizations during the pandemic.

### **Impact of COVID-19 on Digital Transformation**

*Positive Impact of Covid -19:* Research suggests that the pandemic has had a positive impact on the digital transformation journey of organizations, with the launch of digital ecosystems including in educational institutes, the emergence of telecare services to enhance customer and employee experiences, contactless payment systems, digitization of various financial processes including taxation. Artificial Intelligence and Machine learning processes were launched in the organizations leveraging Bluetooth technologies; many collaboration systems were launched in organizations for faster and more efficient ways of working amongst the employees. Apart from these, many Internet of Things enabled devices, and faster shopping experiences – click and collect, endless isle, and WhatsApp shopping experiences were also in several retail organizations.

*Negative Impact of Covid 19:* Customer behavior kept changing aggressively and hence companies had to keep up with the pace of the change of cus-

tomers. This involved changing the IT systems to manage any additional drastic changes. Bet and more efficient communication channels needed to be developed to interact with the customers and the employees which included online

medium of learning, and the creation of content for education and training. Risks from phishing and malpractices had also increased. Expectations on medical advice virtually over video or call had also increased.

**Table 2 Positive Impact of Covid-19**

S.No.	Impact
1	Reformation of various financial systems and other IT components in finance specific services
2	Lack of digital literacy causes many interventions to postpone
3	Management of IT infrastructure for crisis management
4	Advanced communication channels for employees and customer services
5	Creation of online tools for learning, training, creation of content, contract tracing
6	Telecom practices of doing things remotely and virtually
7	Risk from malicious and phishing attacks
8	Patient's expectations for virtual medical advice and treatment

Source: Author's compilation from interview process and research

**Technology, automation, and collaboration are highly rated impacts of COVID-19, followed by Working from Home or Working from Anywhere.**

Technology, automation, and collaboration are highly rated impacts of COVID-19, followed by Working from Home or Working from Anywhere. The pandemic, after all, could not inhibit the working or the operations of the business, but eventually, it has created opportunities where the operations have been made seamless as employees can work from anywhere. This is done to ensure fundamental technology is provided to make the work seamlessly for colleagues and customers.

Changes in operation or business models (Kitchenham, B.A.; Dyba, T.;

Jorgensen, M., 2004) are driven by digital transformation in the form of Industry 4.0 in the COVID-19 situation.

### Research Methodology

*Sample and data collection:* This study was conducted with experts from Indian organizations who have been part of the digital transformation journey during the COVID-19 pandemic. The sample for the study was based on purposive sampling (Etikan et al., 2016). The study interviewed 26 experts belonging to organizations that have undergone the journey of digital transformation during the pandemic (2020 – 2022). The group experts are composed of Chief digital offices, Senior managers from IT and business, and the users who would dirty their hands by using the initiatives. The experts in their respective organizations apart from being part of the decision-

making process were also actual users of the digital initiatives. The study was conducted with 26 experts based on 30–60 min of in-depth telephonic interviews. When thematic saturation was reached and no new insights were gained from the interviews, the interviews were stopped (Strauss & Corbin, 1998).

*Data Analysis:* As a part of the data collection, selected employees of the chosen organizations were invited for a discussion on the journey undertaken by the organization. The questions as part of the interview were meant to be simple and direct with the main focus being to understand the employee's perspective on the organization's journey. Once the interviews were completed, data was analyzed as each response narrative was read and relevant information was placed into a table. In order to categorize the interview data into common patterns and themes, coding them systematically was essential for further analysis (Clark & Vealé, 2018; Schreier, 2012). A two-cycle coding process was followed to develop common trends (themes) from the interview transcripts (Rogers, 2018; Schreier, 2012). Post the interview, the narrative was coded using Delve Tool (Paulus, 2023).

The initial concepts in the data were analyzed and grouped into provisional categories and first-order concepts (open coding) – Level 1 coding. In the next step, codes were narrowed down using the focus to a relatively few Level 2 codes. Level 2 coding is commonly called focused coding or category development. Level 3 coding involved a very fine focus using the gradual and progressive

convergence of ideas from Level 2 as the basis of inquiry. Themes are refined during Level 3 coding as ideas approach a critical density. Level 3 coding is commonly called axial coding or thematic coding.

Once axial coding was done, common patterns between and among these provisional categories were identified, which generated highly refined themes. Post this, the theoretical concepts emerged from the refined themes.

*Rigor and trustworthiness:* We ensured rigor and trustworthiness following (Guba, 1981) quality criterion for qualitative research. We have also used a triangulation framework to ensure the credibility and validity of research (Noble & Heale, 2019). We have used direct quotes from the experts in the findings so that readers could experience participants' views directly instead of paraphrased or interpreted descriptions of findings.

*Demographics:* The sample consisted of 80% males and 20% females. About 50% of the respondents had relevant experience between 14 – 18 years, 35% of the respondents had relevant experience between 10 – 14 years. 23% of the respondents belonged to the technology and digital department of their organization and 27% of the respondents belonged to the strategy stream of their respective organizations. The respondents had experience in varied industries – Retail, FMCG, Telecom, Finance, and Media. The profiles of the respondents are provided in Tables 3 and 4.

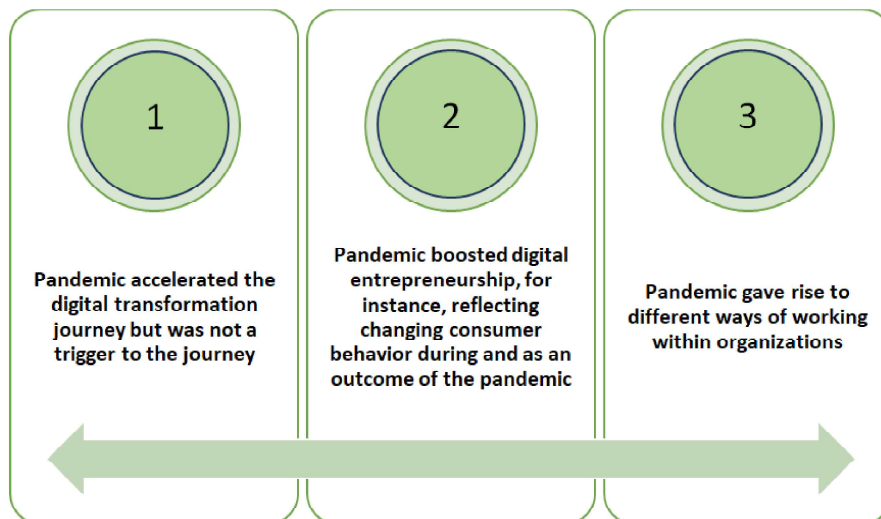
**Table 3 Experience & Function- wise Profile of Respondents**

Experience of the Experts	IT/Digital	Strategy	Marketing	CXO	Others	Total
8 - 10 years						0
10-14 Yrs	3	2	1		3	9
14-18 Yrs	3	5	2	1	2	13 <sup>50%</sup>
>= 20 yrs			2	2		4
<b>Total</b>	<b>6</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>26</b>

**Table 4 Industry Function-wise Profile of Respondents**

Experience of the Experts	IT/Digital	Strategy	Marketing	CXO	Others	Total
<b>Retail</b>	3	3	2		1	9
<b>FMCG</b>	1		1		2	4
<b>Telecom</b>	1	1		1		3
<b>Food</b>		2	1	1	1	5
<b>Energy</b>				1	1	2
<b>Finance</b>		1	1			1
<b>Media</b>	1					1

**Fig. 1 Themes Generated from the Interview Process**



Source: Authors' compilation of themes generated from the interview process

**Data Analysis & Findings**

The study was designed to answer the research question on the impact of COVID-19 on the digital transformation journey of organizations. The major

theme from each of the lenses mentioned above that emerged from data is presented in Fig. 1.

The quotes from interviews are tabulated in table 5 for reference:

**Table 5 Quotes from Interviewees on Theme 2**

Respondent	Quote from Interview
Global electronic manufacturer	<p>“It is very essential to be on top of what competition is doing and gain and learn from the successes and failures of the implementation of such initiatives from competition”</p> <p>“For retail specific organizations, Covid 19 gave way to many digital transformation initiatives”</p>
A food manufacturing company	<p>“During Covid, everything was digital, everything was online”</p> <p>“Leveraging the new technologies also accelerated by the need for remote work”</p>
Indian entity of American multinational conglomerate	<p>Plan was to consolidate to one chat / voice / data sharing platform immediately took the priority and had to be delivered in less than a month</p> <p>“With IT assets supply chain issues, and hiring was still at the usual pace, the dependency on remote applications like Citrix / VDI increased and it helped define standards and transform to a more mature next generation technology which is also a preference from Cyber perspective”</p>
Mobile payment service	<p>“The project was launched pre-Covid, but during the pandemic we realized that digital and contactless payments gathered a lot of momentum because of the way the consumer behavior was changing”</p> <p>“People wanted to avoid physical contact at any point. Exchange of currency notes through hands was also something consumers wanted to avoid”</p>
Multinational information technology company	<p>“The organization launched an initiative where customers would be able to explore products on the WhatsApp brochure and also get on a conversation with the agents or the bot to place the order for the customer”</p>
Indian fast-moving consumer goods company	<p>“Because of Covid, we dialed up or went faster”</p> <p>“Lot of investment was already done during Covid – digital development happened during Covid”</p>
Multinational mass media and entertainment studio conglomerate	<p>“People were at home, media consumption also went up. To mobilize all this, it required a lot of operations, to speed up the process, linear TV undertook a complete transformation”</p>

Source: Authors compilation from the interview process

Theme 1 -The pandemic accelerated the digital transformation journey but was not a trigger to the journey

There was a surge in digitalization in many organizations, which helped them in

their online operations. The pandemic accelerated the adoption of digital technologies and shielded productivity, which has led to digitalization gaps that need to be reduced. The pace of digitalization did increase during the pandemic; however, due

to the urgency in implementation, we need to ensure that the quality of implementation is not compromised. Not just digital, company operations for other departments have also significantly moved faster. Covid-19 has forced organizations to increase the velocity of change exponentially.

Theme 2 The pandemic boosted digital entrepreneurship, for instance, reflecting changing consumer behavior during and as an outcome of the pandemic

Customers had leaped their behavior during the pandemic; adoption rates had increased, and exposure to digital had increased. Companies needed to speed up to meet customer interests and demands. Customers would not visit the store, or the stores would be closed due to the Lockdown; it was then that the organization thought of taking the store to the customers instead of getting them to the store. This organization then launched initiatives like shopping from WhatsApp, live store tours, video calling, purchasing with store assistance, and click-and-collect. Covid 19 had a huge role in the digital transformation journey. The journey had commenced much before the pandemic struck, but since the organization was primarily not equipped with digital infrastructure earlier. This would mean having the ecosystem of the IT, partners, software, cloud, etc., in place. The initiatives launched during Covid-19 are:

**Covid 19 had a huge role in the digital transformation journey.**

1. *Click and Collect*: Launching this initiative helped reduce the time spent exploring and consulting in the store. Customers were equipped to research online, make the purchase online, and then visit the store the next day only to collect the product. At times, the customers did not even want to enter the store to reduce exposure to the store staff and other customers.
2. *Virtual Tour of the Store*: With the kind of products sold by this organization, a good amount of research concerning the features being offered, demos, etc., becomes a must for any purchase from any customer. Shops have launched virtual tours of the store either by adding a feature to their existing website or by launching a new website for virtual tours. This feature, which could be used by the prospects on the organization's website, enabled the leads to take a tour of the store, look at the various products/models, get a demo of the products to choose from, and then make a decision.
3. *Shop on WhatsApp*: With quick commerce becoming a norm, shopping on WhatsApp has also become a norm. The organizations launched initiatives where customers could explore products on the WhatsApp brochure and engage with agents or bots to place an order.

Theme 3 - The pandemic gave rise to different and more collaborative ways of working within organizations

*Collaboration Tools:* Remote work and collaboration tools became more significant, especially during the COVID-19 pandemic. The pace of digitalization did increase during the pandemic; however, we need to ensure that the quality of implementation was not compromised due to the urgency in implementation,

**Table 6 Delta in the launch of various digital transformation initiatives before and during the Pandemic**

Various Digital transformation initiatives	Expected number of days	Actual number of days during Pandemic
Increase in working remotely	154	10.5
Increase in online purchase by customers	285	21.9
Increase in usage of modern digital initiatives in operations	419	26.5
Increase in usage of modern digital initiatives in business decision making	432	25.4
Changing customer needs	301	21.3
Increase migration from On premise to clouds	289	23.2
Changing ownership of last mile delivery	176	24.4
Increased spending on data security	234	23.6
Build redundancies into supply chain	137	29.6

Source: Authors' compilation from the Interview process

## Discussion

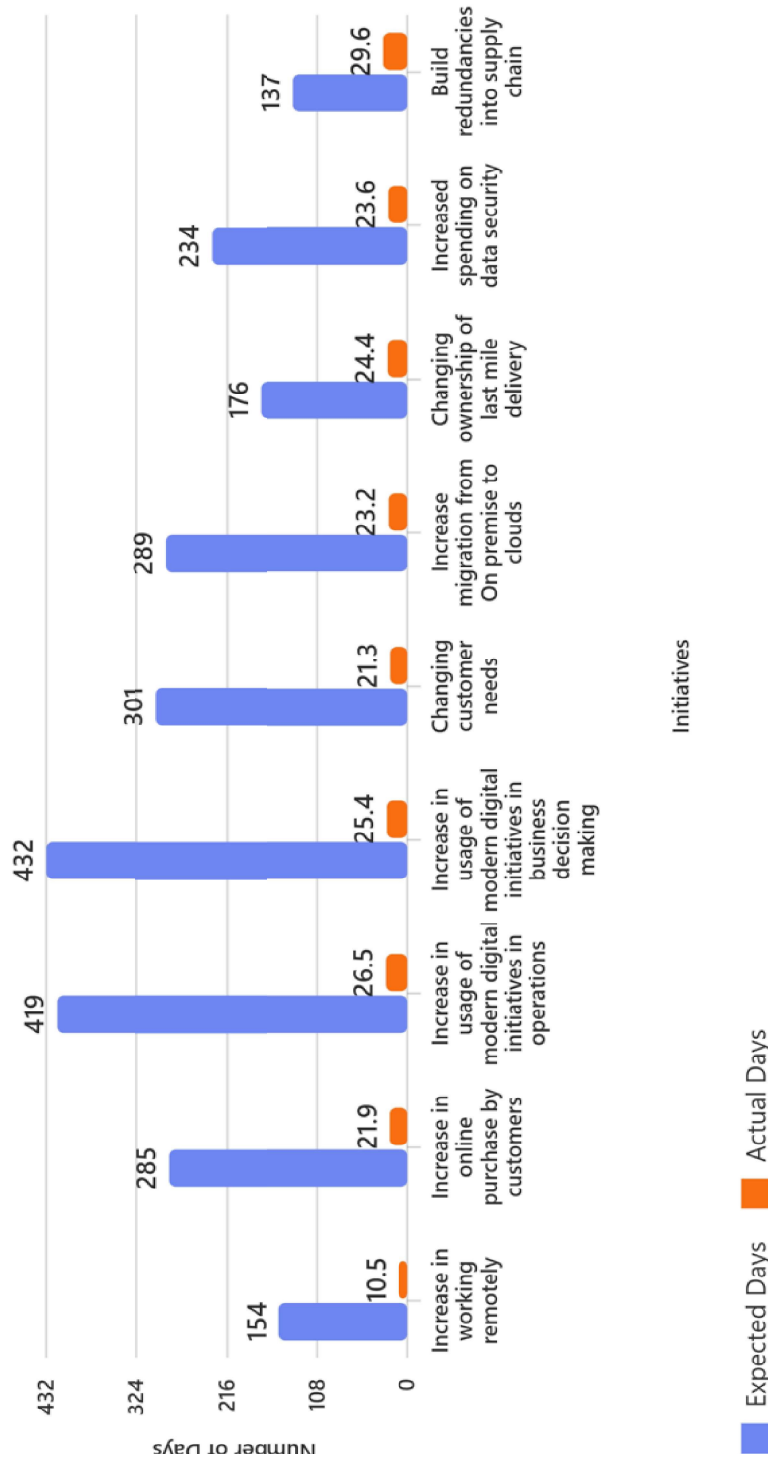
Apart from the above elements which accelerate the adoption of initiatives during the pandemic in organizations, tracking the adoption is important to measure the success of digital initiatives in organizations. Digital interventions, being implemented to introduce agility in organizations, are influencing organizations' choice of relevant technologies to fulfil their business objectives which can be to improve customer experience and enhance sales. Improvements can be the development of business ecosystems, an increase in agility in order to react fast when needed, act on disruptions before competitors do, and create new product lines or market portfolios.

Once a digital transformation project goes live, it becomes essential to understand who are the end users and also socialize with them the benefits of using the new process or system. In many organizations, post-pandemic a change management committee is formed, led by the chief change officer to track the usage by the end users on a day-to-day basis.

## Theoretical Contribution

Based upon this empirical investigation we explicated what was the impact of COVID-19 on the digital transformation journey of organizations. This research will be a contribution to the other factors that impact the digital transformation journey in organizations and also will add to the research on the impact of

Fig. 2 Delta in the launch of various digital transformation initiatives before and during the Pandemic



Source: Authors' compilation from the Interview process

COVID-19 and other such catastrophic events globally.

### **Managerial Contribution**

The study findings would help managers to be part of the digital transformation initiatives in their firms. The findings would help the managers understand what went right and what could potentially go wrong if and when such a crisis arises again in future.

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