Moonshot Clinical Systems

Moonshot Clinical Systems (Moonshot) is a precision oncology company that specializes in screening and monitoring of cancers through the blood. It was the first to develop an FDA-approved test for stage 4 breast cancer, which helped oncologists prescribe more effective therapeutic solutions (chemotherapy, radiation, etc.). Since FDA approval of its first test three years ago, it has also developed blood-based tests for early detection of breast cancer, on a quest to nearly eradicate the disease through screening that is as easy as adding an extra vial of blood to the panels women take every year at their physical exams. The company's name is based on founder Noam Mizrahi's vision to end cancers of all kinds by precisely tracking molecular traces of the disease found in the blood.

Moonshot was a pioneer in the category but competitors quickly surfaced with credible alternatives. The largest, Verity Diagnostics, is a publicly traded diagnostics company that has is one of the largest patient laboratories in the US, launched its own blood-based breast cancer test two years ago through an intensive R&D effort and the acquisition of an early-stage company that was incubated at MIT. Acugen Health is a Silicon Valley startup that launched their own blood-based cancer test two years ago. With a significant amount of venture capital, Acugen has been aggressively marketing to doctors and patients and has doubled its share in the category over the past 12 months. Today, all three competitors have about an equal share of the category, and all are spending aggressively to out-maneuver the other as the technology becomes more developed.

You are an analyst on Mizrahi's marketing team. The team has recently commissioned a study to measure the equity of all three brands, and specifically to: (a) model the drivers of that equity, and (b) develop a preliminary customer segmentation. For the drivers, Mizrahi wants to explore the common themes each company has used in its marketing campaigns. For many years, Moonshot has played off of its bold name to position itself as the most innovative company in the field. Verity has invested heavily in promoting its long heritage working with doctors and patients in other diagnostic categories. Its latest campaign focused on putting patients first and positioning itself as the most collaborative and caring company in the category. Meanwhile, as a later entrant, Acugen commissioned independent, double blind studies to validate the precision of its tests and position it as the most credible and reliable in the category.

Mizrahi wants to double down on the company's claim to innovation. A charismatic speaker who has appeared on numerous media for interviews, he believes there is continued value in positioning Moonshot as a perpetual disruptor that will "change the world." But a series of qualitative interviews fielded before the brand equity study cast some doubt on this strategy. Doctors, especially oncologists, told researchers that reliability was most important for them. Said one doctor, "I don't care if it's the latest and greatest. I want the test to be accurate. I want confidence that I am giving my patient the best and most accurate information possible." Another leading oncologist at one of the nation's premier cancer research hospitals put it bluntly, "what does a moonshot have to do with curing breast cancer? I wish they'd change their name."

The market for precision oncology was changing rapidly. When Moonshot's first test was released, nearly all of the prescribing physicians were oncologists working out of research hospitals or care groups. But as early detection tests have emerged, the share has shifted so that more primary care physicians (PCPs) were ordering the tests. Many of these physicians were not working in research hospitals but in community care centers. Financial analysts forecast most of the growth in the category to come from sales in the PCP segment of the market.

Assignment

Your task is to analyze the data from the brand equity study and make a recommendation to Mizrahi and the company's leadership. Specifically, provide your assessment of Mizrahi's "innovation" positioning strategy. Should the company continue to position the brand around this theme? How much does customer perception of that theme drive equity in the brand? You will measure equity through three dependent variables:

- Net Promoter Score
- Sentiment (Measured on a 5-point scale to this question: Overall, how would you describe your opinion of the _____brand? The scale points ranged from "Extremely Negative" to "Extremely Positive", with a midpoint labeled "Neutral/No Opinion"
- Intent (Measured on a 5-point scale to this question: How likely are you to prescribe this test for your patients in the near future? Scale points ranged from "Extremely Unlikely" to "Extremely Likely" with a "Neither Likely nor Unlikely" in the middle.

18 descriptor variables are included in the dataset that were presented to respondents as words/phrases. Respondents evaluated each variable through this question: How well does this word or phrase describe [BRAND]? Each respondent only evaluated one brand—a brand they were pre-qualified as being familiar enough with to provide a credible response. The 5-point scale used to evaluate the word/phrase ranged from "Does not describe well at all" to "Describes extremely well,", with varying degrees of "wellness" stated in between. Previous research concluded that these variables predict a physician's affinity toward one brand or another within this category. That is to say that the three brand equity DVs can be influenced by respondent perceptions around these predictor/driver variables.

The dataset also includes additional data that can be used for segmentation purposes. The dictionary is provided below:

revenue	Self-reported revenue tier of the physician's practice (on a scale from 1-5, with 1 being lowest tier and 5 being highest)
patients	Self-reported estimate of relevant patients under the physicians care
yip	"Years in practice"—the number of years that the physician has been serving patients
happiness	Response to survey question: On a scale of 1-5 with one being lowest and five being highest, how happy are you in your professional life? Responses range from "Extremely unhappy" to "Extremely happy" with a middle point of "Neither happy or unhappy."
focus	A categorical variable that denotes whether the physician primarily focuses on early detection (1) or precision oncology (2)
oi	Short for Opportunity Index—a 40-point scale developed by the marketing team that uses CRM data to rank customers based on their potential for growth, given the company's development agenda

brand_orientation	Categorical survey question that asked respondents this question: Thinking about the various clinical tests you might order or prescribe for a patient, when there is more than one qualifying option available, do you prefer to... (1) Order from a provider that I prefer, even if it costs the patient a little more (2) Order from the provider with the lowest cost to the patient
practice_area	(1) General practice (PCP) (2) Oncology/cancer care
env	(1) Community care network (2) Research hospital (3) Other

Required Analysis

You are allowed some flexibility in how you conduct your analysis but your final report should include the following:

1. Discussion of how to handle the multiple dependent variables (DVs)—should they be consolidated into a composite DV or not? Why or why not?
2. Discussion of how to handle the 18 predictor variables—do you plan to use all of them, a subset of them, or should you consolidate these variables into higher level, factor-based brand drivers?
3. Which attributes or drivers explain brand equity for Moonshot and how does this differ from the brand equity in competitors? If the management team wished to increase brand equity with audiences that serve its strategic growth goals, which attribute or driver should be prioritized?
4. Do certain segments of the market have more affinity for Moonshot than others? How would you segment this market and which segment would you prioritize? Why?

A grading rubric will be provided on Blackboard. Your grade will be based on the analyses you choose, how well they are applied to the data, and how you interpret your analyses. Your report will also be graded on the degree to which it succeeds in conveying a recommendation to a senior (and often less statistically inclined) decision-maker.

Format

Your report should be in the form of 10-15 annotated slides. You may include some exhibits in the appendix, but please choose these exhibits judiciously. It is common for an analyst to complete many more analyses than are actually shared with a CxO audience. I recommend that exhibits be limited to data analysis that validates conclusions drawn in your report only. For example, if you show a bar chart of brand equity means by brand and segment, you may wish to include a table in the appendix with the results of ANOVA to validate the statistical significance of the data you charted. You should then footnote this exhibit on the main slide as having statistical results in the appendix. This will prevent you from putting too much onto any one slide and also instill the

discipline to only include material in the appendix that is directly relevant to the material you presented.

Your report should lead with your recommendation and then prove why your recommendation is valid. Please ensure that there is sufficient white space in your report—use reasonable margins and also legible type sizes. Visualize the data as much as you possibly can. Be sure to submit your report as a pdf using the link on blackboard before the start of class on the day the assignment is due.