

White Paper

How
'Lean Thinking'
Can prevent waste
And enhance value
in Gyms

*GYMetrix*TM

Making gyms fit

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Introduction to 'Lean Thinking'

The term "lean" was coined to describe Toyota's business during the late 1980s by a research team headed by Jim Womack, Ph.D., at MIT's International Motor Vehicle Program.

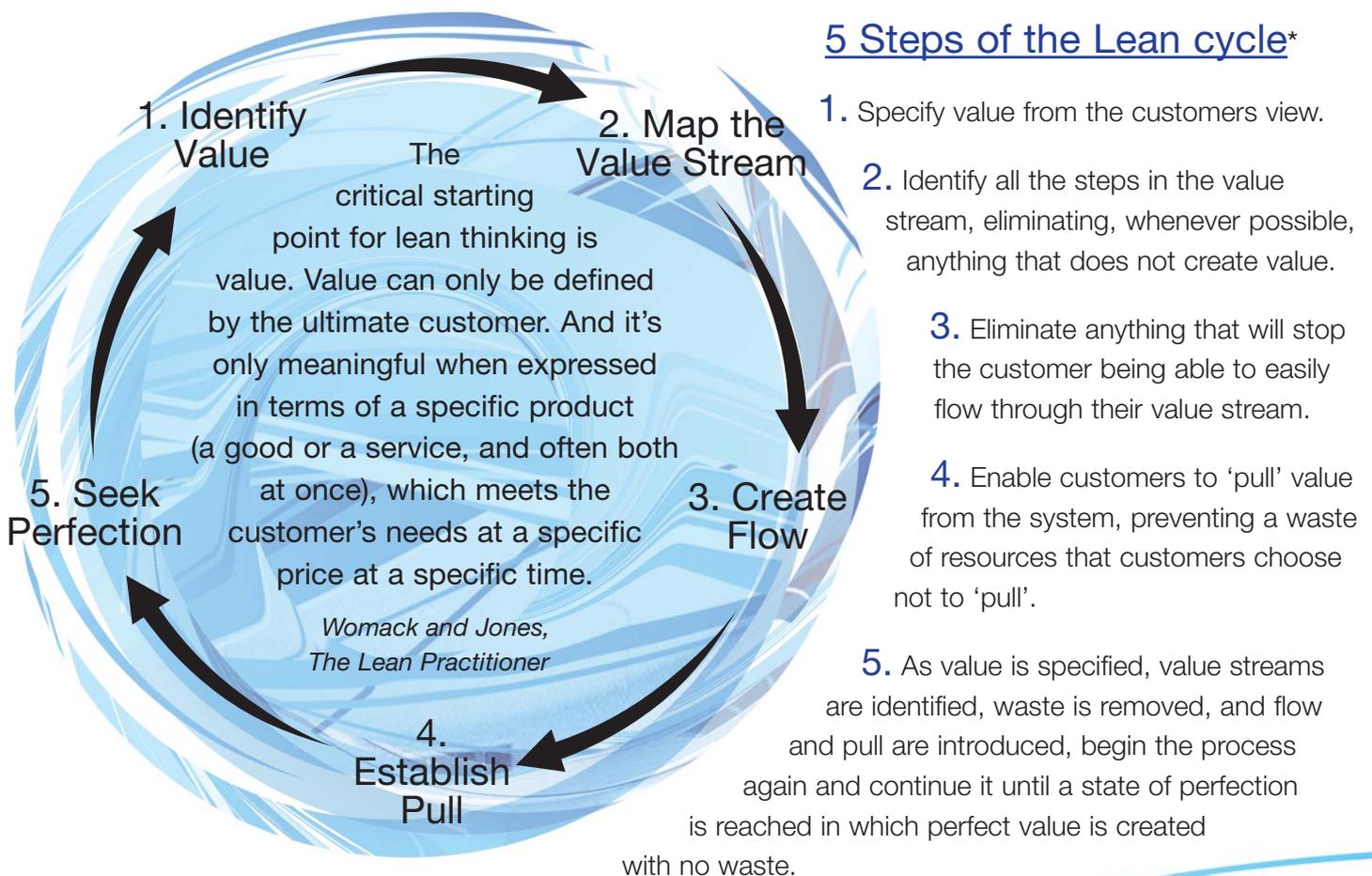
Since then 'Lean thinking' has grown into a global movement with thousands of the worlds most respected organisations implementing it and deriving huge value from it, both for them and their customers.

Despite searching online for documented examples of its application in the health and fitness industry none were readily available. This is the GYMetrix view of how it can be applied to gyms.

'Lean' is not a cost cutting exercise as some think, but rather a way of looking at business in terms of the value that it produces for its customers and enhancing the 'value add' and removing the 'non value add' or 'waste' from its operations.

Value is when a business fills a customer's need, and lean thinking looks at a business and asks the question, 'If a customer had the option of paying for this, or not, would they? Does it add value to them?'

A lean organisation understands what its customer value and focuses its key processes to continuously increase it. The ultimate goal is to provide perfect value to the customer through a perfect value creation process that has zero waste.

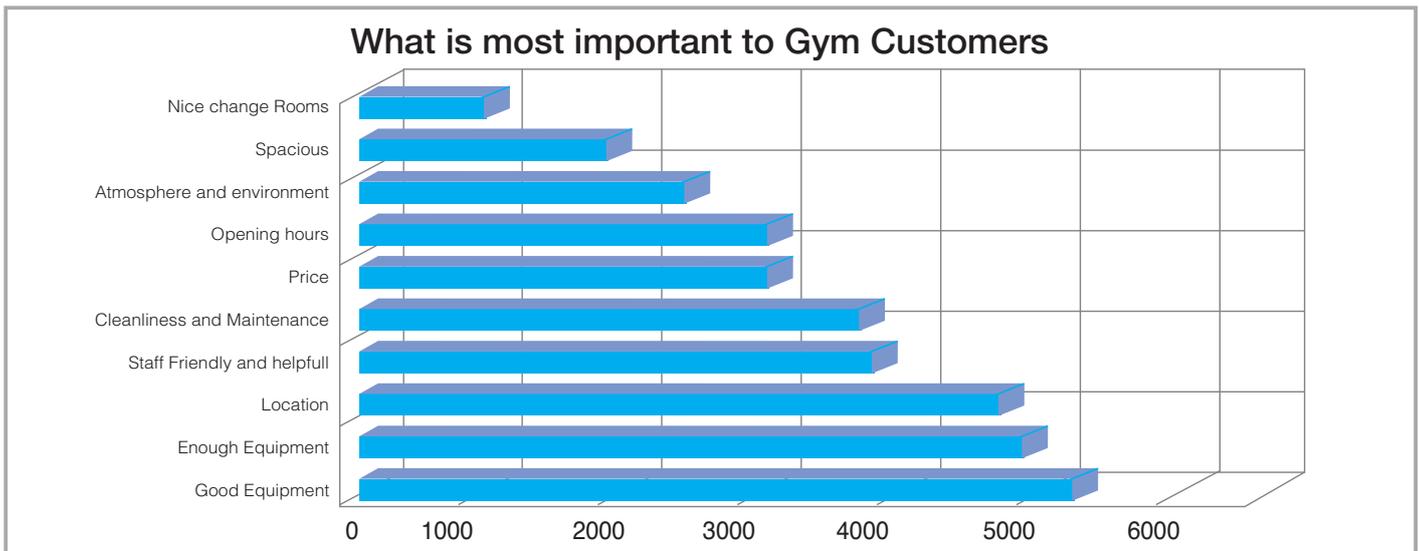


* The Lean Enterprise Institute

1. Identify Value

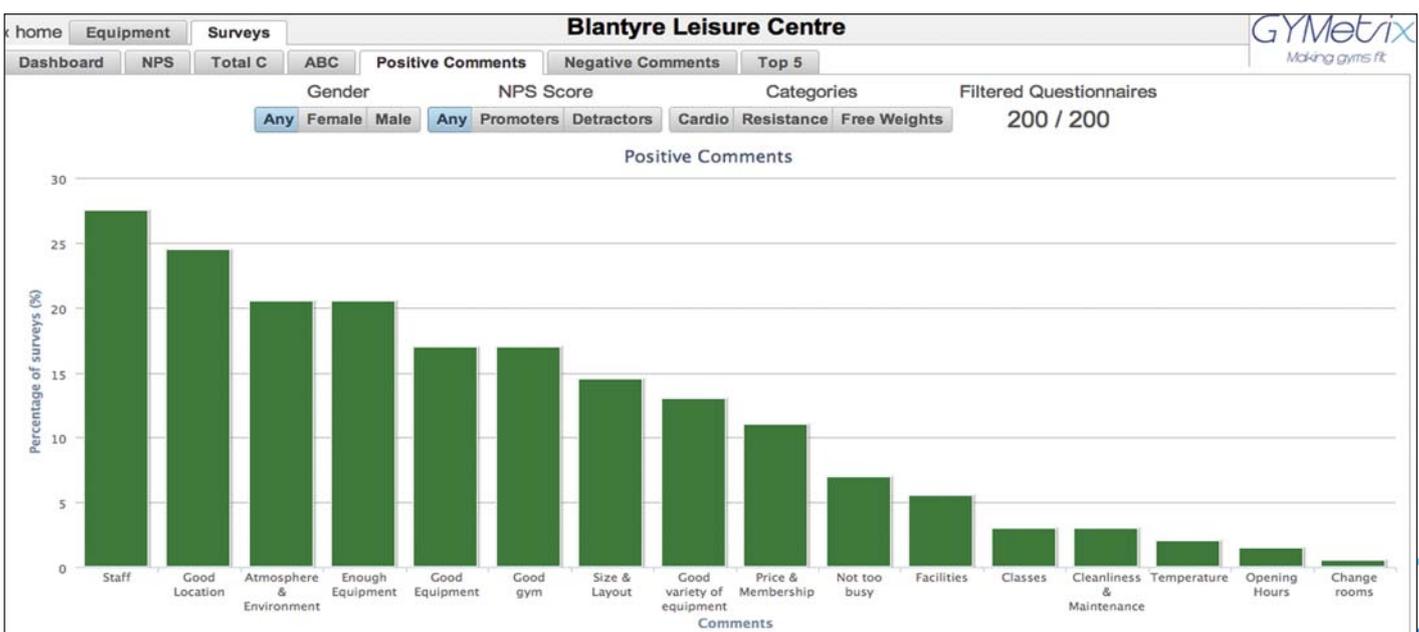
I start here by referring to the case study that we sent out last month 'What is most important to gym customers' (<http://www.gymetrix.co.uk/pages/clients>) A brief recap of this was we went through past surveys and pulled out 10 common themes customers said they liked about their gym when they were being positive. We then asked subsequent customers in surveys to pick their top 5, in order of importance to them, when choosing a gym. Essentially what they **valued** most.

What is crucial here is we did not select the list, customers selected the list, that customers themselves then went on to rank.



The survey sample size here was over 2,500. This highlights the main areas that customers find important, and therefore **value**, when choosing a gym.

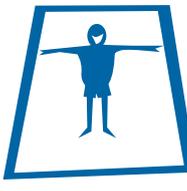
For every project we do, in our surveys we ask customer what they like about their gym, and what they think could be improved in their gym. For individual gyms this highlights where customers find **value** in that particular gym. Here is an example screenshot from a gym we have done a project at where customers said they found value.



2. Map the value stream

Unlike in applying 'lean' to manufacturing, where there is a product going through a production cycle, for gym users the value stream will be the customer moving themselves through their value stream. An example of a gym customer's value stream could look something like this.



Customer goes to resistance section		
	Value - Is the Pec Deck available?	
	Value - Is it spacious or cramped?	
Customer uses more resistance equipment		
	Value - Is the abdominal machine free and available?	
	Value - Interaction with gym staff member - did it add value or not?	
Customer finishes off with stretching exercises		
	Value - Are there available mats?	
	Value - Is the area spacious or cramped?	
	Value - Met some fellow regular customers that see at the gym and had a friendly conversation.	
Customer goes to showers		
	Value - Are there showers available or does he/she have to wait?	
	Value - Is the shower in good working order or run hot and cold?	
	Value - Is there soap in the soap dispenser or is it empty?	
Customer gets changed		
	Value - Is there space to be comfortable or crunched up trying not to get in people way	
	Value - Was the floor dry or did the customer get socks all wet because other customers walk out the showers dripping wet?	
Customer leaves gym		
	Value - Does someone smile at the front desk and say goodbye?	
Customer gets home		
	Value - Does the endorphin release makes the customer feel good?	
	Value - The customer looks in the mirror or stands on some weighing scales and feels better about themselves, they feel the benefits of going to the gym.	
	Value - The customer goes out on a Friday night and gets told 'your looking good, you been working out?'	

Value Propositions

Obviously different gyms have different value propositions and these appeal to different customer groups. Some customers like to have someone smile, greet them and give them a towel when they enter. This is something these customers value and are willing to pay for. Other customers do not value this and are happy to pay less and go to a budget gym where they self serve by entering a PIN number and go through a turnstile.

To be 'lean' each operator must understand what things are central to their value proposition, what their customer group values and focus on, and enhance, those areas. At the same time understand those areas that are not central to their value proposition, that their customers do not value and they could stop doing, removing 'waste' without making any difference to the overall value the customer gets.

A central theme we have found of value to all gym floor customers, luxury or budget, private sector or public sector, university or college is that there needs to be 'enough equipment of a customers choice'.

If gym floor customers cannot use equipment that they want, when they want, because other customers are permanently on it, their 'flow' is broken and the gyms 'value stream' stops flowing, this causes a sharp drop in value.

This is why customers leave budget gyms that are too busy, even though they have a lot of equipment. The equipment becomes so congested that it stops customers being able to 'flow' through their 'value stream'. If customers are unable to 'flow' around a gym floor, using equipment and collect value from their 'value stream' the gym has no value, not even £12.99 a month.

The value stream of customers using the gyms equipment

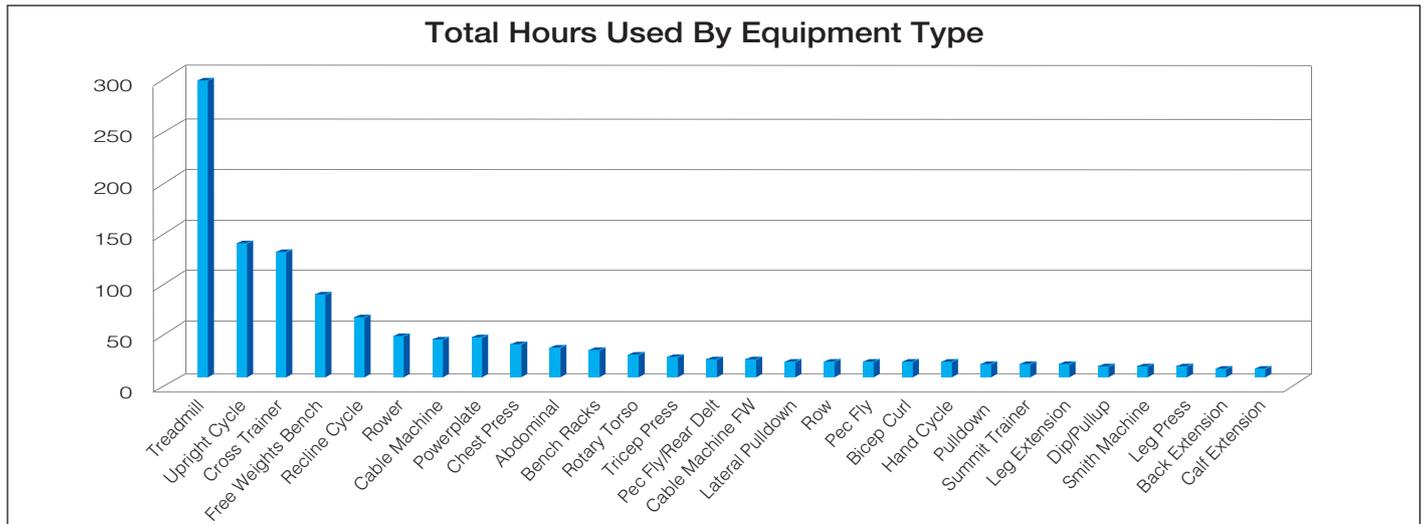
As customers 'flow' around a gym floor they are using different types of equipment, obviously this is the equipment that they value, the equipment they have paid the gym to use. This is their personal 'stream of value' that they are receiving from the gym.

Value is when a business fills a customer's need, and lean thinking looks at a business and asks the question, 'If a customer had the option of paying for this, or not, would they? Does it add value to them?'

Perhaps, in the future, technology will enable the ultimate in budget 'pay as you go' gyms where the customer only pays for gym equipment as they use it. This would be a very 'lean' gym where customers have the choice of only paying for the equipment that they value, and not paying for equipment they don't. There would be alignment, a direct link between paying the gym for its services whilst simultaneously pulling value from the gym.

Assuming all equipment types were charged at £1 per hour in this model the revenues generated from the equipment types would look like what GYMetrix graph of 'Equipment type - Total time' looks like. An example from a gym we have done looks like the graph on the next page.

Total weekly revenue generated by charging equipment at £1 per hour



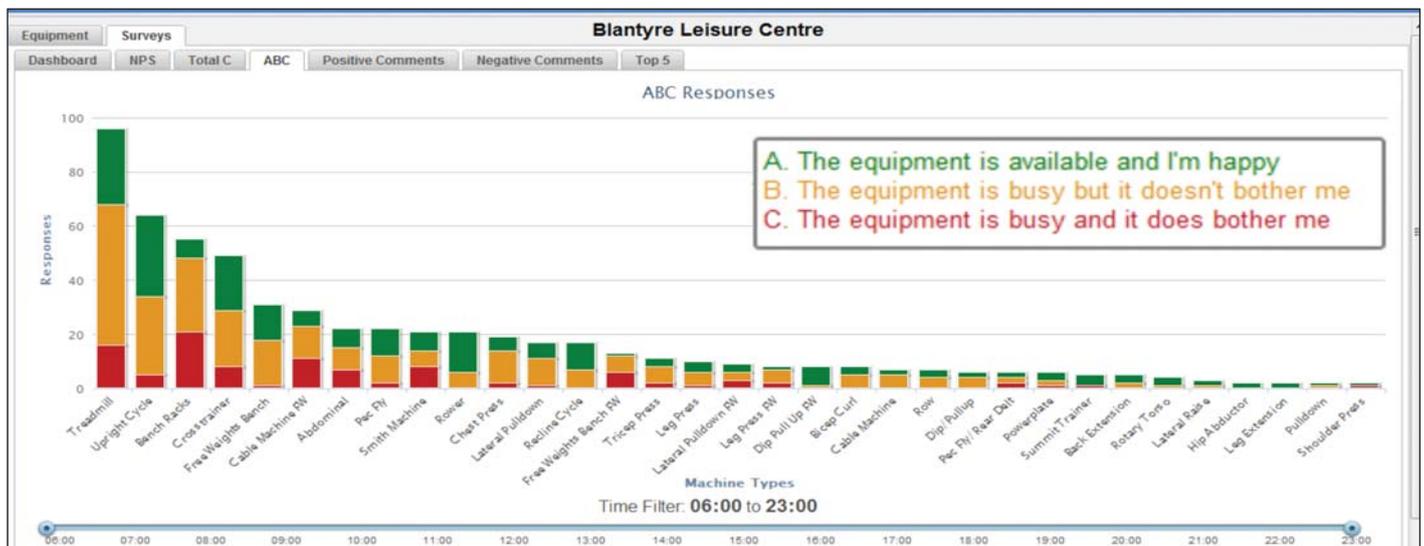
Each gym is different and has a unique demand pattern (That is another white Paper) but for this particular gym, this is the magnitude of value customers put on each of the different equipment types.

This business model, where equipment is paid for per hour used, would be very responsive to its customer's equipment demands, a lot more responsive than gyms are now, and a lot leaner.

Ultimately customers are telling operators what equipment they value and what they don't value by how much they use it. By using equipment they show operators what equipment is in their 'value stream'

Another way for GYMetrix to map what equipment is in customers 'value stream' is in our surveys we ask customers what their favourite 3 equipment types they like to use the most are. It is remarkably similar to Total Time.

We then ask them to match against each one of the following statements. A, B or C (see below).



Firstly the height of each bar indicates the popularity of the equipment, but the different colours within the bar represent the 'value' customers are receiving from that equipment.

The red portion represents customers indicating they are not receiving good value from this gym with regards to that particular equipment type - They find the equipment is 'usually busy and it bothers them.' Their 'value stream' is being interrupted because they cannot easily use equipment that adds value to their experience.

3. Create Flow

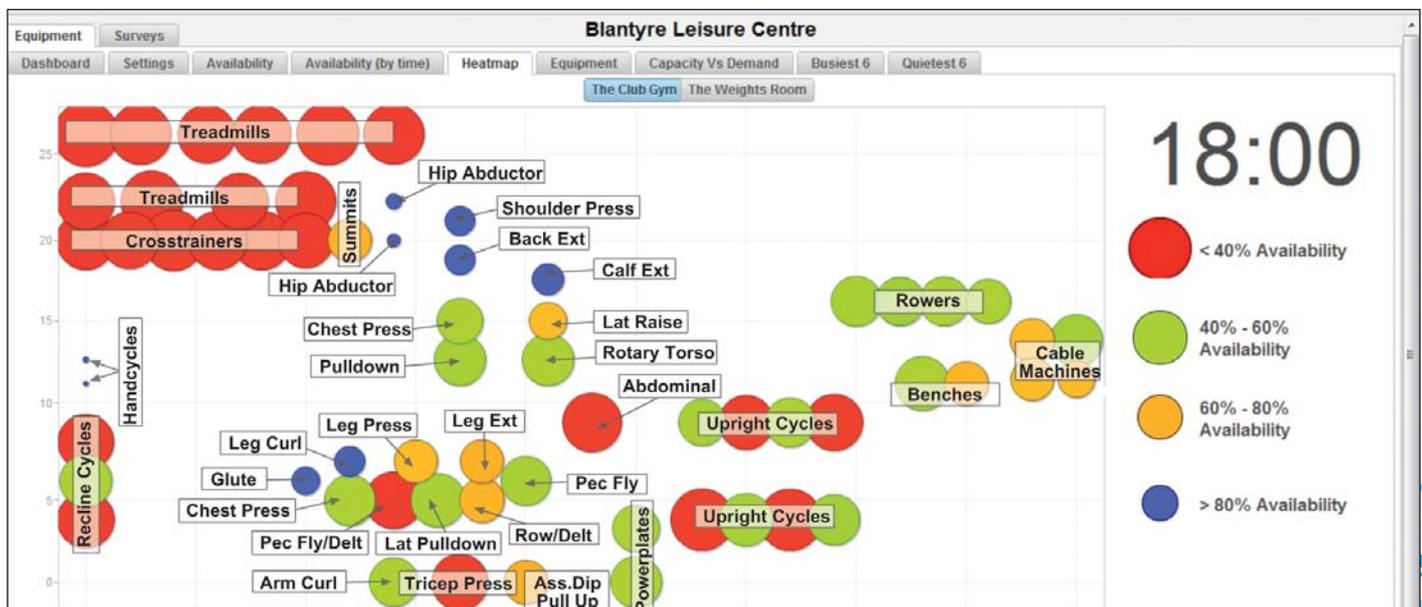
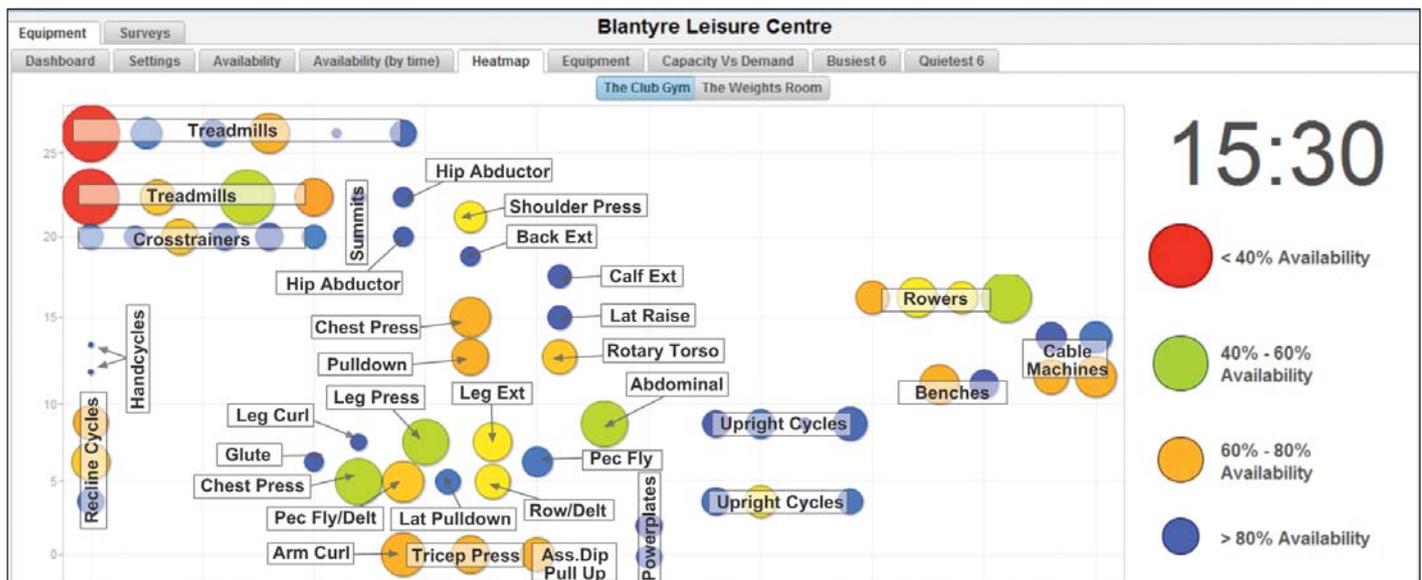
In a gym environment 'flow' is really looking at customers flowing through their 'value stream'. How easily can they flow through their 'value stream' collecting value from the gym? Anything that impedes this 'flow' causes a reduction in 'value'.

A customer being held up at the entrance impedes flow, not being able to find an available locker, having to wait for a treadmill, waiting for a bench, waiting for the ab machine, waiting for the water fountain, waiting for an available shower are all examples of customer flow being impeded and them not being able to access their 'value stream'.

Ideally customers want to be able to 'flow' through their 'value stream' at their own speed with no impediments.

Now looking at the gym floor, where customers, on any given day, generally have a routine, a flow of equipment that they want to use, this is their 'value stream'.

Flow is dynamic and GYMetrix 'Heatmap' highlights impediments to flow. The key on the right shows how busy individual pieces of equipment are by the size and the colour of the circle on the heatmap. Here we can see the increased 'flow' and equipment congestion from 3:30pm to 6pm. Red indicates 'low equipment availability' where availability has dropped below 40%.



When looking at 'flow' low equipment availability, below 40% (red) is negatively affecting flow, especially if all of that equipment type is red. Customers will not be easily able to 'flow' through their 'value stream.'

4. Establish Customer 'Pull'

In a gym environment the reason enabling customer 'pull' is 'lean' because customers are not going to pull resources into the gym unless they add value, unless, if they had the choice, they would pay for these resources. This stops the gym wasting its resources in 'non value add' areas and creating 'waste'.

If we look at the earlier hypothetical example of a 'pay as you use equipment' gym, in this model the operators would very quickly adapt to a 'pull' model looking at the revenues the machines generate, and providing customers with an optimum mix.

The operator would not provide too few, create shortages and lose revenue if customers couldn't use equipment. It would result in slowing customers 'spend' as their 'flow' slowed and 'unmet demand' where the operator would lose revenue. Neither would the operators provide excessive amounts of unpopular equipment that sat unused and used up capital and floor space, but did not generate income.

The reason the gym industry is not 'lean' is it uses an operator/supplier 'push' model. It is either the suppliers and/or the operators that decide what equipment they are going to 'push' onto their customers.

As GYMetrix studies to date have proved, the result of this is too little equipment, where customer demand has been underestimated, and simultaneously, too much, where there is an overestimation of customer demand. This breaks customers 'flow' on the gym floor and generates dissatisfaction where there are shortages. At the same time there is under utilised equipment that customers, if they had the choice, would not pay for. 'Waste'.

For the vast majority of studies GYMetrix has done, operators could provide more value to customers with less overall equipment! This is a benefit of being lean, providing customers with 'more' value with 'less' resources because 'waste' is removed.

How it is possible to create a 'lean' gym that creates more value for customers with less investment in equipment?

To be lean operators firstly need to understand what equipment customer's value and enable them to 'pull' that equipment into the gym. The problem with a 'push' model is customers end up with equipment in the wrong quantities and equipment they don't value.

Investing in equipment that customers are 'pulling' into the gym produces 'increasing returns' in customer value.

Investing in equipment that customers are not 'pulling' into gyms produces 'decreasing returns' in customer value.

If you know where to invest in equipment, you can increase overall customer value with less overall equipment, unless there is an overall capacity shortage, but this has only occurred in 14% of our studies.

So where is the customer 'pull' for equipment?

Customers who are on a gyms floor primary reason for being there is they want to use the gyms equipment. They want to be able to 'flow' through their 'value stream' using 'available' equipment. GYMetrix has the technology to precisely measure the level of 'equipment availability'.

'Equipment Availability' is GYMetrix primary metric because it is a direct measure of the service level a gym is providing its customers.

It identifies where customer 'flow' is being impeded and where there is customer 'pull' for equipment.

Two critical service levels of 'equipment availability' that linking our surveys to our sensors measurements, during peak times, has revealed are;

- 1) +/- 40% availability - This is the average level of availability that customers respond 'The equipment is usually busy and it bothers me'.
- 2) +/- 60% availability - This is the average level of availability that customers respond 'The equipment is usually free and I am happy'.

It produces a graph that looks like this when we time filter to a gyms 'peak period'.



Equipment that is in the red represents shortages that are causing customer frustration. Here customers want to 'pull' this equipment into the gym. Investing in this equipment produces increasing returns in customer satisfaction because it removes congestion and increases customers 'flow' through their 'value stream.'

Equipment that is in blue represents excesses or unpopular equipment. Here there is very little to no 'pull' for this equipment. Investing in this equipment represents decreasing returns in customer satisfaction because there is low demand. It is not in many customers 'value stream' and contributes nothing to increasing 'flow', customers can already 'flow' through this 'low-value stream' with ease.

There is a very strong customer 'pull' for equipment in the red, a less strong 'pull' for equipment in the green but a very weak to no 'pull' for equipment in the blue.

So How Much Equipment does this 'Pull' represent?

Because GYMetrix has measured the exact amount of customer demand for individual equipment types it is possible for us to work out exactly how much equipment is needed to achieve precise service levels of 'equipment availability.'

In the example below, one of the ways our client became 'leaner' was by removing excess summit trainers and rowers that were not adding value, where there was little 'pull' and added 2 more crosstrainers where there was a strong customer 'pull'.



* In the GYMetrix system 'Equipment requirement' tab enables operators to simulate changes in equipment by moving the yellow equipment level markers up or down. This changes the 'availability' in the graph below and summarises the changes in terms of total machines, space and cost.

The graph above, 'Equipment requirement' and the graph below 'Equipment Availability' are linked to each other.

In the graph above the horizontal yellow lines indicate the amount of equipment this gym has. If the amount of equipment is in the red section of the bar this shows it will have less than 40% availability, be red in the graph below and represent 'pull'.

If the level of equipment is in the green portion it shows the 'availability' will be between 40% - 60% and will be green in the graph below.

If the yellow line is above the green section of the bar in the graph above then it will be blue in the below graph and represent little to no 'pull'.

So where is the waste?

How can we find all this equipment that if customers had the choice they would not pay for? Equipment that if it was a 'pay as you use' model would generate little income because customers would choose not to use it as it adds little value to them. **Equipment that, if it was removed, would have little effect on the 'flow' of the customers 'value stream'.**

It falls into two areas.

1) Where there is too much of an equipment type.

In our surveys the average level at which customers match the statement **'The equipment is usually free and I am happy'** is when the equipment is **free and available around 60%** of the time in peak periods. If a customer is saying they are happy at this level we presume, if they had the choice, we they would not pay for a much higher level of availability. If they are happy at 60% availability not many are going to voluntarily pay more to get to 90% availability. Therefore a lot of equipment above 60% is waste, which the customer, if they had the choice, would not pay for.

2) Where there is only one of an equipment type but its usage is very low.

This is more contentious than the above example, because in the above example removing equipment where there are multiples only reduces the service level say from 90% availability to 60% availability. Where there is only one of an equipment type, although the vast majority of customers are unwilling to pay for it, there are a small minority who would be willing to pay for it. Its removal reduces its 'availability' from 90% to 0%.

However if handled correctly, and before its removed, instructors educate the customer on how to get better results using alternative methods the dissatisfaction can be minimised, or even turned into a positive through education.

The value of staff interactions?

This second point raises an interesting question. **In our hypothetical 'pay as you use' model, if customers had to pay for every interaction they had with gym floor instructors, or at least the option to pay or not, after the interaction, what type of interactions would they value? How much would they be willing to pay?**

Which gym staff would pay their way in terms of value creation for customers and which would not? What types of interaction would pay their way and which would not?

I feel there would be a focus towards more 'value add' interactions than simply 'having an interaction'.

Furthermore, of the equipment that is 'non - value add' because customers are choosing not to use it, if instructors educated customers about this equipment and its benefits how much could its usage be increased and it become 'value add' equipment?

The answer sometimes is creating value through better education of customers about equipment.

Instructors, and other influences, are capable of changing what equipment customers choose for their value stream.

5. Seeking Perfection

We have been talking here mainly about gym equipment but a truly 'lean' operation would look at all aspects of the value stream, for all its different customer segments, and be doing it continuously. Once a cycle is complete to go back to the start and begin the cycle again until all waste is removed from the operation.

Lean is not a once off exercise but a way of thinking that to be truly successful requires buy in from everyone in an organisation and becomes part of the culture.

The benefits of operators being 'lean'

By going 'lean' the gym industry could generate huge increases in value for its customers by enabling them to 'pull' into gyms equipment and services that they value, and removing obstacles to their 'value stream'.

GYMetrix has gone back and re-measured the results of two clients that responded to customer 'pull' for equipment. **They saw their customer satisfaction scores jump 73% and 123% respectively.**

At the same time operators could generate huge increases in their own wealth by reducing the amount they spend on equipment and services that add little or nothing to customer value. Removing 'waste'.

Of all the gyms that GYMetrix has done studies for, only 14% have an overall capacity problem, where they require an increase in the overall equipment to meet customer demand.

Of the remaining 86% most had significant amounts of 'waste' where there is excess capacity. The majority of gyms could provide more value with less overall equipment and cost.

The problem here is, because the gyms have no system for enabling customers to 'pull' equipment into their gyms, they have 'pushed' equipment onto customers, which adds little or no value to them because they are of the wrong types, and in the wrong quantities. At the same time it has cost the operators capital and rented floor space to provide this 'non-value add' equipment.

If customers had the choice they would not pay for this equipment. In a 'pay as you use' model it would generate very little income, certainly not enough to pay for itself.

These gyms could provide more value to their customers with less overall equipment. By only spending it where customers have 'pulled' equipment into the gyms.

Conclusion

Just in its first year of business GYMetrix, from its accumulated studies, has identified hundreds of thousands of pounds of 'non - value add' equipment, 'waste.' This could instead be sitting on operator's bottom line with little difference to customer's value.

However if even one quarter of that 'waste' was redirected back into solving shortages of equipment, where there is customer 'pull', and enabled customers to 'flow' more smoothly through their 'value streams' we can only imagine what the increases in customer value there would also be.

'Lean Thinking' has benefited many industries around the globe, it is now time that its benefits are felt by the Health and Fitness Industry, both its customers and operators.