You are a consultant at Egger Consulting. Your job is to extract from the data your client collects a business metric that will help you recommend a profitable business process change. Read the following assignment case study information and review criteria, then complete your own assignment and review three peers. We anticipate this entire peer assessment assignment will take you no more than 3-5 hours total, including writing your own submission and reviewing your peers (but not including any review you may need to do as you work on your own submission).

**Assignmentless**

You are a business analyst at Egger Consulting. You have been given this case description from a potential client:

Happy Hat, a U.S. national chain of frozen yogurt stores with about 500 stores in 40 states is asking for assistance with its business processes. The average number of visitors per store has held constant over the past several years, but revenues per store are down by an average of 10%, and many stores are no longer profitable. The client suspects that a large amount of inventory is being thrown away unused at the end of each day. At the same time, customer polling suggests that the yogurt flavor customers want is often not available, even when the flavor is posted on the menu. People also complain about stores being closed when they visit. Now, the chain is facing increased competition from frozen yogurt sold in 24-hour grocery stores. Happy Hat has asked your team to recommend business process changes that can help them increase revenues and restore profitability.

Happy Hat currently has the following data available:

1. 4 years of cash register data for every store that has, for each transaction, the date and time of the purchase, the specific items purchased, and the sales price of each item purchased.
2. 4 years of delivery data that lists how much of each kind of yogurt mix, flavoring, and topping was delivered to each store each week.
3. Typical public company accounting data, including annual revenues, annual cost of goods sold, in-store inventory on hand at the end of the year.

No other company data is available.

As a business analyst at Egger Consulting, you will need to identify one business metric that could be extracted from the available data in the Happy Hat case study in order to suggest a business process change that could be related to improving Happy Hat’s revenue or store profitability.

Remember, an effective metric is one that is directly related to the business process being examined. As such, the metric can be used to help identify a business problem to be addressed with a business process change, and later can also help determine if the implemented change was successful (through seeing if the changes in the metric are in the direction you would expect after implementing the business process change).

**Review Criterialess**

To pass this assignment, you must receive a score of 60% or higher of the available points, which means you need at least 6 points.

* Did the learner choose a value that is, in fact, a business metric, as discussed in this course? (check [the glossary](https://www-origin.coursera.org/learn/analytics-business-metrics/supplement/Hos4A/course-glossary) if not sure; 1 pt)
* Was the business metric correctly classified as a revenue, profitability or risk metric? (check[the glossary](https://www-origin.coursera.org/learn/analytics-business-metrics/supplement/Hos4A/course-glossary) if not sure; 1 pt)
* Was the submitted metric correctly classified as a traditional or dynamic metric? (check [the glossary](https://www-origin.coursera.org/learn/analytics-business-metrics/supplement/Hos4A/course-glossary) if not sure; 1 pt)
* Did the learner give an accurate explanation of why the metric is traditional or dynamic? (2 pts)
* Was the metric derived from data elements that are available in the case study? (1 pt)
* Is the business process change relevant; in other words, does it address a specific client concern as cited in the case study? (2 pts)
* How effective would this metric be for helping to identify and later assess the recommended business process change? (2 pts)

**Question 1:** Identify a business metric based on the case study.

I would suggest Happy Hat to pay attention to days inventory (average number of days inventory is held) for each kind of yogurt mix, flavoring, and topping at every store.

**Question 2:** For the identified metric, state whether it is a revenue, profitability or risk metric.

It’s one of the inventory management metrics and focusing on how efficient the company operates and produces it product to meet customer demands. So it should be categorized as a profitability metric. A big company like Happy Hat, a national chain with 500 stores in 40 states has passed the growth stage of its life cycle, and can achieve significant increases in profitability.

**Question 3:** Identify the metric as traditional or dynamic. Explain why you classified the metric as you did.

It’s a dynamic metric. Because the days inventory of one item over a period of time (let’s say a month) will change significantly if a store increases or decrease the inventory of a particular item. For example a month ago, customers might complain about a strawberry yogurt was easily sold out and became unavailable, but after the store increases its inventory for this item (to an appropriate level, not too much to create wastage), this situation hasn’t happened any more.

**Question 4:** Which of the data available in the case study would be used to derive the metric you have chosen?

1. 4 years of cash register data is needed to know when and how much each item is purchased at what price.

2. 4 years of delivery data is need to know when an item is delivered and for how long it is stored before sold.

3. Typical public company accounting data is need to know cost of in-store inventory on hand.

**Question 5:** Propose a type of relevant business process change that would be supported by the metric you have chosen. Explain why and how your chosen metric relates to your recommended business process change.

1. Increase inventory for certain items to minimize 0-level inventory: as I mentioned before, stores should order more “hot” items because unhappy customers can walk away and never come back.
2. Decrease inventory for certain items to avoid wastage: if days inventory are too long, stores might want to think about cutting off those items that are no longer in customer demand.
3. Optimize order size and purchasing frequency: adjust the purchasing and delivering practices accordingly, maybe smaller and more frequent orders fits the demand better or the other way around.

Review others:

A dynamic metric must meet two criteria to be considered; first, will the metric change significantly in a short window and secondly, will the metric have an impact on the business?   Adjusting the inventory to ensure that the Happy Hat has appropriate levels of popular flavors and is not throwing away unsold inventory would make an immediate impact to the business.

* It may be as easy as Happy Hat is not incorporating regional preferences in their menu.  If they believe that the favorites are the same across the U.S., they may need to go back to the drawing board.  It'd be safe to assume that the most popular flavor in Fargo in December is a bit different than Phoenix in August.  While it’s easy to administer their supply chain by sending the same ratio of ingredients to all 500 stores in 40 states, if they don’t dive into the specific store to further understand the preferences of that locale, at that time, they may be missing out on a valuable opportunity.
* So, after analyzing the detailed store receipts, we should be able to understand those regional preferences and then could adjust the delivery mix to ensure that the most popular flavors are in stock and customers are satisfied.  This analysis would also help confirm if there is waste.  If Happy Hat is sending flavors that are going into the dumpster, we should be able to see that within the data and adjust the delivery accordingly.  We should see better customer satisfaction since the flavors are available, we should see less waste since we’re adjusting the delivery, and Happy Hat should have more productivity from their employees as they are no longer wasting time creating yogurt that only ends up in the trash.

I think it would be a good idea work with the two main groups of information that we already have in the case:

* ·         Items sold
* ·         Inventory delivered to each store

We know that we have 4 years of cash registered data detailed at a transaction level, so we can know: where, when, at what time, how much of each flavor, yogurt mix and topping was sold in that period.

In the other hand, we can know how much of these products was delivered to the store each week in the same period. So, we can determine the efficiency of production with the ratio:

* ep=Product Sold / Product Delivered to store

We can disaggregate this ratio al a category level:

* epf = Flavor sold / flavor Delivered to store for each flavor in each store, state, week.
* epy =Yogurt mix sold / Yogurt mix Delivered to store  for each flavor in each store, state, week.
* ept=Topping sold / Topping Delivered store for each flavor in each store, state, week.

This is a dynamic metric because with little changes in the quantity of flavors, mixes or toppings delivered to the stores, it would be possible to see how  the ratio could decrease  for example from 1 to 0.09, 085 in a few days or weeks.And in the other side , will be less waste of less popular flavors because of a lower inventory of it, making the ratio increase from 0.4 or 0.5 to 0.7 or 0.8. In other words with a concrete action (increase /reduce quantity of flavors, mixes, toppings) we will see changes in the metric in a really short term.