FOUNDATION OF DIGITAL BUSINESS

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Week 02

Lecture10

Lecture 10 : Building Digital Mastery

Good morning. Now we will continue with our Module 4, which is building digital mastery and transformation roadmap. The second lecture will be on building digital mastery. I will explain what digital mastery is all about and then how we go about doing that for an organization. How to build digital mastery. We will cover these subtopics: what is digital mastery, creating a compelling customer experience, exploiting the power of core operations, and reinventing business models. Globalization, offshoring, and demographic shifts are causing deep and lasting changes in markets. These are big deals, but technology is bigger because all things digital are removing constraints.

What really started the journey was globalization, offshoring, and demographics. You all know about the Indian IT story—how it started in the late '90s, and then companies like Infosys were born. First-generation companies now employ more than maybe 2 or 3 lakh employees and have become very large and famous organizations across the world. All these success stories of Indian IT companies—plus, of course, many foreign companies like IBM and Accenture are also in India—but companies like TCS employ probably 6 lakh employees worldwide. They are becoming giants in a very short time—maybe just 30-40 years.

These are big things, no doubt, but the thing is that what you will realize gradually is that technology is proving to be a bigger element of change. We need to think from this angle—this perspective of any traditional industry, not the IT industry per se. I am just talking about industries other than IT industries. Conventional steel plants, process plants, petrochemicals, cement plants, manufacturing industry, automobiles—all those traditional engineering and process industries— they also need to now think about this digital transformation. We are talking about digital mastery. What is digital mastery?

The elements of the digital world are software, hardware, network, and data. These are the four major components of the digital world.

They are pervading the business world, and they are doing so very quickly, broadly, and deeply. They are all over the place. You can see them everywhere. Without network, without software, without hardware, you cannot imagine today's world. I mean, the first thing you see is those computers and their network. Nowadays, you hardly go to the bank. Why? Because of the internet and net banking, you do not need to go to the bank. Then you have these ATMs, again dependent on internet technology. To withdraw cash or perform many other transactions, you do not have to physically go to a bank branch.

80-90% of our work, which we used to go to the bank for, can now be done either through net banking or ATMs, etc. Regardless of industry or geography, businesses will become more digitalized in the future. It is inevitable. The time to start pursuing digital mastery is now—that is a statement from Marc Andreessen in the Wall Street Journal. Even agriculture and urban utility services, etc. It also has to gradually move towards this digital structure. Who is a digital master? So when we talk about digital mastery, we need to identify somebody who is a digital master.

We call them the organizations that build digital capabilities by rethinking and improving their business processes, their customer engagement, and their business models. Business processes, customer engagement, and business models—they are people who think about building digital capabilities around these things to improve them. They also build strong leadership capabilities to envision and drive transformation. Each dimension of capability is important on its own. Together they make you a digital master. A digital master is not an individual; a digital master is an organization. The digital Mastery is for the organization, not for an individual, not for the CEO or the CFO—it is for the organization.

You have leadership capability and then you have all these aspects of digital capabilities. You have two capabilities: digital capability and leadership capability. We have not seen anything yet. In a few years, industries, economies, and probably entire societies will be transformed by technology straight out of science fiction. What we read in science fiction, we will be seeing it very soon. Across or around you or around all of us. The working place, the organization, the educational institution and even your society where you stay, where you live.

Becoming a digital master is challenging but there has never been a better time. This is really the time, the right time when everybody needs to think how an organization or an institution becomes a digital master. Now if you take a case study of Nike, for Nike you know all of you know the sports goods manufacturers for shoes, jackets, gadgets, equipment, footballs or whatever sports equipment everything. CEO Mark Parker said Nike is an innovation company, innovation and design as a epicenter of all we do, they are always innovating and redesigning new products, so where is digital coming. In 2010 they set up something called as Nike Digital Sport. The mandate was to build digital products and reimagine how Nike could engage with its customers.

Bringing digital technology in all the processes, you are making the same thing, same old jacket, denims, I mean your shoes, sport shoes and what not and footballs and etc., but bring in digital technology in all these processes. Online ordering can be done for personalized shoes in hundreds of color combinations. A very classic example of this online ordering of personalized commodity, it happened in late 90s again or early 2000, a company called Dell which makes PCs, computers. Dell those days were much behind the big giants like Compaq and IBM who were making desktop computers. Michael Dell the owner, he came up with a very novel idea. You can design your computer, you can select what you want, the specifications of the RAM, ROM, the hard disk, keyboard, graphic card,

this card, that card, all those features which you have in a computer. You can drag and drop and each of them are priced independently and you can add up the whole thing and it comes up with the final price and that computer and as per that design will be delivered to you within a certain period of time within week or two weeks sometimes depends on where you are UK, US etc. So this is personalization, a very classic example in a computer. Now this is what was adapted by Nike ,so that I can go online and take a designer shoe I like that but I do not like the color so I can change the color if I want to and order a different color shoe. At the back end you need a digital backbone like the Zara story I told you in the previous class.

You talk to the people, talk to the customer, find out the ideas, then transfer it to the design department, at the back end and then IT is taking over, to convert that idea into the product in a very short period of time, because you cannot make customers wait. You order a shoe of different color but I cannot wait 6 months to get that shoe. I need it in 7 days or whatever maximum or it can be delivered at my home. Things like that. Digital tools make product design and manufacturing faster and more efficient. These digital

capabilities help Nike improve visibility and performance in operations. increase their efficiency in its global supply chain and reduce waste.

Nike, is a giant company. It is based at US, design is happening in US, but most of the manufacturing is happening in Asian countries like Malaysia, Indonesia, Vietnam, maybe some in India etc. They are getting assembled somewhere and then they are getting distributed all over the world. So that is the supply chain. This is a complex supply chain. You cannot, you know, improve efficiency without IT support system because it has to run 24 by 7, and you cannot have manned operations for 24 by 7—you know, very expensive and slow. Technology helps you to bring in visibility and improve the performance of operations, and of course, in the process, you also reduce a lot of waste because efficiency is increasing. There is another story from an Indian company called Asian Paints—many of you must have heard about it. They are the famous paint company; you call them for painting houses, etcetera. It is the largest paint company

 with an annual turnover of about 25,000 crores, maintaining a 15% growth rate, and it is spread over 17 countries—all made possible through successive waves of digitalization. The steps of transformation where they did an ERP implementation back in the 90s. and then they implemented a supply chain optimization tool and other IT software tools—a paint company going in for real big-time IT software. Centralizing routine customer order-taking processes into a single corporate call center. Instead of their salespeople going around visiting retailers, getting customer orders, etc., they consolidated that into a call center where people can call in and book their orders.

Once you do that, and then using technology, that order gets captured into the ERP system, and then manufacturing gets linked. Whatever order comes, it links to manufacturing through the ERP software. If you know what an ERP is—an enterprise resource planning software, something like SAP—if you have heard about SAP or Oracle, which is used to do transactions in any business. You have to capture the order, and then it will release and planning order and planning, etc, gets executed. Now, what happened was the net effect: the salespeople got freed up.

They do not have to go around collecting orders because it is done through a system call center.   What do they do? Asian paints utilized them to sell painting services. So they expanded. They are now selling service and not just paint. This enabled greater contact. They will come and advise you when you want to paint your house, the Asian paints person depending on your furniture or whatever upholstery etc and they will suggest You

what to paint but what shade to select because selecting a shade is a difficult subject as it needs expertise. All of us know we can do it, but they will do much better. This service became a line of business and a different line of business altogether which is because previously they were only selling paint now they are selling paint plus a painting solution.

To the user who are not aware of paints and what is the function of paints or what is the technology behind that paint, the chemical thing and what sort of protection it can do for a price. Suppose I want to paint my outside wall, what should I select and for inside wall, what should I select, what is weatherproofing, etc., waterproofing, etc. All of these features they can explain much better, educate us much better and then offer some value for your money, because you have to spend money for getting this painted. You need some value for your money also. Who tells you that value?   That is being told by this Asian paint sales technical person.   Their motto was to integrate all stakeholders including suppliers, employees and customers and create an extended enterprise.

 This Asian paint journey started sometime in late 90s.   They started the digitalization, digital journey, transformation journey sometimes inlate 90s I am not sure maybe around 97, 98. 27 years back they had started a this IT journeu. But it was not an IT company or not a smart technology company or not even an automobile company, where they use lot of robots computers etc. Just chemical plant. This is what is known as made by digital mastery. CEO of Asian paints Mr. Choksi's vision was, to convert Asian paints to include suppliers, employees and customers and create an extended enterprise using of course digital technology. What did they do differently, Nike and Asian paints? Digital masters use technology better than their competitors do and gain huge benefits.

They are substantially more profitable than their peers. ERP can be implemented by anyone, any company. But can you do it in a better way? Can you utilize it in a better way? If it frees up some capacity for some people by implementing say ERP, can I utilize the spare capacity of these people to do something else, start a new business for example? Both top line and of course eventually bottom line can grow. Digital masters do more than just invest in digital capabilities, they create the leadership capabilities to get the most from the digital activities, the digital vision. You need to have that leadership quality like Mr. Choksi or the CEO of Nike to exploit the digital technologies or digital capabilities for which they have invested money for.

The DNA of digital masters. They excel in two dimensions: the 'what' of technology, which is your digital capability, and the 'how' of leading the change, which is your leadership capability. The 'what' and 'how' of leading the technology and the change. We will come back to this later. Just some names: Burberry makes perfumes, Starbucks coffee, you know, Asian Paints—we are talking about them. Codelco is a copper mining and manufacturing company in Congo. Seazarts is a casino in Las Vegas. Casino gambling and all that stuff—and we are talking about it in a class on digital mastery. Nike, of course, we just talked about.

What is digital mastery? We will come back to what they have in common. We said digital mastery comprises digital capability and leadership capability. if you take leadership capabilities, they will include vision, IT-business relationship—this is extremely important. We normally do not give it value; most people ignore the relationship between IT and business. One fundamental thing you have to ensure as a CEO, as part of you vision, is that the IT team should understand business, and the business team should understand technology. Why? IT needs to understand business because they are sourcing for technology. Their eyes are open; they get information, attend conferences, read journals and magazines, and keep finding out about new and emerging technologies and software.

Now, they have to recommend to the business. But suppose there are some 10 software options for the same work—which one to recommend? They need to know which of these software options will be a better fit for the business. To know that, they have to know a bit of the whole business—what are the business processes. And the vice versa is also true; the business person finally has to take a choice, make a decision: I need this. To make that choice, the business person also needs to have knowledge about some basics of IT technology, about the digital capability, the technology-enabled initiatives in customer experience and internal operations. You have to focus when you are thinking from your digital part—the technology part—and you are going to purchase a bike. You need to focus on these two aspects: the customer.

Am I doing something that will help the customer, benefit the customer? Ultimately, the customer is making my business run, getting me my revenue, and my internal operations are for my efficiency, for my cost. Will these investments help in reducing cost, improving my efficiency, productivity? Can I deliver things faster, better, quicker, and cheaper? Generally, it is worth investing in that technology. Mastering both dimensions is

the key to achieving the digital advantage. One is you are talking about the capability—digital and the leadership capability.

Digital capability is focused around social media, digital product design, and customized manufacturing. Leadership capability we are talking about is vision, governance, digital marketing, digital product innovation design, digital commerce, digital technologies, GPS mobile, and customer analytics. All of these things will flow through your digital capability, and together both of these will combine to give you the firm-level transformation—that is, say, this is here Nike or Asian Paints. How did they reach this firm-level transformation? It is because they did both. The digital capability and then the leadership capability to deliver whatever you are investing here. Mastering both dimensions is the key to achieving the digital advantage.

The way the business makes technology investments to improve either their customer experience or operations, which I already talked about earlier. The capability comes from injecting digital technology into the organization, which enables the application of analytics, mobility, sensors, connected networks, etc. These are part of the components of your digital technology that you are injecting. You have to think about IoT, you have to think about blockchain, you have to think about sensors, you have to think about mobility solutions, handheld devices. How you can use them, and of course, with all that data coming in from your IoT and other connected devices, now you have to think about analytics because you have a huge amount of data.

Whenever you implement such things, data comes in, and they all work 24/7, generating terabytes or petabytes of data—that is one of your biggest assets. if you do not do analytics, you are wasting all that data. Half of your digital capability is actually not being utilized because once you do proper analytics with the data, then you can get much better insights that you otherwise would not have, or you cannot get those insights, you must resort to or depend on analytics. On the leadership angle, it is about engagement & culture, obviously, because change management is a big thing; transformation is one of the key aspects of a leadership initiative—managing the change.

All your employees should be willing to change. All your employees should be willing to go digital, to be digitally literate or become AI literate. There is nothing new about engagement, but in transformation, what is new is that you can do it at scale. The main barriers to digital progress here is a lack of collaboration between departments and they are completely siloed. So how can I break these walls? And as I said earlier larger the

organization more complex it becomes because you have more walls, you have more locations, geographic spread, different cultures. All that makes the business more complex, at the same time I would say it makes it more interesting because when you try to solve a complex problem you utilize your

cognitive skills and your brain much more. You exercise that and find out solution and once you can achieve that, that will give you much bigger satisfaction and of course results. So it is all about scale, if you give a small unit I can manage, if you give bigger unit, bigger unit and it becomes more difficult. The four levels of digital mastery. is you have to see this quadrangle here. So you have digital capability on this axis it is a plot kind of X axis, Y axis leadership capability. Then we say on a mastery scale these are Beginners, then we have something called Fashionistas and then Conservatives and finally the Digital masters. If you read them later on maybe you can go through one by one. Fashionistas is all about, you have many things, you have money and a bottle of technologies, fine, but are you using it?

But no overarching vision, you do not have a proper vision to make use of all that investment. You lack strong digital leadership and governance and you waste much of what is spent on technology. So conservatives are defensive, the risk averse, slow acting, does not want to experiment, take risk, so you are slow. Ideally speaking, you should be a digital master, meaning you are moving at the right speed. What you are doing here is having a strong overarching digital vision, good governance, and many digital initiatives generating business value in measurable ways. You are experimenting, trying out new things with the technology you have invested in, and fostering a strong digital culture. Your employees, your stakeholders, everybody is aligned with your vision and culture— enabled by digital culture—and strong digital leadership.

This is what should be targeted. The others, of course, are slightly behind. Like conservatives, excessive conservativeness prevents firms from building strength. Do not be hesitant—take some risks; that is what you have to do. So you should not be very risk-averse and should not be slow-acting. Digital masters have significantly better financial performance; this is just some interesting data. Revenue generation, profitability, market value—see the digital masters, green one: plus 12, plus 26, and plus 9. They surveyed many large companies in a study done by MIT, and this is the outcome. So if you are a digital master, you will perform better. You have seen where they are by industry type; again, this is part of the MIT study. The digital masters are the high-technology

companies—high-tech, obviously, they are more digital. The retail industry and banking—the finance industry—have moved into this digital mastery zone.

But if you take insurance and utilities, they are more on the conservative side. Beginners are CPG, pharmaceuticals, manufacturing—they are still, you know, taking off. And fashionistas are telecoms, travel, and hospitality, where they are investing in technology but still not scaling up to that level. Now, Burberry—I have shown you those six logos-Burberry's transformation, how digital transformation went right. I will quickly run through; there is nothing much to explain here. They zeroed in on digital marketing and hired a young marketing team. Because Burberry is for youth, young people, and their fashion—they do perfumes and all those things, cosmetics.

 The ad spend shifted to digital media because young people see more digital media than physical media, and Burberry.com was launched in different languages. They organized live fashion shows with Twitter, which is now known as X, and developed perfumes with sampling through Facebook. Then, they collaborated with Google to create Burberry Kisses, a kind of chocolate. And then partnered with Chinese social media giant WeChat to launch a series of mobile content experiences. They used digital technologies to share the excitement of key brand moments with their worldwide customers.

They organized programs, functions, but everywhere it was done through digital technologies. They used—you can see—extensive digital technology to promote the brand among the younger generation. Because they knew that the younger generation—Gen Z, Gen Y—prefers these digital platforms. Starbucks, a coffee-making company—how are they going through digital transformation? In 2009, they launched their app and their loyalty program through the app. You know how loyalty programs work—if you drink more coffee, you get some benefits in return, etc.

Starbucks charges the card, mobile card, mobile app card, etc. They are getting into this digital mode. Then, the payment channel became online, like Apple's Passbook feature, etc. They introduced all these things to make life easier for the younger generation—customers can pay fast, get discounts, and everyone enjoys discounts. By 2012, Starbucks had 54 million Facebook fans. 3.4 million Twitter followers, etc. And 900,000 followers on Instagram. They are using all these social media platforms to increase their followers. Through its My Starbucks Idea site, the company has collected more than 150,000 customer-submitted ideas to improve its products and customer experience—what I was talking about with crowdsourcing.

These ideas aren't coming from employees; they're coming from 150,000 people for free—you don't have to pay for the ideas. The Walt Disney Company—this I have already discussed. The legacy media business has stood up to tech titans like Netflix, Apple, and Amazon by expanding. Its library of content and launching its fast-growing streaming services: Disney Plus, ESPN Plus, and Hulu. These are all owned by Disney. The legacy business went digital with a fast-growing streaming service and within three years of launching Disney Plus, the company's total number of streaming subscriptions had surpassed those of Netflix. Can you imagine that? You know, Netflix is very popular for its OTT platform. But Disney Plus is bigger.

At the same time, the firm has realigned its growth strategy, metrics, and organizational structure around Disney's new digital future as a direct-to-consumer business. A direct-to-consumer business means streaming. This is their area of focus for the present and future. Mastercard, as I have already explained, runs one of the top accelerators for fintech startups, and its own innovation labs are building and scaling new business models around cybersecurity. They know they are strong, and everyone appreciates their advancements in cybersecurity. Whenever somebody makes a transaction, he or she has to be identified as the correct person performing the transaction.

And of course, with so much data, you can do a lot of analytics, which they are doing to improve further on these two angles: cybersecurity and digital identity. While selling digital services to business customers around the world, they are selling these services, to banks, other financial companies, or anyone who wants Mastercard's expertise in these areas—even cybersecurity—you can buy it from them. This has become there out of the light of business apart from being a payment gateway which was there of course, the major thing which they started and which they are all about. This is another case of Philips lighting system where in a supermarket through smart lighting, smart LEDs, etc. and the phone. Once you enter a supermarket you are looking for certain things.

I am going to make this food and I want these items, etc. The phone will communicate and then using the smart LEDs of the store, it will guide you, tell you, where it would be available. aThe supermarkets in US are very big, not small like in India. Walmart, Costco, are huge and you have to walk around. If you can get a guided tour nothing like that- item is here, rack number such and such, shelf number such and such or item number this, rack number this such and such, shelf number such and such. You can then save lot of time just looking around finding where it is. This is another smart application

from a lighting company like Philips. Philips all we know is make lights and things like that etc.

This is how these companies are becoming digital masters because they have understood the importance of digital technology and through their leadership and digital vision they are adopting them and they are using it for growing their business as a different service lines. What is the relationship between digital capability and leadership capability in any organization? They are related of course, but you need to think about how it can be related. We already discussed most of these covered through your digital vision, digital technology enablement transferring it down the line. Digital education, searching for the right talent, training your employees etc.. That is all about the digital culture which you want to bring in as a leadership driven thing and capabilities. Of course your IT driven things

by your CIO, but both the business and IT they need to talk to each other. There are plenty of material available in the reference book and also internet and you can read from here. With that I will end this session. Thank you very much.