

Interior Design
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Lecture - 33
Interior Design: Building Material Costing; BoQ; Market Exposure; Product Catalogues

Namaste. Hello, everyone. Welcome again to my NPTEL course on interior design. We are in week 7, and we are at lecture number 33 today. We are going to talk about building material costing, something known as the BOQ, market exposure, and some product catalogs.

So the broad contents for today are what makes up an interior design, the cost of varied materials, factors that affect the calculation while we are finding out the cost of an interior design project. You know, some examples related to this cost calculation. And some discussion on, you know, some approaches for achieving low cost while designing interior design projects and some of the references. So let's start by understanding what makes up an interior design, although we have been discussing this throughout the course with the help of different examples through different lenses.

So apart from the basic anatomy of a space, the interiors are enhanced by several additional components, and it's very important to also factor in those components when we try to understand what makes up the entire interior architecture project or how we approach designing those interior spaces. So, of course, there is custom-made furniture, and some clientele are very specific about custom design. So for them, it's not like a regular brand which is available as a ready-made solution, but they would like to have custom-made designs. Also, not just clientele, some designers push the boundaries and go for these custom-made designs.

And I'm very fond of works done by SRDA, Samira Rathore Design Associates based in Mumbai. And they do a lot of custom design. Then, you know, specific lighting fixtures, which are also for very specific needs. And they may also have, you know, some inputs focusing on custom design. shelves and cupboards, curtains and fabrics and wall decors.

So when we talk about interior space, we can talk about all of these components which need to be factored in while we are talking about the you know, whole to part and part to whole. And then this also adds up for finding out the cost of the overall project. And of course, we have talked about these important aspects in any case throughout different lectures. So floor covering, wall treatment, window and door decorations, ceiling design and fixtures and furnitures.

Some of the examples of floor covering and floor treatment, floor finishes, we have seen elaborately in one of the lectures. So some images I have put over here with due credits to the resources. And this is one of the classifications for floor coverings and you know when we talk about floor coverings we often see the reference to hard floor, semi-hard and softer floor. And within that also we have like non-resilient and resilient when we talk about the hard floor classification. And within that, we have material specifications.

So stone, concrete, terrazzo. So we find these orders and we find the mention of varied materials associated with this, you know, category like non-resilient, resilient. For the case of semi-hard, we find other classification methods based on the finish and the material in the specification. And when we talk about soft floor, it's more specific. like carpets and mats and rugs, two broad categories.

Also wall treatment, there are diverse ways to treat the walls, you know, starting with paints, textures, different kinds of custom made plasters, other kinds of finishes, which may be, you know, even metallic, something related to an origami inspired technique. So there are various ways. This is again one inventory that showcases wall treatment classification. So wall finishes, wall covering, wall cladding, flexible wall decors. And within that we have diverse options available.

Cement plaster finish, mud and clay finish, paint finish, marble powder finish, mural and graffiti, illusion. There are wooden panels, there is stone cladding, there is mosaic cladding, cladding which is done with the help of bricks, ceramic cladding. There is also something known as 3D cladding, which is quite popular these days. And then when we talk about flexible wall decors, of course, we see the mention of wallpapers, fabrics, cork and many other kinds of material and finishes. Window and door decoration also is crucial when we talk about the overall design and impact of interior design projects because they stand out and they highlight certain details and people are

very very fond of showcasing you know windows and doors and using fabrics, curtains, different kinds of paints and finishes on the windows and doors.

There are some types of window dressings which are quite popular such as plantation shutters and blinds, sophisticated curtains such as these and then pull down roller shades, also shears like this. I am personally very fond of shears, but depends what is the orientation of the site and for which climatic context this is being used. It could also be used in a combination. So we could have permutation combination of varied options which are available to us. Then we also have Roman shades, we have Valances, we have window scarves.

We also have the options such as stained glass. So it depends on the overall taste of the clientele, designers, ideology and approach and what suits most the context and the purpose of the project. Ceiling design, that's another important factor. And we talk about what constitute interior design and what is factored in while we are also talking about the costing aspect of it. And, you know, ceiling design is quite crucial in interior design projects.

It creates a lot of attention. It creates a lot of showcasing of different elements through detailing, color, lighting. So there are various fall ceiling materials which could be utilized. Gypsum board is quite popular. The plaster of Paris is also used, POP, glass, acrylic.

And gypsum board is actually used a lot when we talk about false ceiling designs. There is also PVC. There are acoustical panels. There is wood, of course, which is used quite popularly. There are some metals that are used for creating interesting ceiling designs.

There is also cement fiber, which is utilized for ceiling designs, especially false ceiling designs. Then there are fixtures and furniture, which are very important components when we talk about interior design projects. They could be of a certain make or they could be custom-designed. They could be used in permutation and combination, and they create a lot of interest within our interior spaces where we inhabit for long durations and long hours. And now let's talk about some materials that I'm going to focus on and what the cost of those materials is.

I have taken some of these from diverse sources, and you may find some changes. These may not be very accurate costings, but they give a lot of insight because sources may

vary. So when we talk about Indian stone, specifically marble, there is a huge variety available. And, you know, say, dark green marble, and the costing will also vary. So it starts from INR 50 and goes up depending on the quality and the grade of the stone. And, you know, it's also given in dollars to understand when it is exported and so on.

So these are different varieties with different prices. The costing is just to give us an idea. So we talk about Burberry Black, which starts from 75. Fire Red starts from 125 and goes beyond. There is Flawless White, which starts at 250 and goes beyond.

So it depends on the finish, the color, pigment, the quality, and so on. There is Golden Black, 150 and above; Golden Marble, 50 and above; and Light Green Marble, which is 35 and above, and so on. And there is a huge variety when we talk about stones, specifically marble, but otherwise, in general, when we talk about the overall variety within the material palette of stone, a lot of options are available. There are also marble tiles, and they could be anywhere starting at 15 and going much beyond, depending on the quality, finish, and typology. And you know, there is Milky White, 35 and above, and so on.

And we can see more variety over here. Rainbow, Rainforest Brown, Rainforest Gold, Spider Green Marble, which appears something like this and is available for ₹100 and above. We have something which appears like teak; it's 40 and above. There is White Marble, 100 and above. There is White Super Quality, which is 300 and above.

So it depends on the quality and the budget. We have Wonder Marble, Wonder Wood, and something in purple. So, you know, different color shades—the name is purple. Then we have granite, which is used quite extensively in interior design projects. In the lecture where we focused on stone, we discussed the usage of granite in certain areas, such as kitchens, and we also talked about the properties of this material. So when we talk about granite and pricing, I have included some images and cost estimates.

For example, premium Rajasthan Black Granite could start at INR 80 per square foot. Black Galaxy Granite costs 190 per square foot. Black Pearl Granite costs 450 per square foot. So it depends on which one we choose and the client's overall budget. There is also a leather-finish option that starts at 150 per square foot.

Green Pearl Granite costs 200 per square foot and looks something like this. Then there is White Galaxy Granite, again priced at 200 per square foot. So there is a wide variety

available, and depending on affordability, purpose, and client taste, we can pick and choose. Of course, we apply our own sensitivities as designers and select the right stone for each area. Madurai Gold Granite starts at 175 per square foot, 10 Brown, and so on.

There are more options available, such as this rosy pink granite, at 65 per square foot. So there is a huge range, you know, at the lower end as far as pricing is concerned, all the way to the higher end. Then we talk about vitrified tiles, which are used very popularly and commonly in interior architecture projects of all typologies. So whether it's residential, public buildings, or institutional buildings, we see a lot of use of tiles. And I'm specifically talking about vitrified tiles.

And we could see the price ranging anywhere from 50 to 200 and even above, depending on the detailing and the finish. And city-wise also, sometimes the prices vary. And that's, you know, we see that kind of slight variation and alteration depending on where that city is, where the project is being executed, from where the tiles are procured, or what the market is like in which city, what the demand is. So that way, we see these variations. So if we see 145 per square foot in Surat,

we may see also 185 per square foot in a city like Mumbai. So we see these kinds of variations in the market. And also, the cost of these tiles varies depending on the size, brand, and design. So whether it has a certain pattern or a certain motif inlaid into it, what is the size that we are dealing with?

Are we going to use grooves while laying them, or are they jointless? So, in one of the lectures, we are talking about tiles and the methods of laying them. And we have discussed a few aspects such as these in that lecture. And here also, we see the variations, you know, depending on the city. So, if it is Nashik, it is 160 per square foot.

In Bengaluru, you could find it at 185 per square foot. Now, the following section that I will show you discusses a detailed breakdown of flooring rates to understand labor charges and material costs. So, whenever we talk about interior design project costing, of course, there is a material cost, which is based on the material that is procured—you know, different kinds of materials that go into the making of that project. And, of course, there are labor charges. So, human resources, Kaarigars, who are implementing that—what's the work like that happens on the site, and so on.

And what is included in this rate? So, all rates are in the unit of per square foot. That's important to understand. Also, the cost of tiles is assumed here when this kind of a description and discussion is being shown here.

And it will vary as per the selection of the tiles. Of course, there is a lot of bearing on the selection of the material, the type of tile, and the design. And there is this one thumb rule which is important. Use river sand since creek sand, which is the salty sand, will cost less, but it will remain inferior in quality. So even if it costs more, this is what is suggested professionally.

So we see over here the itemized details, cost of tiles, which was already claimed to be included here. Labor, the river sand, which is recommended to be used professionally, cement, and cleaning and grouting. So again, during the discussion on tiling, we have extensively talked about grouting and cleaning. So, when we talk about the cost of tiles, let's say these are different cities over here, and there is a variation: Mumbai, Pune, Bangalore, Delhi, Goa, Nagpur, Nashik, Ahmedabad, Surat, Vadodara. So, different parts of the country, and the cost of tiles could vary, you know, 80, 75, 90, even 55.

When you talk about the labor cost, it could be 40, 35; again, Vadodara is 35, Nashik is 30. So there are subtle variations. Then procuring river sand: 30 in Mumbai, 20 in Pune, 25 in Bengaluru, and so on. Then cement—again, here you see it is mostly consistent, which is INR 20. And about the grouting, there is also a subtle variation ranging between 15 and 25.

So, according to the city and the project location, and the itemized details, we can find out all these details, costing, and ways of costing here. Then we talk about clay tiles, and there are different colors in which these tiles are available. So it could be silver grey, chocolate, autumn blend, natural red, or something called cappuccino, which is quite interesting and popular. And there are different dimensions and specifications. So 150 x 150, 300 x 300.

So this would be like 1 foot by 1 foot. 500 x 500, 300 x 600. So 1 foot by 2 feet. And then, you know, what is the thickness in mm. So these dimensions here, 150 x 150, are in mm.

And I was converting some of them into feet to give an idea. And then the thickness, whether it's 12 mm, 14 mm, or 15 mm. Then, what is the requirement per square foot?

Whether four tiles are required, one number is required, or less is required. What is the weight per tile?

Numbers of tiles per packet. So, you know, the packaging, the packet, transportation, the entire value chain also matters. Available colors, suitability whether it is for exterior, interior, wall, floor, both wall and floor. Size variations, variations in thickness and of course the water absorption. We discussed at great length the water absorption and then how we are able to take a call which kind of tile to be put in which area.

There are also these terracotta tiles which are quite popular and very interesting, quite aesthetic as well as functional. I like these tiles. I have been sharing some of my biases. So terracotta flooring also comes in different sizes 300 x 300, 300 x 600, 500 x 500. And you know these tiles are quite perfect for living rooms, balconies, bedrooms, verandas, walkways.

And you know we have this natural red terracotta flooring also which is very popular. And you could see it in dimension 300 and 600 mostly in rectangular shape. And, you know, this type of flooring can be mixed and matched with other kinds of tiles, you know, square floor tile. And we could create interesting patterns out of it. There is this chocolate colored terracotta tile, which is seen over here, mostly 300 x 300 mm size.

And these tiles are full-bodied. And that means the color will last forever. That's a very interesting aspect regarding the floor tiles that I am just trying to highlight here. Then there is this cappuccino, which is again very interesting. 300 x 300 full-bodied.

The water absorption of cappuccino floor tiles is slightly higher than the other colors. So that makes it an interesting choice for flooring. Then there is this hexagonal form that we see here. There is a unique charm to this shape and form, and this is crafted for both interior and exterior use. Then this one here is specifically designed for steps, you know, for the rounded edges, and this is very interesting.

It is an ideal choice when used for steps. The rounded edges of these tiles make them a great choice. So we have seen in detail the laying methods. This is a catalog on flooring tiles, and this is very interesting. Here we see the name of the tiles, the different sizes here, the number of tiles required per square foot, the usage or application, and some additional comments or remarks that have been put forth in the catalog.

And then there is material cost per square feet. And there is this sort of a checklist that we see over here that helps in assessing and evaluating the cost. And, you know, whether it's in regular production or something which is a rarity and may factor in. you know, for increase in the time while procuring it and production against order. So while in regular production or it is against an order, something customized and special.

So this kind of catalog helps us understand the overview. It is again a sort of an inventory which helps us understand these details. Such as this concrete floor tiles that are mentioned over here available in different shapes and sizes. And used in car parking etc. And you know also there are some additional comments like there should be a PCC base to lay these tiles plain cement concrete.

And these we see over here in terms of pricing less than rupees 50 per square feet. And they are in regular production. So these kinds of catalogs are handy and help us, you know, with our market research and survey and help us understand not just as designers, but also as customers, clientele, consumers. What are the different types of tiles available in the market, variations in pricing, different kinds of sizes, where all could they be used and how could they be procured, whether they are in production or they have to be specially produced. Also laminate flooring are quite interesting and popularly used and there are some examples.

So this is INR 70 per square foot, and this is a wooden tile. Then there is a laminate wooden flooring tile, which is INR 150 per square foot, and this one is a 15 mm laminate ceramic floor tile. 2 by 4 feet, and it's a matte finish, priced at INR 800 per box. So it could be per square foot or it could come per box. So these are some variations that we see.

Some more examples. This is INR 950 per square foot, and these are slightly bigger in size. So 4 by 8 feet, and it is a polished laminate floor tile. This one is INR 300 per box. It's a laminated vitrified floor tile, and the size is 12 by 18 inches.

Now let's see some examples of wall paneling. So, the popular choices are plywood, HDF (which is high-density fiberboard), and blockboard. When we talk about plywood, it is quite popular and very extensively available in the market. It is made by gluing thin sheets of wood layers together under high pressure. We could find interior plywood, exterior plywood, and shuttering-grade plywood.

So, depending on where we are using it and what the purpose is. And it could be used for home decor, paneling, roofing, lining, flooring, and furniture. So, a huge plethora it could be used for. The plywood does not have grains, so it is usually finished with paint, and it requires some maintenance. Although it is resistant to termites and moisture most of the time, sometimes it requires some maintenance. There are a lot of advantages of plywood.

It's quite strong, and it is quite easy to use. Then we have HDF, the high-density fiberboard. And you must have heard or come across MDF, medium-density fiberboard. That's also very popular in interior design projects. But we also have HDF, which is high-density fiberboard.

And it's quite useful. It is similar to particle board and medium-density board. But it is much denser and stronger. So, it is quite a popular choice currently. It is made by compressing wood fibers mechanically.

And it is used for many purposes since it is quite strong. And you know, it does require some steps when we talk about maintenance. So make sure that the board does not come in contact with water. So we have to keep it away from moisture and water. And it needs to be cleaned regularly.

So there are certain, you know, basic steps to maintain it. But overall, it's very strong and very popularly used. Then there is the block board. So block board is a type of board made by wooden pieces inserted between plywood or hardwood, which are bonded together under high pressure and temperature to give a very useful product. And you know, this also requires some kind of finishing and maintenance.

Again, we have to keep it away from water. It needs to be cleaned, and do not mop with a damp cloth—very simple ways to maintain it. But this is also quite popular. So we were talking about advantages. So here we see again, you know, plywood.

It's quite strong and it has more strength compared to block boards, MDF and HDF. It is free from shrinking and warping. It is a cheaper option compared to other options. And there are also some disadvantages. You know, if the lower quality plywood is used, then it peels into layers after extensive use.

Then talking about HDF, it has a smooth surface. It has more strength compared to MDF and particle board. And it is a great solution for indoor and outdoor furniture, partitions, furniture, doors, paneling, etc., And talking about its disadvantages, a lot of carpenters still prefer wood block board compared to HDF as they are more confident about the nail holding capabilities of natural wood whose blocks are used to build the block board. So, you know, when we work with the makers, there they are

still more confident about the wood block board rather than HDF. And here we talk about the block boards. They are light in weight, they come with a high strength, easy to handle and you know easy to work with, used for all kinds of site applications, door manufacturing, high utility functions, furniture, all of those. And they are expensive so they could be you know that way there could be a disadvantage. Now what factors are considered for interior cost calculation?

And there are three major factors when we talk about this, starting with the scope of work. The scope of work refers to all jobs included in the project. So, if we talk about a budget project, it involves only woodwork like modular kitchens, wardrobes, and TV units. If we talk about a premium project, it involves wallpapers, false ceilings, and lighting as well. And if we talk about a luxury project, there will be costlier finishes like acrylic, modern accessories like sliding wardrobes.

There may also be decor items like curtains and more. Then, the second factor is the quality of materials—the design of the furniture, the quality of materials, the quality of wall paint, wood polish, the quality of fabric used for sofas and curtains, light fixtures, and many other things. This will make a huge difference when we talk about interior cost calculation. However, the variance due to this factor is only marginal. So, it makes a difference, but the variance due to this factor is not very significant compared to the other two factors.

The third is the type of vendor. This is a major factor in terms of pricing. In interiors, there are often multiple middlemen involved, and that may increase the pricing by as much as 30%, which is quite alarming. Now, I would like to mention here a handy tool—the interior design cost calculator—which you will find on our website.

It is useful. It is handy. But of course, as an interior designer who is formally trained in this profession and discipline, We have our own ways of dealing with projects, and I

always recommend going to a designer who is trained. But as a customer, consumer, or layperson, just to have a broad idea of calculation—if one wants to do their homework and have some idea—they could definitely use such tools.

And that's why I thought of including it as part of this lecture and discussion. So this site provides interior details for cost calculation, mainly for seven Indian cities. After selecting the city, material selection is to be done from the available material palette and the pull-down menu, and their finishes are to be selected. To execute the above step, the user should have good knowledge about the material. So one also needs to know the basics to be able to use this site and tool.

The third step is to select the rooms for interior design, provide detailed dimensions for each, and then calculate the total interior cost of the project. This is how it looks, and here we have house construction, sample floor plans, commercial construction, and something like 'Choose City.' Here we have information such as this: plinth area, slab area, covered parking (yes or no), number of floors to be constructed including the basement, and which cities. And there are options when we talk about cities: Pune, Hyderabad, Chennai, and so on. And then there is also this selection of materials: cement, steel, bricks, etc.

You know, flooring, vitrified tile flooring, windows, window sill, window grills, door, staircase. And within that, they have options like economy, economy plus, or premium. And within that, there are options available, and then you pick and choose. And hence, it helps in understanding the different materials and specifications, eventually giving a broad estimate. So, the features that the site provides include the total built-up area, and the app gives options for three categories.

Economy, economy plus, premium, which could also be understood as budget, premium, or high-end. It has an option to select different types of houses, from 1 BHK to 3 BHK. The budget for various subheads is also available in this app to understand the percentage of expenditure for various divisions, such as carpentry, window curtains, wall paint, wood polish, false ceiling, and electrical works. There are also some limitations. It gives a basic idea but not the exact details of the cost.

So, of course, one has to really do it in detail, and one has to take proper training and guidance. And also, it does not have a customized facility. So, it's all pick and choose

and very limited to what the program is available on the site or what the algorithm is available on the site. Further talking about limitations. This site provides interior details for cost calculations, specifically focusing only on a few cities, as we just saw.

Also, this calculator focuses a bit more on the modular kitchen, along with various accessories. So, it's quite restricted in that manner. More screenshots or images from the interior design cost calculator, the kinds of options available, and the details it asks for. So, it's quite heavily inclined toward modular kitchens. Now, some examples when we talk about cost calculation for interior design projects.

This is located in Ahmedabad, and it is a cost estimate for a 2 BHK flat. To get a quick cost estimate, some thumb rules are derived to calculate interior design costs, which are based on various previous projects. So, for low-budget projects, INR 1000 per square foot for the carpet area of the home. For a moderate budget while costing the interior design of this project located in Ahmedabad, INR 1100 to 1500 per square foot for the carpet area of the home.

And for a high-end budget, it could be INR 1600 to 2500. Please note these are just approximations, and the final cost may vary depending on the designs, material specifications, whether the details are customized or non-customized, and so on. So, it's important to note that the above rates do not include flooring, bathroom tiles and fixtures, electronic items, or electrical items. It's also important to understand what carpet area is, though a few among us may already be aware of it, but it's very important to understand. The usable space within a property that can be covered with a carpet—this is a very simplistic way to put it.

So, it is the area where furniture can be placed and daily activities take place. Carpet area determines the actual living space available. In most cases, the carpet area of a home would typically be 70% of its built-up area. So, it's important to understand these two terms. Now, let's talk about the consultancy fee.

So, the fee for creating and designing 3D renderings of a home for a 2BHK, as we have been discussing, is typically around INR 18,000 excluding GST. And the fee for detailed execution drawings, site supervision, and procurement assistance is INR 120 per square foot, excluding GST. Now, for two BHK flats ranging from 650 to 900 square feet in carpet area. The average carpet area that we fixed was 775 square feet.

The average consultancy fee that we just discussed is INR 120 per square foot plus 18% GST.

So, the consultancy fee for the home would be 775 multiplied by 120, which is INR 93,000 plus 18% GST. Now, the execution fee—and these assumptions are based on a moderate-level budget—and we are considering 775 square feet. So, when we talk about the execution fee, first, the cost of common things that apply to all rooms, such as false ceiling, electrical works, and wall painting, are considered. So, we see this example over here. You know, the cost for gypsum false ceiling, electrical fittings, and all the electrical works.

And we see a total of 2,77,000 over here. There is also furniture cost estimation. And starting with the entry foyer, living room, bedrooms and the typical furniture which is generally required in these spaces. So that cost. Then kitchen plus dining and you know all the other details laminate on the existing doors.

So we see here in this example a total of 5,64,000. So, if we were to have the broad estimate of this, you know, 2 BHK flat and what is the interior cost, we saw the design consultancy fee already INR 93,000 plus GST also, which is not mentioned over here. And the execution cost, we saw that, you know, table and the furniture cost estimation also we saw. And we total this and it will be somewhere close to 10 lakhs. So this gives us some idea.

Then there's another example of this project, which is located in Chennai. And this is one BHK home. And within this also, there are like three categories, classic, premium and elite. And they have these, you know, typical checklist of the, you know, details, materials and the facilities. And accordingly, we see the cost estimate.

This one is for the 2 BHK again in Chennai and for the 3 categories. And here, since the number of rooms is more, of course, the costing is different than the 1 BHK. And this is for the 3 BHK again for 3 categories. And we see over here the idea of price. So there are details like, you know, chimney, kitchen accessories, modular kitchen, and so on.

And this one is located in Bangalore. This is for 2 BHK. And it has, you know, the itemized details such as kitchen base unit, kitchen wall unit, kitchen loft unit, accessories, master bedroom wardrobe, guest bedroom wardrobe, loft, living TV unit.

Some standard dimensions and some standard price. And then this amounts to a total of 2,25,209 in terms of INR for a location, Bengaluru.

And this one is for 3 BHK again in Bengaluru. And here, with these itemized details, the costing is somewhere close to 3 lakhs. So this is a sort of comparative chart, you know. So for project type 2, 3 BHK or if it is a villa, and whether it's for rent, for own but in the budget category, premium category, or luxury category for the own usage. There is a range of estimated cost.

Now, for the luxury segment, here we see 8 to 40 lakhs. So, that's a huge range and a huge variation. So, it completely depends on the different kinds of details, finishes, choice of materials, and whether there is a customized program, customized details, and what the designer brings to the table. So, it could range anywhere depending on all this customization and selection of materials and finishes. There are some examples of these in the subsequent slides and some idea of the cost estimate.

So, this one is a simple one, and the cost is around 2.8 lakhs. Here, this is 4.2 lakhs. So, as we increase the details and improve the finishes and materials, the cost definitely increases, along with the variation in space. This is 7 lakhs. This one is slightly luxurious in terms of finishes, detailing, and the kind of material chosen.

This is 15 lakhs. This is 22 lakhs. This is a villa. And this project is the Book Promotion Center. It's located in Dehradun.

I recently discussed this. This was designed by me and my team. And this was done for the Ministry of Education and specifically for the National Book Trust. And here we created this BOQ. I showed in the contents that we would be talking about the BOQ, which is the Bill of Quantities.

And it's very important to create a BOQ to understand the detailed items used, the quantity, and the impact on the overall costing. So we did this for the project, starting with Category A, which is demolition items. Now, the existing flooring is what we recommended demolishing because, For a project like this, which is very special and must cater to differently abled people, especially visually challenged candidates and users, we wanted to redesign the floor. So we demolished the existing floor, and under demolition items, we also identified some existing electrical works, details, and removal of existing wooden windows with frames.

So what is the unit for each of these? Is it a job? Is it per square foot? Is it running feet? Is it quantifiable?

So for example, removal of existing wooden windows with frame, we could quantify as 42. And then the category B talks about new interior items. And it's a huge list because the entire project was done in detail. So starting with natural stone flooring, then natural stone skirting. So skirting is in running feet and the flooring is in square feet.

What is the quantity? Reference images. Now you do not see the rate and amount over here. Because this was given to the third party, we only prepared the BOQ detailed drawings and we did the supervision on the site. But this procurement was not done by us.

But the overall decoding in terms of these categories, the different itemized details, quantity, everything. And with reference images, of course, some of these are custom designed by us or some are given the reference of existing makes. This entire BOQ can easily help us do the overall costing of the project and that's the intention why I am discussing it over here. Ceramic tactile tiles, wall punning, so POP punning of 19 mm average thickness, wall painting with low VOC, I have been talking about it throughout the course. Plain gypsum fall ceiling for storeroom and passage, built-in furniture, book displays, desk for reading, billing counters, soft boards and their units and quantity and these are the designs that are custom done by us.

New interior items continued, including storage in the outside passage, grab rails, and hexagonal seating in the ply and MDF. We had detailed this out. So all of these—the drawings and the details—were done by us, specifying the unit, whether square feet, running feet, or a job, and the quantity. Display racks for new arrivals, then chairs in different categories, whether it's a billing desk chair or a foldable chair, and so on. And then the doors—different kinds of doors, door jambs, different finishes, all of that.

Continuing with that, the decorative suspended lights in the passage area, the roller blinds. These are eco-friendly and interesting light fixtures that we installed there. Electrical works and other details, track lights. So this kind of BOQ gives a very detailed idea of the entire list of items to be installed or demolished, their subcategories, the unit, and the number. And it gives an idea of the overall costing of the project.

So it's very crucial to have a BOQ. Ceiling fans, split AC units, braille in the corridor—metal tactile wall panels with braille writings and descriptions of the artworks placed there, and so on. Then the ramp for universal accessibility. I had shown it during that lecture—there was no ramp there, and we had to create it on-site. Casement windows, grills, all of those details, their quantity, and units.

CCTV cameras, glass fittings, railing for the ramp and some other utilitarian items that were needed to be installed in this book promotion center. So that's the detailed BOQ, the bill of quantities. Now I would like to show very quickly some innovative approaches for low cost interiors, which also includes space optimization because space itself is costly. So suspended bed and interesting furniture details and choices of joinery is also interesting and important. So when we talk about a limited space, we can have, you know, options like a suspended bed, which is actually more useful than a pullout sofa.

And it could also be an interesting detail which could register in the space alongside being functional. And there are pocket doors. So pocket doors with glass windows allow for shared light to flow throughout the space while also creating separation. And even better, they slide right into the wall when not being used, taking up much less space than swinging doors. So that's also to save space and overall costing while creating functional separation and interesting details.

Be resourceful. That's very important for cutting down the cost of an interior design project. So when we have limited space, we have to be resourceful. We have to try to, you know, save surface space. And one does not want to shop new bulky furniture when the space is limited.

A chair could be used as a side table in a very interesting and aesthetic manner, and so on. Multi-use design pieces that can serve multiple purposes are key. So, we see some examples over here. Find a table that can function as a desk and a dining table. Get a deep sofa that can double as a guest bed.

Use cubes that serve as a coffee table. So, there are these bonuses that can be utilized while thinking through design—the multi-purpose way in which the design can be executed and the designs can be made. Space under the stairs, which is more often than not useful, is not utilized and is left as negative space. So, it could be used.

Set up some hidden closets for your miscellaneous stuff. Give your project a clean look along with space optimization. Hidden workplace. So, you know, sometimes you want to create this nice small workplace within your home, and you could utilize interesting furniture pieces such as a pull-out bench or set up a little office in a closet. So, there are ways to create these multi-uses and multi-purposes.

So we are optimizing space. We are saving that cost, which would have gone otherwise in creating this extra space. Both options allow us to hide the home office that we see over here, either inside the closet or over here. Reusing the seating furniture, such as the examples that we see over here. Tables—a very interesting way, also unconventional, eye-catching, and then reutilizing, repurposing, reclaiming.

Wash basins which could be used in this interesting manner. Some other interesting furniture items. So there are various ways in which we can think about interior design costing, and we could either make it very detailed or we could use or repurpose items to create low-cost interiors. But the real comfort—visual and physical—is vital to every room. So that's important.

Whether luxury or basic depends on the clientele's needs and the way the designer and the client come together. So the next lecture is going to focus on some important organizations, institutes, firms, designers, and avenues of interior design, pedagogy, and practice. Some references for today's discussion. Thank you so much. I'll see you next time.