

KEEN Card : Creating Value Means Going Beyond Problem Solving

Instructor Notes : Introduction to Keuring Kold

By: Bill Kline, Rose-Hulman

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Introduction

These materials have been developed to support a design and creating value class.

As noted in the 2018 ASEE paper, there are three issues to consider for an organization to create and deliver a product or service that provides value in a sustainable manner.

1. Developing a product or service offering likely to be selected over competing alternatives – using a two step approach - the focus of materials in this card.
2. Organizational ability to develop and take to market new offering.
3. Developing a value proposition (develop from S/F table) and sustainable business model.

Case Study Articles

Several case study articles on the Keurig Kold are provided. These are popular press articles and provide information on various aspects of the technology, product, cost, and sales results. The case is briefly discussed in the 2018 ASEE paper.

Item 1 - Stakeholders/Features Discussion

Perhaps start with a consideration of who is the 'customer' for the product but leading into discussing multiple stakeholders who have an interests in the purchase, operation of the machine, and consumption of the drinks. The Ulwick Job Map can help identify the multiple stakeholders involved in consumption and use of the product.

Stakeholders: Drinker, Preparer, Cleaner Upper, Buyer of machine, Buyer of pods, Bystander

For this case, it is possible that the buyer is an adult or parent (given the high cost of the machine) and the drinker is a younger family member.

After identifying stakeholders, move on to a discussion of the product attributes or features that the stakeholders might find desirable. Features are the general attribute and feature attributes are the quantitative expression.

Common ones – taste, nutrition, freshness, prep time, clean up time, cost to buy, cost per serving, recyclable, serviceable, repairable, environmentally friendly, etc. There are unexpected feature issues noted in the case examples such as noise.

Discuss that the stakeholders have different interests in the features identified and make some assumptions about the preference for the various features.

Put students in small groups and ask them play the role of a stakeholder (persona or advocate concept) and indicate their preference for the features identified. Students sometime struggle with this, they don't fully appreciate the priorities of stakeholders.

Students could be asked to do considerable additional research to identify stakeholders, features, or priorities – either online/paper research or stakeholder interviewing. In practice, this would be done.

Several interesting discussions can be developed from the common features.

How do we characterize 'performance' of the product? Taste, temperature, quantity, time, healthful, freshness, etc. For a food or drink system, these are common features.

How would we quantify taste?

How would we quantify recyclable?

How would be calculate environmentally friendly? Calculate carbon footprint?

Is nutrition and healthfulness a key concern here?

- Is the soft drink market expanding or shrinking?
- If the buyer is a parent, do they want their children drinking soft drinks?
- Does the machine provide a more nutritious drink?
- Does the machine encourage more careful or reduced consumption?

Do we want the device to be serviceable or repairable by the customer? By a service technician?

Will the product be offered in international markets?

Are there expected features that we overlooked but were noted in the case write ups? (Noise)

Item 1 - Features/Designs Discussion

Assuming the Keurig Kold is used in a home/residential setting, only one comparable solution (soda in can) has been included in the table. Others could be considered such as a fountain drink from a fast food or convenience store but this does not seem to be the same context. The comparisons in the table have been completed by making assumptions on the relative performance of both solutions on the features. Additional research can provide more insight and certainty to the data in both views. A quantitative -1 to +1 scale has been included. While a final 'score' can be calculated, many assumptions on relative scores and feature weights suggest that it should be used with great caution.

A possible conclusion from reviewing these two views may be that the Keurig Kold was not a dominant solution compared to soda in a can.

Exploring items 2 and 3 – also proves interesting

Exploring item 2, the organizational ability to develop and take to market, can result in interesting discussions. The cases indicate that Keurig had the capability and devoted significant resources to taking the Keurig Kold to market. Discussions could focus on the work done in various areas – engineering, operations, marketing, partnerships, etc.

Exploring item 3, the organizational ability to develop a value proposition and sustainable business model, also can result in interesting discussion. The big question has to be how did Keurig make such a big mistake with the Kold product. Were they too confident with the success of the Keurig coffee products. Were they too focused on SodaStream as a competing offering. Did they overlook the thought that soft drinks may have a more negative nutrition perception compared to coffee.

They clearly had the capability to develop it (item 2).

The product itself had some disappointing features and perhaps did not show a clear advantage over competing solutions (should be apparent in item 1).

In this case, it appears that they did not miss any important stakeholders but the product features were not attractive to stakeholders especially when compared to other options. Consequently, they could not develop a sustainable business model to make it a success.