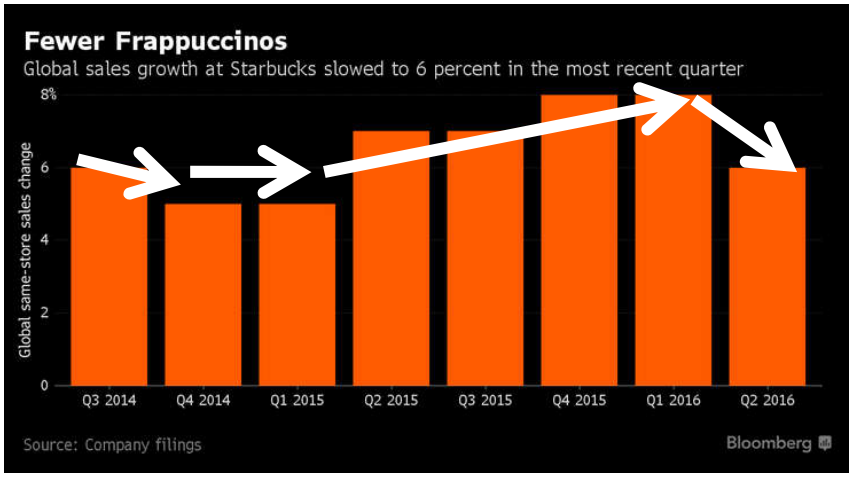
Draw a multiple loop structure

This article reports that sales in Starbuck's US cafes grew less strongly than expected during the first quarter of 2016. We can see this slowdown in growth from the chart provided in the article.



The chart plots same-store sales growth over a two year (8 quarter) period. We can see that sales growth first fell in Q4 2014 before stabilizing in Q4 2014 and Q1 2015 and then increasing steadily before falling gain in Q2 2016.

This **s-shape behavior** (even though it is a very flat s) is a first indication that there are **two loops at work**:

1. A **reinforcing** loop that is driving growth
2. A **balancing** loop that is acting as a brake on growth

We need to read through the article and see if there are any other indications of these two loops at work.

The article reports in the first and third paragraphs that **competition** is making inroads into Starbuck's market.

> Starbucks Corp. posted fiscal second-quarter sales that trailed analysts' estimates as growth in its Americas region slowed, showing cafe rivals may be gaining ground on the coffee giant.

> The results signal that competitors may be chipping away at Starbucks' dominance by following its strategy of hooking customers with loyalty programs and smartphone apps. Dunkin' Donuts started testing mobile ordering late last year, while Panera Bread Co. has said its digital sales may reach $1 billion in 2017. Both chains also have rewards programs with millions of members.

Starbucks' success has attracted competitors that are vying for the same customers. This is the same situation that we saw in the Netflix example. This indicates that there is a **balancing loop** driven by the actions of competitors that is slowing growth in sales. We can begin modeling the situation by drawing this balancing structure.

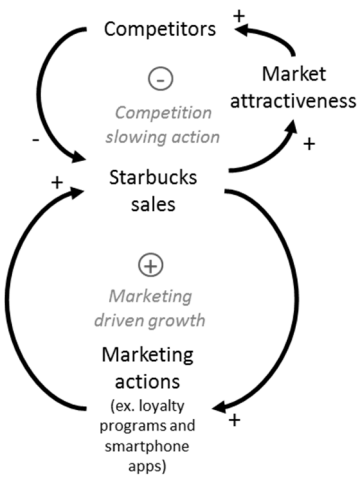
As Starbucks' sales increase, so too does the attractiveness of the market for other companies. The actions of rival companies have a slowing effect on Starbucks' sales. After all, they are now competing for the same customers.

If you found it difficult to draw this balancing loop then an easier place to start may be with the reinforcing loop that is driving growth in sales. All businesses rely on one or more reinforcing loops to push their growth. Here, Starbucks' sales is the **performance variable**. We need to go back to the article to find evidence of a **growing action**.

The third paragraph indicates how Starbucks is driving its same-store sales growth: "loyalty programs and smartphone apps". This is confirmed in paragraphs 8 to 10.

> Starbucks' app and rewards program, which have locked in millions of members, gives it access to diners' eating habits so they can offer appealing deals to them. The company has even considered licensing its technology to other retailers.
>
> "Starbucks continues to redefine the customer-facing mobile and retail experience of the future," Chief Executive Officer Howard Schultz said during a conference call. The company will end fiscal 2016 with about 25,000 stores globally, he said.
>
> Along with technology, Starbucks is trying to boost sales with new restaurants. The company is adding about 1,800 net new locations this fiscal year -- including 900 in its rapidly expanding China and Asia Pacific region. Despite the recent economic turmoil in China, Schultz has said that he's "bullish" on the country and that it could be bigger than the U.S. market.

Starbucks uses digital technologies and loyalty programs to collect data about their eating habits and make targeted offers. This is marketing at work.



We can now add a new variable to our model called "marketing and advertising actions" and show it as the growing action of sales. The structure of the reinforcing loop tells us that there is also a link between the performance variable and the growing action. This makes sense here: as sales increase, so too do the resources available for further marketing and advertising actions. We now have a reinforcing loop of Starbucks growth.

Loops are always connected

Can you see how these two loops are connected? If the loops are not connected, they are not part of the same system. Multiple-loop structures are always made up of interconnected loops.

Here, the two loops share a variable, Starbucks sales. An increase in Starbucks' sales has two direct effects: a positive effect on marketing actions, and a positive effect on market attractiveness. Whenever **a variable has more than one direct effect** or **more than one direct cause**, it no doubt **joins two or more loops** together.