

Management of New Products and Services (MNPS)
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Lecture – 12
NPNSM- Lean Product Process

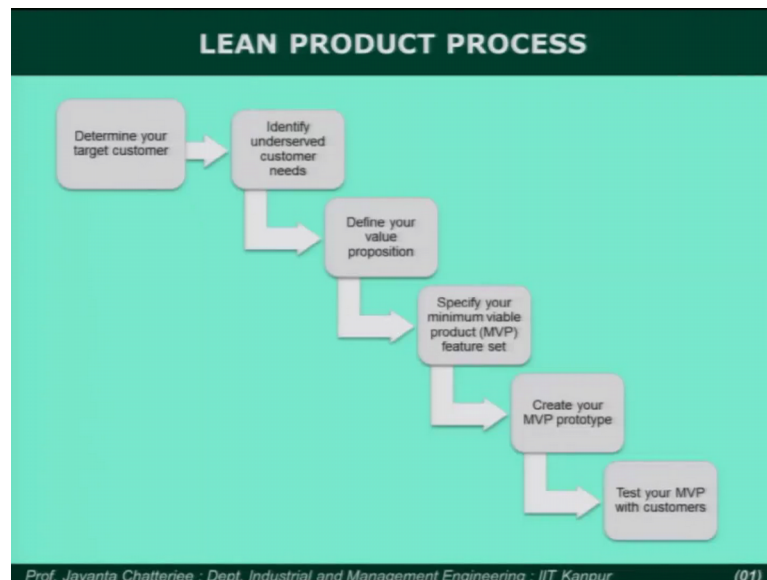
Hello, welcome to the next session of management of new products and services. If you remember in the last session where we looked at this whole process of matching strategic value proposition with a customer segment, I had mentioned about this concept of minimum viable product which is today a very well practiced process.

Because of the market velocity ever increasing product life cycles becoming more and more compressed and also to reduce the overall cost, cost by way of money, cost by way of time of product development. We have this sort of paradigm which we call the lean product development process. So, minimum viable product is one of the elements of this lean product development process. So, originally famous companies like Toyota in automobile product design adopted this lean product design methodology, but from that it has been made popular by people like Dan Olson and others and there are some very useful and easily available books are there on lean products, lean product methodology, lean product playbook, they come in different names.

You can just search and you will find many and I will recommend that some of you who are seriously into product design product management that you should go through, these are usually short books and very well written. So, you will easily understand, but some of the key principles that are covered by these books I will discuss into this session. So, the lean product process basically has the following steps that you see on the screen, that you determine your target customer. This is always the fountain head as we discussed even in the last session.

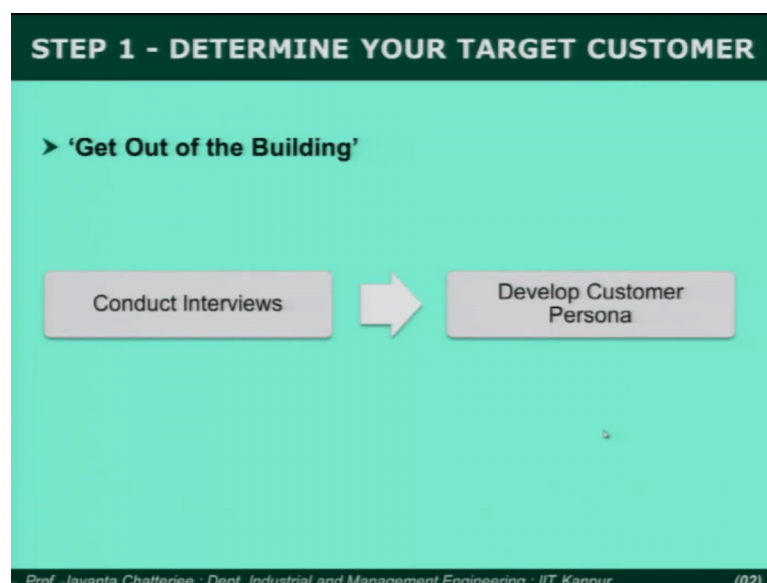
This is where you first start segmenting and starting with a well defined focus on a particular type of customers. Then you identify and understand those customer needs in depth, their pains and what gains you can offer and then you define your value proposition.

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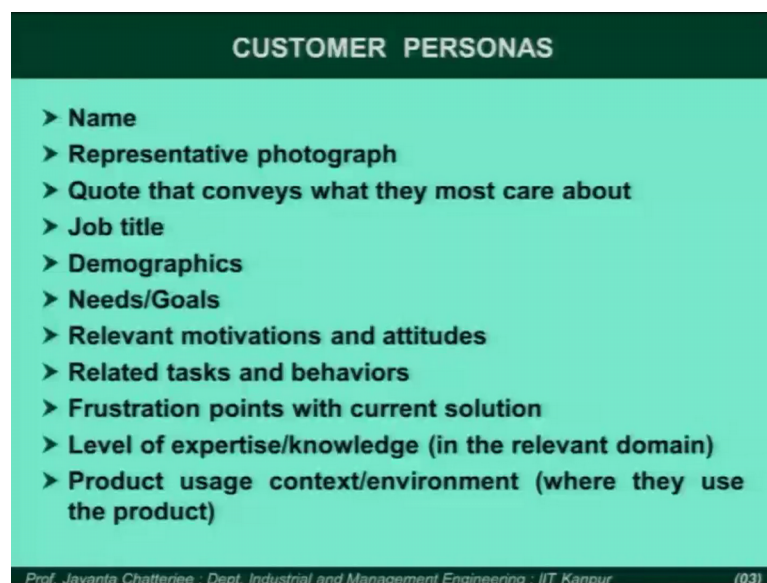
Up to these 3 steps are; what we discussed in detail in the last session. Now once you have your value proposition, then you get into what we call the minimum viable product and that is what we are going to discuss about this whole process. So, those are the next 3 blocks that you see on your screen this last three that specify your minimum viable product, create your minimum viable product prototype and test your minimum viable product with customers. So, the first 3 blocks we covered in the last session and these 3 blocks we are going to cover in this particular session.

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First step to determine your target customers. I emphasize again we discussed in the last session as well that always you have to get out of the building, you know not in the office, you have to go out in the field where customers are. So, go to Gamba as the Japanese say. Go to the shop floor, go to the marketplace, go to the store and conduct interviews and develop customer persona. Now this is I think briefly discussed this concept in some earlier session, but today I am going to discuss it in a little bit more detail that a persona means a complete person and the profile.

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So, which means we in this process we do not want to deal with customers just as a kind of a type or in a part of a demographic profile or psychographic profile.

we want to identify the customers by name, what they look like and you quote that conveys what they most care about, you know take 1 or 2, 3 things that they have said and their job title their demographic position, their needs, their goals in life, they are relevant motivations and attitudes. Those kind of tasks and behaviors are most important to them, their frustration points with the current solution, the level of expertise and knowledge that is available with the customer, product usage in what context in what environment they use the product, all these must be captured in the customer persona and I think you should also add to this kind of things like what other products do they use, what other products they buy, what brands they prefer and so on. So, you may be actually

trying to develop a running shoe for senior citizens who may have some knee problem and so on.

So, you need to develop a shoe which is they still need to exercise they still need to jog, but you have to take care that they do not have problems with their knees or ankles and so on. If you are studying to develop a product of that time then; obviously, you will have to look into all the pains and problems and therefore, offer solutions, but to come to that particular decision the design profile or brief for the product, you have to also look at what other stuff they buy and use today. What kind of you know track suits they buy, what kind of aftershave they use, if they at all use or what soaps, what other lifestyle stuff they have.

So, basically we are trying to understand not only the customers income and address and name and what they look like, but also we try to understand the customer in more details. So, psychographic physical details other preferences. So, that we get a complete picture of the persona.

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STEP 2 - IDENTIFYING CUSTOMER NEEDS

➤ ***"As a counselor volunteer to learn how to communicate more effectively with young adults, so that young students that I coach against addiction will trust me."***

'Get Out of the Building'

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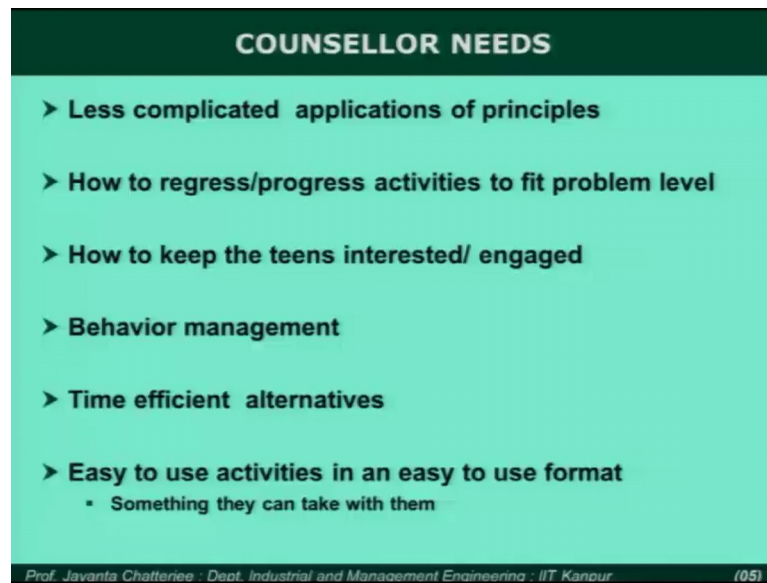
And I mentioned that you have to take some codes from the customer, some key codes which will give you the direction. Like here I have to illustrate, I have chosen actually a service, a quite an intangible service. As you know today among the students particularly in top institutes there is tremendous pressure and tremendous competitiveness across actually almost all institutes today. Education is becoming more and more fiercely

competitive and therefore, we have due to not only due to that reason, but due to other various socio political economic reasons, we also have more and more depression among the students.

We have even in some areas and some states we have addiction to drugs or cigarettes or alcohol and other problems and. So, we the need of counseling for the addiction or need for counseling for you know handle depression, need for counseling to make them capable of handling failures, this particularly happens in top institutes. That need of counseling, the counseling service which earlier used to be just a small sight service in an institute has now become a central and therefore, this whole counseling service. Now needing volunteers and large institutes, they have like IITs or IIMs etcetera they have counseling service within, but in many other cases we need volunteer counselors who are capable and well trained to handle large number of students who may not have this facility available within their institute or they may need more specialized help. So, the service therefore I have chosen is a service that trains this kind of volunteer counselors to make them capable of handling the counseling assignment.

So, as a counselor volunteer to learn how to communicate more effectively with young adults so, that young students that I coach against addiction will trust me. This is a statement taken from a customer of this particular service and we are looking at how to develop a minimum viable product which is going to respond to this kind of need for these people.

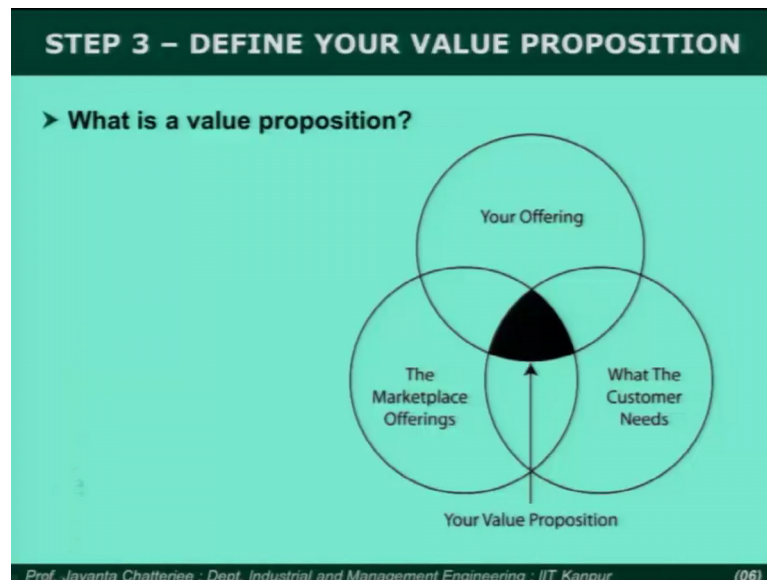
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So, counselor needs are less complicated applications of psychological principles, easy to understand because many times these volunteers are themselves actually students of engineering or students of medicine or management and so they are not professional you know psychiatrist and so on. But so, you need less complicated applications of their principles, how to regress progress activities to fit the problem level. So, some people may need very intensive counseling, some people may need light you know casual counseling. How to keep the teens interested and engaged? This is a very major challenge because many people actually they reluctantly come to counseling then they drop out.

And so, to keep them engaged. So, that the process itself can happen is a very important need behavior management, time efficient alternatives and easy to use activities in an easy to use format. So, a volunteer who is an engineering student or a medical student wants to become a counselor and you are actually creating a service to enable them to perform their counseling activities and this is a typical need a counselor has. So, you see this is what we are talking about the understanding a customer segments, needs and those need analysis will tell us the pains and the problems with the current solutions and some of those depictions are already there. This is a capture from an actual case. So, you can actually therefore, see how the counselor needs that to be framed and then you see this is what we call the value proposition; that means, something that you are trying to design your offering.

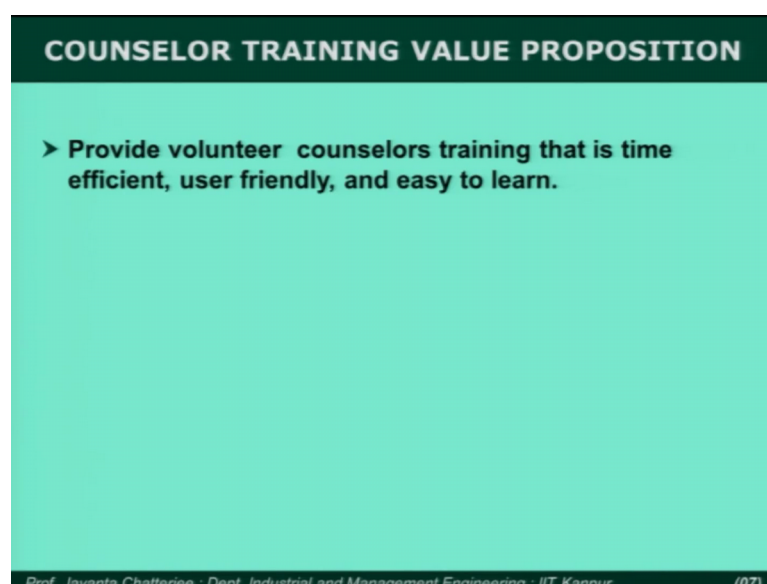
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And then on the left hand side you the lower left you have these current marketplace offerings and what the customer needs.

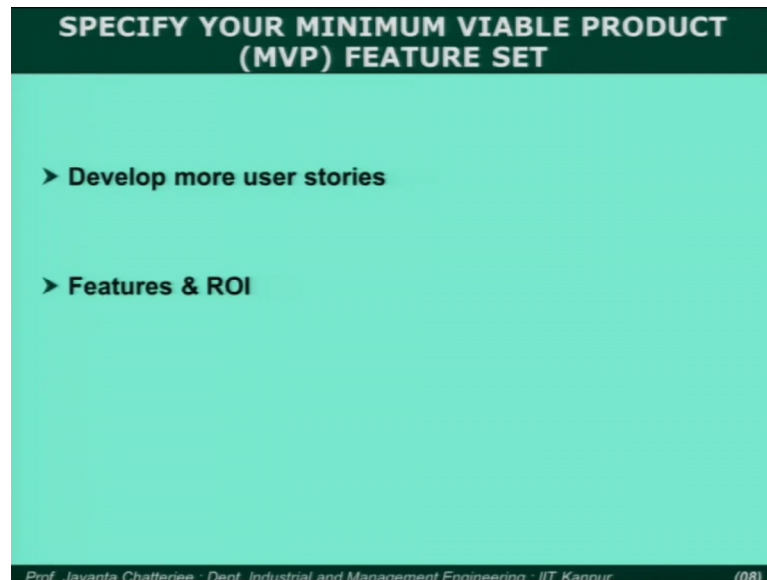
So, the intersection of these 3, this is the Venn diagram. This is what we call the targeted value proposition. So, your offering is not only the value proposition there will be so many other things in your value proposition, but you are trying to find in within your offering, definitely issues that are not covered well by the current marketplace offerings.

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And what the customer needs all three said intersection gives you the core value proposition on which your service will be designed. So, counselor training value proposition is say provide volunteer counselors training that is time efficient user friendly and easy to learn given that specify your minimum viable product.

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So, the feature set will be develop more user stories, you know case histories, case studies, features, these are some and then it should be something that you know the whole package the cost of the training and the training material etcetera should be such that can will be affordable for these kind of voluntary services. They may not be very cash rich. So, they will have some subsidy coming from the institutes. The people who are seeking counseling may provide their parents may provide some amount of money, but in many cases you know if you are addressing this market in tier, 2 tier 3 cities and even in the suburbs or even in the metros you know if there will be many students will not be able to afford to pay high fees.

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COUNSELOR NEEDS & MVP FEATURES

- **Need: Simple and time efficient training**
 - Feature: Online videos that are accessible 24/7
- **Need: Easy to use activities in an easy to use format**
 - Feature: Age specific activities laid out and that they can take with them to the program
- **Need: Parents not understanding why possibly the addiction happened !**
 - Feature: Parent awareness and sensitization sessions

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So, you have to therefore, also look at ROI. So, counselor needs and minimum viable product features, simple and time efficient training.

So, therefore, online videos that are accessible 24 by 7. So, we reducing the cost by creating this kind of NPTEL type of course's online available which can be first studied by the volunteers, then easy to use activities in an easy to use format which will be they will come for a one day workshop and they will it will be provided to them and so that they can take it to the program and then parents not understanding why possibly the addiction happened therefore, you also need. So, this is this is what happens from a deeper understanding of certain unspoken needs. So, we often find that actually the parents themselves do not feel the need of seeking counseling.

So, even though at home they can detect a child under a, young teen in depression or they can detect these addiction and other problems. They themselves they may feel it is a disease or they may beat up the person, but they will not seek counseling. So, there is also a need of in the minimum viable product a package where parent's awareness and sensitization can be included.

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CREATE YOUR MINIMUM VIABLE PRODUCT PROTOTYPE

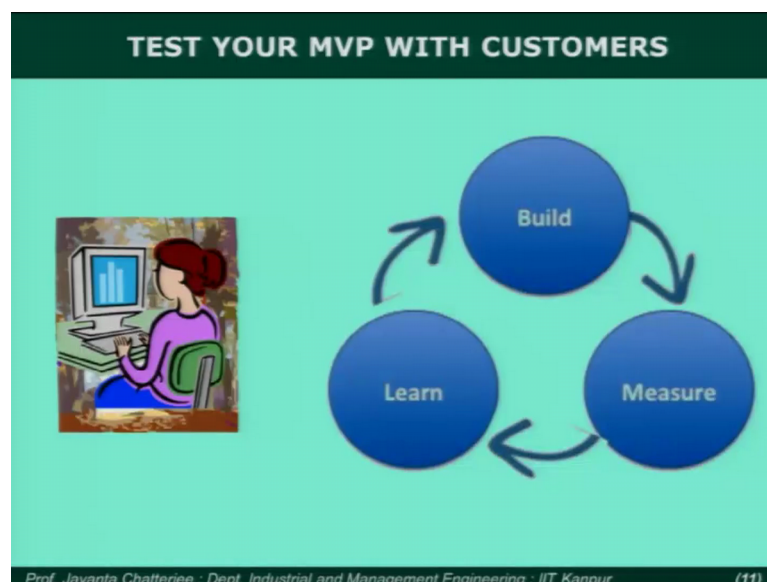
GOAL

Build a prototype of a 3 hours workshop with target parents that lets you test your hypothesis

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So, you are therefore, trying to build a prototype of a 3 hours workshop that with target parents that lets you test your hypothesis. So, in doing that therefore, you are going to follow this measure.

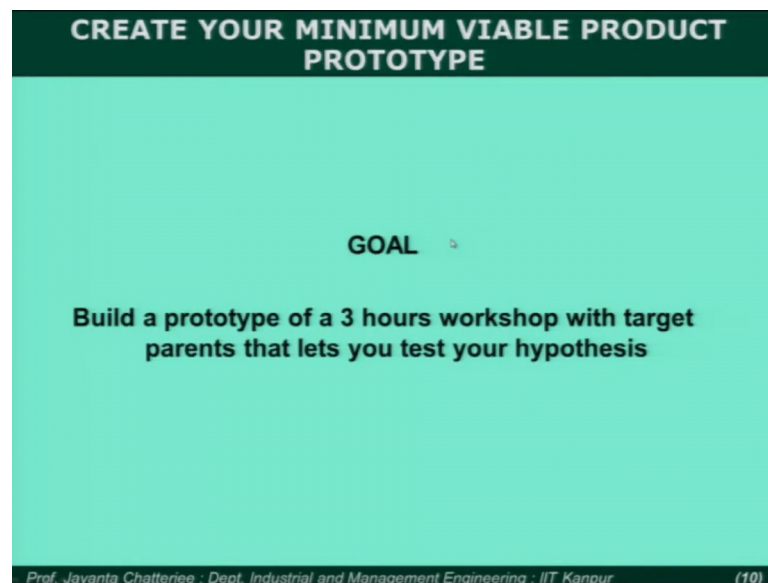
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The build, measure the effectiveness, learn from the interaction and then again build. So, you see it is a loop and because as we have discussed even in many earlier session that today in product development.

We do not believe in a linear process of you know start to finish or stage after stage. We know that we need many iteration we need many interactive back and forth and that is why this loop is shown in front of you, where this to develop this, say a 3 hour workshop for parents you actually need to create first a package.

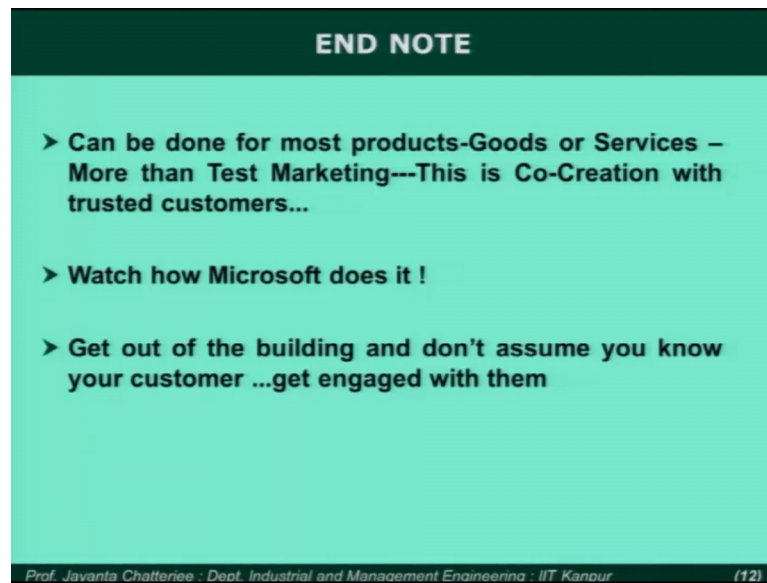
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And this is the key point, that in the minimum viable product scenario we do not actually try to come up with the best finished package for this 3 hour workshop. We will first develop a rough cut and then maybe with some trusted parents who already feel the need of the sensitization and they are awareness. So, you they already believe in it.

So, you bring them in and present the thing take their suggestions. So, you are actually co opting in some way what we call expert customers and you are co opting them as advisors in your design process. I am discussing this with respect to this a package of training for volunteer counselors a service product, but it can be applied to anything. It can be applied to you know some high tech products it can be in fact, this minimum viable product approach is widely practice in places like silicon valley or in Bangalore software development companies or people who are developing games, video games in many high tech areas, the minimum viable product today is a well practiced process.

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END NOTE

- **Can be done for most products-Goods or Services – More than Test Marketing---This is Co-Creation with trusted customers...**
- **Watch how Microsoft does it !**
- **Get out of the building and don't assume you know your customer ...get engaged with them**

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So, lastly I want to highlight that actually therefore, the minimum viable product is not a extremely complex set of activities it basically says and you already know these terminologies very well you know we say beta customers or alpha product and beta product. So, alpha product means you know what just a prototype which is just internal and you actually analyze the performance internally and then the beta product means, beta customers or customers who are trusted customers; that means, if your product has flaws, then they will not badmouth your product they will rather try to help you to take care of those shortcomings.

So, it is a kind of things which earlier we used to call test marketing, but today I would say it is more like co creation with trusted customers. I mean look at what Microsoft or many other software companies or even game development companies they do today. So, they first come up with say a new game or a new software and then they will release it to maybe 1000 customers with software products its easy it is they will just be electronically given the product and these are people who take pride in who can find how many bugs in the shortest possible time. So, they almost these 1000 people will be almost competing with each other that oh I found this bug and this is how you solve it and then I found this bug and this is how you solve it.

Here the game was not behaving properly, then I find that this is how you actually make it. So, what happens is at this stage because they are trusted customers you will actually

often share your development codes or the software process with them and they will work furiously because they take pride in it, they love it, they and the same thing as I was meant that you some parents who already know the critical need of parents support in a de addiction counseling program, you bring them in and show this is how I am going to make a 3 hours training package for parents and then take their advice to say, no this is you know you need to expand on this or you need to add this particular point or you need to give this kind of examples etcetera.

And then similarly in software, I mean just watch how Microsoft does it they come up with a product and they will actually suppose a new version of windows, they will release it to these beta customers they will furiously work and so at that stage, the product may have 100 bugs, but these 1000 people will work furiously they will come up with solution. So, with 1 round or 2 rounds of iteration actually the next product will be within a very short time the product will become almost bug free. They continue to therefore, work on and that is why you know that these you many of these software many of these games you buy and then you keep on getting patches or fixes, bug fixes, patches for improvement security improvement and so on. Fundamental, that is coming from this whole concept of minimum viable product; that means, the first product you got is not the finished product its actually in the earlier paradigm you would not actually be able to release that product, but today we do this we do not release it straight away to the general market.

You know for example, say reliance Jio, when they launched their quite innovative way of the voice where they were able to offer the voice telephony free of cost because it is actually riding on the internet protocol and, so they this introduced this to they are staff to begin with. Then as the staff give feedback and certain things were worked out, they went to the relatives of their staff and they are friends again. So, you see you are going by circle by circle retaining the hook so called circle of trust.

So, first where your own employee staff, then they extended it to their family members and their friends, then they extended it to people they are who were recommended by their staff right. Then when they had already fixed many of the problems in rolling out this quite unique approach compared to what was happening just 2 years back in mobile telephony, then they started rolling out to the customers they of course, did other disruption that we discussed in a previous session; so, whether it is Microsoft whether

some of the major game developers across the world and people like even reliance Jio in our case. So, you can see for both products and services for hard products, for soft products this minimum viable product introduction and then continuous bug fixation co-opting the customers help has become a lean way of developing new products.

Today this is also done for series changes or product extensions, product improvements, product augmentation in all these areas we use this. So, key remains; however, that all these you do not by out of your own imagination or talking among yourselves, you get out of the building and talk to the customers and get engaged with them and that is how you arrive at a better and better and better product.

So, the key point here we are saying is that which is there in the right in the beginning in the set of steps, that you after you have value proposition of the brief then you come up with this minimum viable feature set, then you create your minimum viable prototype, then you interact with your beta customers and trusted customers take their input and test it with them and then come up with a product and you keep on continuously improving on the product by taking their inputs. So, this is the journey of the minimum viable product and in a later session we will discuss another interesting concept that goes hand in hand with minimum viable product which we call pivoting.

Thank you.