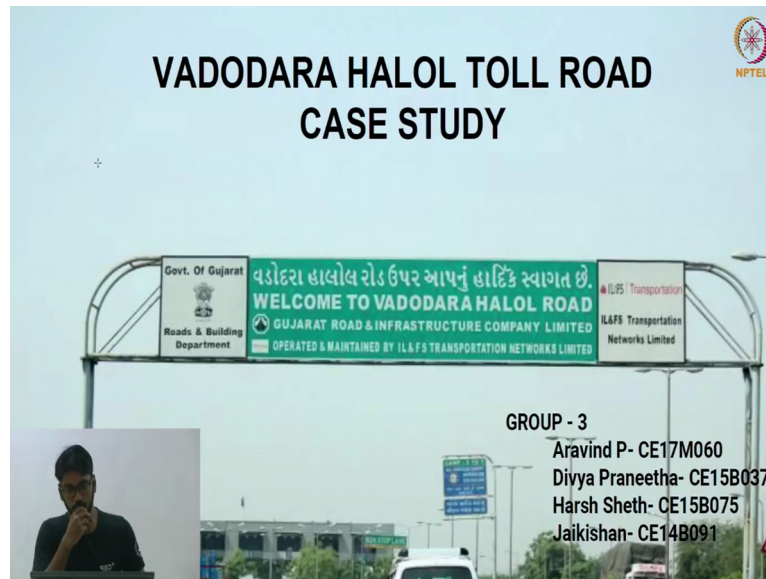


## Infrastructure Planning and Management Economic Risk in Infrastructure - Part 2

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Ok so representing group 3, we will be presenting about the Vadodara Halol toll road case study.

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The slide is titled 'BACKGROUND' and contains a list of six bullet points. The NPTEL logo is in the top right corner. In the bottom right corner, there is a small inset video of a presenter.

- Vadodara Halol Toll Road Company Ltd. (VHTRL) is a SPV formed by Govt. of Gujarat (GoG) and IL&FS to widen, strengthen, operate and maintain the 31.7km state highway.
- This was a flagship project under 'Vision 2010' master plan of GoG, with project modality being BOOT
- Halol was the neighbouring town near to Panchmahals district, which are backward areas.
- These districts were expanding industrially due to tax incentives.
- Aim was to boost the industrial expansion and local revenues of the districts.
- Acts as an alternate road to NH8, with length being 50km shorter and avoiding congested area of Ahmedabad.

They have formed a special purpose (SPV) (0:20) called Vadodara Halol toll road company limited and it was actually promoted by the government of Gujarat and IL&FS. And the main aim was to there is an NH aid there and toll in road which is connecting them and the main was to widen, strengthen and operate the 31.7km state highway. And this was actually flagship project under the vision called "Vision 2010" they had some projects to be



completed before 2010 and it was the master plan by the government of Gujarat and the modality they adapted is the BOOT.

And why they selected Halol is that there are some districts which is called Panchmahal district near to the Halol city and the main purpose for going to Panchmahal is that they are having some tax incentives and maybe tax exemptions to promote industrial growth there. So they have this road something that connecting or promoting their trades and exports and everything. They expected that the projected industrial growth will be higher in that area that was the aim of the project and this road is act as an alternate road which is actually exempting the congested areas of Ahmedabad and it is also 50 km shorter than the current NH.

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### BACKGROUND (Continued..)

- VHTRL appointed Punj Lloyd and IRCON international as contractors.
- Total project cost was Rs.161cr, with Rs.67.9cr equity and rest as debt.
- GoG approved widening and strengthening of existing two lane roads and service roads as an inclusion.
- Concessionaire was given a time period of 18 months to complete, and the project got completed 4 months ahead of schedule and within the proposed budget.
- The project was designated by world bank as 'best practice' example among the projects in India for its risk mitigation strategies and social rehabilitation procedures.
- Instead of the efforts, revenue generation from toll was too low.
- A toll review was called for, which led to formation of TRC; otherwise the VHTRL may had to shut operations by 2003.





And the contractor pushed in was IRCON International, considering the total cost they had completed the project within the time and within the budget also and it was actually completed 4 months ahead of the scheduled time. And it has got some recognition by the World Bank as the best practice risk mitigation strategies and social rehabilitation procedures that they have adapted ok. And instead of all these things, the toll revenue that they projected and what they got was very low. And there was later toll review committee formation which otherwise would have forced the VHTRL or STD to shut the operation by 2003 itself.

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REASONS FOR TOLL REVIEW

- Economic recession - Industrial growth was less than projected.
- Withdrawal of tax incentives
- Computerised RTO check posts and penalty for truck overloading at Gujarat border led to traffic diversion through Madhya Pradesh.
- Traffic diversion due to ongoing construction of Halol - Godhra segment
- Traffic diversion through the service roads, which was meant for local traffic between villages.





The reasons for this toll review are; the projected growth of industrial rate which was done by the VHTRL was very much higher than what they actually got. And once this construction work going there, they had actually put out the tax incentives that was already given to the Panchmahal district so the industrial revenue was also low there. And while entering into the Gujarat-Madhya Pradesh border area, they had this penalty for truck overloading and this high-tech computerised check post actually forced the truck drivers to take a route through Madhya Pradesh and get into Gujarat at somewhere other point.

And since the construction of some other part like Halol-Godhra segment is also going on, there were traffic diversion so they did not want to go to that hectic area and the project also constituted of construction of some services slot on both sides of main NH. And the vehicles instead of giving that not for giving tolls and all, they actually took these service roads and even though it is a longer route they actually preferred it to get in the destination.

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**REVIEW OUTCOMES**

- VHTRL proposed to increase the toll of multi-axle vehicles, but TRC had concern as MAV constituted only 17% of the earnings.
- TRC demanded OD data and traffic leakage probabilities.
- Collaboratively decided to examine the data on toll collection of Narmada Bridge at Baruch.
- VHTRL provided the breakup of toll revenue, OD profiles of MAV, category wise users and toll collection data to TRC.
- TRC expressed dissatisfaction as the data was based on one-day survey.
- Proposed increase in toll was around Rs.40, Rs.80, and Rs.120 for 3-axle, 4-axle and 5-axle vehicles.
- Projected revenue additionality was between Rs.7M to Rs.10M with increased tolls, which was less compared to Narmada Bridge revenue.





So they had their review meeting by 2002 and this was the outcome of the toll revenue. They had actually formed a committee called toll revenue committee and what the VHTRL proposed was that they will increase the toll rates of MAV or multi-axle vehicles like 3, 4, 5 axle vehicles they would increase. But the TRC committee had some concern like that it was only constituting the 17 percent of earnings from that whole project. So they had asked the TRC to actually go through it and give some surveys or data to actually validate that what you are doing is right so that (4:08) means original destination data and also the traffic leakage problem.

Like I said they took the service road to actually escape from this route so this probabilities they had asked but what they had done is that it was difficult to get the data so they actually examined another bridge, the toll on another bridge called bridge okay it is not another bridge, it is Narmada Bridge at Baruch which was actually constructed during the same time. And yeah, what they did was they had actually run the survey for just one day so this (4:44) is actually very low and that TRC was actually not very happy with that and as per the data they had given, they had actually proposed an increase in toll for the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> axle vehicles means 5 axle vehicles and it was like 40, 80 and 120 which was say significant increase in the toll revenue. And the revenue additionality was between 7 million to 10 million, it was actually very less compared to the Narmada Bridge revenue which was what they are not.

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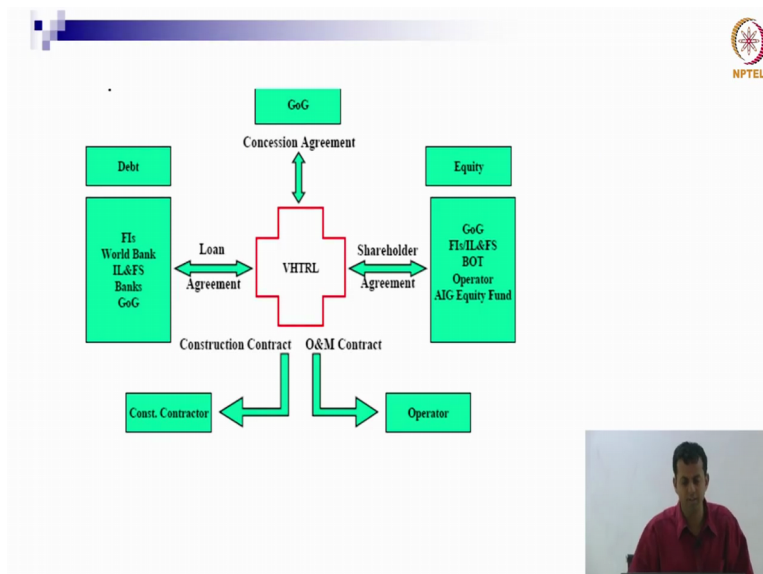
### SUGGESTIONS

- Market dynamics should have assessed better as they hoped industrial incentives would continue for long-term.
- Sample size of survey should be large to represent a system.
- A competitive bidding would have opened the door for a company with prior expertise.
- Shadow tolling could have been attempted.



And going through it was something that (( ))(5:23) should have done it they should have understand the market dynamics like they were too optimistic about the industrial growth that would happen that which did not happen and they had actually to be taken out the incentives for the industrial growth so that actually literally damaged the project. And like we did the survey only for one day which did not include the whole sample size of the whole system. And they actually did not go for a competitive bidding which would have opened the door for some expertise in the economical field, they had just gone for SPV and yeah shadow tolling could have been attempted, it was a possibility but it should be checked whether it would be okay or not.

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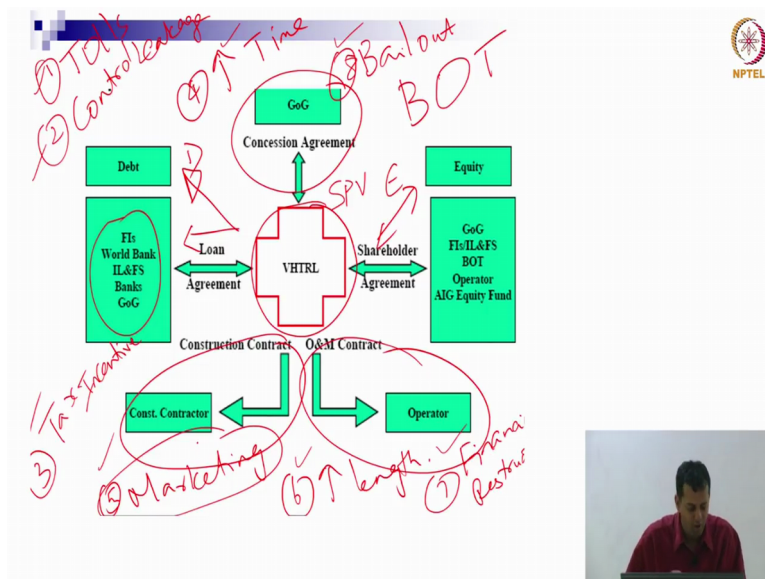
Okay so this is I am not sure if this was in the case but this is a generally a picture of how what the project looks like ok, so we have as we spoke about when we talked about project finance we have special purpose vehicle called the Vadodara-Halol toll road limited, this is the joint venture created specifically for this project, it is ILFS, government Gujarat, there are 2-3 people they have combined, they formed a special purpose vehicle and this has actually project finance the project. So if you recall, this entity ILFS, etc have put little bit of equity, it has borrowed some money and the borrowers can only go after VHTRL, they cannot go after ILFS or government of Gujarat or whatever right.

So these guys have a loan agreement so this is the debt part here this is the debt part, they also put in some money themselves right so this is the equity part right. And then essentially they go to government of Gujarat to sign a concession agreement which is this part here. Government of Gujarat says okay you build own operate this toll way for a period of time, what is it 25 years-30 years what was the? 30 years right, which means you have about 2 or 3 years of construction and then 27 years of operation and within which period you, can collect tolls and at the end of those 30 years, you transfer the project back to this. It is a very traditional you can call it BOT, BOOT, whatever, Build Operate Transfer model.

Since these guys are not a construction company since they are develop a right, they actually then have to get a road constructed which means they go to a construction contractor and say I will give you a certain amount of money, build the road. So this money that they are putting into the company the debt they are borrowing, part of that goes to the construction contractor right to get the road built, of course they will recover that money through tolls later. Similarly they are not experts in operations and maintenance, they are developers which means they are good in taking risk, good in bringing money together, et cetera, so they have somebody else who is doing the O&M, which means this person could do anything from maybe they manned the toll booths right so make sure that the tolls are collected, money is remitted in the bank, et cetera.

They might also be doing the periodic maintenance we talked about preventive maintenance all of that right, so it is a very standardised arrangement ok. But as the project goes forward what do we find right what was the level of demand as a percentage of expected demand? Right, it is about 30 odd percent right in other words it is about a 3<sup>rd</sup> right you expected that the demand would be X and the demand is one third of X right, it is not 90 percent it is not 80 percent it is literally 30-35 whatever percent right.

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And they come up with a number of reasons right, they said there is economic recession ok that was one of the reasons why, there was sales tax incentives that one withdrawn so that area was no longer an upcoming coming area so people went elsewhere. People talked about truck overloading argument, people at the Gujarat border are actually doing the right thing, they are checking for overloaded trucks and penalizing them and therefore people decide to go through Madhya Pradesh right and therefore not enough traffic on this poor road because some fellow is actually doing his job ok, so you have those kinds of answers, et cetera.

So there are number of reasons right, somebody says there is a service lane, traffic is leaking on that service lane all of that ok, so whatever reasons we end up with a figure of 37% ok. So now couple of questions, first question is what should we do ok? At this point in time I am running a road, I have to pay these guys that money right, these guys have all given me money ok I have got to pay them back ok and I have got to pay them back based on the revenue that I get. I am not getting enough revenue, these guys are banging at my door and saying where is my repayment so what can I do?

Increase toll revenue, how do I increase toll revenues? So what should I do? Give me an action. Right, so one strategy is let me increase the toll ok so again so there are 2 conflicting so this is the traditional conflicting thing so to get more revenue I increase the toll, but if I increase the toll there might be less willingness to pay which means I might have more vehicles going on the service roads or more vehicles going on alternative right ok. So one is let us say ok tolls is a strategy right, whether it will work or not is a different issue but it is a strategy so then you control leakage ok. So we will figure out how to do it, we will use

technology but the point is you do not have service roads, service roads are useful because obviously equipment breaks down, cars break down, etc, it is good to have a service lane and there is good for a pickup vehicle to come.

But again this is where you know highways in India are designed a little bit differently from highways in other parts of the world. If you go to US for instance, all highways are Access controlled, you cannot enter a highway except from an entry ramp right, so there are these entry and exit ramps maybe roughly 1 mile apart and you exit and enter right. Indian highways are not like that, entry and exit is porous, you can enter literally any because you are building it through all kinds of wayside villages that existed right and therefore there is no really, you are villagers now living on the side of the road, you can actually enter the highway straight right.

So but one thing is let us go to that model, let us build barriers, let us build entry and exit, let us sort of control the leakage on the service roads fine. It is a strategy whether it works or not right, it is a sort of throw out idea right. So that is one idea whether it works or whether it will not we do not know okay, what else? So we have got and increase toll may or may not work, I will control the leakage may or may not work ok bring back the tax incentives ok. Okay again I mean it is a suggestion so bring back the tax incentives so you incentivise traffic on the road, your response to that to a different point ok.

So everybody has a response to this point I will sort of come in a second but again that could work but the government might say why am I giving tax incentives, I gave tax incentives to develop this area, I feel that this area is not developed, certain number of factories have setup, certain number of jobs have been created, why am I losing money right continuing to lose money by giving tax incentives essentially means the government is losing money tax that could come into the government are not coming in you are saying okay because that will keep cost down and others can prosper right.

So again it may or may not be defensible, let us sort of go we will come there, we will go ((  
(12:09) first then we will go that side okay. Increase concession time period increase the time so yeah so you spoke about marketing so I will put that and we will sort of discuss that in the second Hirsch point ok. So now here there is a cost end benefit to it right, as it is you are bleeding and to increase you are actually going to have to spend extra capital cost, you are going to have to spend I do not know what it is these days, 10 crores a kilometre or whatever the construction cost are right.



So the question is in order I can see the logic of maybe if it was a larger road there will be more people coming in but you would actually have to spend more money right and you might now instead of being instead of having sort of debt of 200 crores on your book, you might end up with unserviceable debt of 400 crores on your book so we do not know how that works right. The marketing thing is also important because it essentially says how do I incentivise people to come to this road right, what characteristics of this road can I highlight you know the smoothness, travel time this that or is it that they are talking about some proximity to Mount Abu or something like that right on this road.

So you actually say you buy a toll ticket, it guarantees you for instance admission into Mount Abu right and so therefore you now start finalizing tourist traffic through this road, etc ok alright what else? Somebody here had Shri Anand you had a point yeah say ok same point ok alright... Financial restructuring okay financial restructuring so what does that mean? Okay so and this is again something that companies do all the time right because interest rates keep changing right so you are always on the lookout from I used to borrow at 14 percent, today somebody is giving me at 13.5 percent then I can easily restructure. Essentially I say look I owe you 100 crores right at 14 percent ok, let me go to this guy borrow a 100 crores pay you back.

Now instead of owing you I owe this person but this person wants only 13.5 percent right so I can restructure my loans in a variety of ways. So I can restructure my loans and restructure the tenure so all of these are good ideas okay ok bail out that is always there that is our favourite go to right. I made a mistake right because I was greedy now you bail me out ok because I am sure if these guys had made more revenue than expected there would have been no talk of let me share the extra profits with you right but the losses I would always like to share right so that is fine I mean it is a strategy we often sort of talk about bailout right saying you can always cretin by saying look if you do not bail me out I will have no option but to declare insolvency or bankruptcy and walk away which case who will operate the road right who will take care of millions of travelers who want to travel through that road.

And therefore to not you know to not make it difficult for people right can you do not encumber people, can you bail me out right it is sort of an argument ok. So we have got a bunch of arguments, we have got increased tolls, we have got controlled the leakage somehow, bring back the tax incentives, increase the contract duration, market it better, increase the length of the road may be works may not, restructure finance with different

interest rates, bail out ok. So this is the classical marketing technique of give samples for free right and that is exactly the idea right. Here are a few free samples so it is free so you will get hooked onto it and then if you get hooked onto it and you really like it, et cetera.

So that is you know that is a marketing strategy right so your marketing could be advertising, could be you know pricing you know it is sort of like Uber surge pricing or whatever you had, differential pricing so when the highway you know it is not very busy, you have like a discount for using it all of those kinds of things, it is all all variants of marketing, you can be as creative as possible. Ok now here is the thing okay here is the thing, let me open up my Excel sheet ok.

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Original				Service Road			
Category	Number	Rate	Revenue	Category	Number	Rate	Revenue
Two Wheeler	550000	5	2750000	Two Wheeler	2345	5	11725
Three Wheeler	75000	10	750000	Three Wheeler	662	10	6620
Car	841000	30	25230000	Car	692	30	20760
LCV	299778	45	13490000	LCV	443	45	19935
Bus	356308	65	23160000	Bus	52	65	3380
Truck - 2 Axle	1074615	65	69850000	Truck - 2 Axle	370	65	24050
MAV - 3 Axle	248235	85	21100000	MAV - 3 Axle	6	125	750
MAV 4 Axle	68095	105	7150000	MAV 4 Axle	0	185	0
MAV 5 Axle	1760	125	220000	MAV 5 Axle	0	245	0
MAV 6 Axle	483	145	70000	MAV 6 Axle	0	285	0
<b>Total</b>			<b>1.64E+08</b>	<b>Total</b>			<b>87220</b>
				Year			16353750

Revised Rates				Revised Rates+More trucks			
Category	Number	Rate	Revenue	Category	Number	Rate	Revenue
Two Wheeler	550000	5	2750000	Two Wheeler	550000	5	2750000
Three Wheeler	75000	10	750000	Three Wheeler	75000	10	750000
Car	841000	30	25230000	Car	841000	30	25230000
LCV	299778	45	13490000	LCV	299778	45	13490000
Bus	356308	65	23160000	Bus	356308	65	23160000

I encourage you guys to do it I do not many of you have did but it is actually data in this case so we can run this through Excel ok. So this is okay this is the original right this is the original, these are the number of vehicles that are going in, this is the rate all of that right, this is the revenue, it comes to about what is this 164 crores or whatever right. So the thing is I thing you had borrowed about 360 crores I mean essentially you need it to sort of make 360 crores on the project even assuming that about 20 percent of that was your expected profit you know there is at least 300 crores of cost in that project and you are only making 160 crores, which means you are 140 crore short of minimum breakeven ok.

So what do we want to do, we want to increase toll rates right, we will assume people are willing to pay ok which they may not so but optimistically we increase toll rates so I go from 5, 10, 30, whatever, the multi-axle vehicles are now because that is where you want to really

increase right so instead of 85, 125, 145, we go to 125, 185, 245 so it is like 50 percent increase right 50 percent increase just imagine right unprecedented, nobody goes in and hikes toll rates by 50 percent right. How would you guys feel if next year well some of you might be graduating but next year if your fee was 50 percent higher right it is ridiculous, nobody does that but let us do that right and we come from 164 crore to about 179 crores, actually we have added about 15 crores.

So all these talks about to restructuring, multi-axle vehicles, 3 axle vehicle, they are not paying enough, et cetera, (( ))(17:33) right 50 percent increase all you get is another 15 crores alright. Now service road okay so let us curb service road leakage, you know I want to curb 100 percent of service road leakage right, I do not even want to let one vehicle in that service road go without paying right. So I have got the numbers I have got the leakages right service road is small so obviously big vehicles cannot fit on the service road they are not going on the service road. My little motor bikes and all of that is going on the service road right so I get every one of them and I make a grand total of 87,000 rupees right. Essentially the service road I have lost 87,000 rupees we were not crying about.

Okay literally that is money that individuals can put into that project right and that is your big service road leakage okay. Ok so we say marketing right, what is marketing going to get me? Marketing is going to get me more trucks ok so I am going to have these again these are my revised rates; 125, 185. Not only I am going to stick revised rates in, look at what I am doing here, I am going to increase by 50% right look at the formula here in the top. I am going to just assume that market so well, it is a 50 percent increase right instead of 10 lakh trucks magically I make 15 lakhs truck appear right, magically I make another 1 point whatever lakhs of MAVs appear right, I am just going to manufacture these trucks and put in, I am going to be so good at marketing right and I have revised my rates I put all of it together, I end up at about 229 crores.

And then what is this? This is, I think I have done all kinds of things here, I have assumed all kinds of you know increased in demand, I have increased toll all over now these I have increased and even doubled right my multi-axle 6 axle and all about the same but I have increased 2 axle, 3 axle, I have sort of doubled charges, I have done everything a human can right I have plugged service road, I have doubled the number of trucks on my road, I have doubled the charge, I have increased the number of trucks on my road by 50 percent, I have doubled my toll rates with (( ))(19:38) regards to whether anybody will pay or not right. And

after all of that right and I have put in my 87000 rupees because I do not want to miss out on what I lost on the service road, after all of that I still end up with 291 crores right.

Still after doing everything that not even good can do ok, I still end up much below my 300 right which is much below my 360 crores right, 360 crores I think was my overall cost of capital, I end up at 291 ok. So in other words if I do everything here and I think somewhere ok so I did, I also did a restructuring to 13% interest rate, I found out that it gained you about 20 million right so that is another 20 so you can add 229, you can add 249 assuming that somebody can slash whole percentage or multiple percentages out so all of this right so.

And point is if I do every together right; I increase tolls, I control the leakage, I market better right, I financially restructure I do all of that I still do not get close to my 360 ok, so what is going on here? Sure but those are all small now see Rs 5 to Rs 10 what I am going to get.

Student: ( ) (20:55)


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Category	Number	Rate	Revenue
Two Wheeler	550000	10	5500000
Three Wheeler	75000	20	1500000
Car	841000	60	50460000
LCV	299778	100	29977777.78
Bus	356308	90	32067692.31
Truck - 2 Axle	1611923	90	145073076.9
MAV - 3 Axle	372353	150	55852941.18
MAV 4 Axle	68095	210	14300000
MAV 5 Axle	1760	270	475200
MAV 6 Axle	483	336	159310.3448
<b>Total</b>			<b>335365998.5</b>

Ok what you want me to do, multiply double this ok... You can do what you want and still not getting 360 ok buses let us catch the poor buses finally right so essentially I have to like really and the question is you know are people going to you know the bus going to pay Rs 180 to go on that road right, these are public buses by the way right so I mean I can start making more and more unreasonable assumptions that I can. I can get that number you know at some point I can take this whole column and sort of put extra zeros onto it and claim I will be highly profitable right.


So I mean I am trying to limit myself from Magnus right I am trying to sort of get to a point where I do something that is outrageous and still show that we are still not in that 360 ball part. And to really get to 360 I think you have to essentially bought around Magnus to get there right. So essentially the point is yes you can do a bunch of things but even that does not seems to be working which leads me to question the initial assumption, was this ever a feasible project right because like these guys are saying I thought your service road would not leak, because it is leaking the project is not feasible right. I thought that you would be able to charge more for your multi-axle vehicles because you are not able to charge...

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### Vadodara-Halol – reasons for failure

- Economic Recession
- Withdrawal of sales tax incentives
  - Political risk
- Construction of Halol-Godhra segments
- Truck overloading leads to diversion away from Gujarat
- Kirloskar's E.H.M's??



But if I do everything that you would reasonably thought about my project is still not feasible right, which means did you sell me a lemon right at the start of the project right? So you go back and look at those readings and all of that and you say right so the consultant called Kirloskar are they displaying an economic hit man kind of mentality right, are they trying to succumb into a project right for some reason and again this is a big. There are 2 types of challenges associated with consultants right; one is when you bring in consultants for preliminary design right and ask them to sort of see whether the project is feasible or not. Very often they are interested to show that the project is feasible because then they often get a detailed contract right a detailed design contract that is one kind of dynamic that works.


The other is sometimes you have consultants who work on a success feed model, success speed model is to say I want to bring you in, if the PPP is really successful and it is awarded to a private operator I will pay you your money, if the PPP is not successful I will pay you some 10% right because I want you to do a really good job of trying to see if you can test all

the assumptions. Of course this works in the other direction where I say look if I do not make this PP successful I will not get paid right so let me put in all kinds of assumptions and show you that the project is successful because that is when I get paid, the moment I am paid I won't be a consultant, I am not building I am not operating I leave right.

So there are sometimes the way you select consultants right leads to and this is I mean you can is this any of those explanations might fail, is this economic hit man mentality, had these guys done strategic misrepresentation right in order to you know to actually make sure that the project goes ahead, was there an optimism bias right, the people just you know delude themselves into thinking that there will be superb traffic because you know India shining, 10 percent economic growth right you know you never know right. But the point is all of these have contributed to getting to a situation where you have a completely unreasonable project which now has been constructed the 300 crores are spent right and now you are stuck right somebody is stuck right.


Either you make this breakthrough political decision and then you might scare away everyone from the road right or the lender essentially sells I have what we call a Non Performing Assets right, I lent money to this project it was a bad deal, I am not going to get that money back, I after write it off my books right so I have something called as non-performing assets right. You go read the newspaper today or you go and look on the Internet, it will tell you that banks are right righting out a ton of non-performing assets, many of them are road PDPs right because of stories similar to this done alright.

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## Some considerations

- Is the toll rate really low for 2 lane roads?
  - For 3 axles it is (which are the main users) (Rs. 2.65)
  - If you average out for 3,4 and 5 axles it is not
- Revenue increase if you hike MAV tolls?
  - Rs 7 to 10 million
  - Does not cover losses
- Camera's on service roads?
  - Gain in Revenue from 2 and 3 wheelers – Rs 8 million
- Marketing techniques?
- Restructuring agreements
  - Longer concession periods?



So these are all potential strategies ok anyway cameras on service roads ok anyway, so yeah so the point behind all of this is that there are economic risk on these projects that are tied to whether you will get the cost whether you will be able to meet the initial cost that you are committed to, in this case they do not seem to had a time or cost overrun, they seem to have built it on time but 2<sup>nd</sup> big economic risk is will people buy the service that you are actually offering and that depends on how many people actually value that service at what price right. You would actually find that there are fewer people than you thought right or you might find that there are right number of people that you thought but all of them are not willing to pay right, either way you have problem with regards to demand right.

Some of it might be because obviously I cannot go to every single person who might ever use the road in the next 30 years and ask them if they would be willing to pay, obviously there are assumptions that are being made right. So some of it is just human error but some of it is possibly a little bit of a deliberate massaging and this is where we really need to be careful. So how many days was the survey done, the original destination survey? One day ok, we do not even know how long for that day it was done right, how represented was that they right. Was it done during Diwali right when everyone stays at home right, was it done on some sort of particular day when other roads were blocked and there was so much of traffic on this road right, what was the characteristics of that day you do not know.

So these are some of the assumptions that you need to look to, so somebody was asking right so you were asking how do I tell whether there is an economic hit man here or not. The methodology is important, it comes with some numbers to me right you have come with a certain rate of interest on what basis, you have come with a certain topic projection and grow on what basis right, how many days did you do your survey? Did you start at different time? Did you do it at different locations? What was the level of rigour on which you have you know can I for just for the data part alone can I hire another consultant as well to validate what the data is right.

So I think these are the kinds of steps that one might need to take to ensure that your data is clean, once your data is clean the rest of it is simple, might figuring out what the concession period should be, what your rate of return is that is just Excel does that for you automatically right. But the data is important and large part of it is variable right over 30 years all kinds of uncertainties might happen but there is also a fact that we may not have spent as much time as we should, people might have vested interest to get this project going all kinds.

There are projects for instance for people purposefully built knowing that they will make loss because it goes on that CV and next project when they ask for a prequalification and they say, you need to have done one or two of these projects to bid, these guys can show that project and enter the bid so they will lose a small amount of money on one project in order to gain another projects, these are strategies that firms do employ right so how do we really from a project perspective how do we catch them is a question okay, so that is sort of big dream or demand is, let us take couple of questions and then we will close up.

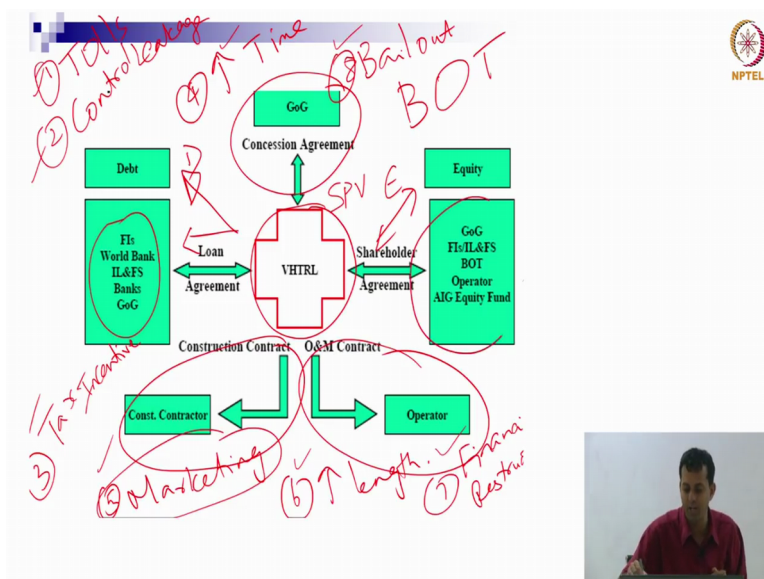
Sure, they should have they should have studied about these other projects and their toll rates, they probably should have had more rational toll rates but the point is even if they did right they probably would not have salvaged the project. So they think there is fundamentally something wrong about the demand estimate here right, the demand the numbers that actually came out do not justify the expenditure right, this was probably not going to be the perfect PPP project ok. So there was something about those numbers where I think these guys went wrong, it could also happen that the consultant was not given enough time right so maybe they were given about 2 weeks and said come up with a feasibility report and which point you have only one day to do a traffic survey right.

So it may not necessarily be the consultant's you know deviousness, it might just have been and that happens as well, clients want to sort of cut the ribbon quickly say I have budget reallocation now, let me start construction 15 days or 1 month for a consulting report right so may not be the consultant but that is the point is somehow right somewhere the right data was not presented on the project. And the result of which irrespective of which they could have done that a bit better right, they could have rationalised toll rates but it would not have saved the projects like given the numbers that they saw.

Now it is essentially, see the consultant has given a report right that is a recommendation okay based on which you have actually enacted the project. The only liability is that the company has to pay the bank, they borrowed money from the bank right and they have to repay that amount ok. So therefore they are liable to repay the bank but because it is a special-purpose vehicle if they sort of insolvent and runaway, the bank is stuck with the liability right and therefore it was also the bank's responsibility to be verify these numbers and make sure that they are lending to an accurate project. And again perhaps the bank also did not do a thorough enough job of validating the numbers.



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In this particular case probably not although yeah but so again this is where the so well what is happening is these guys are putting equity right are losing all their equity right. So essentially I put in my money so the bank and obviously is not going to allow you to use the toll to pay dividends to your shareholders not pay them so the debt comes first right. So you use your equity as well right so that is (30:33) so perhaps it is incorrect to say that banks are the only ones who are losing, the equity holders have also lost whatever equity they have put in right and therefore it is your problem. So essentially these guy say look why am I, I am a loss making company right I am running the road but I am loss-making company so I can declare myself bankrupt.

And therefore if I declare myself bankrupt then somebody else has to take up the row right so that is the eventuality right if they continue to run the loss will be more because where are they going to get money to pay the bank and some point they have to default on the loan at which point the bank might need to come over and take over the asset right and so perhaps banks can find somebody else who can run it so that whatever little amount of revenue comes in they at least get that for the next 30 years and the rest of it they right off.

Alright so there are sort of complicated calculation but yeah the bank needs to do its religion right and the bank can insist that they should also have representatives on the toll revenue committee, they must have representatives on the board of the company right companies have governance boards right boards of directors whatever so maybe they should be an independent director from the banks so the bank need to also figure out and this is one of the

India's early PPPs right. So this was done at a time maybe we did not recognise that all of these complexities would happen. Today the landscape is very very different, banks do completely different diligence we have consultants who are much more skilled you know we have all kinds of committees not that project do not run into trouble, they do but we certainly have evolved from our structuring prospective.