

Digital Disruption is Redefining the Customer Experience: The Digital Transformation Approach of the Communications Service Providers

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ABSTRACT

Digital disruptions are transforming Customer's Digital World. It includes co-occurrence and coexistence of intensely evolving digital technologies, the burst of distinct digital devices, different digital channels across the customer touch points and constantly evolving Customer Behaviour. The communications industry is no exception and is impacted as well. Digital disruptions have triggered enormous changes in technology advances, intensified service experience by digital native companies and constantly changing customer's expectations, pushing Communications Service Providers (CSP) to embrace the constant change and offer personalized seamless Customer Experience. Digital Disruptions bring an opportunity for a CSPs to transform their complete ecosystem and be relevant to the digital aspiring experience hungry customers and retain their market position. CSPs must need to transform themselves into a digital company with digital competencies to manage the changing experience across the multiple touch points and embrace continually evolving customer's expectations through innovative digital products and services. CSP's traditional business models continue to decline and has a zero-effect. They constantly need to innovate a multi-model approach to retain or attract the today's self-organize customers and improve declining revenue. The enhanced customer experience creates a perceived customer experience value for their customer, and it leads to customer loyalty which creates a sustained business value or revenue streams for CSPs.

Customer-centric digital transformation enables CSP to adapt and embrace digital technologies, know the customer insides, align the internal business operation processes and governance to offer a digital experience across all the digital touch points with a greater speed. It is termed here as Digital Customer Experience Transformation (DCEXT). CSPs need to carve out transformational journey in-line with their business priorities while keeping sustainable digital maturity level and future digital evolution roadmap as recommended in this paper. For CSP, DCEXT continuous journey to embrace the digital disruptions for their own sustainable and profitable growth and be significantly relevant to their digitally enabled customers.

Keywords: Digital Disruption, Digital Customer Experience, Business Transformation, Digital Economy, Digital Maturity, Digital Transformation, Digital Proficiency, Communication Service Providers

1. INTRODUCTION

The Communication industry is continuing to change in the past couple of decades and Communication Service Providers are intensely following the ongoing digital disruptions created by the best of the Over-the-Top (OTT) industry segment companies or it is termed as Digital Native Companies. CSPs have faced tough challenges with digital native players to develop new and innovative digital products or services for the digitally disrupted customers. Today's digital customers or users are self-organizing and expects an empowerment to manage their product or service subscription, usage or choice as per their changing personal or business needs. They are known as digital self-organize customers or subscribers. Digital native companies are continually

expanding the scope of their offerings and it disrupts again the customer behaviors and expectations. The rapid growth in the disruptive digital technologies like Artificial Intelligence, Machine Learnings, Virtual and Augmented Reality have significantly influenced over the way people behave and think. The burst of different devices with distinct operating systems, including - Laptops, Mobiles, Tablets, or Wearables and usage pattern of smartphones has changed the customer's lifestyle. The personalized product or service experience expectations has changed the self-organized digital customer's activities, usage pattern, their digital interactions to meet their service needs, expectations from their CSPs. Customer experience management (CEM) dominates the CSPs strategic priority and 68% of Telecom top executives cite it as their number one strategic initiative and Priority as per E&Y research.

(Prashant Singhal, Holger Forst, Gaeron McClurem, Amit Sachdeva, Bart van Droogenbroek, Adrian Baschnonga, Swati Mahajan, EY, 2015). CSPs must need to harmonize traditional (voice) and multiple digital or on-line channels through which they engage with self-organize digitally enabled customers throughout their customer journey to enhance their digital experience.

Multiple Digital technologies like Data Analytics, Enterprise Mobility, Social Networks, Cloud Computing, Robotics, Block Chain and Internet of Things (IOT) are pushing radical change in the ways of working (WoW) of both retail or enterprise customer segments. CSPs need to transform themselves in incremental steps to align with these digital disruptions to create new revenue streams with constantly evolving multi-model transformation approach. To enhance the digital customer experience, CSP needs an organizational retrospection to produce the customer experience value and make a digital self-organize customer as part of their business value chain. Cross function modularization of business models with dynamic multi-modal approach is essential to establish the business value. It needs a transformation across the all the functions starting business, operation and technology to align with customer behavior through enhanced Digital Customer Experience which is the Digital Customer Experience Transformation (DCEXT).

DCEXT is a continuous and progressive journey towards the automated and collaborated digital ecosystem to improve the operational agility, offerings of relevant digital products offerings to enhance the experience in the world of digital disruption in a shorter time. DCEXT is a modular lone solution to expand digital capabilities to adapt constantly changing business conditions in the digital disruptive environment. Its progressive phased approach depending upon the current digital maturity level of the CSP and their medium to long term business vision. These digital disruptions with combination of dynamic multi-model digital approach creates a new revenue opportunities through enhanced customer

experience. Evolving different digital channels across the multiple smart devices using right combination of digital technologies and capabilities with aligned business operation assists the CSP to tailor themselves in a relatively short time to match with constantly changing behaviors of self-organize digital customers and retain their position in disruptive market.

2. METHODOLOGY

This study considers the multiple digital disruptions in evolving digital world and its impact to Communications Service Provider to define their digital customer experience transformation journey to suffice experience hunger of self-organized digital customers. Digital disruptions produce an opportunity for CSPs to embrace constantly evolving customer expectations through evolving multi-model business approach and explore new revenue streams as business value for them. It highlights the broader DCEXT roadmap in the disruptive digital world to refine and define a digital journey for CSP, with the support of dynamic multi-models in order to be relevant to the digitally enabled self-organize customers those are highly influenced by various digital native or OTT Players with their user friendly offerings and touch point personalized seamless digital experience.

3. HUMAN-CENTERED EVOLVING DIGITAL WORLD

Human's needs to continue to exist, however, those are going to evolve progressively with the constant change in their lifestyle and behavior. Although needs or wants are considerably analogous in the constantly evolving digital world in last multiple decades. Since the ancient ages - health, education, banking or finance, utility services, retail and transport are fundamental wants and attributes of the humans as shown in figure 1. Still, these are continuing, will going to exist in future as well.

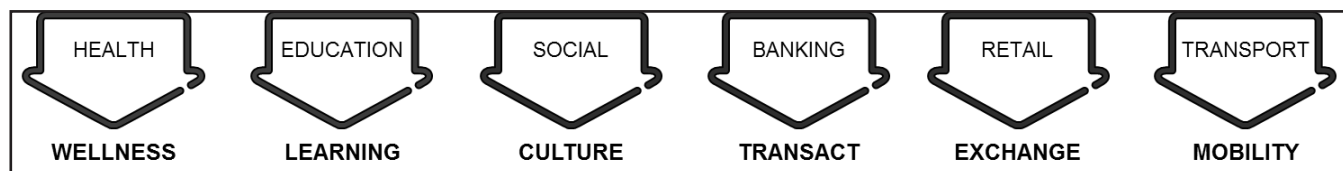


Fig. 1: Human's Needs or Wants in a Evolving Digital World

Present and 4th Industrial Revolution (Richard Samans and Nicholas Davis, World Economic Forum, 2017) is enabled by multiple digital technologies. These technological

evolutions have changed our methods of communication, transport, healthcare, financial transactions or production, and also our social behavior. The telephone with the

spread of the internet and mobile telephony, including multiple evolution of digital communication once again changed how Human's move, communicate, consume and experience their world. It also have a combining effect and again transform the manner in which humans communicate, produce things, transport people or goods and interact. There is a transformation with radical change in the way Humans meet their needs or wants. Humans

need an interactive, customize connectivity to meet their different needs. In changing scenario humans expect a real time financial transaction, instant healthcare service and anytime education access on the tip of their fingers., They expect a real time tracking, real time information access and freedom of mobility. In other words its complete 24*7 social or business engagements are the needs of todays digitally enabled humans.

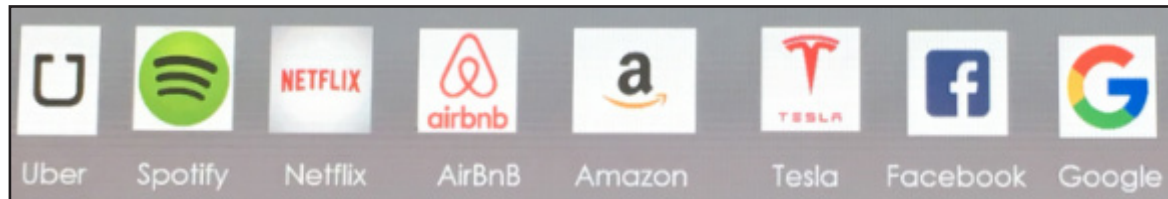


Fig. 2: Digital Disruptors defines the New Ways to avail the Product or Services

The Disruptors, digital native companies like Amazon, Google, Uber, Netflix or AirBnB – they have established themselves as a digital service providers successfully. They offer digital products and deliver the services over digital interactions or channels.

In case of e-commerce industry segments, one can say - the customer doesn't see shops, don't hear the agent's voices and yet they get what they want. It's an amazing experience and sets the expectation for other to provide.

Referring to the music industry – from tapes to CDs to mp3s, Airline industry – from jacket tickets to e-tickets to mobile boarding passes. It means the products themselves are taking the digital form factors. Service touch points with the end customers are also becoming more and more digital.

CSP has a significant role in human's world as they provide the connectivity and enable humans to use or consume the different services to address from their wants (or needs) through interactive multiple channels(voice or digital). CSP can harmonize the customer interaction across all the digital touch points, simplify the service and offer a very personalized seamless customer experience. Digital Connectivity gets more and more integrated into Human's life. Disruptive ecosystem created by OTT players creates a hunger of digitally enabled customers beyond the voice or data services and are looking for an application ecosystem to address their daily wants (or needs). Smartphone proliferation is now revolutionizing the customer's lifestyle – people now have started leading a digital connected smart lifestyle.

4. DIGITAL DISRUPTIONS AND ITS IMPACT ON CUSTOMER EXPERIENCE

Digital Disruptions are transforming the Customer experience. It includes co-occurrence of intensely powerful digital technologies, different digital devices, availability of multiple digital channels across the customer touch points and finally constantly evolving Customer Behavior as shown in figure 3. Distinct digital generations of the digital world disrupts the customer expectations and add complexity to maintain the uniform products and services offerings for the CSP.



Fig. 3: Digital Disruption

Digital disruptions are impacting user experience and CSPs must widely adapt the changes as a result of digital disruptions. Digitally enabled changes or a combination

of changes provides an opportunity to embrace it and be relevant for the Self- Organize Digital Customers.

4.1 Digital Technologies

Immensely powerful digital technologies enables the power of Digital Disruption. Constantly evolving digital world is experiencing an evolution of the multiple digital technologies. These technologies are directly impacting the customer's behavior and at the same time it challenges to the organization's digital capabilities and their product portfolio.

Advent of emerging digital technologies and limitation of the digital capabilities within an organization is changing the relationship between Digital Customers and Communication Service Providers. Digital technologies are altering how the customer experience value is created, exchanged and leveraged across the value chain for CSP.

Digital technologies are becoming crucial to the business and key innovations of the organization are based on the technology platform. Key digital technologies that are driving the consumer behavior transformation as indicated in figure 4.

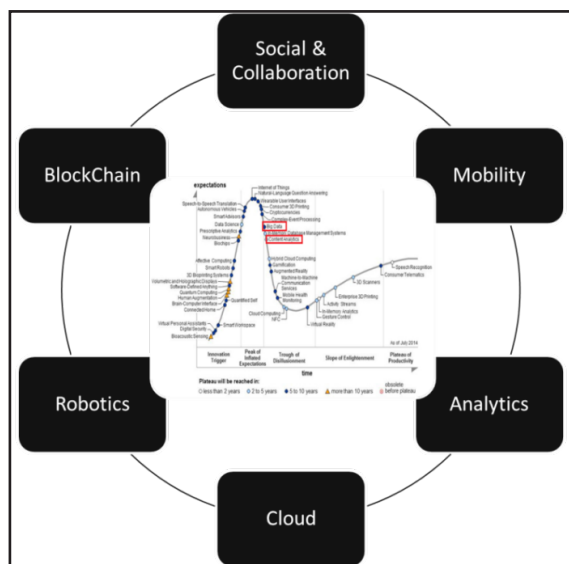


Fig. 4: Digital Technologies Evolution

Sources: Gartner Hype Cycle, Gartner.

In case of Analytics, it helps to venture the preferred channel journey analytics, it enables to identify the right offer for the right customers at the right time through their most preferred digital channel. Analytics is the future of any digitally transformed business of tomorrow and customer analytics is at the forefront. Data Mining and Data Ware House technologies define the new ways of managing the structured or unstructured data for customer

inside analysis. Referring to Gartner's Technologies Hype cycle, it highlights the evolution of digital technologies over the period of time. Technologies like Big Data, Cloud, Augmented Reality, Virtual Reality, Data Science, Machine Learning and Analytics are essential for an organization to be digital. The combination of these multiple digital technologies has substantial impact on customer behavior and customer experience. It's evident that digital technologies are evolving and getting on the stage of maturity, however CSP's are hesitant to embrace constant evolution in the digital technology and disruptive effects. Disruption creates an opportunity for the CSPs to embrace technology disruption. It's significant for CSPs how quickly they adapt the digital technologies and address the disruption created by the digital native companies. DCEXT needs a collaboration of functional organization silos and business management together enabled by the multiple digital technologies to drive digital customer experience of self-organize customers.

Although individual digital technologies were designed with a different objective, however, they become agnostics and can be applied in multiple ways. Digital technology disruptions needs an involvement to align the CSP's business working model and manage them effectively to refine the customer's digital experience through digitally enabled engagement. However a combination of digital technologies brings the new digital product offerings to suffice the experience disruptions created by Digital Natives like Amazon, Facebook, Uber or Air BnB.

4.2 Distinct Devices Abstractions

Multiple digital devices and mobility (-anytime & anywhere), needs are redefining the way self-organize customer interact within their digital ecosystem and use the different digital products or services. Ability to choose, the devices of choice like smartphones, tablets, wearable or computers to access the information or any digital service on the go is a normal trend. Customers wanted to have seamless engagements without any limitation of devices. Self-organize customer wants the freedom and flexibility to choose the device brand of their choice and continue their conversation across all the platform seamlessly.

Devices flexibility outlines the fundamental level of personalized customer experience across any device, any time and at any location in the world. Device abstraction becomes the customer need and it's become a digital disruption whenever a customer wanted to switch from the one device to another device irrespective of their operating systems or applications.



Fig. 5: Multi-Screen Engagements Across the Transformed Device Ecosystem.

Self-organize customer expects the omni channel(seamless uniform experience across all the devices and channels) engagement across the different devices or platform irrespective of their operating systems(Android, iOS, Mac OS X or Windows). There should not be any interruptions in customer's ongoing conversation through any of application like WhatsApp, Facebook or NetFlix through any of devices or screens regardless of their make or brand.

4.3 The Digital Channels

Self-Organize digital customers in the disruptive digital ecosystem have an expectations, those are well-established by the best of the forward thinking digital natives like Apple, Amazon or Uber. It transformed the customers' behavior and pushes greater choice around the interaction options. Digital customers are inclined towards the Digital Service channels from traditional voice centric call center interaction. There is need of personalized, immediate, uniform interaction and engagement experience across the multiple channels. It defines the expectation of the consistent experience level over any of the channel or combinations of channels used in the customer journey (Customer's interaction with CSP across the multiple touch points throughout their engagement). It's a new normal to have a uniform, seamless interactive experience across multiple channels like Inbound Calls, IVR, Walk-in, Mobile Apps, Portal, ChatBot, Social network or Social emails channels. Self-organize customers expect the sense of flexibility to choose rather than one fix dedicated channel of CSP's choice for all their interactions. Its default expectation of unified experience across all the channels engagements and moving ahead there will be scope of the preferred digital channel for superior personalized interactions. The Most preferred channel is nothing but *The Organic*

Channel (channel of customer's choice or preferred).

Flexibility in channel selection as per changing preference is a big disruption for the CSP, however, it creates an opportunity to engage with customer effectively through the Organic Channel to boost their service experience. These multiple channels create a significant opportunity for CSP to create stickiness. Channel agnostic need pushes CSP to refine channel strategy in regular interval which is going to be the new normal in their business operation.

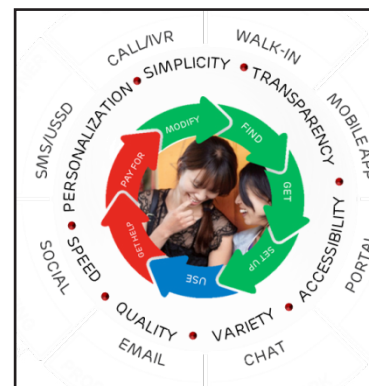


Fig. 6: Digital Channels

Sources: Image Ericsson (CLC)

4.4 Customer Behavior

Customer behavior is a constant change. Their expectations are increasing day by day and its complex to manage evolving expectations. Digital native like Amazon, Uber or Google along with Apple have caused notable deviations to customer behaviors and expectations.

Today's self-organize customers have experienced different ways of engagement with the digital natives and have a fundamental set of personalized experience expectation (Mike Ashton, CX Network, 2016) from their

CSPs as indicated below. The Customer expects real-time experiences 24*7 across all these fundamental attributes.

Seamless: Customer expects the seamless and effortless transactions through the digital or voice channels. For example Uber or Amazon uses single digital channel to engage or interact with customers and still their customer interaction is very smooth, efficient and easy.

Stimulating: Useful, interesting, or engaging information that can create value for the customer rather just selling or promotional product information. For example Healthcare apps IMG provides relevant disease research information/data or health precautions notes to customer while customer engage with them within that online interaction. Its an attempt to build the trust and reputation along the way without any additional deliberate sales attempt.

Sensitive: Use of social channels to listen intently and develop an understanding of what really interests customers and CSP should respond in ways that are intelligent and relevant to customers. For Example Dell and Starbucks invite an idea from the customer and make them into reality.

Synchronized: Analyze and deploy the information across all the touch points, real time support and personalization in all the conversations between the Customer and CSP organizations. For example: FirstDirect customers mostly recommend their bank than customers at any other major Great Britain bank. Source: GfK FRS, 6 months ending June 2016. Seems they have uniform business rules across all the channels.

Smart: Align with trends and respond to technology-driven opportunities to keep the customer experience fresh and distinctive. For Example: Amazon, always keep themselves ahead with technology to boost the customer experience.

Constantly changing customer behavior pushes the CSP to exceed the customer experience standard created by these digital native digital companies or the disruptors.

Personalization study by Deloitte suggests customers roughly around 20% are happy to share personal information with CSP to offer them a personalized products and services (Matthew Guest, Adam Stonell, Jane Schachtel, Heather Rangel, Jane Schachtel. Deloitte MCS Limited, 2016).

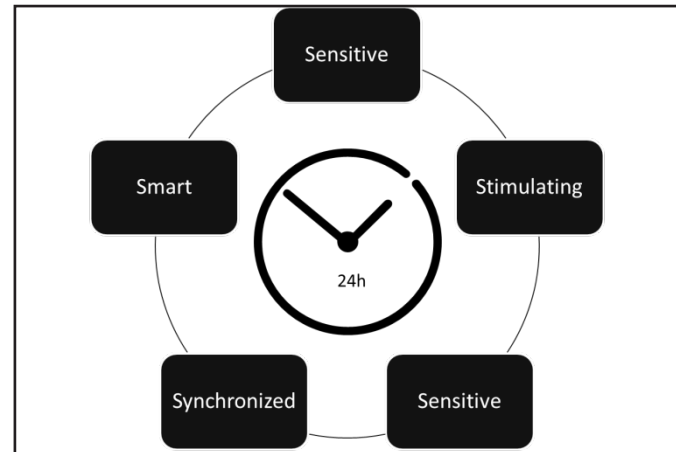


Fig. 7: Customer Behaviors, Expectations and Experience 24 * 7

4.5 Digital Generations

Digital Body Language defines different generations of the digital world. It results from the collection of different online activities, interest, behavior and preferences of an individual customers through their digital or social channels. Digital body language defines the digital literacy or proficiency to segment the customers to offer them relevant products. In a digital world, distinct digital proficiency coexist and defines the new preference of channels beyond the traditional voice channels and applications. These are new generations of the digital world as shown in figure 8 and it add disruption for CSP to define and maintain their product offerings for these multiple digital literacies.

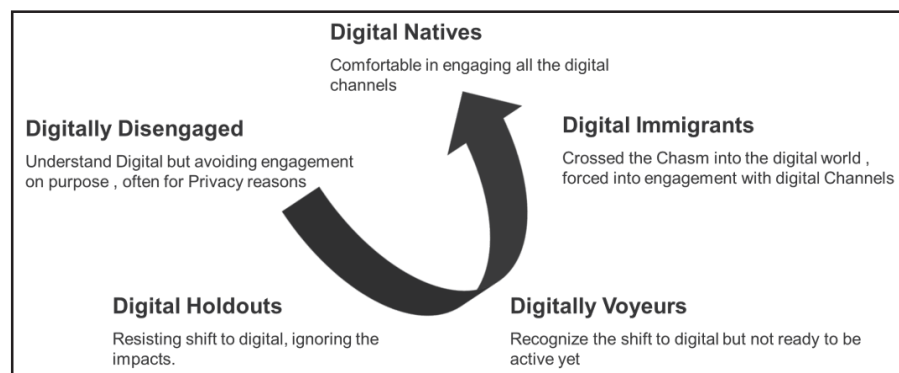


Fig. 8: Digital Proficiency Defines Distinct DCEX Needs

Source: Constellation Research

- *Digital Natives*: Enjoy and engage very comfortable in all the Digital channels.
- *Digital Immigrants*: Forced into engagement and crossed the span of the digital world.
- *Digitally Voyeurs*: Recognize the change to digital but less ready to be an active participant.
- *Digital Holdouts*: Resist to shift to the digital, also ignore the impacts of digital channels.
- *Digitally Disengaged*: Understand the Digital but reluctant to engage on purpose.

5. DIGITAL CUSTOMER EXPERIENCE IS A PROGRESSIVE AND CONTINUOUS JOURNEY

Digital customer experience needs a consistent effort to overcome various digital disruptions discussed in this paper relevant to the Communication Service Providers. Customer Experience is a long term strategic, progressive and continuous transformation journey for an organization. Hence its strongly linked with the business vision and mission statement of communication service providers. Business ambition of C-suite drives the long term strategy of CSP to make them a digital company and be relevant to self-organize customers those are disrupted by Digital Natives. The CSP must need to go through transformation changes in order to be customer centric, however its not a one-time or overnight activity. DCEXT is a continuous improvement program and a long term strategic initiative in a phased manner. It also significantly reflects the changes are expected in the business model of CSP to adapt the digital disruptions and use it as an opportunity to transform and embrace the change to enable “*Customer is First*” culture in an organization to improve the long term business profitability.

5.1 Digital Customer Experience Maturity

For Digital customer experience transformation, it's essential to know starting junction which indicate the baseline of the Communications Service Provider in their customer experience maturity. Digital customer experience maturity assessment is the first step to know CSP's maturity level and starting point of their digital journey in order to be a digital company. It assists to formalize a proactive milestone based roadmap to achieve the next desired level.

Under the digital maturity assessment different business, functional, organizational, technological aspects need to assess to identify *Strength and Improvement Areas* of

Communication Service Providers across the different digital levers (#7). Referring to Gartner's Customer Experience maturity framework (Ed Thompson, Gartner, Inc, 2011) these digital levers includes organizational vision, strategy, operations, matrices, governance, process and technology. The DCEX journey is specific for each and every CSP and depending upon where they stand in their digital maturity, they will have to create their long term Digital Customer Experience Transformation Roadmap.

Strength Area: It highlights the merits in which CSP has an extremely favorable customer experience, resources and business ecosystem is in place with respect to a defined specification of digital levers considered.

Improvement Area: It highlights the weak areas and CSP needs a major improvement efforts across all the digital levers considered with respect to defined specifications of maturity framework.

5.2 Digital Customer Experience Journey Map

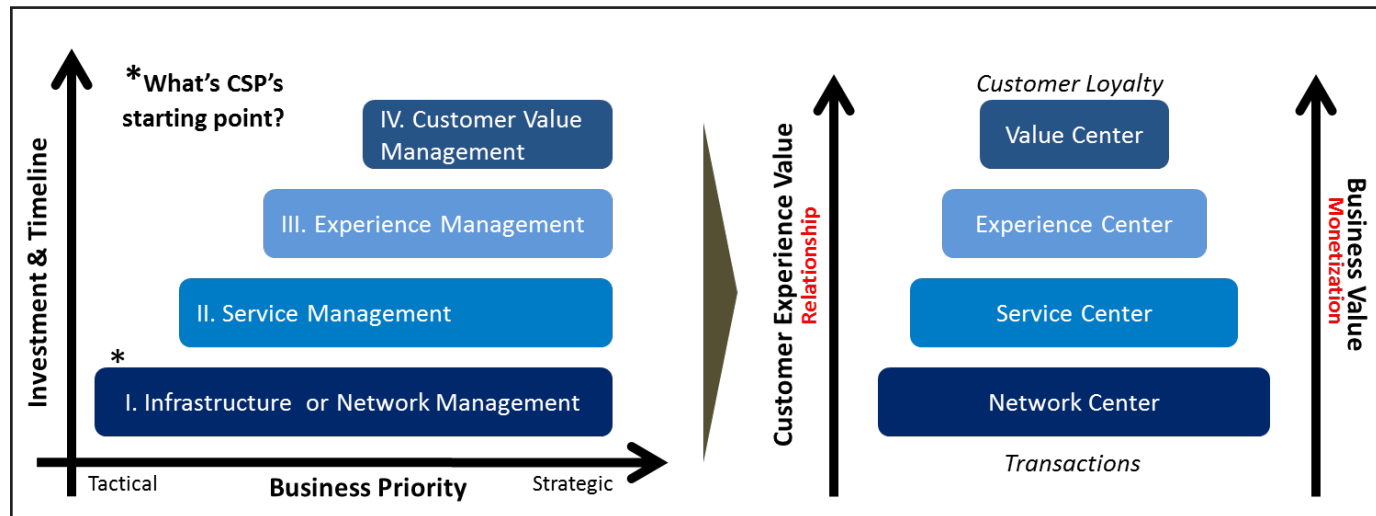
Digital customer experience (DCEX) is a multi phase progressive approach to address disruptive needs of the Digital world and transform in a very integrated manner across the complete CSP organization by breaking all the functional silos (Top to Bottom and Horizontals) in the very structured model. The DCEX Transformation journey is a long term strategic program for a CSP organization and takes an approximate time period of 3-5 years to achieve positions as a Digital Service Provider. However, time period, predominantly depends upon the CSP managements or the C-suites, business priorities and how soon they want to adapt and embrace the digital disruptions in order to be digital organization. In addition, it also depends upon their present customer experience maturity level.

Business Priorities of CSPs motivates them to choose the best digital customer experience transformation roadmap for them. Digital customer experience is long term business priorities rather a short term tactical action. CSP managements must trade off between these long term and short term initiatives as per their changing business needs. There are different methods to measure the DCEX maturity of CSP, however, one of approach which is more practical and relevant for CSP is DCEX Maturity Journey Map, indicated in figure 9(a), the CSP must need to choose the best path as per strategic priorities, investment appetite and their present level in digital customer experience maturity. The Sequential progress or fast-forward (2 or more level at a time) jump in their digital experience

transformation journey, enable CSP to take head on with multiple digital disruptions. DCEXT enables the CSP to be more agile, more proactive and competitive in the market through the relevant and targeted engagements with customers. It leads them for sustainable & profitable growth in the disruptive digital world.

Communication Service providers must need to go through structural model to adapt and implement

the necessary changes across different digital levers considered (Ed Thompson, Gartner, Inc, 2011). DCEx needs an alignment of customer expectations, interaction across digital touch points, business processes and digital technology capabilities to make an organization more relevant and create an experience value for the self-organize digital customers.



(a) DCEx Maturity Journey Map (b) DCEx Value Realization
Fig. 9: DCEx Transformation Map and DCEx Value Realization

5.3 Digital Customer Experience Maturity levels for Transformations

5.3.1 Infrastructure or Network Management Level

Traditionally Communications Service Providers most prominently rely on the Network centric views through their network operations center(NOC), which is a network centric ecosystem. It's more of a tactical approach of an organization to streamline the network planning and its network field operations. In addition CSPs profoundly rely on network metrics provided by network operation centers to track the network performance and other derived metrics to monitor the end user customer experience. Here the primary focus is to monitor the network's technical functionality and faults at the infrastructure level. It enables network fault monitoring and reactive trouble shootings once fault is reported back or identified by the centralized operation center. Traditionally CSPs have a tendency to link network operation and its management with the Customer Experience. It looks into the basic need of network connectivity or network coverage. CSPs focus significantly on network capacity planning and network

rollout. Customer experience gets trapped between these two and TSPs look for means of managing this network service, issues and connectivity as a measure of customer experience with main focus on network capacity and coverage.

5.3.2 Service Management Level

Service Management layer monitors and manages the service performance and provide Service Centric View, beyond the reactive network entity or node level analysis. The Service operation center (SOC) provides a real-time view of the each and every service their customers are using for examples Voice call or data web browsings. Here service assurance is key and followed through service performance parameters like delay, latency, speed or throughputs in the case of the data services being offered. Network service assurance is essential functional block, however, in a constantly changing digital environment, digital customer experience is more holistic and expects seamless interactions or engagements across the multi-digital channels for all the services and applications. For CSP, the Service Operation Center is the second level of their journey towards the digital customer experience. Service Centric Operation has major KPIs linked with

quality of service (QoS) and limited aspects of the quality of experience (QoE) of the digital services offered to self-organized customer. End to end service performance, network monitoring and proactive course correction are fundamental capabilities that CSPs must have.

5.3.3 Experience Management Level

Experience Management layer, is more specific and centric towards the Customer Experience Value for each and every customer of CSP. Here the primary focus is to monitor and manage the end to end service experience perceived by an individual customer or subscribers in constantly changing digital world. For CSP, it's desired to take all the necessary, corrective and proactive measures to maintain the enhanced customer experience across all the customer touch points for all the services being consumed by an individual customer. The Experience Operation Center (EoC) enables CSPs to take proactive measures to enhance and maintain the customer experience. Customer experience management is a top-down transformation of the enterprise to initiate the strategic initiative and break the organization silos or functions towards the customer centricity. EoC with predictive analytics functionality plays a dynamic role to identify the needs of the customer before they get to know their needs. It assists the CSP to provide proactive recommendations and carve out the customer experience journey as a trusted and valued digital service provider.

Live Video streaming or video calls irrespective of the type of applications like WhatsApp or Skype or Viber or YouTube, its most desired for CSP to maintain the quality of experience (QoE) throughout the session of engagement and consumption of services for each individual customer. Consistent quality of service is the default expectation here to offer seamless customer experience across all the digital channel. Data Analytics and Data Lake are crucial functionality here to analyze and take proactive course correction to maintain and manage the personalized customer experience across the multiple devices without any location constraints through multiple or preferred digital channels. For Examples - live events at stadiums, live football matches etc.

5.3.4 Customer Value Management Level

Customer Value Management is also named as Experience Value Management. It is an ultimate level of Digital Customer Experience management for the CSP Organization. It is centered around the Value for Organization. Business benefits which CSP can achieve by enhancing and managing the customer experience is

the foremost objective of this level. CSP has established a relationship with their customers and leverage the business benefits, i.e. additional revenue through personalized & enhanced digital service experience and improving the CLTV (customer life time value - revenue from customer through out the customer life cycle). Economics, Monetization of DCEX is a significant objective of CSP through digital transformation that is to improve their Net Promoter Score ($NPS = \% \text{ of Promoters} - \% \text{ of detractors}$) where customer promote their services and brand (i.e Customer Advocacy & Loyalty) Broadly, all the global CSPs are interested to establish the linkage between NPS and the business revenue generated, i.e. Average Revenue per User (ARPU) through enhanced customer advocacy, loyalty as a result of better digital customer experience. Better NPS has impact, it has potential to improve the CLTV, means more consumptions of the services lead to a Business value for the CSP.

Better NPS also assist to optimize the churn and improve the revenue as identified promoters can be used to promote services through targeted engagements. There is possibility to motivate neutral customers to promoters by proactive assisting them in increasing usage, namely data habit building. Again targeted retention actions for the dissatisfied customers through proactive engagements can be added value to CLTV for CSP.

6. DIGITAL VALUE REALIZATIONS

These define the potential benefits for both Self-organized Customer and CSP as a result of enhanced customer experience through DCEXT transformation. Customer Experience Value and Business Value are respective benefits for the customers and CSP respectively, and it's indicated in figure 9(b). Strong correlation between both the potential Digital Values is primarily interlinked with CSTs DCEX Maturity level. Higher is the level of DCEX maturity of CSP better will be the potential Digital Value Realization and vice versa.

6.1 Customer Experience Value

It's a value produced for the customer through the enhanced seamless, personalized customer experience across multiple digital channels offered by CSP. It includes enhanced proactive customer engagement, better digital products and seamless experience across all the customer touch points. Uniform customer data across all the channels, personalize interactive engagement and trendy & relevant digital product offerings enables customer to sense the value for money for their engagement with CSP. It is also termed as a *Value for Customer*. It begins with transaction automation and establish a long

term relationship which boost the Customer Loyalty towards the communication service providers. If CSPs take the integrated actions to provide an enhanced customer experience across the multiple digital channels through their personalized digital devices, then the customer inclined and becomes more loyal towards the organization. Customer loyalty potentially builds a long term relationship and enables the customer to go for more relevant services or products.

6.2 Business Value

It's a value for an Organization i.e CSP, it assists to monetize digital offerings as a result of enhanced customer experience through personalize engagements

as shown below in figure 9.

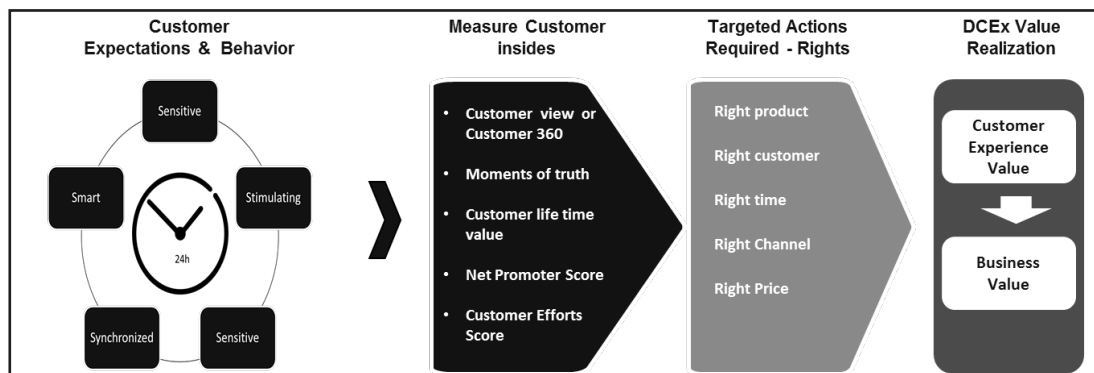


Fig. 9: DCEx Value Realization Flow for the CSP

CSP can establish a trusted, transparent relationship by countering different digital disruptions through transformation with customers. Customers begin to perceive a value for money through quality digital products. There is a high probability that a customer can be Brand Ambassador and they becomes a very strong promoter. They promote the service offerings, though their social network or word of mouth and also consume more services which lead to higher Customer lifetime value (CLTV). Customer lifetime value is revenue generated from customers throughout their service tenure with CSP. Customer efforts score is essential to measure the perception of customer about their interaction touch points. It drives CSP towards the their profitability and help to retain their neutral customers as well.

7. DYNAMIC MULTI -MODEL ALIGNMENT DCEXT APPROACH

. By enhanced customer experience there is a high potential in the improvement of service consumption and it also enable to go for new products though proactive engagements with customers. It provides CSP to use predictive analytics to customized product offering across all the digital channels to generate the additional revenue throughout Customer journey. DCEXT enables CSP to take productive steps to improve service uptake, targeted add-on personalize offerings, better churn management and counter retention offers with a lower churn rate. These are additional the revenue streams for the CSP, those were never been tapped so effectively before the digitalization. Multiple proactive measures to engage sensibly with a customer results in revenue. It is termed as a *Value for Organization*. Indicative DCEx value realization flow is

Digital Customer Experience Transformation embraces the digital disruption as stated in this paper. However, it also needs dynamic multimodal approach to align with changing CSPs business priorities and constantly evolving customer behavior. In a disruptive digital world, there is coexistence of the distinct digital proficiency which is again adds disruption for the CSP. Single or traditional business model is inefficient, inflexible to accommodate evolving impacts of multiple digital disruptions. The CSP must have to innovate, co-develop and co-create along with their technology and business partners to adapt the changing business, operational and technical functional needs and capabilities. Even Go-to-Market need to be very targeted with relevant – digital products, solutions or offerings to suffice the disruptive experience hunger of digital customers across multiple digital channels. The Recommended Multimodal approach is highlighted in figure 10 to address the multidimensional customer experience and transform an organization to achieve the sustainable growth and profitable market share.

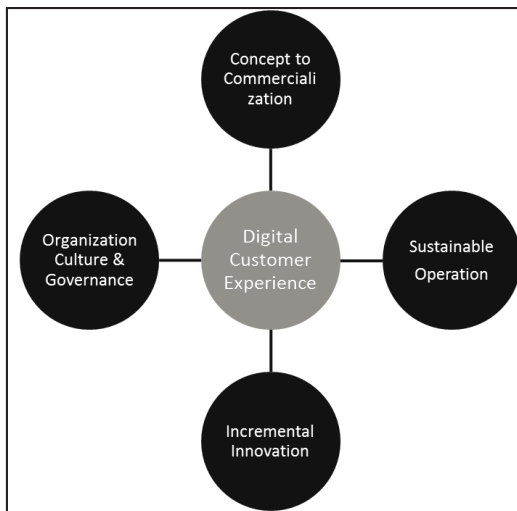


Fig. 10: Dynamic Multiple Model DCEXT Approach

7.1 Concept to Commercialization

Digital Customer Experience has never be an afterthought, however, its backbone of the Communication Service Providers in order to be competitive in the Customer's Digital World. There are multiple digital technologies (Big Data, Cloud, Augmented/Virtual Reality or Analytics, Robotics) CSP has to choose the right technology, platforms and partners keeping the long term DCEXT interest of the organization intact. Digital Technologies are evolving and CSPs will require continuous realignment in their business model to commercialize the concept and monetize it to its full potential.

7.2 Sustainable Operations

Streamline the internal - external way of working and communications across different business functions, leadership or management of Communication Service Providers is requisite. It assists to enhance the cross channel process automation workflows across customer touch points throughout the Customer journey. A Customer focused organization structure, resource competency, customer experience key performance indicators and tools are essentials to manage data which enable CSP to tap the next best actions towards the customers at the right time with the right context of engagement with the right product to boost customer experience.

7.3 Incremental Innovations

Digital disruption is a new normal and will exist in future as well. Constant changes in customer behavior

create a new risks and also best business opportunities for CSP. Digital Native players have changed customer engagement and experience of products and services in a very profound ways. However CSP must need to rebuild and realign themselves to embrace digital disruptions with continuous incremental innovation to be relevant for digitally disrupted customers. The CSP must need to invest regularly in new capabilities -business, technical and Operation to offer new innovative products for their own survival.

7.4 Organization Culture & Governance

Constantly evolving digital disruptions enforce the need of continuous change & its management Different business functions of CSP must realign themselves with the changing environment to embrace disruptions. Organizational governance should be cross-functional, including multiple business functions collaboration and discourage the organizational silos. Customers Priority or their needs should be the top most business objective of an organization. It's kind of *Customer First Culture* across the organization is essential to embrace Customer Behavior.

8. CONCLUSION

Digital disruptions are a new normal in constantly evolving Customer's Digital World. Digital Customer Experience is the backbone of the Communication Service Providers in order to be relevant to their customers and market. Digital disruptions continuously transformed the customer experience and their expectations. Digital natives companies are creating new threats and eating CSP's revenue with their dynamic, innovative multi-model approach and digital products. The communication service providers must need to transform themselves to embrace the digital disruptions to enhance the customer experience and create a business value in a constantly disruptive business environment. Digital customer experience transformation is the progressive and the lone solution for CSP rather be complacent. CSPs must need to be well equipped to change in order to survive and embrace the DCEXT to avoid the extermination due to disruption created by digital natives and digital disruptions.

It is challenging to manage the changing customer experience across the digital touch points and expectations without being a digital company and having digital competencies. Communications Service Providers should continue to stretch the digital boundaries of what is being offered and how is the customer engagements?

Communications service providers should be flexible and incorporate the best of digital attributes from the digital native companies, from other industries and must be ready for continuous transformation as its continuous journey for the sustained growth and not the final destination.

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