

## APPENDIX E: Interview Transcripts

<b>SUB-PROBLEM:</b> To ascertain how the yield management concept might be adapted for the freight rail industry	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What are the current perspectives of railroad executives on the adaptation of yield management to the freight rail industry?
	Q1: What is your understanding of the yield management concept?
<b>1</b>	Yield management relates to the simple concept of business – earning a return on investment; a constant creation of value; a return on capital invested; a return greater than the weighted average cost of capital (~WACC). Create as much value as you reasonably can in the market place. Yield management is a tool to ensure that it's achieved. Manage your capacity due to fluctuations in demand, means the ability to optimise returns in this environment. Also, refers to contribution to fixed-costs. In cases of spare capacity use low prices to cover the variable costs; therefore volume required in this scenario. Any investment must always be drawn to where it has the biggest bang for your buck.
<b>2</b>	For me it's almost like a productivity concept – income that can be generated with the resources you've got. Its not just a wagon turnaround issue, but what maximum income I can derive out of this (~ <i>productivity performance</i> ). Very much linked to the return on investment principle as well. More than the NTKs ( <i>net ton kilometres</i> ) that one “gets” out of a wagon – must <u>get out NTKs and rands</u> . Many times, the NTK measure governs the short-term decision regarding wagon utilisation. Still is an issue of maximising returns on investment; if not, you're doing a disservice towards the shareholder.
<b>3</b>	Airline industry best epitomises the concept of (classic) yield management, where one seeks an optimum return on a committed resource that has spare capacity. Example of the plane that is due to leave – a committed resource – it has the spare capacity so many hours before departure. Yield management at one level then is seeking that contribution, of that spare capacity, to covering the variable costs of that resource. For me a longer-term focus of yield management would be the planning of the schedule itself that would seek to minimise that free capacity before the aircraft departs.
<b>4</b>	I tend to use the airline industry as the way I understand yield management. There is something about transportation that is perishable. You know, a train that is half-full, that opportunity is lost forever. So that's the first point: transportation services are perishable. The second point is this: transportation services have very high fixed costs; and therefore, that

	<p>volume matters significantly – much more than other...different businesses, because you know of the high fixed-costs. Now, once you start off on that point, you try...you can use your different times...you could start at the beginning of the year: how do I best optimise my income? It's an income optimising output. Yield management is really for price sensitive people.</p>
5	<p>This thing about the right this and the right that, is very true. That phrase is used in many circumstances, but for me, yield management was always: How can I get the last bit of capacity - there will always be leftovers – how do I allocate these leftover assets that I do have available? How can I utilise that, or sell it, or, closer to real-time? What rules or approaches do I use? ...In the perfect world one would like to sell all the capacity upfront – you would like people to pay you upfront and take out the variability. But, in the real world you've got installed capacity that normally costs you a lot of money. Our business has got very, very high fixed costs, which makes you extremely volume sensitive. What that means is that since you've committed your resources upfront, when it gets closer to execution (~ or <i>service delivery</i>) the more you can utilise that installed capacity the lower the unit cost; the lower the unit cost the more money in the bank.</p>
6	<p>For me yield management is just something you do to get better. I want to make sure that I can squeeze the last water out of the sponge - that's yield management. You must know how much water is left in the sponge – you must know what your capacity is. Yield management is the methodology I apply to get full utilisation of my capacity. The only thing you can do or focus on is your capacity and activities – these should be 'aligned'. Cannot do yield management on thirty percent capacity utilisation...Yield management is not something that you do to make you profitable, yield management is something you do to make you more profitable. Use yield management to optimise. The airline industry's version of yield management is simply how do I give tickets away, or simply, how do I cover the lowest portion of my costs. You know, yield management is this thing I do differently to ensure that my capacity is used differently. And, if I carry on doing the same thing, it becomes the norm, so that is long-term yield management for me.</p> <p>Yield management systems or practices are there to attract additional demand based on spare capacity; so, you should first be profitable and understand your capacity levels before embarking on yield management. One must first be sustainable and able to sustain a yield management initiative. Basically yield management would be used to improve your current performance...one must first be a going concern.</p>
7	<p>Look, philosophically, yield management is about maximising your yield. The yield being normally defined in terms of revenue; but it can also be defined as value to customers, stakeholders and shareholders. Now, that value can take on various forms – normally in</p>

	<p>company revenue was regarded as the traditional measure of value – and that is normally translated into dividends for your shareholders. But in a service company, value can be stated in many forms. You can define value in many ways. You can also say, as Spoornt, you've got a certain amount of value to add to the country, with the state being the only shareholder, in the sense that, we are a major sustainer of the economy. And, therefore, sustainability of the company over the long term is a very important element of value. The top management of the company normally defines what this value should be. Some value statements are for the shareholder and other general stakeholders. Now, once you've got a good idea about those values; then, if you say, optimise yield, it actually means optimise total integrated synchronised value delivery for all those groups. Of course you can only deliver value with what you've got; and you optimise value if you satisfy the objective of those values of those parties at the lowest, internal, total cost and the at the best utilisation of total integrated set of resource capabilities. So, there is always a match between delivering maximum value, but at the lowest possible unit cost and the best possible resource utilisation.</p>
8	<p>My understanding is to get the best sort of value out of a certain application. If I use certain rolling-stock with the best turnaround, the best carrying capacity, the best utilisation for money in the end. Where can I get the best, not only in return, but also, the best satisfaction from the customer's perspective.</p>
9	<p>Of the two definitions given, I think the second is closest to my understanding of yield management. I think the fact that resources are perishable, perishable in/to the extent that they are fairly fixed, and once used, the opportunity is lost. Yield management really amounts to the optimum deployment of that "perishableness", that scarcity. In our case, I think it's more a question of the resources being scarce and wanting to use them, or deploy them where we get the best returns. The problem I have with that clinical view is that you also have a strategy of serving your customers. Now that's a conflict in strategy, when you apply yield management, you've got to deprive one, to satisfy another. In the end, to get optimum yield, someone's going to go without service – given the fact that your resources are scarce. Yield management I think is a very selective thing. You could apply yield management selectively, on condition that you don't deprive your customers of a service or dump them into a stock out. <i>Revenue recovery</i> does not equal yield management.</p>
10	<p>Yield management is simply the old story about sweating the assets. I think...you have your minimum capacity that you require to serve those that help you earn you 'bread and butter'. Minimum capacity that you require to do your core business, your core customers, your primary income if you like. You are basically in the business for a certain market, an environment. So, basically, you'll say, I'm in this business for coal, iron-ore, ferrochrome, etc and I've got this capacity. Yield management would then be to actually manage that capacity</p>

	<p>or to earn revenue from that capacity, in so far as you do not serve your core customers. To me, yield management is actually to do more with less – more income per production unit.</p>
11	<p>For me, yield management on a high level means getting the maximum output for a given input. That output might mean revenue, it might mean profit, it might mean service without profit – if that is your goal. So it can mean a variety of things. But it is maximising whatever your goal or purpose in life is, with the resources that you utilise – money, people, physical assets, and etceteras. Based on that, and given what type of business you're in, yield might mean shareholder value – if you're a private organisation with that type of goal.</p>
12	<p>My understanding of what yield management is that yield management makes the assumption that you have limited resources, which can potentially generate income for you. You therefore want to stratify the market in such a way as to gain optimum advantage out of it. That's in a nutshell what I understand yield management to be. So you would look to some or other stratification of your market to maximise the return you would get on assets. That's my take on it.</p>

<b>SUB-PROBLEM:</b> To ascertain how the yield management concept might be adapted for the freight rail industry	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What are the current perspectives of railroad executives on the adaptation of yield management to the freight rail industry?
	Q2: How would the yield or revenue management concept be adapted for the freight rail industry (in terms of “ <i>the right capacity for the right customer at the right time</i> ”?)
<b>1</b>	<p>You’ve got an installed capacity – you’ve got various installed capacities and any business has got constraints. No business is without a constraint. So in a railroad for the capacity that you’re currently deploying, you have a particular cost structure, and you can get a yield for that.</p> <p>As soon as you now try and increase your business growth, you’ve got to put down various elements of your capacity; either more wagons, more locomotives or infrastructure. But for me, yield management means that within an existing capacity...regime if you like, you want to get the maximum return on those investments, you know, for deploying that capacity. That’s where you practice yield management.</p>
<b>2</b>	<p>Very difficult to define yield for a railroad. How do we justify the investment in rolling stock? How do we bring ‘other assets’ into the equation – locomotives, signalling, OHE (overhead electrical track equipment and people to justify this investment? Therefore to optimise yield you have to look at the “total pot” – to balance it. Where do you target the ‘thing’? ...This is a difficult ‘thing’! Nevertheless it is a contribution to fixed costs.</p>
<b>3</b>	<p>From the example I’ve just mentioned, a few hours before departure, the aircraft or...as the countdown to departure of the aircraft approaches, fares may be discounted to variable costs to be able to fill available capacity on the aircraft – against a singular measure of seats on that aircraft prior to departure. For a hotel yield management can be practised in terms of the specials that are offered or that are on offer, at short notice, in order to raise occupancy levels during slack periods. Both these examples are premised or presume that demand in the market can be taken up through lower pricing/prices, and assume an instantaneous market response to that demand. It is not necessarily the case with the (freight) railroad industry. The trucking industry could follow, and does follow the example of the hotel and airline industries, in that there is heavy discounting on the return leg, where they just either seem to ...where the return leg might have been covered, fully covered on the forward leg, and one is wanting to exploit whatever gap there is in the market.</p> <p>The rail industry is not a market response to a market demand – <i>it does not create market demand</i>, whereas hotels, during holidays, can create demand. You cannot necessarily create demand for transport (~ <i>transport is a derived demand</i>). Hence the yield</p>

	<p>management is more complex than in the hotel or the airline industries, in that it seeks to optimise the return from available resources, given the capacity constraints that exist. For instance, if the limiting factor is the number of wagons, then yield management would argue: what products at what price would yield, give me the optimum return per wagon per day? Assuming that the operational cost for hauling the wagons, with different commodities, were equal. If the constraint is the locomotive and not the wagon, or for example, the infrastructure, then the yield is what commodity and type of wagon would give me my maximum return over a particular corridor. For example, fuel in tanker wagons or chemicals in a dedicated wagon may be far more profitable than coal in a general-purpose wagon – if the specific corridor was the constraint.</p>
4	<p>How then do I optimise my income, given these different traffic flows? And next, 'match and mixes', to come up with the optimum flows. There is some action that you do at the beginning of the year, to get that, you know. But then if life was going to be as planned, then all of us could go home. You have to apply the same principle of utilisation throughout the year. If certain flows will not occur during the year due to certain specific reasons and then what you try to do is fill up your trains – you know because transport is perishable. To try and protect your revenue line, that's how I understand it. All of this is related to where you find yourself and obviously, where you want to be. You would have different answers for each situation.</p>
5	<p>Our business has got very, very high fixed costs. Which makes us extremely volume sensitive. So in a fixed cost business you are volume sensitive. What that means is that once you've committed your costs upfront, when it gets to 'execution', the more you can utilise the installed capacity, the lower the unit cost. The lower the unit cost the more money in the bank. In our industry, the railways is not just fixed cost, but also highly perishable. What I mean by that is...the capacity I lose today I can never regain at a later stage. In the rail industry I've got the opportunity now, and if I don't use that opportunity now, it's lost forever. I can never reverse time. I can never use the train that was unutilised today, tomorrow.</p>
6	<p>I think when we talk about yield management in the airline industry we tend talk about the short-term decisions. But, we don't look at the integrated view; for example, to be able to offer eighty to ninety percent discount on the cheap economy fare, you need a base load with a very high rate. So, your initial pricing enables you to do yield management.</p>
7	<p>And what you need to do is, you need to match your traffic demand, to the total traffic demand of the industry to that unique set of capabilities, in the best possible way. Yes, it is difficult, but for me there's no other way to do yield management, Or, other forms of yield management, when you just use one or two parameters to make quick decisions. You'd just disregard the system and complexity of what a railroad really is. So you must not measure the profit, but you must actually measure the profit per wagon day.</p>

	Yield management in a railroad is totally different from that of the airline industry, although some of the concepts could be translated for a railroad.
<b>8</b>	Comes through your design...the design of the total supply-chain. That means that your total supply-chain enables you to get the maximum yield, the maximum value – in terms of customer satisfaction, volume and/or tonnage, and financial return. And that means that you've got to incorporate the whole supply-chain; or those aspects that influence the yield of your rolling-stock.
<b>9</b>	In our case, I think its more a question of our resources being scarce, and wanting to use them, deploy them where we make the best returns. Yield management is difficult, and I think the best, equitable form of yield management is that of auctioning. I think it escapes all other – maybe I'm opting for the easy way out – but it escapes all the inherent pitfalls. Yield management is best applied in the non-contracted business with resources that you can make available, which can be auctioned. The word equitable probably is used to satisfy my conscience, being fair in an open market – transparent rules, which are auditable; as opposed to practising yield management in isolation.
<b>10</b>	As I've mentioned in my definition of yield management it's the ability to obtain more income per production unit and is applicable for the railroad environment as well.
<b>11</b>	Now for a railroad, one would have to look at the mandate, and our mandate is to operate on a commercial basis. It's definitely not a public service that relies on state funding to keep it floating. Because we're commercial, it means that we don't go to the shareholder for any cash flow problems. Our output, our goal is maximum profit and hence, maximum dividend. Profit in very broad terms depends on the volumes that we shift and those volumes that we shift depend on the efficiency of whatever we have; and the ability to build capacity.
<b>12</b>	The applicability of yield management in the freight rail environment would simply be, given the resources that one has and given the markets that are out there, you would want to have a situation where, for a specific type of railway that you're targeting, you would want to get maximum benefit. Yield management is simply optimising the transport leg of your business. Trying to make sure that in any given direction, you're earning revenue – optimise the revenue earned per wagon. Optimise revenue at a price that the market can bear, and by optimising the utilisation of the assets. When demand outstrips supply, this is an ideal opportunity to practice yield management.

<b>SUB-PROBLEM:</b> To ascertain how the yield management concept might be adapted for the freight rail industry	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What are the current perspectives of railroad executives on the adaptation of yield management to the freight rail industry?
	Q3: In terms of yield management, what is the ' <i>unit of capacity</i> ' for a freight railroad (for e.g., seats in airlines and rooms for hotels)?
<b>1</b>	It would have to be the train. You're selling trains – you must bring the wagons and locomotives together. Your capacity is in trains. A locomotive means nothing! If you haven't got a train, you've got nothing. There's also a fit for use – in terms of what the customer wants and what I'm selling.
<b>2</b>	That's a difficult thing! One has got to look at the total asset base. It's your infrastructure capacity, your signalling capacity, and your locomotives and others. It all comes into the equation to determine your capacity at the end of the day. But the 'thing' that really produces is centred on the wagon capacity – be it wagonloads, wagon days or wagon kilometres. But it does not help you to just look at how many of the fleet you've utilised, but you have to look at how many of them would become available in the next cycle; and how many of them you're able to move...not so easy to calculate. However, once you start doing these calculations, you've got to bring in the capacity constraints. Therefore, the capacity unit for a freight railroad is the sum of a lot of capacity elements.
<b>3</b>	<p>I'll have to develop that answer...the unit of capacity in an airline, prior to flight departure is your passenger seat. Your unit of capacity in a hotel is your room – you measure that by hotel nights. The output of a railroad, a freight railroad is net ton kilometres. I'm not sure of the singular unit of capacity (~ for a freight railroad)...it is affected through your wagon and through the carrying capacity of the wagon. But that is in combination with the locomotive, which forms the train consist, which is in itself, predicated or determined by the infrastructure network and its limitations.</p> <p>The hotel capacity would be fixed or limited by the number of hotel rooms; airline capacity is limited by the schedule and the carrying capacity of the aircraft. Railway capacity, freight railway capacity, can be limited by the carrying capacity of the wagons, the number of wagons, the tractive power available to haul the wagons, or it can be limited by the infrastructure, not being able to accommodate the...or limiting the length or number of trains. Any one of these can affect railroad capacity.</p> <p>Yield capacity in a freight railroad has many more dimensions than the airline or hotel industries.</p>

4	<p>I take a very resourced-based view, and that resourced-based view leads me to the conclusion that the most important resource is the locomotive. So you'll plan your railroad around the optimisation of your locomotives, since they are by far the most expensive of the resources. Because they are the most expensive unit and the scarce resource, you then configure everything around the optimisation of the locomotive. You want the locomotive to run 'optimally' full. So, a locomotive that has a certain power, and this not being used, is under-utilised. Depending on the current resource under constraint, you'll focus your yield management efforts there. That means if my wagons were the constraint, I'll focus my yield management efforts here, in terms of turning my wagons around quicker. Like for instance if you've assumed an environment of multiple operators, the train slot given by the railway regulator or the network owner, becomes the most valuable. And that defines or will determine your unit of optimisation you do whatever it takes to optimise that unit of capacity. So, either you use it or you lose it! So the question is therefore: What is it, in that specific environment is the most valuable unit I need to optimise?"</p>
5	<p>Well, unit based, wagons are my smallest unit of balance. If I go to 'less-than-wagonloads', we're hardly in any business that's at that level. Our smallest unit of capacity is the wagonload. In response to the question of 'other types of capacity and opportunities for YM: I see where you're coming from, and you've got a valid point there. If I've got traffic that is flowing towards say a destination, that, for which, I've got a huge empty-leg on the reverse side of that OD-pair. Then I've got an opportunity to go and sell trainloads. I don't have to sell single wagons in all cases. One point you've/I touched on is installed capacity; however, that's a myth...because it's a function of the decision you've made upfront of how you want to allocate or deploy your assets.</p> <p>Now, the question of how do you allow enough crews for so many trains, that is of course the big yield argument! So when I do my train design, that' where I've got to do most of my yield management decisions. But then I'm talking about my 'anchor customers'. I'm not talking about filling-up ten empty spaces on a train that's going in any case. So the challenge in terms of YM is really to say: there's a market of a 100, of this 100, 45 are 'rail-friendly', and the after 45, the following commodities can absorb a higher rail rate than others. And, if I target those first, then I can maximise my yield. Also, one gets to the point where certain candidates for yield management can be selected.</p>
6	<p>It is trains. Its actually very simple, its either a passenger coach or wagon behind the locomotive.</p>
7	<p>If you put together our unique combination of resources or assets, the locomotives, wagons, crew, auxiliary equipment and our special people skills; then they, systemically</p>

	<p>given, have got a unique combination of resources – a <i>systemic combination of capabilities</i>.</p>
8	<p>I think that for a railroad, the unit of capacity has a lot of aspects or dimensions to it. So, on the conveyance of cargo, I think it's the railcar; the specific railcars that I want to optimise or increase the carrying capacity of – that suits the axle load restriction. So, I would want to convey only railcars on a line that provide me with an axle load close to the permissible axle load. If I want to increase the yield on locomotives I'll have to consider that as well. I have to run to the maximum of locomotives on a certain route. Its to ensure that I get the maximum horsepower or kilowatt hours for what we designed our locomotives for – I should utilise its full capacity.</p> <p>So, to optimise in all circumstances my carrying capacity inked to what the railway line can take and also then the turnaround time, to ensure that I'm getting value out of it. Yes, its complex, but complex because one does not know where to start.</p>
9	<p>Well I think the primary production unit in a railroad is the locomotive. I would go as far to say that it's a universally accepted convention of the locomotive, the tractive power, being the primary production unit, and everything else must be designed around the optimum use of that primary production unit. Of course, it's a combination of all those good things. You know, you want the longest train, maximum payload per wagon; but, ultimately, it's the deployment of that scarce resource, the locomotive. It should be constantly on the move, sweating really, really hard; then I think you've gone a long way in achieving maximum yield.</p> <p>I would like to think that the locomotive, because we're under-resourced, undercapitalised, remains a Spoornet asset and the rolling stock (~ wagons) become third-party ownership. Then you've got the best combination: you reach optimum utilisation on your primary production unit and the risk of owning and deploying the wagon then resides with the cargo-owner. He then carries the investment risk. I think that's a fundamental shift and maybe railroads need to operate on that basis.</p>
10	<p>My unit of capacity would be the train, that is, locomotives plus wagons. Better potential than moving a few empty wagons – you've got a better outcome with a train than a wagon in terms of effort required. Unit load traffic is easy pickings.</p> <p>If you really want to do yield management, then you've got to swap bodies – like a versatile body or swap body, similar to a container on a flatbed wagon. Basically an asset that is in tune with your opportunistic behaviour.</p>
11	<p>What do we do to gain profit, to generate revenue? In the freight rail business its net ton kilometres (NTK's) – the output of a railroad. Now for us, for generating NTK's for a customer, we get paid for our services. In delivery NTK's we apply resources – time,</p>

	<p>people, locomotives, wagons and <i>etceteras</i>. Each of these has a constraint or ability – <i>capacity constraint</i> if you want.</p> <p>For me capacity means something different...capacity for me means the ability to do whatever your goal in life is. Our goal is then to move NTK's, of which we use the resources or elements, which I've mentioned. I also like to talk about system capacity, which is a combination of these constraints. The constraint of course defines our capacity. Locomotives are the current constraint --very real – and people at this point in time; these are for me the biggest constraints in terms of maximising whatever our ability is. Now of course you have to fill trains, because trains are the enablers of NTK's. The way in which we create NTK's is time and distance utility. If you're looking for the equivalent of yield management in freight rail, its got to be the wagon-space on a train. The analogy is quite simple, if you want to use it in that sense. When a train leaves, and you could've put a wagon on it, and didn't, then you're losing an opportunity to create NTK's. Now, similar to the airline industry you can offer a discount to customers long before the time or two hours before the train departs, because it is available capacity. Now, all these are enablers to maximise yield, because to generate NTK's we need trains, and trains are the enablers of NTK's. OF course, we want to maximise the capacity on that train. There are a large number of similarities between the airline and freight rail industries.</p>
12	<p>Simply put, the wagon! The locomotive does not earn you the money! Can run hundreds of locomotives – does it earn you income? In principle, the wagon earns you income. The wagon is the primary revenue-generating asset. However, the wagonload business is different from the unit load - heavy haul – business. One looks at the problem differently. For heavy haul, the unit of capacity is the train slot; for wagonload traffic it is the wagon.</p>

<b>SUB-PROBLEM:</b> To determine how such ideas for adaptation might influence the approach to implementing the yield management concept.	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What approaches to yield management have been developed for the freight rail industry?
	Q4: How would you approach yield management in the railroad industry?
<b>1</b>	It depends on the constraints; so it depends on two things: capacity constraints and the profitability of the services in a railroad context. Because then, you're actually getting a yield for your whole business. At the end of the day it's the bottom-line of the organisation that counts. But, to be able to impact the bottom-line, you've got to practise yield management in pockets. You've actually got to understand the profitability of these pockets. If you don't understand that very well, you know, you do also have the long-term and short-term issues - the timing – are also very important. If you're talking short-term, then you say that you have a capacity constraint. In the short-term you trade-off demands against each/ one another. In the longer-term it's a bit different in the sense that you could remove those constraints as it suits you. Then you could practice a more <i>mature</i> type of yield management in the sense that you could be looking at what is more suitable for the rail business. And you can then curtail, cut off certain services and then really pump up your bulk demand. Then you're really getting a yield, a yield on rail, a yield on rail's competitive advantage. That's another type of yield management. Rail's competitive advantage is these bulk things that move over long distances, like mega-trains. So, in the long-term if you take yield management to its ultimate, you say: man, we've got to get yield management on the core capability of rail in this country, because that's where will get lots of money.
<b>2</b>	Usually NTK is a design or operational issue – to obtain higher NTK. But, it is also a business issue: I must get traffic to fill-up the empty-legs. Just fill the empty legs brings a contribution, which lowers the overall unit cost.
<b>3</b>	An example where yield management could work for the railroad industry would be when I've got a three-month schedule that is fixed, and in this three-month window, say, there is spare capacity within the next two weeks. I could address the spot-market within a one-week or two-week period, within that three-month window. That would be the closest one would get to the airline industry. Beyond the three-month window it's a question of saying: "are my trains correct? Should there be ten, nine or six, and are my resources being utilised? What is my income per wagon per day?"
<b>4</b>	If you assume that you are resource constrained, you've got all the markets that you need

	<p>and you've even got more than what you need. It then becomes an issue of optimising your need to get the highest return...revenue...or the highest profit. If you then assume that a railroad is largely a fixed-cost company, then it becomes an issue of optimising revenue over total cost. Also, once you change your traffic mix on a permanent basis, you then assume that its not fixed costs – you can change the nature of the costs. By changing your market on a permanent basis, you'll be taking another course of action. If I change the fixed-cost nature of my business by changing the market-mix on a permanent basis, then you take a different approach. If when you do that, that's when you say I will move the low-cost traffic, I will incentivise my customers to give me that type of traffic with others to try, even in areas where it is difficult to obtain/ to get unit load traffic, to drive my unit costs down. Because I'm prepared to lose traffic that does not behave in that way – to other modes. I'm changing my entire traffic composition on a permanent basis AND changing my cost structure, as opposed to the other, which is a very short-term view, which says, the costs are fixed, take everything that you can, Obviously with the purpose of generating revenue, you know, which says, contribute to the costs, which is very short-term – the other is very long-term. In the long-term all costs are variable. I will therefore choose for the long-term what I want and charge the customers. So it depends on what you want to achieve, or your business assumption.</p>
5	<p>In general, this industry, the railway industry, is not suited to yield management in the way that the airline industry is. But, yield management is important in any industry; so how do you do it for the railroad industry? You start by saying I'll do yield management in the (~service) design phase of my transport business.</p> <p>The question then is now, how do I attract the customers to my capacity? Now, one of the levers that you can use is price. But, the moment that your customers discover that somebody joined the train at a later stage, is getting it (~price/tariff) at a discount, more of your customers are going to start to do that. That means you're setting yourself up for even a bigger challenge, because nobody will commit upfront.</p> <p>Now, if you look at the airline industry, you manage almost to get this working perfectly – they let you stand in a queue. You can come to the airport, they don't guarantee a seat; in fact, they don't guarantee anything. And, they take the risk of using price to attract customers at a late stage. So the only way that you can really... counter that, I think, in practice, is to have some sort of sales-volume discount.</p> <p>So, I sell my capacity at 30c/NTK, and everybody pays 30c/NTK; however, at the end of the period, at the end of the month or the quarter, I will give you a sales-volume discount; which is then also on some sort of scale, and it is known (~published).</p> <p>So if you transport a lot of traffic with me, I give you a discount, and I give you a bigger</p>

	<p>discount...let's say you've...at the end of the quarter, you've taken up 70% of my capacity, then I'll give you a substantially bigger discount than the customer who has taken up only 7% of my capacity. But, there is an incentive for using me, which is attractive, but I don't give you the benefit upfront - I give you the benefit after the review period. And...and, what I try to avoid there is that everybody waits for the last minute...so they'll...because you've got so many...empty wagons today, you're going to give a huge discount. You know I don't want to...well the nature of the rail industry is such that you can't let people queue, and then auction that capacity from a practical point of view – its not practical. It's a very novel idea, but it's not practical...So I'm coming back to my first argument: there is really only one thing you can do, and that is a sales-volume discount.</p>
6	<p>It's going to be difficult to practice yield management in the bulk, unit load business, because of long-term contracts that would be in place for the next twenty years. Your yield is based on the initial price. Therefore, on a small scale yes, but not like the airline industry is practising it. No! There's also commitment, commitment to move it (~ <i>bulk traffic</i>) for the next twenty years. Your initial yield management choice is your pricing, just to get the traffic. I don't see huge opportunity for single wagonloads, you know. Perhaps we should look at the equipment that we must provide. That's where the concept of a road-rail interface comes in, a piggyback, or a road-railer concept – a decision or choice you can make to either switch-on or switch off. So, its either on road, or we have to bring that capacity back to rail. And, that's where you'll be able to do it.</p>
7	<p>You're quite right by saying that it is the right assets, at the right time, and the right price, and so on. But what it really means is the understanding of the structural capabilities. Firstly, it's the identification of the best traffic that would make the most sense for a unique combination of assets and abilities. So my response on what yield management really is, is your best choice of the best traffic with which you can/could earn the best combination of revenue and profit given the best utilisation of this combination of assets. So my view of yield management is to get as much traffic as you can, say even if it exceeds your capability by 40%, so that you can do the best possible match with your capability, and cherry-pick or choose what you really want. Similar to the airline industry, but the long-term focus versus the short-term focus of the airline industry. For me it would e a fundamental way of doing business. That for me would be embedded in the heart of the business model for a railroad and in the heart of the business model for years to come.</p>
8	<p>My first response would be to say that I will take all the mega-flows (~ unit load traffic), not per customer, it can be a number of customers, and increase or get a better yield out of those specifically designed-for-purpose railcars. That's only taking it from the specific aspect of the railcar. I'm not even mentioning locomotives – that could be another aspect to yield in</p>

	<p>my total service definition; a number of yield improvement projects that address different components of the yield management problem.</p> <p>I think I will take it per commodity, per specifically designed railcar and ensure that on specific routes where one has large consignments, that you optimise the yield. I will also improve the yield on locomotives on these specific routes and thereby have the successes to show the company what can be done.</p>
9	<p>Just a combination of those qualifies for a thesis! A universal approach won't work – you'd have to take a sector, geographic, corridor-based view. If one's pricing structure were common, then yield management wouldn't be an issue at all. Certain commodities 'earn' more than others because of their inherent value. On the commodity issue, it is senseless trying to do pig-iron, which is semi-processed steel, because of its higher return, compared to coal, and not being able to move coal, because coal is a basic form of energy. You require that to produce the pig iron. There's an inherent balance there – you cannot expect the road to move the coal, while you move the pig iron. The one is very much dependent on the other. There's that issue to consider.</p> <p>Its very much a multidisciplinary approach: what do we do with the asset-base? In contracting and the term of the asset, I would ideally like to balance the life-cycle of the locomotive, wagon, asset whatever it is, with the life-span of the a mine, plant or factory – whatever you're contracting into. Depending on that balance and the contract conditions, you would assume in that partnership: the railroad would guarantee a service and the other parties, the tonnage or mass per annum. Yield management is difficult to practice under these conditions – there's a <i>quid pro quo</i> – you cannot move outside of these parameters, you'd activate a penalty or some type of disincentive. <i>You cannot have yield management and incentives - the one cancels the other.</i> Contracting I think is very important. On the other hand, yield management also takes on another ambit, and that is perhaps leaning towards the "<i>perishableness</i>" of an aircraft seat, as you've mentioned in your example. Where you have trains that move that have empty space on them, one could apply yield management to fill up that space on the train – even at marginal cost. So, one sees yield management coming out in that aspect as well.</p> <p>I think there'll be a problem with applying yield management in megaRAIL (~ <i>unit load traffic</i>); megaRAIL is dependent for its success on quick returns (~ that is, operational efficiency) and it is largely dedicated resources between places – between particular OD-pairs. If you start applying it now on the empty leg then I think you would adversely affect the turnaround time of the resources. So whilst your primary objective was to supply a megaRAIL service to customer 'A', the balance for subsequent services to customer 'A', is now actually less or different than what was guaranteed for in the contract. I think, applying</p>

	<p>yield management, on the empty-leg for megaRAIL services, is very difficult, due to the nature of the business: the turnaround, the tempo models like the coal and iron-ore export lines. Yield management in megaRAIL would be the outright choice between commodity 'A' and 'B' – given a fixed resource.</p>
10	<p>My focus would be to have the right capacity for my core business. Could live with some opportunity cost. Not using then, the leftover capacity for other business; rather when its idle or not used, to use it for something else. Nothing wrong with allocating capacity to your core business first, but the 'plan B' is where your yield management come in. I think you'll be quite stupid to have a master train plan that is not optimised for yield. You cannot in my opinion load the empty leg by co-incidence, in other words a surprise load!</p> <p>But when you do not have enough capacity, your planning must very much improve your income per train, which would also determine the route you will take to pick-up the next load. You'll pick-up the one which will give you the most income in the shortest time. For a group of wagons you'll actually have a lot of parameters: one will be your cost (because of different designs), but the very important one will be your turnaround, loading and off-/unloading times and very much the income. And that must equate to a 'balanced' sort of an answer in your decision-making. You actually manage your yield by getting more out of your design if you like, or liberating (~<i>setting</i>) capacity free to do other business...gain additional income.</p>
11	<p>Well, as a starter, we get paid for net ton kilometres; so if we want to maximise yield then it means a number of elements: run the maximum number of trains; put the maximum number of tons on the train. Now that basically means, putting the maximum number of wagons on the train. Putting the maximum number of tons into the wagon. In essence, its that simple.</p> <p>Now, much of this could be done without capital investment. It might mean a different business model and an approach to pricing – to attract full trains. It might mean a capital investment in different types of rolling stock to increase the axle mass. I think it's a mixture of the items you've mentioned. What I was referring to really means densification or migrating to unit load traffic, if you want. This is the way you earn maximum yield in a railway environment – it is following the philosophy of resource utilisation; call it then the competitive advantage of railroads, which says carry huge tonnage, maximise resource utilisation, because your resources tend to be very expensive.</p> <p>But, coming back to the financial bottom-line, you must be paid well for doing that. So, just running trains regularly and not getting appropriately remunerated for that, is not going to help you on your financial bottom-line, and your sustainability over a long period of time. So, your pricing strategy and the way you interact with customers on a commercial level is equally important.</p>

	<p>Comes back to the whole thing, that a railroad, even though its competitive advantage is long distance and heavy hauls and regular flows; it cannot run '<i>mahala</i>'. It needs a revenue stream that can sustain it.</p>
12	<p>You'd actually have to have a strategy, a focused strategy which says that I'm going to exit certain types of business which don't give me the returns, and I'm going to look towards that which I'm doing well – to grow that part of the business. The problem in our current environment, we don't have an excess or surplus of resources; in fact, for anything additional now we'd have to go and invest in new assets. But, instead of saying that, one could say that with the current asset-base, if I mix, if I slice-n-dice it differently, I should be able to have significant better returns. And that is the underlying logic of yield management in a railway environment.</p> <p>It requires a vision and a will to do that. You have to go out there and be bold enough to make some choices, which might in fact become unpopular choices. But they are choices all the same that need to be made, so that the railway business can be seen to be economically viable.</p> <p>For me that would be, for example, to get out of certain industries to get my maximum yield, to improve my bottom-line. To replace the business I don't want to do, with what I want to do to get that maximum benefit. The American railroads were able to do that for a long time, in terms of defining what was <i>rail-friendly</i> and <i>rail-unfriendly</i> business. You'd want to get out of the <i>rail-unfriendly</i> business and in to the <i>rail-friendly</i> business, to maximise return. Invariably this boils down to moving mainly bulk traffic.</p> <p>Price in such a manner to discourage smaller consignments, by volume, and favour larger consignments. You are able to optimise better under a conveyor belt, tempo model because volumes are more predictable. Economies of scale – able to move more because of inherent cost structure. Acquire road competitors to do the work where rail is too expensive – this way improves your yield.</p>

<b>SUB-PROBLEM:</b> To determine how such ideas for adaptation might influence the approach to implementing the yield management concept.	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What approaches to yield management have been developed for the freight rail industry?
	Q5: Would you pursue or focus on the following for yield management? <ul style="list-style-type: none"> <li>• Long-term benefits</li> <li>• Short-term benefits</li> <li>• Both?</li> </ul>
<b>1</b>	<u>Both.</u> Long-term relates to your customers. You've segmented, you've picked-out for yourself your best customers Now with these customers you have a long-term relationship and you sign a three to five year contract; with heavy-haul it's a ten-year contract. You commit to a certain service delivery and capacity, etceteras. You're not going to interfere with that, simply to practice short-term yield management. But when you have spare capacity or where you have empty-legs, that is where you would now try and improve your yield. With your long-term customers you could try to improve your yield simply through the way you contract. So, at that particular point of entering into a new contract and looking ahead 'x' number of years, you must have done very good robust research. You must understand your business model, your contracting parameters, and all of those 'nice' things. You must now make sure that you get sufficient yield or return on your investment...your capital. With short-term yield management you would want to optimise your yield from ad hoc customers.
<b>2</b>	<u>Both.</u> You've got to in the long-term...you got to rail bulk – whether you like it or not; you will not exist any other way. Also, I'm in the small consignment market, which is more open to competition. A guy can phone me for a price, put down the phone, and phone road, get a price, and move his stuff by road! On the other hand a lot of my business is internal business, such as the movement of infrastructure materials. But you need that because you have to maintain and sustain yourself. Its very easy to say get out of single wagons, but its making a contribution.
<b>3</b>	<u>Long-term benefits.</u> The nature of the railway freight industry is (that) it is more a long-term, fixed, or a long-term industry, not necessarily a spot industry. It responds to changes in the economy, but it not necessarily creates changes in the economy. Hence, yield management, in a railway, has a longer term forward planning aspect than the short-term response, short-term demand creation, through...saying, I've excess capacity let me sell hotel rooms or airline seats/tickets. For a railroad, yield management is largely about options and choices, whereas, in the airline and hotel industries, it is more about selling a

	single product, than about choices.
4	<u>Both</u> ...this response comes from the answer to the previous question, but is appropriate here too. I'm changing my entire traffic composition on a permanent basis and changing my cost structure, as opposed to the other - which is a very short-term view – that says, the costs are fixed, take everything that you can. Obviously with the purpose of generating revenue, you know, which says, contribute to the costs, which is very short-term – the other is very long-term.
5	<u>Both</u> . Let me use the example of the salt ship that docks every six to eight weeks. My focus would be on the salt ship because of the attractive tariff per ton. So my first priority is towards the salt ship. But when the salt ship is out of port, the wagons and locomotives have become available. So, between the salt-ships there is a “value-period” during which I have spare capacity. Now from a yield management perspective, I could offer this capacity to the market, without committing myself, on a take-it-or-leave-basis. So, for the next few weeks, I might offer these wagons to customers to move other commodities; but when the salt-ship is back, I'm dedicated to the salt-ship again.
6	<u>Both</u> . I think its more short-term benefits. Long-term is what you start capturing what you're doing regularly with yield management principles. You start capturing that as a part of the normal way of doing business. Yield management is something you o in the short-term and you learn from that to ensure that the benefits are long-term. Could also be that I've adapted my business plan to opportunities daily to extract value and because I do things “differently” all the time to seize those opportunities it becomes a long-term “thing” because I adapt all the time to get more value.
7	<u>Both</u> . How does one then reconcile the elements of yield management with the long- and short-term perspectives? Let me try and answer it like this:...firstly you try from your traffic file of a year in advance or so; you must already have a systemic capability to match that to available capacity, so that you can from the best possible fixed schedule with its resources cater for seventy to eighty percent of your traffic from that. So, your first level of yield management is done on that level. Then once that is in place you also have to deal with your short-term orders – your peaks and valleys – your ad hoc demands. You have to have a total structure of all demands, and be able to apply the same kind of yield management logic that you've applied for the long-term traffic demand's match to capabilities, over the short-term as well – using the same kind of principles, same logic and same rules. The only problem now is that you've got much less time to deploy your resources; that is, your scheduling flexibility is much less. That's why it's so important that much of your traffic demand is “mapped” to a predictable, fixed-scheduled, and resourced capability.
8	<u>Both</u> . The short-term aspect is just to optimise in terms of what you have, given the current

	<p>realities. The long-term approach, for example, would be to say I would change the design of the rolling stock to accommodate two toms more, because the bogies can handle it, the railway-line can accommodate and the permissible axle load limit. <i>So, I will do it like that – focus on both aspects.</i> Also, how can I get the power of the locomotives optimised? By using one instead of two, where it is feasible. This I could do now! This is part of yield for me. Where people under-declare or load not the maximum tonnage for what the carrying capacity is for a railcar, I will get that rectified – ensure that it gets done. Also, ensure that the designed for number of wagons per locomotive is adhered to...at all costs. That's the type of short-term things you can do, the type of things that are within the reach of management. Capital investment is the longer-term aspect.</p>
9	<p><u>Long-term benefits.</u> I think that by the nature of railroads, they're not very flexible. There is little scope for the short-term benefits. I'd rather go for the long-term yield management – with the customer asset life cycle. The short-term I think will require a lot of administration. I think there is a very limited market. I think it will cost you by being less productive, less efficient, by the nature of railway operations. Rather rush the wagons back when they're empty than try to seek for a return load (~wagonload). Looking for return load traffic whether by auction or <i>capitage</i>, I don't think it's the role for a railway. <i>Capitage</i> is a term applied in the shipping industry, when they pickup anything, if the ship is empty, to cover their variable costs. It's a principle of selling something cheaply to secure some return; it's quite satisfactory in the shipping industry.</p> <p>Wagonload traffic for a railroad would require a lot of effort and I don't think the effort is worth it. In the shipping industry it is suitable because of the low frequency of ships calling at the ports. The filling-up of available space is also outsourced. For a railroad there would be no control over this and you run the risk of discounting traffic for existing customers if this role were to be outsourced.</p>
10	<p><u>Both.</u> I don't think there is any difference between short- and long-term yield management. Doesn't short-term yield management imply long-term yield management? Is maximum short-term yield also not long-term yield? For example, let's say you've decided strategically to go into the coal business for the next twenty years and have a long-term customer in this regard. You would then focus your yield management activities and resources on the service design during this period. However, during idle periods or periods of inactivity from the customers side you would deploy those dedicated coal-resources to other short-term business opportunities to increase yield or income.</p>
11	<p><u>Long-term benefits.</u> In the railroad you cannot plan short-term; you cannot budget classically every year on year and forget about the long-term investment. You must focus on the fact that you want to maximise yield over the long-term period – for any organisation with a fixed</p>

	<p>asset base that has a long life cycle.</p> <p>Our fixed asset life cycle is twenty to thirty years, plus. So you must maximise yield on a long-term basis. You cannot plan on a short-term basis, else you'll never replace your assets; you'll never be a going concern. Not in our industry.</p>
12	<p><u>Both.</u> In its very nature the railroad is a long-term business. The greater you focus on the short-term advantage; the likelihood is that you'll undermine your ability in the long-term anyway. So you should structure around a long-term vision of where you want to be. So if you take a view on resources as a classical example, you want to target your resource views, then you work towards that answer.</p> <p>It tells me that for example, in a wagon strategy, locomotive strategy, I need to target what I want my long-term view to be, and then in the process you know, if I've got excess wagons, I could exploit a current short-term situation. But that is about the sum of it.</p>

<p><b>SUB-PROBLEM:</b> To develop (or identify) a yield management assessment <i>framework for the freight rail industry, from service industries</i> where yield management has been applied successfully.</p>	
<b>INTERVIEWEES</b>	<p><b>Research Question:</b> Are the service industry characteristics that favour the application of yield management, evident in the freight rail industry?</p>
	<p>Q6: Are the following service industry characteristics, usually associated with yield management, prevalent in the freight rail industry? (Consider car- and intermodal traffic)</p>
<b>1</b>	<p>a. <u>Yes</u>. But to digress a little; if you want to take yield management to its ultimate, why not get a yield on rail's core capability for the country – know what I mean?</p> <p>b. <u>Yes</u> – very critical for us at this stage.</p> <p>c. <u>Yes</u>, we do that for the coal and iron-ore export lines.</p> <p>d. <u>Yes</u>. We have a very definite segmentation in our three traffic categories.</p> <p>e. <u>Yes</u>.</p> <p>f. <u>Yes</u>, of course. One colleague remarked recently that one cannot just take a view on the last six-months of demand because you'd miss the seasonal demand flows such as grain, citrus and the like.</p> <p>g. <u>Yes</u>, very much so – we currently prefer to have intermediaries for ancillary services and nowhere near our major flows, That's a fundamental thing of business unless there is a major advantage to having one such as in the consolidation of loose traffic – but then you manage them.</p>
<b>2</b>	<p>a. <u>Yes</u>, to a large extent, yes. Our accessRAIL trains or 'consolidation' trains could be half full by the time the train departs. You cannot store that opportunity of the half-empty train for tomorrow.</p> <p>b. <u>Yes</u>, it is so. However, we're not using what we've got. You cannot just add another train unless you've got locomotives standing around idle or that you've got to go and purchase. So, it depends how far up on the utilisation curve you are; basically, are you at hundred percent or close to hundred percent capacity?</p> <p>c. <u>No</u>, I prefer to have a little spare capacity and then push the operating envelope.</p> <p>d. <u>Yes</u>, our market segmentation is largely based on industries.</p> <p>e. <u>Yes</u>, quite low compared to our fixed costs.</p> <p>f. <u>Yes</u>, but not that apparent or visible in the wagonload business.</p> <p>g. <u>No</u>, in my sector, consolidation I deal with a lot of intermediaries. They perform order and account management services for us. And, they do add their fee on top of the tariffs we provide to them.</p>

3	<p>a. <u>Yes</u>.</p> <p>b. <u>Yes</u>, currently, because we're severely capacity constrained we're not able to increase capacity anytime soon.</p> <p>c. <u>Yes</u>, we do it for our major bulk flow customers.</p> <p>d. <u>Yes</u>, look at our three traffic categories.</p> <p>e. <u>Yes</u>, compared to the high fixed costs of our infrastructure and assets.</p> <p>f. <u>Yes</u>, but only in selected markets and single-wagon consignments.</p> <p>g. <u>Yes</u>, we prefer to have direct relationships with customers. However, we have a few intermediaries in some market segments.</p>
4	<p>a. <u>Yes</u>, according to my introduction and definition of yield management.</p> <p>b. <u>Yes</u>, that is true.</p> <p>c. <u>Yes</u>, we do that in many ways – we even build capacity for specific customers.</p> <p>d. <u>Yes</u>, we do have visible segmentation.</p> <p>e. <u>Yes</u>, a railroad in the short-term is a predominantly high-fixed cost business.</p> <p>f. <u>Yes</u>.</p> <p>g. <u>Yes</u>. We prefer to serve the markets directly; however, there is room for intermediaries in certain of the market segments – like the container business.</p>
5	<p>a. <u>Yes</u>. In our industry, the railways is not just fixed cost, but also highly perishable. What I mean by that is the capacity I lose today I can never regain at a later stage. In the rail industry, I've got the opportunity now, and if I don't use that opportunity now, it lost forever. I can never reserve time. I can never use the train that was unutilised today, tomorrow.</p> <p>b. <u>Yes</u> – fixed over the short-term in terms of “installed capacity”.</p> <p>c. <u>Yes</u>. Well that's what we've done with our three-traffic-category 'logic'. We've set aside capacity exclusively for anchor customers, but that also guarantees us certain turnover. To simplify, I will not let the anchor customer, a big user, with a guaranteed contract, compete with somebody that's only going to use it sporadically.</p> <p>d. <u>Yes</u> – in terms of our three traffic categories, namely, megaRAIL, accessRAIL and flexiRAIL. But that's again a difficult thing, because what do you segment after at the end of the day? I think when you talk about segmentation, you must have your strategic, long-term customers first and then secondly, I will look at commodity and/or service. It's enormously complex...</p> <p>e. <u>Yes</u>, our business has got very, very high fixed costs, which makes as extremely volume sensitive.</p> <p>f. <u>Yes</u>.</p> <p>g. <u>Yes</u>, since you must really apply your mind if you want a third party to come between you</p>

	<p>and the cargo owner. If you put somebody in between, you will quite often find that that person, in between, will get a very good return on other people's assets; because the only thing that they really manage is information. And they will always manipulate that to their own advantage. They will always share as little information as possible, because it is their position of strength. Well with true "collaboration projects", you try to get closer to the customer, you try to eliminate all middlemen – you share the data. You can plan in a collaborative way, because of the huge investment and demand from the end-user (<i>at origin</i>) – not from the rail-user, the end-user of the product or commodity, the people who are drilling the coal. That's what we try to optimise. However, there are cases where you will allow that (~ <i>for an agent or middle-man in terms of point-of-presence</i>)</p>
6	<p>a. <u>Yes</u>. We've covered that already.</p> <p>b. <u>Yes</u>, to some extent you have fixed capacity. The capacity in a railway is a function of a lot of things – the speed of your train, the length of train, and the axle mass. There are instances where if you change the (train) dynamics, you change the capacity.</p> <p>c. <u>Yes</u>, even on the commodity level as simple example, where capacity for coal can only be used for coal. It therefore comes down to certain types of capacity, as well. What we also have is location of that capacity, and that's part of the segmentation.</p> <p>d. <u>Yes</u>.</p> <p>e. <u>Yes</u>.</p> <p>f. <u>Yes</u>, but not highly seasonal or variable.</p> <p>g. <u>Yes</u>, we have direct relationships, but sometimes with an intermediary one can justify certain costs from the railroad's side for the sake of yield management without the risk of damaging your customer relationship.</p>
7	<p>a. <u>Yes</u>. The railroad industry is a service industry, therefore its capacity is 'perishable'. Especially on our busiest corridors; if we lose time-slots on these we can never recover. And especially in our current resource constraint environment our capacity is highly perishable.</p> <p>b. <u>Yes</u>. In the case of fixed capacity it takes very long to commission new locomotives, even new wagons takes twenty-four to forty-eight months; and even getting new crew on board – three is at least a twelve-to eighteen-month training cycle.</p> <p>c. <u>Yes</u>. For certain classes of customer(s).</p> <p>d. <u>Yes</u>. Our three traffic categories segmentation is already a good example. Others are the volume or bulk traffic – long-term repetitive traffic - and smaller consignments. Also, there is time-sensitive traffic as visible market segmentation.</p> <p>e. <u>Yes</u>.</p> <p>f. <u>Yes</u>. We do, that is why you must determine the amount of variability and seasonality</p>

	<p>and take that into account.</p> <p>g. <u>Yes</u>. However, there is no reason why a railroad cannot perform brokerage services in terms of bringing parties together for collaboration projects, as opposed to using an independent consultant/facilitator.</p>
8	<p>a. <u>Yes</u>.</p> <p>b. <u>Yes</u>. However, we've not used up all our capacity according to yield management principles. Once you get there then it is fixed. Then I optimise to get a very high yield, then I can't go more than that. Then I can't create extra capacity, since I've reached the point of maximum yield. Asset efficiency is part of my steps I take to improve and increase my yield.</p> <p>c. <u>Yes</u>.</p> <p>d. <u>Yes</u>, you've got certain railcars that can only be used for certain commodities.</p> <p>e. <u>Yes</u>, high fixed cost, low variable costs for a railroad industry.</p> <p>f. <u>Yes</u>.</p> <p>g. <u>Yes</u>, we prefer to have direct relationships, else its very bad (for the railroad). In those instances where we do have third parties between the customers, and ourselves there is a problem in understanding the long-range view of rail economics. The intermediary has a short-term focus and wants to generate cash now! With a direct relationship with the customer one is able to collaborate and see how our actions affect one another and how it affects yield. Because the customer and ourselves will still be here in five years time. We will do things now to ensure that we would be sustainable in the long-term. We will increase the yield for both parties' value, because then we could offer a more competitive tariff; and we could also optimise the yield. Third parties between myself and the customer is the worst thing that can happen for yield.</p>
9	<p>a. <u>Yes</u>, as mentioned previously, in terms of not being able to capitalise on a lost opportunity. I think that in our case it's a case of scarce capacity, and the deployment of that scarce capacity.</p> <p>b. <u>Yes</u>, according to my definition earlier and the fact that we're currently resource constrained in terms of the number of locomotives at our disposal.</p> <p>c. <u>Yes</u>, it can be done on megaRAIL services, since megaRAIL is fixed and repetitive and along contractual terms. Maybe if reserving in advance, we may discount the tariff too.</p> <p>d. <u>Yes</u>, we have a process of segmentation, amongst others, by customer.</p> <p>e. <u>Yes</u>, in relation to the high fixed costs in the railway industry.</p> <p>f. <u>Yes</u>, we do have that, especially in the coal export industry.</p>

	<p>g. <u>Yes</u>; however, we do have intermediaries, but we're not really fond of them. We have traders and exporters in coal and logistical service providers that have contracts with us. However, we don't like them – it's an encumbrance in terms of strategy and market position.</p>
10	<p>a. <u>Yes</u>, definitely, because we don't really have that ability to divert capacity.</p> <p>b. <u>Yes</u>, capacity is fixed.</p> <p>c. <u>Yes</u>. You can do that, but essentially for your core business only. However, when your plan does not materialise, the ability to dynamically manage your capacity and use it elsewhere is where yield management comes in.</p> <p>d. <u>Yes</u> and one can manage this down by design.</p> <p>e. <u>Yes</u>, we have.</p> <p>f. <u>Yes</u>, we also have</p> <p>g. <u>Yes</u> and we prefer not to have intermediaries, because you can up your yield management with your customer significantly, without intermediaries.</p>
11	<p>a. <u>Yes</u>. We've already said that a few minutes before departure of your train, the value of your capacity decreases considerably in time. Because, when the train leaves, the extra wagon that it did not take along is lost!</p> <p>b. <u>Yes</u>. Once you've got the locomotives they've got to sweat. It's as simple as that. Efficiency first before you throw money behind the problem.</p> <p>c. <u>Yes</u>. We allow customers to reserve capacity, because the assets have to work.</p> <p>d. <u>Yes</u>. We do and I think it increases our ability to maximise yield, since the different market sectors that we serve have unique attributes. We serve them in different fashions. The sector consolidation for example, is classically small customers, who want to make use of our services at short notice. We have a different marketing tactic for this part of the industry. We rarely enter into long-term contracts with these customers We've structured ourselves like that to deal with that situation.</p> <p>e. <u>No</u>. This is not really a clear-cut one. We have high fixed costs, but we also have reasonably high variable costs. Energy is a huge component of our total costs. I wouldn't regard low variable costs, in our industry, significantly. I'm referring to the rail industry in total in South Africa – overseas, it's probably the same. Had our asset-base been where it should have been, then our variable costs, as a percentage of total cost, would've been much lower. But in our case it isn't.</p> <p>f. <u>Yes</u>, we do, even more than many people realise.</p> <p>g. <u>Yes</u>. However, we do have intermediaries, but we're trying to lose them. The tendency is to move away from intermediaries to direct relationships with customers. Why have someone between you and whoever is paying your salary, unless it is very clear that they</p>

	add value to the overall process? It makes the overall supply-chain expensive and South Africa expensive.
12	<p>a. <u>Yes</u>. I would imagine that it would in fact be so. It's even more problematic that when I've got resources for a demand, that is doesn't materialise. I've locomotives, I've got wagons and I've got staff that are willing and able to do it, and nothing's happening – because there's just no business. In certain industries you experience that when you arrive there and there's just nothing happening there.</p> <p>b. <u>Yes</u>.</p> <p>c. <u>Yes</u>. Let's put it this way: because you have capacity, and you know that capacity in advance, and this is the market place. I can skim the market and allocate the best business that I'm good at – that's really what I should be doing...that's classically what yield management is. You know, I actually know and understand my curve, that is, high yielding, fair yielding and poor yielding demand. You take the capacity that you've got and allocate it on that basis. The customers that you make a poor return on, you simply say I really want to do it, But I simply don't have the resources for it anymore. As long as there is an understanding for that in the market.</p> <p>d. <u>Yes</u>, we've got that</p> <p>e. <u>Yes</u>. But I think in the long-term everything is variable; but certainly in the short-term horizon, the railway is a fixed-cost business. No, you can't just chase volume – and that's the problem! When I look at the costs I look at them differently. I actually say, that wagon, I don't have to move it then I don't maintain it. If I don't have to move that locomotive, I don't maintain it. In looking at costs, I say I allocate it as I'm using it, so a lot more becomes variable than otherwise would have been the case. So, it's just a way of looking at it. That's the problem that you have if you're just chasing volume all the way; you're coming to a situation where you say that anybody is better than no body (~ <i>FCFS</i>). What you know have is that you incur variable costs in excess of your revenue. For example, its costing me R 450 000 to run this train, but I only bring in R 200 000. So effectively I'm losing money on this service. Therefore it's better for us not to run this train at all. That's when you start to disaggregate your costs into fixed and variable; while at a high level, low variable costs might be true – I'm hardly variable. But when I start to look at it by activity of movement, I need to be very careful, that I get the answers I want.</p> <p>f. <u>Yes</u>.</p> <p>g. <u>Yes</u>. You don't want to be over-promising and under-delivering - the promises should be coming from one place. Then you can start to manage your service delivery.</p>

<p><b>SUB-PROBLEM:</b> To develop (or identify) a yield management assessment <i>framework for the freight rail industry, from service industries</i> where yield management has been applied successfully.</p>	
<b>INTERVIEWEES</b>	<p><b>Research Question:</b> Which market segments (of a railroad's overall customer-base) would conform to these characteristics?</p>
	<p>Q7: Which market segments of a railroad would favour the application of yield management (and by implication exhibit the characteristics above)?</p>
<b>1</b>	<p><u>a2 only.</u> For ad hoc users of rail, the once-off consignment-customer - not the major customer</p> <p><u>b2 only.</u> The same reason above.</p> <p><u>c2 only.</u> Yes, also look at entry and exit barriers. Ad hoc users don't have a high dependency on rail; they tend to flit-in and flit-out. They've got transport options or choices. They're not committed to rail because they've not invested heavily for this. If so, they would've signed a contract and would've been one of our key customers. I don't really care about them, since they really just playing me off against road and whatever else – I'll just take their money. That's the point of yield management.</p> <p><u>d1 only.</u> Yes, the price elasticity is quite high for customers where one practises yield management.</p> <p><u>e1 only.</u> Yes, for seasonal or high demand variability.</p> <p><u>f2 only.</u> Have to target the yield management effort.</p>
<b>2</b>	<p><u>a1 &amp; a2.</u> Both, you've got no excuse for unit load traffic, which is a specific solution for a key customer.</p> <p><u>b2 only.</u> I'm a bit worried about the large unit loads – some customers pay for one train, but provide containers to fill-up only half the train. So they swindle you out of money – to them a deal is a deal!</p> <p><u>c1 only.</u> More on the contractual side, since your design and behaviour is tighter under a contract. There is no risk of being disappointed with ad hoc requests for capacity. With non-contractual traffic it is more complex, much more open, many more sources and destinations, and types of wagons. You don't have the luxury of a tighter design.</p> <p><u>d1 only.</u> Price elastic segments, since I'm targeting the empty leg and need to make 'x' percent profit to met our objectives.</p> <p><u>e2 only.</u> Non-seasonal. With seasonal traffic you're almost wasting your time, in that, you</p>

	<p>use a specific type of wagon for a very short time and once the season is over, your capacity stands idle till the next season.</p> <p><i>f1 only.</i> In my case, my consolidation sector, yes, since I move wagonload consignments of all commodity types.</p>
3	<p><i>a2 &amp; b2.</i> Target yield management at this level. megaRAIL or unit load traffic does not lend itself to the characteristics of yield management. Characteristics of megaRAIL are conveyor-belt type traffic, baseload, optimum utilisation of resources, fully committed (to one customer), long-term contracts, which is the <i>antithesis</i> of the characteristics that make up (<i>short-term</i>) yield management.</p> <p><i>c2 only.</i> Long-term contracts militate against the use of short-term yield management.</p> <p><i>d1 only.</i> The spot market tends to fit this category;</p> <p><i>e1 only.</i> And the seasonal markets.</p> <p><i>f2 only.</i> Selected markets only such as FMCG, intermodal, cement market – in our case and seasonal and spot markets in general.</p>
4	<p><i>a2 only.</i> I think it will be more possible in wagonload traffic than unit load traffic, simply because you'll find that the unit load customer is more long-term and would want a contract that guarantees capacity. He also needs a high-level of service. This is a low-risk market, take-or-pay, but profit margins are reduced because of low risk. Hence the fact that wagonload traffic is so expensive.</p> <p><i>b2 only.</i> Same answer as above, but unit container load customers contract for space.</p> <p><i>c2 only.</i> Of course spot traffic or non-contractual traffic segments would favour yield management. But you can only do that...you must have...any railroad for that matter, must have some baseload traffic, reliable volumes everyday; else you'll have capacity way above what customers want as and when they demand it.</p> <p><i>d1 only.</i> The guy who is price inelastic is likely to go for a long-term contract. The price sensitive guy will be shopping for the mode of transport that would give him the best price. In fact, yield management is really for price sensitive people.</p> <p><i>e1 only.</i> Because you cannot deal with the peaks adequately, you may want to auction the capacity to the highest bidder...its an appropriate segment for yield management.</p> <p><i>f1 only.</i> All commodity segments, but not in the same way, as we've discussed in the question before this one. Some segments want reliability like the bulk customers. They tend to want contracts, compared to the segments that are price sensitive and ad hoc users of rail. Therefore yield management in principle, but applied differently.</p>
5	<p><i>a1 &amp; a2.</i> Using the example of the salt-ship again. I'm dedicated to the salt-ship when it is</p>

	<p>expected to dock, but during periods when the salt ship is not around, I utilise the capacity for other commodities.</p> <p><u>b1 &amp; b2.</u> Yes, we've got customers that are into the smaller container consignments and will approach us to move their goods.</p> <p><u>c2 only.</u> Because our long-term anchor customers receive a guaranteed service at a set price in a contract.</p> <p><u>d1 only.</u> These questions are actually invalid, because the customer has no alternative – there's no competition (~ for bulk customers); but with alternatives and competition, those sort of questions and theory apply. It's immoral of me to nail you to the wall, because you don't have a choice. Its immoral to exploit that position if you don't have a choice, therefore you must pay! Because what happens then? I close down your industry.</p> <p><u>e1 only.</u> These customers are sporadic users of my capacity.</p> <p><u>f2 only.</u> It depends on my segmentation for the railroad and which commodities I prefer to rail.</p>
6	<p><u>a2 only.</u> Only for carload traffic.</p> <p><u>b2 only.</u> Same as above. Always on the once-off container or carload kind of environment.</p> <p><u>c1 &amp; c2.</u> Non-contractual, more so than contractual. But even with contractual traffic there is a potential for additional demand as in unforeseen peaks.</p> <p><u>d1 only.</u> You'll most probably find that all of our customers are price inelastic – the underlying assumption being that they're dependent on rail. And most of them usually complain about the shortage of capacity – not the price!</p> <p><u>e1 only.</u> Non-seasonal traffic is more stable so you have a better chance of matching capacity to demand.</p> <p><u>f2 only.</u> Theoretically I can apply yield management to everything, but not all traffic behaves in the same way.</p>
7	<p><u>a1 &amp; a2; b1 &amp; b2.</u> The response caters for all four instances: I would say we've now distinguished between our long-term implementation of high-level yield management principles. That you must do for all your traffic. But of course that you can do best for your large volumes or rail-friendly traffic; because over a year horizon you've got a less clear, permanent picture about the exact structure of the rest of your traffic that will precipitate over specific periods of time.</p> <p>So therefore you can be less specific about specific resource allocations to that type of traffic. But the wagonload traffic is more susceptible to short-term dynamic yield management principles...that would be my answer. You would apply your macro yield management logic to your overall traffic file, which</p>

obviously, the bulk of that is your unit load traffic. But then, it's only a view of the non-unit load or wagonload traffic, which at that stage is a very vague picture.

It's a very important point that you've raised with regard to the applicability of long-term yield management to bulk flows and short-term yield management to wagonload or single-consignment traffic; however, within certain rules for these classes of traffic. One should already be able to say how much of loose or ad hoc traffic you will be able to accommodate far in advance of it realising. Also, which resources will be deployed and with which levels of efficiency – basically, which resources will be dedicated to this volume of your overall demand file. Then there are certain specific dynamic situations within this broadly defined set, with which you can play with...over...the...short-term.

c1 & c2. The contract does not precede yield management, rather it is the end-result thereof. You would still favour contractual traffic because this is rail-friendly traffic. A contract is not on the critical path of yield management, rather it is the end-result of yield management.

For non-contractual traffic, these again, according to my concept of closer to real time, where you want to fill-up spare capacity – optimise and maximise train utilisation – there of course non-contractual traffic plays an important role. But then you must also have your rules of how you would apply yield management over those time horizons, so that you can consistently apply it.

d1 only. Of course, price elastic segments would make yield management much (sic) easier – I think that's one of the conditions for yield management.

e1 & e2. Well again, in terms of my long-term approach, you would consider the seasonal and baseload simultaneously in your iterations – in what I call yield management. But, as before, when practising short-term dynamic yield management, the ability to use seasonal and ad hoc demands plays a role when trying to fill-up available capacity.

f1 only. I must again refer you to my macro-assessment, when you're at a three-year horizon or one-year horizon, then everything is still fluid. There's nothing fixed at that stage, because you can virtually apply your capacity to anything. So if I look at the longer-term, say typically my five-iteration cycle between demand and supply, then everything must be part of that pot. There's not really a segment I would exclude from that evaluation. Again, when you go to more short-term dynamic evaluation and yield management, there would be traffic categories that would be susceptible to that. Of which your loose components, your FMCG...your opportunistic grain and timber...everything that of a ...how shall I

	say...smaller, high-value consignment nature, would then fall into that category.
8	<p><u>a1 only.</u> Thirty single-load consignments from thirty origins for thirty destinations – I cannot satisfy all of them, which is part of my definition for yield management. If it was one customer's consignment of thirty wagons, then yes.</p> <p><u>b1 only.</u> Yes, the same as above. Unless there is a third party, an intermediary, for a number of small customers.</p> <p><u>c1 only.</u> Non-contractual traffic does not care. They don't have a long-term view – they use me as and when. With contractual traffic I can build a long-term relationship, and they can understand rail logistics.</p> <p><u>d2 only.</u> The value that I will get out of yield is much more than to be able to charge what I want on a once-off basis. When I optimise the supply-chain, its often not to charge more, but to run a more cost effective service. The single wagonload example, sure, I might be able to charge spot-rates, because a customer has an immediate need. But this practice is not sustainable in the long-term. I would rather go for segments where I can do forward planning over a longer-term, and I know what I have; as opposed to running a lot of smaller loads that cost me more because of the shunting involved. If I can remove shunting on my larger consignments then I save money!</p> <p><u>e2 only.</u> I don't want seasonal – it's ridiculous!</p> <p><u>f2 only.</u> Select few. I want those where I can make a good return, where I've got a stable demand – its rail economics. If someone tells you otherwise they don't understand rail economics.</p>
9	<p><u>a1 &amp; a2.</u> Both. Yield management in megaRAIL or unit load services would be an outright choice between commodity 'A' and commodity 'B'. Wagon- or carload traffic, because you're going for the best return for once-off traffic.</p> <p><u>b2 only.</u> Small, once off high-value, containerised cargo at a corresponding price.</p> <p><u>c2 only.</u> Best applied in non-contractual traffic segments where capacity can be auctioned in terms of scheduled trains that are made available to accommodate wagonload traffic. You would auction the remaining capacity on the train.</p> <p><u>d1 only.</u> Price elastic segments. I think yield management is best applied, or more readily applied in FMCG, intermodal, because of cyclical movements; also grain, where the schedules are difficult to plan in advance, so you're always going for a better return, regardless.</p> <p><u>e1 only.</u> Seasonal traffic – definitely.</p> <p><u>f2 only.</u> I think yield management is a selective thing – you only apply it in selected instances and for certain situations as mentioned before for FMCG, grain and</p>

	intermodal traffic.
10	<p><u>a1 only.</u> I think one can get better yield out of megaRAIL (~ unit load traffic). Your production unit is a train consisting of locomotives and wagons So there is better potential than moving a few empty wagons – there is a better outcome with a train than a few wagons. Your yield will be much less in loading an extra wagon than running another megaRAIL train. megaRAIL trains or unit loads are easy pickings, although there is potential in both types of traffic – unit or wagonload traffic.</p> <p><u>b1 only.</u> There is a huge potential to do it for containers, but you need an intermediary as an agent to pull it off. I think if you create a win-win relationship with an agent – the opportunity really presents itself. The agent by definition will also be the debt-collector. I think it is rather difficult to provide the kind of service that the customer, who makes use of containers, needs, with rail. I don't think a railroad can do this effectively enough. So, one must go for the longest, biggest container train – terminal to terminal.</p> <p><u>c1 &amp; c2.</u> You could have a take-or-pay situation, where you tell the client that if you don't use this capacity, you lose it and you pay. Then one could also use the same resources to earn money on the spot-market. So with this situation, you could earn twice the income.</p> <p><u>d2 only.</u> The rail dependent customer for the reasons given earlier.</p> <p><u>e1 &amp; e2.</u> Look, I come from a collaboration perspective, and I've learnt a lot there. And I'm telling you that with non-seasonal traffic you could actually pick-up more traffic – because you know its there. There is opportunity to be gained in both, but more so for non-seasonal traffic. However, all traffic exhibits seasonality – not with regards to seasons – but a seasonality in the pattern, if you get me, that presents an opportunity for yield management as well.</p> <p><u>f2 only.</u> I suppose you could apply it across the board, your way of thinking should be like that But I think that if you really want to practice yield management, you must in your design, your resources almost, you must do it in that fashion. If you really want to do yield management then you must swap bodies, or have a versatile or multipurpose wagon – like containers – like an asset that is in tune with your opportunistic behaviour, yes. But only a few commodities that you target. Again, you see, you must define your business up front. I think where we fail is that we try and do everything.</p>
11	<u>a1 &amp; a2.</u> Both probably...I really think it is both. In your bulk traffic the maximisation of your yield would be the repeatability of your flows. Remember bulk loads are

classically carrying traffic with a low unit value, a low saleable value on the open market. So they, the bulk exporters, can only survive, and we as well, if we lower our costs. Lowering costs means asset sweating. Normally bulk traffic runs from stock-to-stockpile, so just-in-time principles are less important. Regularity of flow is dictated by asset utilisation or is prescribed by asset utilisation, not by the fact that the customer is screaming for product. So, from a service delivery perspective, for bulk traffic, maximising yield means running trains at a regular rate, conveyor-belt style.

If you go to wagonload type traffic, you're classically running, not stockpile-to-stockpile, speed is overemphasised and regularity is from another point of view. The customer needs to know when the traffic will arrive at the destination, to know when it should be presented to you at the right time to be conveyed. Also, you cannot say that being wagonload traffic, that asset sweating is not important. Being a high-fixed cost organisation, asset-sweating means lowering costs and should always be upfront. Although the commodity that you're carrying, classically, has a higher value, the competition is also fiercer in this market. This market is dominated by road traffic. How do we face this competition? By lowering our costs. In both of these you maximise yield by asset sweating. There is no competition in bulk traffic, but if your costs are not too low, S.A Incorporated suffers. We cannot charge the customers a high price, since he will not be able to sell on the open market., and then we both lose. For wagonload customers, we cannot push-up the prices, because then it goes to road. If you combine everything into a pot, then its efficiency first, you can never get away from that.

b1 only. I think the unit-load one – we're not into the door-to-door business. We cannot compete, in a rail sense, in the door-to-door business. A railroad's competitive advantage is moving large numbers of 'widgets' from hub to hub; which in the container industry, is from terminal to terminal.

c1 & c2. Again, both of them, but in a different way. For contractual traffic, assuming that your commercial conditions meet your mandate – I'm not referring to customers you don't want – means you can bank on your revenue long before the time. You can plan your operational offering to suit your income streams and make it efficient as possible. From the wagonload traffic perspective, you can also maximise yield, but in a different fashion – it's a more expensive offering. It tends to be not bulk flows and higher-value commodities. Your pricing strategy should be higher per ton, if you want. I regard wagonload traffic as non-

contractual in this regard.

d1 & d2. I hate to respond with a middle-of-the-road answer again. But my discussion of five minutes ago says that yield maximisation in a railroad means sweating the assets. Therefore I think both, but for different reasons. First, for price inelastic segments, for me this means we push up our prices without losing considerably much. Yes, it could mean that they're rail dependent or that we're far below the competitive price. They're prepared to pay since they make a high profit margin on their commodities. But, if you go to low-value commodities, where S.A competes on the global market, the ores and the coal – coal's intrinsic value is very low – the companies, including us, only exist because of economies of scale. So those customers tend to be very price elastic, the customer cannot go elsewhere, he cannot take sixty million tons to the road, so he loses market share on the global market.

e1 & e2. Non-seasonal traffic – we're back to the regular flows of the world, for which customers are either price elastic or inelastic, according to our previous discussion. If we know about his seasonal peak in advance, and it is a contractual obligation, then one can plan low-cost services before the time. If seasonality means that a customer uses another mode and for one week in the year it requires ten extra trains, because the other mode cannot accommodate their demand, we can only maximise yield at an appropriate tariff level. To minimise cost and maximise yield is very limited, so we can only maximise yield with an appropriate pricing strategy. To summarise, for non-seasonal traffic, to maximise yield means we lower our cost base – you always ask what the market can bear, but maximising yield is the difference between the two from an economic perspective. For highly seasonal demand we can only maximise yield with an appropriate tariff or pricing strategy.

f1 only. I think all to a different degree. One needs to understand the characteristics of the industry. As classical examples, the coal and iron-ore industries are bulk, dependable flows with low profit margins. Let me repeat yield applies to these industries by lowering your costs. And you're able to do that because of the large flows and the long-term relationship under a contract. With other industries, such as FMCG and the containers, you do not have this relationship.

Additional remarks from participant:

I can't see how that for any industry type, for inelastic customers, commodity types, even corridors for that matter, that the principles of yield are not applicable to any of them. The way in which you strive to maximise yield, your tactics are different. For me, according to

	<p>my high-level definition of yield, maximising your output for a given input. The principles are the same – minimise costs and maximise revenue streams – the way in which you do that is different. Not a black and white issue, but more shades of grey, in bulk flows it will tend to be more along asset efficiency and for wagonloads along <i>tariffing</i> – not forgetting asset efficiency.</p>
12	<p><u>a2 &amp; b2.</u> Your answer for bulk is there already – I need to run the bulk train, it's my bread and butter. So, the small, loose consignments, that's where I can earn additional revenue.</p> <p><u>c2 only.</u> Yes, these should be exploited. These customers are speculating so you speculate with them. They're only there once, and they don't come around again.</p> <p><u>d1 &amp; d2.</u> Price inelastic customers you could exploit since there is no option or alternative for them to go elsewhere; however, it depends on the margins the customer makes and the price I charge. Price sensitivity on the other hand, implies that the product has transport options in that if they don't accept my prices, they can go elsewhere. Also, this gives me the ability to price out those customers I don't want. So the answer has to be both, in that one tends to gain at what the market would bear in either case.</p> <p><u>e1 only.</u> Seasonal traffic yes. Why? If the product does not move it will degrade; therefore these segments can be exploited in terms of price. Also, the wagons for this business will remain idle for the greater part of the year, so you have to get your return in the time that the product is available.</p> <p><u>f2 only.</u> I think yield management needs to be targeted. It cannot be applied across the board.</p>

<p><b>SUB-PROBLEM:</b> To develop (or identify) a yield management assessment <i>framework for the freight rail industry, from service industries</i> where yield management has been applied successfully.</p>	
<b>INTERVIEWEES</b>	<p><b>Research Question:</b> Are the functions or activities associated with yield management prevalent in the freight rail industry? (Consider car- and intermodal traffic)</p>
	<p>Q8: Which of the following policies associated with yield management could be implemented in a freight railroad?</p>
<b>1</b>	<p>a. <u>Yes</u>, it can be done; but there is no guarantee on dependability with discounted tariffs – it's sporadic.</p> <p>b. <u>Yes</u>. Only with certain customers such as wagonload traffic; but then that's the understanding and expectation. Certainly not with our major customers.</p> <p>c. <u>Yes</u>, it can be done.</p> <p>d. <u>Yes</u>, we do.</p> <p>e. <u>Yes</u>, provided that you counter them with incentives. No customer will just accept penalties.</p> <p>f. <u>Yes</u>, we can do it – it's the only way to go if you've got space on trains. Do it, because you get volume. Of course you have to do it in a managed environment, you don't want to tick off your major customers.</p> <p>g. <u>Yes</u>, but that depends, it's a very difficult concept to deal with. Yield management does not necessarily mean first-come-first-served. If second-come-second-served is going to give you the same benefits then by all means. For me it's a timing issue – I want the best deal. It's like arbitrage, like the stock market. It's not a case of optimising, but "<i>satisfising</i>". If I've got a first solution, I would go for it! I've got these requirements for earning a certain yield, as soon as someone steps up to the plate and satisfies these requirements to make me earn my yield, we do the deal quickly and I'm gone! You don't want assets to stand idle. I want the best turnaround time – a major issue for railroads.</p> <p>h. <u>Yes</u>.</p>
<b>2</b>	<p>a. <u>Yes</u>, especially on empty legs, but obviously above minimum thresholds.</p> <p>b. <u>No</u>, for reasons mentioned earlier.</p> <p>c. <u>No</u>!</p> <p>d. <u>Yes</u>, but we need to be more sophisticated.</p> <p>e. <u>Yes</u>, one does that by demurrage. But for the rest of the possibilities, it depends on your knowledge of the market to charge over and above the normal tariff, say, for</p>

	<p>transporting a customers;' load when other transport modes are not working over the Christmas holidays.</p> <p>f. <u>No</u>, how could I auction or put up for auction a wagon, say, in a certain location, if I don't know its going to become available? Especially in my consolidation sector. I think that over the short-term just changing the pricing, for the empty leg, is much better. Also, the item you're auctioning should be well defined and well known. If I put up a certain wagon-type, then my customer wouldn't know what he could do with it! He only wants to transport goods from one place to the next! However, you could get around this by restricting the bidding to a few knowledgeable customers. Now, once that's sorted out, now a customer says I've got a load from here to here for two hundred rand; another says from here to here for one hundred and eighty rand and still another between a different origin and destination for three hundred rand. Which one do I take?</p> <p>g. <u>Yes</u>, in my sort of market yes.</p> <p>h. <u>Yes</u>, I cannot work on a manual system – it's too laborious to capture and do 'tariffing' manually in my business sector.</p>
3	<p>a. <u>Yes</u>, in the form of differentiated pricing and/or demand-based pricing; that is, when demand is high, price is high and vice versa.</p> <p>b. <u>No</u>, you cannot overbook capacity in a railroad; there is a risk of service degradation.</p> <p>c. <u>Yes</u>, yield management is about choices.</p> <p>d. <u>Yes</u>, in terms of our next year's business (NYB) process</p> <p>e. <u>Yes</u>, but it is premised on your rail service being reliable.</p> <p>f. <u>Yes</u>.</p> <p>g. <u>No</u>, unless yield requirements are satisfied.</p> <p>h. <u>Yes</u>, one needs a modelling capability of traffic flow by customer.</p>
4	<p>a. <u>Yes</u>, it could be done in all sorts of ways.</p> <p>b. <u>No</u>, quite high risk and it needs to be managed well.</p> <p>c. <u>Yes</u>, but within contract limits.</p> <p>d. <u>Yes</u>, we do forecast demand</p> <p>e. <u>Yes</u>, it is being used extensively.</p> <p>f. <u>Yes</u>, it could be done.</p> <p>g. <u>No</u>, too risky; you may be short-changing yourself.</p> <p>h. <u>Yes</u>, but first a manual system to understand the dynamics before going the computerised system route. I'm a great believer of doing things manually at the initial analysis phase and then going for a computerised system. And in this way to grow and learn out of your manual experience.</p>

5	<p>a. <u>Yes</u>. As mentioned before via a sales-volume discount, rather than selling at a discount.</p> <p>b. <u>No</u>. You'd risk upsetting your anchor customers, who have guaranteed capacity.</p> <p>c. <u>Yes</u>. As long as I've got the luxury of doing it. If I had to operate as a common carrier as days gone by, then the rules would be different. You cannot say no, if it was offered to you – you have to transport it. Also, at this stage, no if it's under contract. But, yes, we're able to move resources to more lucrative traffic. However, in the minds of the customers and the public at large, they still believe that we're a common carrier, while the shareholder expects us to be a business.</p> <p>d. <u>Yes</u>. It is being done at present in our budgeting cycle.</p> <p>e. <u>Yes</u>. Could be used to squeeze time out of the system, to improve wagon turnaround time.</p> <p>f. <u>No</u>. Well, the nature of the rail service is such that you can't let people queue and then auction that capacity from a practical point of view. It's just not practical</p> <p>g. <u>No</u>. As answered in the previous question. It's a novel idea, but not practical in the railway industry.</p> <p>h. <u>Yes</u>.</p>
6	<p>a. <u>Yes</u>, again only for your non-contract customers. Their demand is such that sometimes we take it and sometimes we do – sometimes so little, but we want their traffic – that's classical yield management.</p> <p>b. <u>No</u>, we cannot do it. Overbooking is linked to the behaviour of your customer. The reason why airlines overbook it is usually because of a certain "no-show" percentage.</p> <p>c. <u>No</u>. Theoretically yes, we have that capability, but no, because of the segmentation and specific type of capacity and link to segmentation; and thirdly, because of contracts.</p> <p>d. <u>No</u>, we only predict activity levels not demand.</p> <p>e. <u>Yes</u>, one could and we're supposed to use that.</p> <p>f. <u>Yes</u> you can but you'd have to manage that.</p> <p>g. <u>Yes</u>.</p> <p>h. <u>No</u>, I think it can be done manually, despite saying earlier that one needs good robust information systems for yield management. One needs guts to take these sorts of decisions.</p>
7	<p>a. <u>Yes</u>. You must be very clear about your mandates, discount rules and time-spans or windows – all these things must be well spelt out in a set of business rules.</p> <p>b. <u>Yes</u>. My view of yield management is to get as much traffic as you can, say even when it exceeds your capability by forty percent, so that you can do the best possible match with your capability, and then cherry-pick what you really want. This is similar to the</p>

	<p>airline industry but more a long-term versus the short-term view of the airline industry.</p> <p>c. <u>No &amp; Yes.</u> No, because the ability to withhold or deny capacity for a higher yield elsewhere, is a form of, or is more of a dynamic yield management approach, than static yield management. If I want to start manipulating market behaviour by withholding certain capacity for certain time periods and availing certain capacity for certain periods, then you've got a whole new dynamic ballgame – which is even far beyond what you and I have explored in this interview thus far... I was thinking very simplistically about yield management in this interview. And, dynamic yield management is even a more complex field. Yes, it is a very efficient instrument for optimising, especially <i>short-term</i> yield.</p> <p>d. <u>Yes.</u> Because a railroad thrives on predictability, repeatability and reliability. So you want to schedule and balance your resources way in advance given a certain traffic demand to minimise variance to the system.</p> <p>e. <u>Yes.</u> Penalties yes, because that's a more static "thing", which you can agree on contractually, upfront. Demurrage and other penalties are issues that can be negotiated. You more or less know what the effect on the system will be. With dynamic yield management you can't really forecast or state the total effect on your system.</p> <p>f. <u>Yes,</u> but auctioning close to real time customer problems in that the regular customers might find out about this and start demanding it.</p> <p>g. <u>No.</u> Not possible in terms of yield management – you want to integrate total demand with total resource capability. You could never do that, evaluate total demand against total resource capability, by sequentially allocating demand on a first-come-first-served basis. There is no causal logic for that sequence, and you cannot control that sequence.</p> <p>h. <u>Yes.</u> People in the past thought that one could do that in a manual fashion. Now you can't do such a systemic match without some simulation capability.</p>
8	<p>a. <u>No,</u> I'm not in favour of that. We should charge market-related rates in terms of the value I add to the supply chain. I should not let myself be fooled by leaving money on the table.</p> <p>b. <u>No.</u></p> <p>c. <u>Yes,</u> you can do that, it's part of negotiation.</p> <p>d. <u>Yes,</u> we do that.</p> <p>e. <u>Yes,</u> but it sounds rather negative...it can be a positive incentive or a negative incentive.</p> <p>f. <u>Yes,</u> I think that could work for spare or available capacity.</p> <p>g. <u>No,</u> I've got integrity. I will negotiate for a contract. I will provide service to the first customer that signs that contract. But not first-come-first-served for contract customers.</p>

	h. <u>Yes</u> ...you can't ask me that question; you know the answer to that!
9	<p>a. <u>Yes</u>, it can and has been done. Sometimes done to secure traffic that has been lost on the forward leg. More a matter of survival on a corridor than yield management. Basically, cost recovery of components in the supply-chain.</p> <p>b. <u>No</u>, we've always trimmed demand to fit available capacity, via our capacity commitment process.</p> <p>c. <u>No</u>, not consciously so...definitely not a common practice.</p> <p>d. <u>Yes</u>, we do that during our budgeting cycle.</p> <p>e. <u>Yes</u>, we do have various schemes.</p> <p>f. <u>Yes</u>, for me auctioning of capacity is the most equitable form of yield management. Because, one tends to avoid the issues of collusion and "behind-the-scenes"/closed-door decision-making. Also, the pricing is transparent in this approach.</p> <p>g. <u>No</u>, I think it depends on excess capacity being available. You may want to discount too.</p> <p>h. <u>Yes</u>. I prefer a web-enabled system for reasons of transparency and being able to have it audited. Something like a stock exchange in line with my auctioning approach.</p>
10	<p>a. <u>Yes</u>, only if you know what your costs are.</p> <p>b. <u>No</u>, you cannot do it regardless. It would mean that you do not contract very well. I don't think that for a railroad one is presented with too many opportunistic loads.</p> <p>c. <u>Yes</u>, definitely. But its not good for your business to say know and then breach your contract with a customer.</p> <p>d. <u>Yes</u>, we do that.</p> <p>e. <u>Yes</u>...basically to ensure your yield and resources</p> <p>f. <u>Yes</u>, you can do that if you have your capacity defined. You cannot sell something on an auction that is vague.</p> <p>g. <u>Yes</u>, but depending whether the price remains the same.</p> <p>h. <u>Yes</u>...</p>
11	<p>a. <u>Yes</u>.</p> <p>b. <u>No</u>.</p> <p>c. <u>Yes</u>. But before we conclude contracts. Before we bind capacity and hence costs, we determine what we could've done with it if we applied it elsewhere.</p> <p>d. <u>Yes</u>.</p> <p>e. <u>Yes</u>. We have demurrage charges that we have for not loading or unloading during contractual times.</p> <p>f. <u>Yes</u> – in theory it can be done. Auctioning allows you to push up your tariff to whatever the market can bear at that stage; however, what the market can bear is determined</p>

	<p>by timing.</p> <p>g. <u>Yes</u>, we do on unit- and wagonload traffic. For bulk flows it depends on the demand that's offered, the agreement on the solution for the customer and the price. Then a contract is concluded. Anyone, after this, for the same capacity, is unfortunate. However, first-come-first-served might not mean contractually obliged to.</p> <p>h. <u>Yes</u>, we need some sort of software solution to enhance our decision-making.</p>
12	<p>h. <u>Yes</u>. I think we are set-up for this. For example, high volume receives a low price as opposed to low, I cannot give you this price. The costs should be reflecting the inefficient numbers that I'm getting.</p> <p>i. <u>No</u>, but in a reverse logic sort of way, a customer could overbook if a railroad's service is unreliable.</p> <p>j. <u>Yes</u>. In theory yes, it should be possible, but as a parastatal we don't.</p> <p>k. <u>Yes</u>, essentially we do that. But the accuracy thereof significantly would impact your ability to do yield management. Maybe that's what yield management looks for...that excess demand. I've got demand in excess of what I can move, therefore I can pick the highest.</p> <p>l. <u>Yes</u>. It can be done.</p> <p>m. <u>Yes</u>.</p> <p>n. <u>No</u>, you can't have that. Who's going to come first, the customer you don't want? I want to serve at the price I want to do it at!</p> <p>o. <u>Yes</u>. You actually need to have it computerised. It's not emotionally driven...</p>

<b>SUB-PROBLEM:</b> To identify the context (if any) for the application of yield management within the selected domain.	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What do customers expect from a freight rail service?
	Q9: What are the 5 key service specifications from your latest customer survey?
<b>1</b>	<p>Well, firstly, your customers want a quality service. Its been proven that price is lower down on the list of priorities. The service must be timely – predictable – to use the old phrase. However, you don't have to be fast. You must be dependable; the customer must always be able to depend on you. So, he must (<i>be able to</i>) trust you. If you say you are going to deliver the wagons you must do so! Dependability also means that you don't bugger it up! You must look after his stuff (~ <i>goods or consignments</i>). Its fundamental but we don't always do it. If something goes wrong you must tell him immediately, so that he knows. Also, further down this list, the paperwork (~ administrative aspect of business such as billing) must also be in order. And, the service must also be at the right price.</p> <p>The major currency of today is (1) cost; (2) quality; (3) service and (4) speed. The customer wants quality of the entire rail service offering. However, in terms of speed, we're not in that game. And they don't want to be hit with a 30 percent price increase – that's also part of dependability. He'll say I've worked with that guy and I know next year that he won't hit me with a price hike higher than PPI (~ <i>producer price index</i>); not PPI plus 10 percent! That's all part of that quality service. He must be able to say that I know that rail service provider; he must not hit me with things that I didn't expect. I can depend on his behaviour, not just the service.</p>
<b>2</b>	I think the right and least-cost solution is what they would expect from us. But the best solution is not necessarily the cheapest solution, but a trade-off between customer expectations and the customer solution as generated by the service provider. You see you don't have any existence without the customer.
<b>3</b>	Proper service delivery in terms of reliability and predictability. Until we get our predictability right and our reliability right, we stand no chance of optimising this service. Unless we get that right, we're stone dead in the water. And, we can't come and appeal for any sort of funds, because, the government would say show me your reliability and consistency of service. And, unfortunately some of us have this notion that the customers will come to us, because they don't have an option. What nonsense, what rubbish! The customers will

	<p>create the options, not by saying that we can build another railroad, they will go to the powers above us, saying: this railway is not operating for me, therefore do something about it by installing efficiency, installing reliability. And, we cannot argue about our pricing. The customer first of all will say if you're at least consistent in your service we could start to talk about pricing.</p>
4	<p>Different customers expect different things – depending on the space in which they operate. If I'm a bulk mover, by rail, I expect scale, you know, being able to handle scale, being able to provide me with a very low cost solution, because my product is very low cost.. Rigour in terms of project planning and timing; and I expect you to have the wherewithal to grow as I grow. That's the one side the bulk, low cost, customer operation and specification.</p> <p>On the other hand, if I'm a container mover, and I'm importing, high-value, manufactured goods, I expect speed. I want the stuff to be there quickly – the cost of it is immaterial, because transport cost as a proportion of the product cost is negligible, as opposed to the bulk transport mover, in which costs, as a proportion, are much higher.</p> <p>That's basically it, and anything in between. That's what customers expect of us.</p>
5	<p>Customers want predictability and reliability in so far as being able to design their production activities around your performance: "just do what you said you're going to do". They also want reliable, serviceable assets (~ wagons) that are in a good condition with the proper auxiliary equipment. Don't lose or don't break my consignment. And then deliver on time on the other side. All these specifications at a price that is attractive to them as well.</p>
6	<p>Its all about consistency of service – whether the train takes 5 hours or twelve hours to complete its journey between two points; its really about the fact that it takes 36 hours continuously for its journey. On a railroad, because of the tempo model, you should really think of it as a conveyor. It also suits us to have a continuous service as well as the customer. One of the problems with rail, when you compete with the road, you find that activity for rail is structured along...normally balanced services. When it comes to yield management and time, you've got to check your service satisfaction with the customer; you cannot dump him with 50 wagons and say load as you wish.</p>
7	<p>There are a few top priorities from our customers. These are firstly, are we able to commit to certain service levels? And to which level of service – including predictability and reliability? Our ability to absorb a certain amount of flexibility in terms of peaks and valleys. Even unit load traffic is not absolutely fixed and repetitive. We have to demonstrate a certain amount of flexibility and accommodate the natural peaks and valleys. And, our ability to guarantee certain volumes per time-period, certain reliability and predictability standards.</p>
8	<p>Customers expect their consignments to be at the right time, place and condition – not damaged – and at the right price. Understand that time is money and appreciate what his</p>

	means for the customer. Right time means on time or predictability.
9	Well I think that the quality of the equipment is paramount – the wagons and the auxiliary equipment. The wagons ought to be supplied with the correct auxiliary (or mechanical equipment) at the same time. I think (that) delivering on the promise is also important, you know, a predictable service: the $T_1$ to $T_4$ time requirement. Moving away from actual service and going to invoicing – this has to be accurate as far as billing and reconciliation are concerned. Having sufficient rolling stock or capacity for customers. And, lastly, the ability to track and trace and follow-up – the customers want to phone in and get real time information on the progress of the transport of their goods; a sort of one-stop service. The inability to track and trace could be related to the high degree of manual operations.
10	Customer wants us to be part of the production process in terms of capacity provision. Customers want capacity at the right time, condition, place and price. Under supply-chain relationships, there is a situation of virtual asset ownership, where, partners will be penalised for poor service. So the customer will be very keen to see that other supply-chain partners are maintaining service levels.
11	Customers are saying that we're not competitive and we're making them <i>uncompetitive</i> on exports. Secondly, we're capacity constrained and customers are complaining about insufficient capacity. So it's the tariffs, capacity when they need it and dependability or predictability. These three are so high up on the list that other demands become insignificant in relation to the predictability, tariff and capacity availability. And, safety, in terms of the customers and their goods. Customers want undamaged, unspoilt goods. Lastly, also flexibility in the (rail transport) service.
12	The customers' issues with us would be predictability, and the expectation is the cost to move, the quality of service, and the time of the service. We're losing market share not because of price – customers are not so price sensitive, as we would think; they're more sensitive about the fact that we cannot deliver on a time promise. In an environment of JIT (~ <i>just in time</i> ) and the interfacing with ports, the ability to deliver on a time appointment is crucial. This ability to deliver against a time promise is the single, biggest expectation from the customers. But then we've got to tie that to our resource reliability and availability.

<b>SUB-PROBLEM:</b> To identify the context (if any) for the application of yield management within the selected domain.	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What are the responsibilities or mandate of the managers of freight railroads?
	Q10: What are the 5 key management responsibilities (as determined by shareholders) with regard to overall railroad performance?
<b>1</b>	<ul style="list-style-type: none"> <li>• Create value for shareholders</li> <li>• Maximise returns on assets</li> <li>• Improve profit year on year</li> <li>• Satisfy the strategic customers</li> </ul>
<b>2</b>	Determining company direction, and finding the ways to get there – and then you add staff and resources to it. To satisfy your shareholder and customer – basically what is your right to existence? How well do you satisfy their needs and just do it! But, you've got to have direction; it doesn't help to tinker around. If you don't have any direction, anywhere is fine. Monitoring – ensuring that you're on track...it's not the size of those steps but the direction of those steps.
<b>3</b>	Maximise profit, capacity utilisation and average revenue per customer.
<b>4</b>	Maximise the profit and maximise the average revenue per customer. However, this is very much situational; that is, it depends on the shareholder imperatives at that time.
<b>5</b>	Ultimately yield management is there to improve the return I get on my investment. The one way of saying this is to up my payloads...but which payload is more attractive? The three important things in this question are average distance travelled, tariff per ton and cent per net ton kilometres. So as management when I make the choices I've got to look at these parameters. Customers pay us for time and place utility. In the mind of the customer, the market, shortest distance equals lower price. If the distance becomes too long, the performance of my assets are impacted. You've got to do the balancing act between these parameters/variables and still go after certain profitable segments of the market.
<b>6</b>	Must know what your spare capacity is – must manage your spare capacity and increase your capacity utilisation. Management is also responsible to increase the profit performance of the company. We must provide an effective and cost efficient rail transport for our customers and also increase the average revenue per customer.
<b>7</b>	Selection of the most desirable and profitable traffic demand for the railroad. Maximise your capacity utilisation while at the same time improving your revenue streams. Provide a cost

	effective and efficient rail transport service for your customers. Improve and deliver the value that shareholders have defined for and want from you.
<b>8</b>	To make money or turn a profit is first prize. And to do this in a cost efficient and effective manner.
<b>9</b>	First will be customer service – uppermost. With customer service goes predictability and all those other things; the quality of equipment, etceteras. Safety is very important; the railroad has got to operate safely to keep the commodities safe and damage free! I think that customer relationship management is important – one needs to manage the perception out there in the market place. The customers do not understand that rail is not as flexible as road and one needs to manage that. If we get that done then the battle is won, even if we don't have capacity all the time. We've got to have a strong CRM policy. Coming back to customer care; it should permeate the entire organisation. The custodian of customer care in the organisation should be Operations; even though it should be the entire organisation, Operations should be the primary custodian. We need to be competitive...need to be sustainable in the long-term...And that covers it I think.
<b>10</b>	Maximise profit and capacity utilisation.
<b>11</b>	To have a profit motive – by moving tonnages since volume equals profit. The responsibility to the shareholder to be a long-term going concern, which is not just profit and indicated earlier. Minimising cost and maximising capacity utilisation. Safety – on two elements: safety of customer and their goods, and safety of our employees. The quality and level of service we provide: if you deliver a crappy service, the customer would only be prepared to pay a lower tariff; for a premium service, the customer would be more inclined to pay a premium price.
<b>12</b>	You could be what you wanted to be, but there remains a responsibility to reduce the cents per net ton kilometre. So just to be efficient must still be a significant objective. By efficiency I mean don't have fifty people in a yard, when twenty-five can do it adequately. In the long run if you cannot reduce your costs for (noble/ethical) reasons such as unemployment, then in the long run it skews the cost of whatever you're doing and then you just compromise yourself that way. So, certainly, reducing cents per net ton kilometre. So its cost reduction linked to efficiencies – the se two are linked are fundamentally linked to where the business needs to go. On another point there should be sufficient maturity in the business to acknowledge that certain business, rail is just bad in. Rail just cannot do it economically. You've got to make the call on the stuff that you do, and do well. That's what you've got to focus on. Also, accept that road does a lot of things better than rail. Rail needs volumes; so, if you cannot get that from an area, do not send in a train to be inefficient. Forget it and change your business model! , And, the issue about safety; safety, simply

<p>because accidents just damage the bottom-line. That really adds no value – get no benefit out of it. If you can manage that down to acceptable levels, it just changes your whole profile – your ability to be profitable.</p>
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<b>SUB-PROBLEM:</b> To determine whether the freight rail industry presents unique challenges to the application of the yield management concept.	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What are some of the (operational) complexities associated with freight rail that could hinder the application of YM/RM?
	Q11: What are the 5 most important challenges for implementing RM/YM in the freight rail industry?
<b>1</b>	Supply-chain competitiveness might limit your ability to price for a profit – it's all about competitive advantage. Also, one cannot be totally transparent about yield management practices. The need to develop and operationalise decision support systems to get a better yield on one's capacity. Understand your own business model parameters. Understand the customers' business model too and satisfy the requirements of your key customers first
<b>2</b>	Cannot determine the prices if you don't know the costs – very difficult for any railroad. Cost per ton kilometre not the same for all routes. We tend to avoid railroad complexity by averaging out everything. How does one decide its better to run 'empties' back to the origin or to keep back for a potential load for the return trip? How do we decide to seize or pass-up this opportunity cost? Also, unit load traffic is mainly "commoditised" traffic is by implication low yielding traffic – low value, low margins. So, cost reduction is important. Or, charge what the market will bear, so as to improve yield. Getting in to situations, whether you like it or not, of 'partnerships' - an open book type of situation. Very difficult to put your (own) costs on the table. But, savings are different – everybody wants to see these. So, the customer will stick with you provided your increases are below the inflation rate.
<b>3</b>	Demand-based pricing where in times of high demand, high prices and during low demand, low prices. The matching of resources to demands (~ implies problem of specific resources such as wagons for specific commodities). Also, the challenge of empty-wagon distribution. Understanding the elements of yield management. A collective understanding of demand variability. Management may be afraid to take the risk with yield management because of the personal risk and threat. Long-term contracts - say, on an annual basis - militate against the use of short-term yield management. The company business processes, which do not permit yield management on a quarterly basis, not even on a weekly basis - the spot market - that say that by the way: you have not informed me 3 months ago and neither was this demand in your business plan; therefore I do not have resources for this demand.
<b>4</b>	You have to be reliable – if you were reliable and robust at service delivery you'll get a much

	<p>better tariff. You should deliver the wagon at the promised delivery time. Another challenge to overcome is to ensure that you do not get “segmentation overflow”; that is, a longstanding bulk customer now decides to move widgets only, because your offering a lower tariff. Customers will always challenge the segmentation by the service provider. You’ll have to manage this. Also, you have to know what your capacity is and limit capacity over peak periods. And, you should not contract over long periods, so that you can change the contract terms when times change. Another challenge to overcome is the perception issue regarding pricing.</p>
5	<p>...in a railway you’ve got to take wagons to a customer to load – so customers don’t bring the traffic to the train. We’ve got to take the wagons to them to load. So we got that preparation time that we need. I need too many hours to do that preparation time prior to departure. And, if I run a network with high levels of density, I can’t delay a train ½ hour, I can’t delay a train for ten minutes – you’ve got to go when the time is due to go! Or else, the knock-on effect of drivers and crossing-points and turnaround times of wagons and locomotives will go totally out of hand.</p> <p>You see when a wagon is moving, I can hardly save any time; because to run a train safely I can only run that fast, given the network (~ constraints). But the time wagons are standing – if I can just focus energy there and squeeze the minutes out, I can generate more payloads with the same wagon fleet.</p> <p>But you know wagons cannot walk...wagons ‘walk’ by using crew, locomotives and energy. But if you get the ducks in a row, you will start to wind-up or accelerate your potential. In the short-term, the market is asking for fifteen, but we can do seven – it’s physically impossible to do everything. So now we’re between a rock and a hard place; so we’ll have to exercise those choices today – yes for you and no to you. Is that decision popular? No, its not.</p>
6	<p>Not a lack of capacity, but a surplus of the wrong-type of capacity – sitting with wagons one can’t use. What do you do then? How do you get the capacity correct? It’s the same thing as consolidation – how we use the installed capacity. You must be able to sustain your business.</p>
7	<p>The variability to the system introduces complexity. If you just induce variability in one, two or three of the parameters I mentioned earlier, the systemic result of this complexity, the ripple effect that you sent into the system, is extremely difficult to manage. So, the challenge would be to minimise or reduce the variability in the system. What are my constraints in terms of my ‘ring-fence’ capabilities, my wagon capabilities? My ability to get locomotives to where they are needed. Over the long-term you can still shift those things, over the short-term you can’t. Yes, the ability to deploy resources over the short-term is the biggest</p>

	<p>constraint for a railroad. Again, for the South African situation, there are unique variables, this best mix, differs somewhat from the North American, European and Australian railroads; but still, there's a systematic relationship between/in the way that you relate these assets to each other. We don't change, which we have to honour; because, if you don't honour them, you'll tend to optimise one specific asset at the cost of sub-optimising the whole.</p>
8	<p>People...behaviour. All comes back to people. The people factor is the biggest problem. Also, with this, the people's understanding of yield, and the understanding that they are empowered in a way to do something. So its behaviour, understanding and ownership to say that this is my business, this is what I need to do to make it successful. Also, the ability to shock people with some 'dashboard' of information to highlight the consequences of poor decision-making – some strong medicine to indicate the results of poor decision or no decisions at all. Therefore some system support in some kind of way. This would be used to improve yield before the capital investment – before I extend the sides of my railcars and before I purchase new locomotives. The internal view that is within our reach to do, just by taking certain actions and changing our behaviour. If one has the burning desire to improve yield then one would understand the effect/implications of using the wrong type of railcar and to change things if they don't work to well.</p>
9	<p>Up until now, its been foreign to the common-carrier principle, you cannot apply yield management under the common-carrier principle and you still have that legacy of wanting to satisfy everybody, as a common-carrier or utility. We've got to get out of that mindset of being a utility I think. Operate along strict business principles – making as much money as you can, with the resources at your disposal. Also, I think to practise yield management, your service must be very, very good. I think we'd have to overcome the legacy of common carrier – we'll have to deal with that!</p>
10	<p>You cannot unfortunately have a hundred percent capacity utilisation when you're serving a single customer and when your capacity stands idle. You don't really have an opportunity to earn income in this case. Non-standardisation of your asset-base - 'fragmented' - with reference to different locomotive types such as electrical- (AC or DC) and diesel powered, over certain parts of the network. Buy-in from shareholders. Manage your social responsibility – cannot walk away from your responsibility. Entire process must be transparent. A railroad has a captured market – something you cannot really walk away from, since you've strategically decided to serve or partner with them. Under a collaboration initiative, your customer might be totally uncooperative in terms of pushing yield targets – in this case asset efficiency or faster turnaround of your assets within their facilities. Your customer might limit your yield management initiatives or make the rules for you.</p>

11	<p>Remember, yield for me is on a sustainable perspective. One of our biggest challenges is the lack of capacity to deliver our services – recapitalisation (keeping the outputs constant) and asset reliability. The ability to met a growing demand in the face of competition. Risk of exchange rates for export commodities that are conveyed by rail (risk of diluting your income streams). An eroding skills base and the ability to maintain a high safety standard.</p>
12	<p>The inability to keep to time schedules.; because of this inability, we have excessive costs – we create excessive costs. Not keeping to time requires extra resources to make things work. This leads to instability and this means (that) I cannot plan the answer; so I need extra resources to accommodate for an answer. Extra resources don't add value, just extra cost. Simply need the system to be on time and stable so you can plan the answer (~ basically, predictability). Operational cost will come down and this would improve competitiveness. The challenges for a railroad are more internal than external – that is, your ability to deliver. And, management's ability to 'control' the operating environment – instil operating discipline; essentially getting back tot he basics of a railroad. Also, productivity and efficiency needs to improve.</p>

<b>SUB-PROBLEM:</b> To determine whether there are any differences between the management views of commercial/private and state owned enterprises ( <i>or parastatals</i> ) with regards to yield management	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What, according to management, would be the critical success factors of YM in freight rail industry?
	Q12: What would be the 5 critical success factors of YM/RM in the freight rail industry?
<b>1</b>	<p>Before one can confidently, legitimately practice yield management, demonstrate that you can run a tight ship – because yield management might not be justified then, since the public may be sceptical...passing inefficiencies to the customer. First get your house in order through efficiencies. Demonstrate visible service and/or differentiation with corresponding prices – you have a right to charge a premium due to service differentiation. Must be smart enough, though, to differentiate or segment visibly. Need legal processes; people prerequisites – need people who have the skills, who understand yield management and the impact on your business model. People to drive the concept to operationalise it – not the systems. Specific group for yield management – not everyone. Need research to understand the market dynamics. Need to monitor customer and/or demand frequently.</p> <p>Costing module for trade-off decisions – is this pursuit of additional yield worth it? Recall that all costs can be avoided if assets are just not used. Your decision support system should overlay your current systems – you don't need dedicated systems; rather, leverage off current systems. You also require forecasting and predicting capabilities.</p> <p>The thing that counts in rail the world over is payload per train – there is no other criterion. It's simply that; rail has got really only one competitive advantage – payload. Its payload per train. You must have a big payload on that thing. You must either have a long vehicle or heavy mass. You must be clear in your mind about what you really want to do, and then go for it. Then you get a yield on your whole business.</p>
<b>2</b>	<p>Needs proper research in terms of this decision. Proper costing, including marginal costing for empty movements. Publishing of capacity that is available for use. Good information to facilitate opportunistic behaviour – to fully exploit market opportunities in real-time. Get to know where you stand or else you'll be flying blind all the time. How do you measure the organisation and the people? Operational excellence or discipline. Must push efficiencies – not on the lines and running times (~ of trains) but on the wagons; the idle-time spent at the endpoints (~ customer site). Must also know what the market can bear. Need a knowledge-base tool or decision support system (~ tool) to make the trade-off decisions. Proper</p>

	<p>balance between centralised and decentralised decision-making. A yield management effort should be preceded by good research, employing operations research personnel (~ industrial engineers) then a pilot study.</p> <p>You cannot just focus on revenue and neglect the costs (to serve).</p>
3	<p>Proper, full yield management needs pricing and costing – these are fundamental building blocks. Modelling the customer behaviour over a certain time horizon. Knowledge of the customer demand. Must have, from a forecast, the ability to gauge the flow of unit and wagonload traffic on the mainline network. Fixed train schedule. Route densification – lowering the unit cost for high-fixed cost company. Resource availability and allocation – mainly the availability and supply of wagons. Consistent pricing across business portfolios; for example, a peculiar situation arises when a large customer is managed by one business portfolio, with some of this customer’s commodities then being moved outside of the usual portfolio and the resultant pricing then inconsistent, even with the same wagons! We should first start with a consistent service; while our service is random, we don’t know where the inefficiencies are. Till we get that right, yield management is a glorious, glorious pipe dream!</p>
4	<p>Service reliability; increased utilisation; high level of customer-care or satisfaction.</p> <p>Apportioning of costs will always be a problem, and therefore its discretionary. There is no scientific way of allocating costs, despite what the accountants will make us believe. Not really, for most cases actually, allocation of costs is purely at management’s discretion, because it is difficult to trace the association of an asset to a specific cost. Allocating the cost of a specific move is totally at your discretion. For example, a large user of an export line would pay to sustain that line, compared to the other users; if this large producer/user closes down, the line would have to be closed down as well. That’s just the way it is.</p> <p>The thing is you need scale to build a railway line, so you need the bulk moves to be your anchor; that volume then justifies why a railroad exists. You then end up with what becomes a low cost operation – everything is built around that. On top of that, then you have the high-value, manufacturing imports, which then, are not anchors, but, now can ride on the infrastructure once created. But, it is unlikely, that these two will compete for space (~ <i>for capacity</i>).</p>
5	<p>You must know the market: what’s available in the market; what are the alternatives that exist in the market; at what price are those alternatives. So, without the sound knowledge of what the customer’s got – what alternatives; what they’re prepared to pay – if you don’t have that basic market intelligence, you’re playing around with dangerous stuff!</p> <p>But, on the other hand, you must know what you can and cannot do – your own capability. You must be very smart in the way that you control your design, your planning, your monitoring and your execution. In your service design environment you must be sure: Why I</p>

	<p>would like to do business with you and not with you. For a railroad, one should say that for this wagon, this capacity, to transport this commodity from here to there, and you're going to do so many loads. So with reference to yield management, if that's your definition of YM in a railway; if you say I've got a couple of spare wagons on tomorrow's train, I will not break my back for that.</p> <p>Improving the wagon turnaround time. So it's often more, its better to invest in rapid loading terminals, to save time there, rather than having your wagons wait for front-end loaders. That's why your statement about long-term yield management is so true – "it's a long slog to sweat the assets". As you sweat the assets, the unit cost comes down. Yield management decisions should ideally be made in the design phase.</p> <p>If a railway can start to emulate a conveyor belt system – that would be first prize! If I can run a railroad like a conveyor, and I don't need to shunt, I only need to shunt or break the train up, when I need to maintain/or do maintenance. I can automate the loading, I can automate the off-loading – that's first prize! That thing just runs like a conveyor – up and down, up and down. But, unfortunately, you hardly find that luxury, when you've got the volumes that we have, that justify that behaviour.</p>
6	<p>Really comes back down to (the/your) business model. What can I do to manage my capacity better? For me its more of operations research than yield management. If you don't have good operations management and capacity planning, you can never do yield management. Also, need good information systems. For all customers it pays to load the wagon today. Its better for a railroad to have more contractual traffic because, railroads being high fixed cost businesses, you need to be assured of your traffic – you need to manage your capacity. Corporate governance must be in place since you need to know who can discount capacity to customers given all the risks. One should have consistent yield management principles. Must have knowledge on market opportunities – basic market intelligence. Also, another part of yield management is to give the customer options and together with that educate or inform them of a value-of-service pricing approach as opposed to a cost-plus approach to pricing.</p>
7	<p>You can't do that systemic match without some kind of simulation capability. Because you need a total systems simulation capability to really evaluate what your system can really do...you also include the dynamism over time between these elements (~ asset classes). And you need to have some prioritisation rules, which you could, systematically, over time, also, apply to these variables. In a railroad, <i>repeatability, reliability, and predictability</i> are your major focus areas, because you're dealing with very expensive asset base, a high-fixed-cost base, you want to try and minimise variation to the system. So one of the things one should attempt to have in a railroad is to have a fixed-schedule and to try and have as</p>

	<p>many of your resources, the scheduling of those resources and deployment of those resources and balancing of those resources as long as possible in advance. That is why you should have as much of your demand matched to a fixed/scheduled resource capability.</p> <p>So what you need is a consistent set of principles that constitutes desirable traffic for that unique combination of resources. Firstly, you must understand what your assets can do – what my unique combination of locomotives, wagons, network, crew and other resources such as terminals are really capable of. If I throw a certain market demand or pattern at these resources, then I'll get the following outputs; if I throw another demand pattern, I'll get another. I need to systematically evaluate what my assets can really do. For, if you use inconsistent set of principles, what you will find is that your yield management mix that you choose over the three month horizon, and the mix that you choose over the two-day horizon, lead to systemic incompatibilities. But then, what I also need is a financial model, to say, how do I match, how do I choose the best ranking of my demand; if I throw it in that sequence, at this asset capability – that will optimise my yield. The target profit level will come out of your simulation modelling, according to your yield management principles; so, you will have a figure then to use for budgeting – that is defensible and not just dreamt up! I derived this target profit level in a proper analytical fashion. Understand your playing field – the true understanding of your markets and their demands into the future and their behaviour is critical. They critical elements in the whole yield management process. Also, one's CRM (~ customer relationship management) would have to take account of the fact that not all customers would be satisfied at any one time – all the time. Understand your playing field and how you define or manage yield. The true understanding of your markets and their demands into the future and their behaviour is critical. They are critical elements in this whole yield management process. Another important element of value to us is to state to the chosen set of customers, and those that have high expectations of us, what we can or cannot do.</p>
8	<p>Put yield management on the agenda via the KPI's (~key performance areas). As the saying goes: what you measure is what you get. If I don't measure it, I will have difficulty highlighting its significance. And, then via collaboration, not just external collaboration with the customer, but also internal collaboration with each other, to understand how we affect one another in providing service (~not just a process issue?), by focusing, not on silos of responsibility, but on the processes that underpin the movement of consignments. That I think is a major gap, the way the General Managers are measured, reinforces this silo mentality. There should also be a common understanding of yield in the company, ...a common understanding. One other enabler of yield is some sort of system support to</p>

	indicate the difference in yield and to enhance the trade-off decisions between competing projects.
9	I believe that our existence depends on our customers. We need industry support – customers must subscribe to it. The legacy of common carrier must be dealt with. Need very good decision support systems. Yield management needs to be linked to the economy of the country as a whole – this railroad (~ Spoornet) is an instrument of the government, no matter how we try to argue that one!
10	<p>I think again, it's important that you must define your business and your business plan. You must also understand where you're going to – you must have a strategic decision that says where you're going. In other words you must say you're in the business for these range of commodities and I will use yield management to achieve these objectives. You must actually have a statement of intent that is recited everyday, by everybody and everybody that does business with you! Everybody must understand what you're doing – you need buy-in from inside and outside. Buy-in from customer – must be something in it for them as well.</p> <p>For maximum yield we have to work totally unplanned – have a plan though, but it must not be fixed. Would need a predicting, forecasting capability – one would need a '<i>helluva</i>' predicting and planning capability. But, I believe that before you can think of yield management, you must first decide what the hell you are here for in the first place! Must have the ability to 'dynamically' manage your capacity, when your up-down (~ <i>balanced train plan or service design</i>) does not materialise. Have to decide what business you're in. Must have a long-term strategic demand (or traffic) plan. Understand and have a strategic direction – where are you going?</p>
11	We must have capacity to meet the demands of profitable customers. We must be able to conduct operations safely – that means goods and people. And, the ability to satisfy the customers' needs in terms of their service delivery expectations/specifications.
12	<p>First have to analyse and understand your business to see what there is; what you want to be involved in, so you can move in that direction. Currently, in our country, rail is the last resort, so to improve the situation, your pricing must allow for business beyond the railhead. In essence, railroads look for stability, they look for running to an absolute schedule; be more predictable by running to a schedule. There is a much better answer, a much better golden-thread, that can give you a better answer (or result), if you/one could just work according to a plan, since a railway is principally and inter-linked network. And that really is the crux of the matter.</p> <p>One should strive for a symbiotic relationship with road as well – this will lead to better yield management decisions.</p>

<b>SUB-PROBLEM:</b> To determine whether there are any differences between the management views of commercial/private and state owned enterprises ( <i>or parastatals</i> ) with regards to yield management	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What, according to management, would be the critical success factors of YM in freight rail industry?
	Q13: What would be the advantages of YM/RM in the freight rail industry?
<b>1</b>	Creating value leads one to a successful business. The result being happy or satisfied customers since one's service level improves for them. This benefits all stakeholders including employees – a better business model, so everyone benefits. Yield management enhances the business model. And, obviously, an improved bottom-line.
<b>2</b>	The advantage of cost – the ability to manage your costs down. This should bring down your unit cost of transport; ( <i>it</i> ) should come down relatively – as in lower than inflation. In other words, it should be leveraged to make you more competitive, although costing is not pricing – you charge what you can get in the market. It should also help you to render a quality service in that you should now have a better idea of your service delivery system – getting a better 'feel' for your production system. Hopefully, you will also have a handle on your cost drivers. Helps you to focus where you can have maximum effect. It should also help you to meet your customer's demands efficiently; but you can price for a premium, customised solution.
<b>3</b>	<i>Not really a flippant answer</i> but... a better return on capital invested – if you've invested 'x' rands in a wagon you'd want to maximise your rand per wagon per day income – assuming constant operational cost. So I would sell it to the product that gives me the maximum return, given that the wagon is a constant cost. But, if my infrastructure is the limiting capacity, then sell the product which matches the wagon, and I've got a surplus of wagons, to maximise my return on the corridor. Yes, yield management is absolutely possible, but I'm not sure if it'll be yield management in the classical sense of the airline selling tickets or the hotel discounting to fill up the slack season, which is traditionally considered the short-term approach; while we should be using the long-term approach. I still believe that yield management is imperative/indispensable for sustainable, successful business and optimum asset utilisation.
<b>4</b>	I concur with all the options that you've mentioned namely: improved bottom-line performance; better allocation of spare capacity; improved customer segmentation and service; increased market share, and a tactical management tool to challenge the competition.
<b>5</b>	Improve the return on my investment and the income per payload. Improve my bottom-line

	performance. Secondary spin-offs from reducing overall cost by reducing the complexity in my transport business. The ability to exit certain markets, by using the pricing lever, and apply/deploy my assets elsewhere.
6	There would be an improved bottom-line performance of the company; better asset utilisation; an indirect improvement in customer segmentation and service; an increased market share, but this might be due to discounting only. And, lastly, a way to challenge the competition.
7	Improved asset utilisation; better match between assets and traffic demand; and thereby, improved revenue streams.
8	You will change a freight railroad to become profitable. You will get people who will feel that they can add value to the company, because they've done things that have saved the organisation. You would turn the company around by changing the ROI (~ return on investment). You will get satisfied customers, since they will feel that they're getting value for their money, because they understand what we do with what we have. And a successful railroad will make South Africa more competitive in the global arena.
9	Maximise my returns – you wouldn't necessarily improve your market share if you were in a capacity constrained environment.
10	Improved bottom-line performance; improved customer segmentation and service; increased market share (~ <i>making more of existing capacity available to do more business</i> )
11	We would be sustainable as a mode of transport. The country needs rail, because of its commodities or bulk industries. We'd be sustainable without handouts from the public via the government. By applying yield management principles properly, ensures the viability of rail transport in our country. This would be the best option for the shareholder.
12	Yield management, when properly done, will take a business to a position that for its resource position or asset base, would give you a better return than you otherwise would have had. It must give you a better return. But it doesn't just happen you see: you've got to manage, you've got to plan for it, you've got to structure for it. You've actually got to agree up front that you're going to move away from something to something else; or taking something that I've got a good return on – to grow that business at the expense of another business. That means the ability or decision to exit low-return business – even if it means that I become a smaller railroad, the smaller railroad will be a lot more profitable. Yield management forces you into a structure, to get the best returns for the resources you're working with.

<b>SUB-PROBLEM:</b> To determine whether there are any differences between the management views of commercial/private and state owned enterprises ( <i>or parastatals</i> ) with regards to yield management	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What, according to management, would be the critical success factors of YM in freight rail industry?
	Q14: What would be the disadvantages of YM/RM in the freight rail industry?
<b>1</b>	<p>You could upset your loyal customers when they find that over the long-term they're being charged a certain tariff, and some ad hoc customer, under yield management comes in at thirty-percent below this tariff. Your loyal customers would most definitely be unhappy about that and the fact that these ad hoc customers, who only use rail when the price is right, might be competing with them.</p> <p>You then have to demonstrate to the loyal customer that the service offering is not just about price – it's a whole basket of things that they're getting. You'd have to demonstrate to the longer-term customer that their service involves predictability, reliability and certainty around a lot of other things/elements. And, the sharing of information – especially in supply-chain type situations.</p>
<b>2</b>	<p>Prices based on marginal costs might distance the markets or affect the total market. Unfortunately one has to consider many business opportunities at once and not individually – this adds to the complexity.</p> <p>In our case, it's very easy to say, get out of 'single wagonloads', but it's making a contribution. The customer that you've got is the best, the one that you've got to get is expensive, and the one that you've lost is never going to come back.</p>
<b>3</b>	<p>If one's assumption is a sustainable, profitable business, yield management, may then be at odds or may indicate a choice at odds with a social imperative or a social desire. I think we use the term yield management as how do I optimise my return in the shortest period of time. Yield management is not a substitute for long-term strategic planning and direction. The danger with yield management is that it could become the singular or single focus, obscuring other essentials such as long-term strategic goals, direction setting and social needs. Those may be in conflict with yield management.</p> <p>The implications of going the yield management route to management – the fear factor. What would happen to my portfolio? Risk of repeatable processes in terms of decisions taken under yield management. The buying power of customers versus the service provider's market segmentation will undermine your pricing strategy.</p>

4	<p>Customer dissatisfaction with differential pricing; changes in customer behaviour; Massive, new investment in information technology; New incentive and reward policies for sales personnel; Complex sales revenue targets due to frequent demand and capacity trade-off decisions. I agree with all of the above disadvantages that you've mentioned and also the risk of staying with a loyal customer, but never meeting your revenue targets. Although, this is pricing issue and different problem altogether.</p>
5	<p>Easiest thing in life is to drop your prices; the most difficult thing in life is to up your prices. Customers always want the service at a cheaper tariff.</p> <p>So if you've got traffic that flows from the coast to the interior at a certain tariff, say, R10/ton. And If I start to sell my/this empty leg at a lower price than this traffic at R10/ton – it puts this R10/ton traffic under pressure. So sometimes you'll find that I do have the empty wagons but I cannot sell the empty leg at a price that's equivalent to the little bit of empty-leg that's coming back in any case. The 'hassle factor' of doing business with a particular railroad – may translate into an argument over price. Another risk is once you've decided to walk away from certain traffic; the market will seize that opportunity and fill that gap. Do not allow the competitors to get heir foot in the door for primary rail-friendly traffic. Also, the risk being not to apply my flagship assets in areas where they will be under-utilised.</p>
6	<p>Yield management can never take you to a hundred percent optimum – but an optimum. It can only take you a delta of your operating plan. You'll need to change the underlying...the operating plan. You must be very careful with yield management activities, since you might destroy the customer relationship. The risk when going into a yield management effort, when unprofitable, the current unprofitable traffic might be discounted further due to your yield management initiative and worsen the situation.</p>
7	<p>The people always say: "maximise profit". For us you could say that this traffic is very, very profitable. But, if that traffic ties down a wagon fleet for too long, then the fact that it is very profitable traffic is actually negated by that fact that the wagon fleet is tied down for too long. The risk or disadvantage is that you would consistently have to say no to certain people or customers. You'll have to find equitable, proactive ways of sharing that knowledge with customers. And, finding a way to make that acceptable in the market. Of course, the longer in advance you tell someone that I cannot help you, the better. Variability, however, is not the problem...the decision on the (traffic) mix is the problem; three months to a year in advance – that's where the complexity is. It's going to be systematic trade-offs all the time – <i>most of the complexity lies in matching your demand to your railroad's capabilities.</i></p>
8	<p>We will downsize the company – reduce the people count in the organisation. The effect of yield on the number of jobs in the organisation might be viewed as negative in certain quarters; but I don't think it is. That is the only way that we will survive, by getting the 'fixed-</p>

	costs' down, the 'fixed-costs' in many cases being people.
9	<p>The danger of differential pricing is that you could affect the location of industries in the country. I also think that differential pricing within a small industry, could expose yourself to competition law – you'll face the tribunal there. Could degrade your service. It's not conducive to growth in the economy; it does not support the country in terms of a national railroad.</p> <p>Customer insecurity due to fluctuating prices.</p> <p>Yield management does not allow you to hedge your risks in terms of being able to balance or tie your resources with that of huge ventures such as mining. The entire exercise might be questioned.</p>
10	<p>The disadvantage of incorrect pricing, whilst obtaining the required asset efficiency; you're earning more income per production unit, incurring costs, but still not being profitable as a result. Risk with transparency in terms of costs from a partnership or collaboration initiative with customers – if the client knows too much about your operations, your costs, he could pressure you...expose you. Competition law might preclude you from favouring certain players in the same industry - also linked to differential pricing. Being accused of monopolistic behaviour by exploiting customers who have no alternative to rail. The perception out there is that the railroad still belongs to everybody; therefore it cannot be selective or seen to be favouring. Changes in customer behaviour, due to your yield management practices. Also, with rail, you've got a <i>captured market</i> – something you just cannot walk away from.</p>
11	<p>Disadvantages? From a business perspective I cannot really see any disadvantages.</p> <p>However, if you practice yield management to the limit, some people might be without a job. However, from a company's perspective that would not really be a disadvantage.</p>
12	<p>The risk of yield management might mean that you're not meeting the expectations of the shareholder! Our shareholder has a decidedly different objective – you're just simply an enabling tool to make other things work for them. That is for us the single biggest risk associated with yield management. There are repercussions for exiting certain businesses that you've been supporting for many years. The customers will get back at you with negative reporting in the media. Hence, your image might suffer as a result. It creates a negative image of rail.</p> <p>The danger is in both extremes – larger customers getting too much of a discount, and the small time guys being charged obscene rates; therefore a skewed answer. You could discount the empty-leg to such an extent that it undermines the current business – higher paying customers soon realise this. Also, you could exploit the rail-dependent (~ <i>price inelastic</i>) customers to the extent that you kill the business.</p>

<b>SUB-PROBLEM:</b> To determine whether there are any differences between the management views of commercial/private and state owned enterprises ( <i>or parastatals</i> ) with regards to yield management	
<b>INTERVIEWEES</b>	<b>Research Question:</b> What, according to management, would be the critical success factors of YM in freight rail industry?
	Q15: Would state-owned enterprises or parastatals be permitted to practice yield management?
<b>1</b>	<p>You've got to figure out who you are – do you provide a social service or not. Before you practice yield management, you've got to figure out who you are, what business you're in, and what your goals are. We've always had this mixed view, because we are a public enterprise; we have no choice. We can't do that (~ <i>yield management</i>) effectively now, because we try to be all things to all people. When you define your business, you'd say I'd want to be an enterprise, but I also serve the country macro-economically. For example, should grain be on rail?</p> <p>But then, understand that's what you do. Accept that you're not going to run at '<i>helluva</i>' profitability; accept the losses, try and break-even or ask for subsidies. But it's never clear, and it never will be when you're a public enterprise. So that's why we're probably forced to practice yield management in pockets, because of who we are, who we think we are, and whom we are expected to be. And we cannot do any better than that...</p> <p>So given that, we just have to chase volume and at least get a contribution for that...I'm not saying volume at all costs; obviously don't go for volumes where you're not going to cover variable costs. Don't take on a crazy service!</p>
<b>2</b>	<p>From asset efficiency and business perspectives, I see no difference between a common carrier and a commercial entity, you still have to function according to business principles. I would expect them to expect that from us. As custodians of the railway assets...what's that principle that you're the custodian of facilities that you as manager has the responsibility to see that things are used in the best productive way?</p> <p>So, even if we were completely in government, we still have to use the right assets, the best assets, in the most efficient way and getting the most out of yield – getting the most out your assets. I think on the private side, or, rather in the open-market forces, I think you're forced much more to watch that; unless you're a monopoly, then you don't even have a guy to look over your shoulder. I think that yield management, or productivity in another way, is basically important, no matter where you sit. One is inclined to think that yield is an internal thing; but there is an external thing to it as well. This is about meeting the customers' needs – you can apply the same argument there, by saying that you've got to meet the customer's</p>

	needs, the sum-total of customer's needs with the minimum amount of assets. In the private sector, you'd maximise your profit; in our case, we'd minimise our costs.
3	<p>In some areas the two are fundamentally in conflict. Not all areas, but certainly in some. Moving South Africa and Vision 2020, the government wants to move traffic back from road to rail. Does that imply...do we have absolute freedom of pricing or cost coverage? No...our freedom to move there is not as free say, as a class 1 American railroad; because the government wants to use the railroad for some of its strategic objectives. Now whether its, and whether, there's long-term, national, government strategic objectives, these would be at odds with profitable services. Where there is adequate demand or adequate supply in the transport industry, and it is a well-developed, mature industry, the government expects you to be a profitable railway – go and do it! So the answer is not clear-cut, it will not be its black and white and a few shades of grey in between.</p>
4	<p>It depends on the business assumption. And the owner or shareholder imperatives at that point in time and those imperatives change over time. Especially for a SOE/SOC (state-owned company) they change a lot. There are times when the shareholder demands a return on assets and there are times when the shareholder demands economic growth, which simply says, do what you can, that is, take as much traffic as you can. Sometimes they say, no, don't take everything, but only take those that give you money over a longer period of time. Depending on where they are, that is from minister to minister, from government to government. And election, post and pre-election. Policy shapes the competitive environment in a regulated OR deregulated market; that is, if you curb the road standard, by limiting what people charge, by default you determine - set the traffic that could be hauled. And that happens in every country all the time.</p> <p>The shareholders would be keen to see growth – therefore market share and profitability should increase. Also, the shareholder is susceptible to pressure form the public at large and would monitor customers who are complaining about the rail service – especially pricing. They would be acutely aware of the need to charge high prices, fr reasons of sustainability, but would want to know the extent to which costs are being removed from the system. The government of South Africa is a social democracy; therefore there will be a fine balance between social and commercial objectives – a delicate balance. We would be allowed to make profits, but not super-profits.</p>
5	<p>Well, as long as I've got the luxury of doing it (~ <i>in response to question about denying capacity to certain customers</i>); however, if I need to operate as a common carrier – as days gone by - then the rules are different. You cannot say no, if its offered to you - you've got to transport it.</p> <p>You see, what's going to happen, that common-carrier thing/status is most probably going</p>

	<p>to come back. But, if we zoom out and look at it from a national policy perspective, then you might ask the question: “What’s the best thing for the country?” So, does the country need a railroad? Yes or No? That becomes a national issue. So, if you go to railways in Europe, the East, even the Americans - are those railroads making a profit on purely a commercial basis? No! Why? Because their governments have decided that we want a railroad – from a land point of view, from a pollution point of view, from a safety point of view, we need a railway like we need schools and hospitals.</p> <p>Now, that’s the realisation that everybody in South Africa starts to come to – that we need an efficient railway. That’s the only way we can use the natural resources and compete, with that, internationally.</p> <p>Now, the moment I say that...then it means that government must now guarantee the money that I now need to go and purchase assets with. The moment, they (~ <i>government</i>) do that, then society out there starts to behave differently, and say, hey, that’s my tax money, so I expect you to render me a <i>utility</i> service. And that’s why I say it’s going to come back – whether we like it or not.</p> <p>But I can argue, I can argue, based on the sales-volume approach, because you use more of my installed capacity, I can give you a bigger sales-volume discount. It’s very academic, then you get the emotions that the politicians have to deal with, and you’re most probably not going to sell that load. They will force you to go to a tariff-book (~ <i>published rates</i>) and then yield management is gone. <i>Yield management is a question left for capitalists.</i></p>
6	<p>Yes, you will be permitted to practice yield management. I don’t even think that there’s a question on that. Being a parastatal is just about ownership issues, but in the way that we are seen by government and by the rest of the industry in South Africa, is as a private entity, owned by the government. It’s just a shareholder issue. People want to make use of you, not that they’re forced – recall that this is a de-regulated market. It’s a choice and then you entice with yield management. That’s why for me profitability is linked to service. Profitable, not because people have no other option, but choices that the client makes. But, to exploit the price inelastic customer is abusing your (<i>historic</i>) monopoly status. But, for the rest of the people...it’s because they want to make use of you and the price is good.</p>
7	<p>Well...look, because the government is our only shareholder, for the short-term, because we must act in the interests of the economy of South Africa, that’s a <i>fait accompli</i>. The government is supposed to act in the interests of South Africa incorporated. We cannot therefore, say no to the large industries that hold the economy of South Africa together. <i>That makes the yield management equation more complex.</i> That means we don’t only have to evaluate efficiency and profitability parameters, but also, large, overarching economic parameters, in this ‘pot’, in this equation of rules. But, again, for me it’s a prioritisation issue.</p>

	<p>Large customers we'll definitely always serve first – price and resource supply must be on the right level for these customers, And, an understanding of which peaks and valleys we can accommodate, must be on the right level too, And, we have to give them preference, beforehand, when it comes to the <i>ranking of traffic</i>. And customers should know that as well.</p>
8	<p>If we don't do it or we're not allowed to do it we will die. The state or the shareholder will say: you create your own capital – I will not give you 'handouts' (~ subsidies); you must assist South Africa to be competitive; you must get the supply-chain costs own, because that makes South Africa competitive. There's no other way to do it, but better yield. According to the PMFA (~ Public Finance Management Act), I must not have wasteful expenditure. We will be allowed - be forced by legislation – to get the best value for every rand by the PMFA. On pricing, if I'm making profits at the expense of South Africa's competitiveness, I will not be allowed to do that. I say they must value, they must measure my contribution to the supply-chain and if they say to me you must recapitalised yourself, then I must be allowed to make a profit. Maybe the words are incorrect, not a 'profit', but recapitalising myself – so I must charge higher than my direct costs. For example, I need to think ahead to say that these locomotives need to be replaced every ten years, and I need to charge above my direct costs to effect replacement. The profit, as such, is declared to the shareholder - the government - in any case. I should be allowed to be responsible in terms of what I charge – my pricing – to show everyone what I do with the proceeds/to prove to everyone how the proceeds are used. The shareholder must be made aware of the annual recapitalisation requirements to ensure my own survival and sustainability in ten to twenty years time and thereby the country's as well.</p>
9	<p>I think the shareholder would not approve the practice, in instances where there was no better alternative – the better alternative being no long-term contracts; that's for the mining industry. They might approve it for intermodal (~ <i>containers</i>) also where there's an option – to bring about sanity. Because, if left to your own devices you could become quite greedy – destroy the entire country...I think there might be selective approval.</p>
10	<p>Will never get an open-cheque to practice yield management as a state-owned-enterprise. I don't think so. We might only be allowed to go ahead on certain segments. It will be like a non-verbal agreement – you'd never get an open statement such as go ahead and practice yield management, regardless or go and get the best yield out of your assets, regardless. However, you won't also be instructed not to do it (~ <i>that is, practice yield management</i>). In my opinion, we'll never be able to do the right things all the time. Government might make the rules for us, because of the lack of competition and the relatively small markets that we serve.</p>

11	<p>Yes, we would be allowed to practice yield management, according to my definition earlier. As I see it, with shades of grey again. Maybe not to the degree that an Anglo-American or some other private entity would want to push it. I spoke earlier about being cash neutral, that is, the ability to sustain yourself without assistance from the shareholder, in our case the government.</p> <p>We are a commercial organisation, but a commercial organisation with a social responsibility – a bifocal view. The bifocal view means that management is not responsible for the social component.</p> <p>We need sanction from the holding company, TRANSNET, to fulfil social obligations. This is the right approach, since the decision in favour of the country cannot be decided at my level, when the company might suffer as a result – that’s a political discussion.</p>
12	<p>We will be limited in the choices that we could make; however, I think that there is an amount of freedom that is in fact allowed, which we don’t sometimes take advantage of. One has to say, within the constraints that exist, there is a responsibility for being a profitable business. That’s what we’ve been told to do. And, that’s what is expected of us. A bit of a catch-twenty-two.</p> <p>The state has a specific objective to reduce the cost of transport – the singular most important objective. The governor of the reserve bank has said that parastatals are going to be hauled in to contain the costs and we’re part of that. This notion that we can price ourselves out of a problem is naïve.</p> <p>And, if as a parastatal, which is part of the process, the government wants to use us to unlock or realise value in the broader economy. The government would say, in the parastatal is not where I want to make the money. You see, in that context, you have to understand the government’s (~ <i>shareholder’s</i>) view, which says, look, if you’re a national enabler, for the broader interest, I (the government) still get a better answer than if you as the parastatal were making a profit – at the expense of certain industry players. If that’s where your yield management is going, then I’ve got a problem with it.</p> <p>Because you’re not being an enabler of the economy. You’re being profitable towards yourself. The government would say, if you don’t make much profit, but in the national interests we’ve got the engine going, then we have succeeded.</p>