Online Water Monitoring Using Wireless Sensor Networks
Communication System Design
IK2209
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Knowing a Winning Business Idea When You See One

A White Paper by WaterWell Team

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**Introduction**

In this paper, I will explain the concepts and frameworks those were mentioned in the world famous authors W. Chan Kim and Renée Mauborgne’s article which has the same title as this paper. Then I will try to apply the concepts for our CSD project.

The paper starts with the question of identifying the business ideas which have commercial potential. It gives the example of Motorola’s Iridium satellite phone which was a total failure in the company’s history with an absurd price and low-usability. So what was Motorola’s mistake with Iridium? The authors state that it was the deadly mistake of rushing a new technology to the market at the wrong time with the wrong price. So a good manager must assess the “commercial readiness” and the potential of new business ideas. But how?

To answer the question of how, authors have built up a database of more than 100 companies which have innovated successfully and looked for the similarities between them. Then they compared them these companies with underperforming companies. Using this data they have created three analytic tools in order to have a systematic approach to reducing the uncertainties of innovation. These tools are “Buyer Utility Map”, “The Price Corridor of The Mass” and lastly “The Business Model Guide”:

**Buyer Utility Map:**

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<th>Purchase</th>
<th>Delivery</th>
<th>Use</th>
<th>Supplements</th>
<th>Maintenance</th>
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<td>Consumer Productivity</td>
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*Table 1 - Buyer Utility Map*

This utility helps the managers to focus on the “benefits” of the product/service instead of concentrating too much on the technology applied –features-. It allows the managers to see how the new innovation will affect the lives of the customers. It tries to answer question of what value it will bring to the customers.
The columns of the “Buyer Utility Map” represent the experiences that a customer goes through during the “buying” process. Whereas the rows represent the utility “levers” which companies unlock for their customers. For example, a product can offer simplicity in purchasing by making it easy to buy for the customers. Locating a new product on this table will help managers how the product differs from its competitors and how it will make value for the customers. It will also help managers see how many innovations are still possible just by improving any of the 36 cells in the table.

### Application of the Buyer Utility Map:

If we apply this tool to our project I think it would look like this.

<table>
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<tr>
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</table>

First our product improves the “Consumer Productivity” lever in the “using” experience. Compared to the manual lab tests, automating the water-quality management process will make the water board more productive by using the sensors and the SunSPOTs.

Secondly, since the tests will be handled by the sensors, it will unlock the “Simplicity” lever in the “using” experience. This way, the “Blantyre Water Board” will not need to have trained employees for analyzing the water.

Lastly but not leastly, “Maintenance” will be much simple as the system will be controlled by the base station centrally. So even if there are tens of sensors deployed in the water board, they will be maintained by a single machine.
Setting a Strategic Price

Without a right price, a product is not right anymore. Setting a price which will attract the “large pool of customers” is a crucial point to the success. Strategic pricing means having the price which will both attract the customer but also help you retain them. For this purpose, authors introduce the “Price Corridor of the Mass” tool:

![Price Corridor Of The Mass](image)

The following are some of the points that will help us understand the tool better:

- It is always the customer who defines your competitors. They are the ones who will prefer your product/service to any competitors. And these competitors may or may not be in your industry. For example, while an airlines company wouldn’t consider bus companies as their competitors, for customers they are competitors as they would choose any of them for traveling from point A to point B.

- The authors state that, one must first find the price range which attracts the largest group of customers and depending on the legal and resource protection levels of the innovation, the price can be set as high as possible.

Regarding the competitors, there are two types of them:

- **Different form, same function**: E-mail vs. mail, both let customers communicate each other.
• **Different form and function, same objective**: Restaurants vs. Theaters, both target customers who want to have a good night out.

**Applying the tool to our project:**
At this stage, it is very difficult to have a price tag as nothing is finalized yet about the product. But we can easily say, targeting a country like Malawi, the price should be “lower-level” pricing as we don’t have legal or resource protections in this project.

**Building a Profitable Business Model:**
The first two tools are not enough to make money. To have a profitable business, companies also need to think about their business models.

Having said that, there is no magic wand or “one-fits-all” business model. But there are some guidelines as following:

- **Cost Target**: The authors state that it must be the price which sets the costs, not the other way around. So after setting the strategic price, the companies must try to arrange their cost-structure with regards to the price.

- **Partners**: Clock is ticking against the innovator, so unless the product has extremely well patent-protections, one must push it to the market as soon as possible, before the imitators get on the scene. So it is always a good-practice to involve other companies in your value chain if they complement the company’s strengths.

- **Price Model**: Innovators do not have to stick with the market’s already-defined pricing models if that is a barrier for the business idea’s success. Managers must focus on the pricing models –direct selling, leasing, and equity payment- that would bring greater profit.

**Applying the tool to our project:**
I believe that our cost-target must focus on low-prices so our cost-structure must also focus on keeping the costs as low as possible. For example, we tried to use solar-panels to cut the energy consumption expenses.

Regarding the partners, especially for Malawi, we need to partner with the local polytechnic which can provide educated employees and support for us and the local entrepreneurs who can run this as a service to the government.

Lastly but not leastly, “direct selling” seems to be the only way for us as we neither have a company nor any employees in this project.
**Conclusion:**

There is no magic sauce that will make every business successful, sometimes it is just a matter of “luck”. But the education of entrepreneurship tries to raise the chances and apply analytical frameworks to new business opportunities.

The framework that I have tried to summarize in this paper is extended more deeply in the authors’ book “Blue Ocean Strategy” which is a best-seller business book that is read by the students and professionals all around the world. For those of you who would like to have more information, I highly recommend you to get this article from the “Harvard Business Review Library” and read the “Blue Ocean Strategy” book.