Business Management Curriculum

Module 2: Market Assessment – Estimating Market Size and Price

Project Team:

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Acknowledgments: Vicki Hebb, reviewing content, and Russ Tronstad (University of Arizona) and Stuart Nakamoto (University of Hawaii), content.

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Business Management Module 2: Market Assessment – Estimating Market Size and Price

Teaching Notes:
This module covers components related to market assessment, research methods used to collect data needed to prepare a market assessment, and a competitive analysis. Help your students understand that running a successful business means understanding market size (potential volume of sales), the product price, and competition surrounding the product. Without having an understanding of potential market size and possible competition price points, it may not be possible to reach goals.

A market assessment will help participants understand whether their enterprises are feasible without investing a lot of time and capital. The process starts with targeting the potential number of customers. Market demand can be estimated using demographics and population of the area surrounding the business. It is also necessary to know the estimated consumption of the potential customers as well. Understanding consumption amounts will give an estimated volume of production to be met.

A competitive analysis will help your students figure out pricing strategies that will work for their products. A competitive analysis addresses outside factors that can determine the price of a product, such how many competitors are in the area and whether there is a substitute for a product. This module also addresses customers' sensitivity to price changes.

Educational Objectives:
1. Identify how to target consumers
2. Understand the market assessment process
3. Estimate market size, feasible price ranges, and assess consumer sensitivity
4. Understand market research methods
5. Surveys, product/pricing trials, asking competitors, and using secondary data

Discussion Topics:
1. Who are your customers? Are they local or are they tourists? Why does that matter?
2. What is a good way of finding information about your customers?
3. What type of pricing approach will you take? Why?
4. How sensitive are your customers to price changes?

Available Materials:
1. PowerPoint Presentation (1) – can be printed and used as a handout.
2. Fact Sheet (1) – can be used as presenter notes and/or as a handout.
3. Worksheets (6) – can be provided as homework or completed in a workshop if time allows.
    a. <u>Product description worksheet</u> – This worksheet will guide participants through defining their products and identifying industry trends, competitors, and the advantages and disadvantages their products might have over competitors' products.
    b. <u>Customer segmentation worksheet</u> – This worksheet is an addition to the customer identification worksheet. When target customers are clearly defined it is possible to figure out potential volume and pricing strategies.
    c. <u>Potential volume</u> **–** This worksheet will help participants estimate the potential volume of sales for each targeted customer base.
    d. <u>Competition</u> **–** This worksheet will help your students identify the immediate

competition. Once they have identified the competition they can build strategies to compete in the marketplace.

e. Pricing strategy – This worksheet considers the competition price range as well as customers' demand sensitivity to price change. Those two pieces of information can help participants identify pricing strategies that will work for their products. This worksheet also helps develop a low price point and a high price point, which are good to know for figuring out worst case and best case scenarios.

f. Promotion strategy – This module doesn't cover promotion strategies, but this worksheet can help participants create a promotion plan to reach their targeted customers.

g. Other Resources:

   i. American Fact Finder – http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml – This website has a lot of demographic information to help determine potential numbers of customers.
   ii. U.S. Census demographic data – http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml
   iii. USDA's Economic Research Service (USDA-ERS) consumption data – http://www.ers.usda.gov/data-products/food-availability-(per-capita)-data-system/.aspx
   iv. Target marketing tools and guides from the Western Extension Marketing Committee – http://valueaddedag.org/
   v. Agritourism and food tourism product development and marketing – http://diverseag.org/htm/farm-and-food-tourism
   vi. Cooperative Extension Service, available in each state – some examples are: Utah State University (https://extension.usu.edu/), University of Nevada, Reno (https://www.unce.unr.edu/), University of Arizona (https://extension.arizona.edu/), and Oregon State University (http://extension.oregonstate.edu/)
   vii. Small Business Development Centers (SBDC), available in each state – https://www.sba.gov/tools/local-assistance/sbdc
   viii. National Sustainable Agriculture Assistance Program (ATTRA) – https://attra.ncat.org/index.php
   ix. AgPlan – https://agplan.umn.edu/

Outline:

1. Market Assessment Process
   a. Target consumers who have a need for the product
   b. Market assessments steps
   c. Market research methods
2. Estimating Market Size – Farm Tourism
   a. Difference between local tourists and destination tourists
   b. Local tourists with u-pick example
   c. Destination tourists with national park example
3. Estimating Product Price
   a. Major pricing approaches

b. Competitive analysis
c. External factors in pricing
d. Assess consumer price sensitivity
e. Pricing resources
f. Pomegranate juice pricing example
g. U-Pick pricing example

Business Management Curriculum

Module 2: Market Assessment

Estimating market size and price

WESTERN SARE Sustainable Agriculture Research & Education

USDA United States Department of Agriculture · National Institute of Food and Agriculture

Slide 1: This module will go through steps necessary to assess a market for a particular product.

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University of Nevada Cooperative Extension

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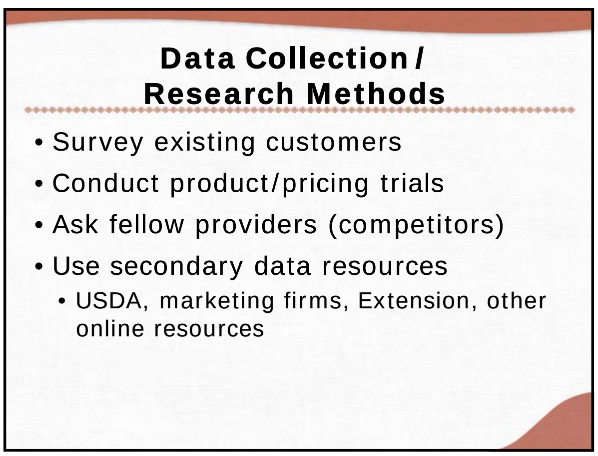
Market Assessment Process

- Define target market(s) for the product or service
  - Consumers who have a need for the product or service and are willing to pay a profitable price for it
- Market assessment steps
  - Estimate market size
    - Available customer base and purchase amounts
  - Estimate a feasible range of prices
    - To cover production costs
  - Assess consumer sensitivity to pricing

Slide 3: These are the general steps and processes for market assessment. A few examples of marketing to local tourists versus destination tourists are used to demonstrate the market assessment steps. You may pick a couple of target groups and assess the potential market. After going through the examples, various methods to do market research are covered.

Slide 4: It is critical to define a market that you can tap into and/or is readily accessable in your area. Consider each of the areas listed and discuss with students.

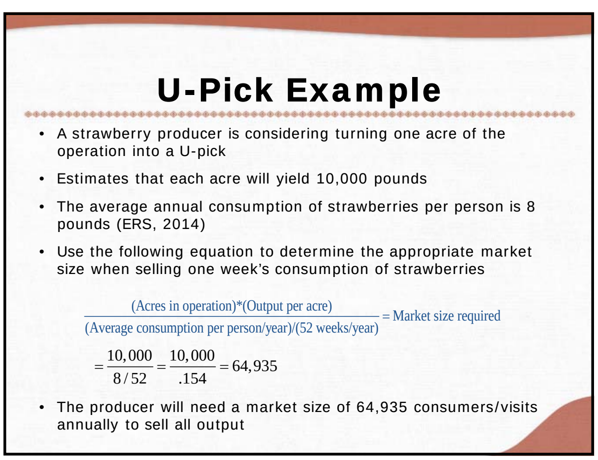


Slide 5: This is where you are trying to get to know your market better.

Slide 6: These are two different potential target customers. While both are tourists, they are very different. This module goes through the steps to assess the market size for each group.

Slide 7: Customers are not going to travel 75 miles if more local options exist. What are some reasons why tourists would travel to your operation? Where would they come from?

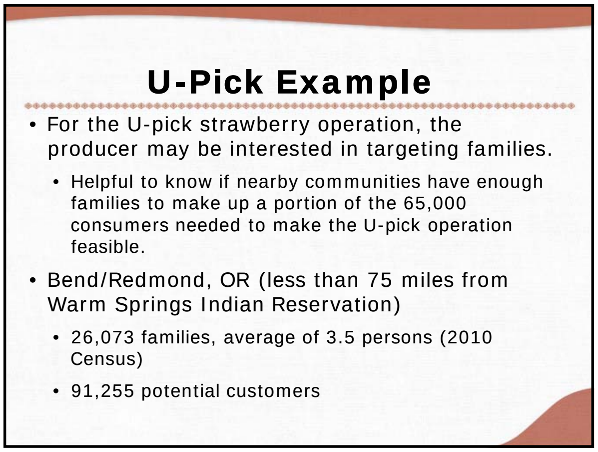
Slide 8: These links allow you to look at the potential number of customers and how much they might consume. The next slides use a U-pick example to demonstrate using them. Many counties, cities, and state's have web pages that provide some population and demographic estimates. You can also gather census data from census.gov. It would be good to explore some of those for your area with the participants.



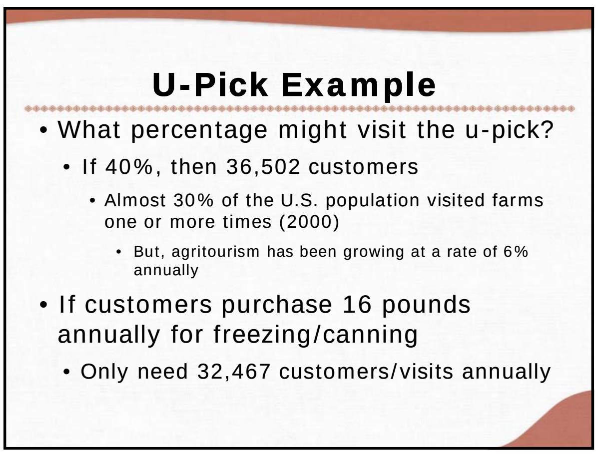
Slide 9: Some yield information can be found from your individual state's extension budgets You can also google yield estimates. The 8 pounds of strawberries was found using the link on the previous slide.

Although a person consumes 8 pounds per year, that amount is divided by 52 to get the amount they will consume per week (or on a visit). In this case it is only .154 pounds. While this might seem low, remember that this is an average. Some customers might buy more, and others may buy nothing.

Over the strawberry season, the operation will need 64,935 customers or visits.



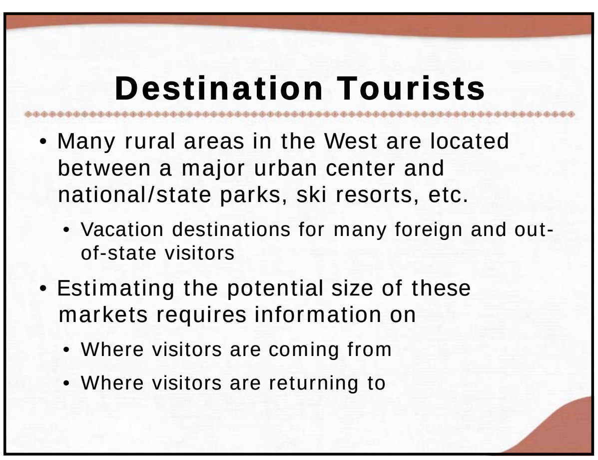
Slide 10: Once you know how many customers you need, you can begin looking to see how many exist.



Slide 11: The previous slide showed how to find the total number of potential customers. However, not all will be actual customers. You can estimate the percentage that you think might be actual customers. Multiply that percentage by the total number. You can also vary other assumptions. For example, if customers purchase 16 pounds annually then you only need 32,000 customers. There may be reasons that customers coming to the U-pick will have a higher level of consumption than the average. These may be customers that really like fresh strawberries.

For a product like milk, they may not consume more than average. Part of the estimation is finding the data and part is using your own reasoning.

Try to be as realistic as possible.



Slide 12: Tourists coming from or returning to local destinations may be passing by your area. The portion passing by could be potential customers.

Grand Canyon National Park Example

- Consider Grand Canyon National Park (GCNP)
  - Attracts around 4.4 million visitors annually
    - GCNP Statistics at http://www.nps.gov/grca/learn/management/statistics.htm
- Seasonal visitation is another important item to consider
  - Annual visits to the GCNP by season
    - Winter: 11% of total visits
    - Spring: 27% of total visits
    - Summer: 39% of total visits
    - Fall: 23% of total visits
  - Visitation by month at https://irma.nps.gov/Stats/Reports/Park/GRCA

Slide 13: The Grand Canyon is used as an example here. Data on other parks are available on the websites listed.

Grand Canyon National Park Example

- Where visitors to Grand Canyon National Park stayed before and after visiting the park

Destination	Before	After	Destination	Before	After
Flagstaff, AZ	17.5%	10.6%	St. George, UT	1.5%	1.4%
Williams, AZ	12.6%	7.3%	Scottsdale, AZ	1.4%	1.5%
Las Vegas, NV	9.4%	12.7%	Zion National Park, UT	1.4%	1.7%
Sedona, AZ	6.0%	6.7%	Jacob Lake, AZ	1.4%	<1%
Phoenix, AZ	5.3%	8.0%	Kingman, AZ	1.3%	2.1%
Tusayan, AZ	4.3%	2.4%	Tucson, AZ	1.2%	<1%
Page, AZ	3.4%	4.0%	Holbrook, AZ	1.1%	1.1%
Kanab, UT	1.9%	1.4%	Albuquerque, NM	1.0%	1.2%
Bryce Canyon National Park, UT	1.7%	2.1%	Cameron, AZ	1.0%	<1%

Slide 14: This shows that Flagstaff, or an operation on the road between the Grand Canyon and Flagstaff, will have a lot more potential customers than Albuquerque, New Mexico. With desitnation tourists it is not about the size of local population, but the number of potential tourists for customers. With any of these towns, there may be additional parks that attract visitors to your areas.

Grand Canyon National Park Example

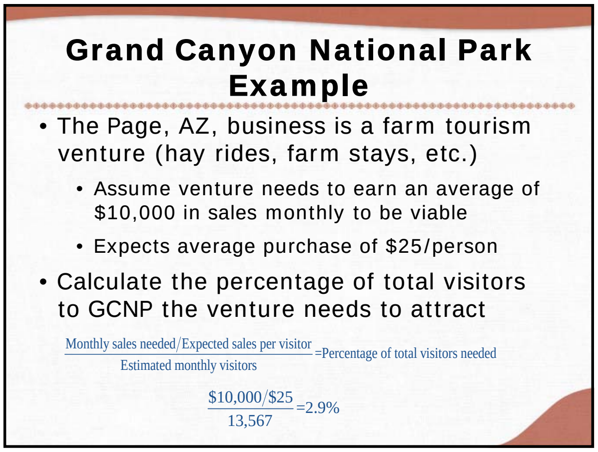
- Consider a business located between Page, AZ, and GCNP
  - 3.4% of visitors stayed in Page prior to visiting GCNP
  - 4.0% of visitors stayed in Page after visiting GCNP
- The average number of visitors who would pass by this business location can be found with the following equation:

$$\frac{\text{(Total annual visitors)*(Average percentage of visitors)}}{12} = \text{Average monthly visits}$$

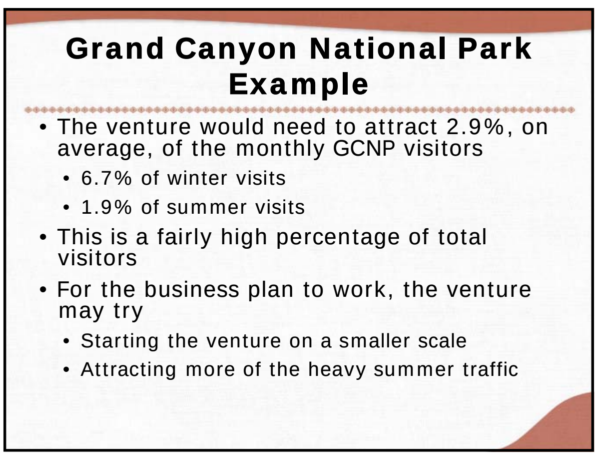
$$\frac{(4.4 \text{ million visitors})((.034+.040)/2)}{12} = 13{,}567 \text{ visitors}$$

- The number of GCNP visitors that would pass by the business location each month averages 13,567
  - With a low of around 5,970 visitors during the winter months (11% of total)
  - And a high of 21,164 visitors during the summer months (39% of total)

Slide 15: Because we are starting with a very large number of visitors, even a small percentage provides a lot of potential customers.

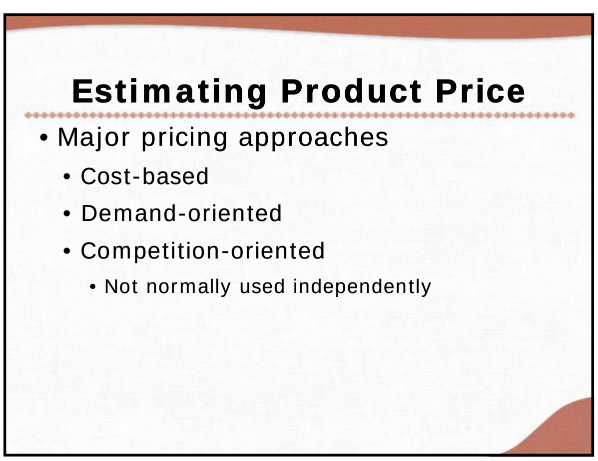


Slide 16: Only a small percentage are needed to reach this goal, partly because we are starting with such a large number to begin with.

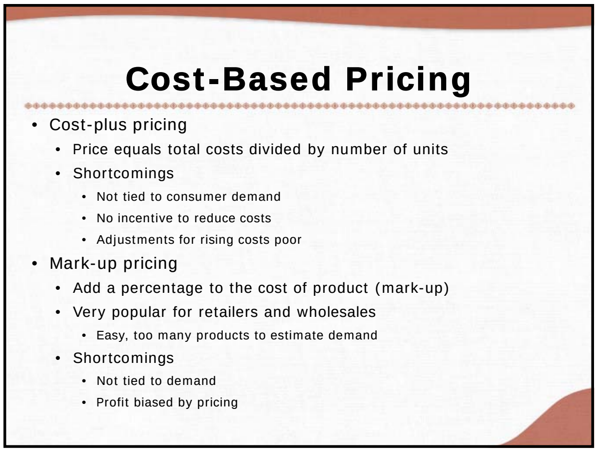


Slide 17: While 2.9% seems small, this is still a large number. When you start really small, you can find out exactly why customers are stopping and what they want. You can also begin to build reviews and social media.

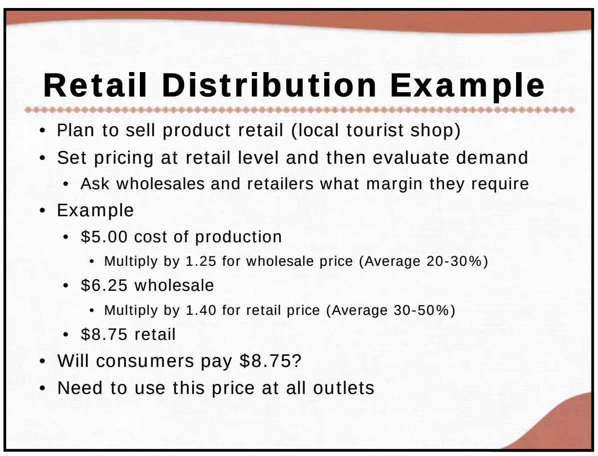
Its also good to ask yourself how you will get that number to stop each day? What can you do to let the where you are and what you you have to offer?



Slide 18: By understanding the various approaches to estimating product price you are able to make better assumptions.



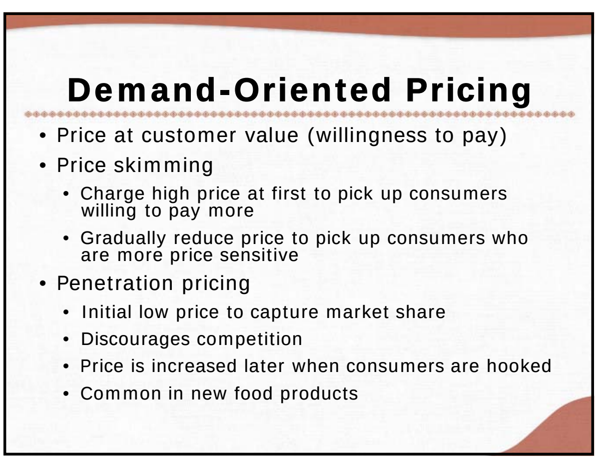
Slide 19: Major drawbacks to cost-plus pricing are that the price isn't tied to consumer demand, there is no incentive to reduce costs, and the adjustments for rising costs are poor.



Slide 20: Sometimes its easy to look at a retail price and say, "I could make it for that." However, you have to factor in all the markups along the way. In this case, a product that you sell for $5 would need to retail for $8.75. If you eventually want to go into retail, you need to consider this price in all your marketing endeavors.

For example, assume that you are selling bottles of pickles. You start selling them at the farmers' market for $6 a jar. Customers are now used to paying $6. The season is ending and they ask whether they can purchase your pickles in a store. With the markups required, the store would need to sell each bottle for $8.75. Why would the store want to carry your product when they know that customers could go to the farmers market and get it for $6?

So even when starting, think about where you want to end up. It may be that by the time you start selling to a retail outlet, your costs will have gone down, but you should think about all the outlets you might use to sell your product and how the prices would need to work to be consistent.



Slide 21: Sometimes penetration pricing can have lasting effects. Customers may begin to think the original price is the price an item should be. Rather than having lower prices, doing some type of sale or coupon may help customers see the lower price as temporary rather than establishing the cost of an item.

Competition-Oriented Pricing

- Simple form of pricing
- Ideal when similar products exist
- Penetration pricing
  - Lower than competition price
  - Creates demand
- Parity pricing
  - Equal to competition price
- Premium pricing
  - Higher than competition price
  - Signals higher quality

Slide 22: Competition pricing is setting the price based on what the competition's price is. Price is set to signal what type of product you have (i.e. a better value for price, something similar to others, or a premium product worth a higher price).

Competitive Analysis

- How many competitors operate in the market?
- Are competitors large or small? Near or far?
- What types and numbers of products do they sell?
- What pricing methods do they use?

Slide 23: A competitive market may mean that it will be harder to get customers and that prices are lower. Sometimes having unique characteristics can help shield you from competition.

Consider External Factors In Pricing

- Distribution
  - Wholesale and retail margins
  - Transportation and packaging costs
- Environmental factors
  - Taxes, weather events, fad diets, energy policy
- Legal/regulatory factors
  - Labeling, certification, permits, safety

Slide 24: All of these could affect the price. For example, environmental factors could cause prices to fluctuate. For example, if lettuce freezes, the price of lettuce could increase drastically for a few weeks until an new crop is ready to harvest. A fad may temporarily increase demand for a product and increase the price.

Pomegranate Juice Pricing Example

- Produce and sell juice at specialty/health stores
- Cost of production is $0.80 per 8 oz. juice
  - $0.80 cost of production (multiply by 1.20)
  - $0.96 cost with profit (multiply by 1.25)
  - $1.20 wholesale price (multiply by 1.40)
  - $1.68 minimum retail price required
- $1.47 per 8 oz. retail price (ERS, 2013)
  - Pricing data is U.S. average, specialty retail price may be much higher
  - Target market may be willing to pay more (health benefits, families with children, seniors, etc.)
  - What packaging, labeling, etc. may differentiate the product?

Slide 25: Here is an exmple of determining the price for one product. If using competition based pricing, would you do penetration, parity, or premium pricing? You can see the variations in prices you would have.

The next 2 slides show a different example to extend the discusion.

U-Pick Pricing Example

- Strawberry U-pick operation
  - 10,000 pounds per acre
  - $23,600 in revenue per acre
    - $2.36 per pound retail price (ERS, U.S. average 2013)
  - $18.88 in revenue per person
    - Average consumption is 8 pounds/year (ERS, 2014)
- Need to know the cost of production (including visitor services, permits, etc.)

U-Pick Pricing Example

Considerations

- Visitors may purchase much more than 8 pounds annually (processing, events, etc.)
- Visitors may be willing to pay more or less than retail depending on…
  - Experience
    - Family outings, may pay much more per pound for the farm experience
  - Amount purchased
    - Bulk purchases for canning, freezing, etc., may pay less per pound
  - Specialty item
    - For organic, and other specialty labels or designations may pay more per pound
    - $3.48 organic wholesale price per pound (ERS, San Fran 2013)

Food Product Pricing Resources

- Fresh and processed fruits and vegetables
  - http://www.ers.usda.gov/data-products/fruit-and-vegetable-prices.aspx
- Meats and poultry
  - http://www.ers.usda.gov/data-products/meat-price-spreads.aspx
- Organic foods
  - http://www.ers.usda.gov/data-products/organic-prices.aspx
- Drinks and meals away from home
  - http://www.ers.usda.gov/data-products/quarterly-food-away-from-home-prices.aspx

Assessing Consumer Sensitivity to Pricing

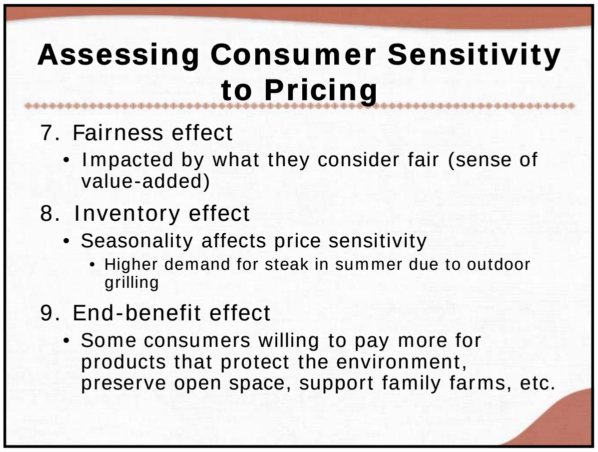
Nine primary effects influence consumer price sensitivity

1. Perceived substitute effect
   - How many substitutes exist? If many, consumers will be more price sensitive
2. Unique value effect
   - Consumers less price sensitive if the product is "unique"
   - Increase market share through differentiation
3. Switching cost effect
   - Cost of changing from one product to another
   - People are reluctant to change and seek out new information
   - Consumers less price sensitive given large switching costs

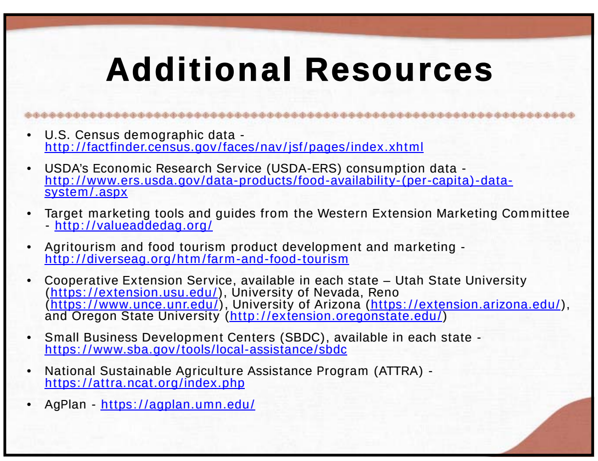
Slide 29: This would be a good place to stop and ask the participants about how these would affect their products. Would customers be more price sensitive or less for their products?

Assessing Consumer Sensitivity to Pricing

4. Difficult comparison effect
   - If products/services are hard to compare, consumers are less price sensitive
5. Price-quality effect
   - Often associate a higher price with higher quality
6. Expenditure effect
   - More sensitive to price changes on large, expensive items than small, inexpensive ones
     - Price changes on meat compared to salt



Slide 32: This is a summary of the pricing discussion and market size assessment with key points.



Worksheets

- The following worksheets may be used to develop your product idea and complete a marketing plan
  - Product/service description
  - Target market(s) description
  - Sales volume estimation
  - Competition overview
  - Pricing strategies
  - Promotion plan

Thank you!

Introduction

Assessing the potential market for each new product or service is fundamental to the financial success and growth of a business. The first step in assessing the potential market is to identify the target market, the group of consumers who have a need for the product/service and are willing to pay a profitable price for it. When defining a target market, we start with consumer demographics such as age, gender, and income level. Second, we need to know their interests, hobbies, or concerns, often referred to as psychographics. Finally, we need to know why they need the product or service and any preferences they have for product characteristics. These three elements provide a picture of the target market's motivation to purchase the product or service. It is possible to have multiple target markets, usually due to location differences or alternate needs or uses for the product. Once a target market(s) has been identified, market research must be conducted to estimate the available customer base and purchase amount, estimate a feasible range of prices (cover production costs), and assess consumer sensitivity to price changes.

Common market research methods include surveying existing customers (if the business is currently operating), conducting product/pricing trials in suspect markets, or asking fellow providers (i.e., competitors). There are also secondary data resources available from the USDA, marketing firms, and Cooperative Extension.

Completing these steps prior to starting production will illustrate the potential for product success in the marketplace. A detailed business or marketing plan will also improve the opportunity or chances of securing capital funding and/or access to government grants and loans.

Estimating Market Size

Once a target market(s) has been identified, market research must be conducted to estimate the available customer base and their likely purchase amounts in terms of units purchased or total expenditures. In order to demonstrate the process of assessing market size, two farm tourism examples are given. The first example examines a U-pick strawberry operation that caters to local customers (with families) traveling for a day or short weekend, such as in-state visitors traveling within 100 miles of their home. The second example is an agritourism venture offering hay rides, farm stays, and similar experiences. The target market is destination tourists, visitors on a long vacation to specific destinations such as national and state parks, heritage sites, etc.

Local Tourists

If the operation plans to cater to local tourists, it must consider how large a radius it can draw from, in terms of how far customers will travel. The USDA Forest Service's National Survey on Recreation and the Environment found that the average distance that U.S. individuals drove to visit a farm in 2000 was 80 miles (USDA Forest Service, 2003). Because this also included family members visiting farms that were in their family from several hundred miles away, most paying consumers will be drawn within a 50-mile radius. However, some businesses in the West find that the majority of their consumers travel over 75 miles to participate in U-picks, farm festivals, and related farm activities because no closer alternatives exist for their metro area (Leones et al., 1994).

To determine the potential number of customers available within the applicable area, it is important to estimate the population that falls into the identified target market demographics, interests, etc.. The U.S. Census Bureau provides data related to population estimates, demographic factors, income, economic indicators, and more online at http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. The most recent U.S. census data can be searched online by state and ZIP code. The information from a census search provides an indication of the ages of people in the area, household and family size, income, ethnicity, and more, all of which can provide producers with additional information about the characteristics of potential customers in the local and surrounding area.

To estimate how much product each customer might purchase, or how much they might spend per visit, examining current and historical consumption patterns can be helpful. Average annual U.S. consumption levels of several hundred foods are readily available from the United States Department of Agriculture's Economic Research Service (USDA-ERS) at http://www.ers.usda.gov/data-products/food-availability-(per-capita)-data-system/.aspx. For some foods, consumption level information dates back to the early 1900s. Keep in mind that ERS data is for standard, conventional products only and may not be illustrative of specialty or heirloom varieties, special production methods (organic, grass-fed, etc.), or products with other unusual characteristics.

Consider the example of a producer contemplating turning a portion of an existing strawberry operation into a U-pick strawberry operation on a one acre field, with expected production around 10,000 pounds. To calculate market size for this example, the producer must figure out what volume of strawberries would be necessary to supply all potential customers with a week's worth of strawberries. To calculate this, multiply the acres of strawberries to be grown by the predicted growth per acre and divide this by weekly fresh consumption per capita, which is the annual fresh consumption divided by 52, the number of weeks in a year. Equation 1 illustrates this calculation.

$$(1)\quad \frac{\text{(Acres in operation)*(Output per acre)}}{\text{(Average consumption per person/year)/(52 weeks/year)}} = \text{Market size required}$$

Using the numbers for this example, the proposed U-pick operation would require a market size of 64,935 consumers (1 acre X 10,000 pounds per acre /(8 pounds per year/52 weeks per year)).
The producer must consider whether or not enough consumers can be found to meet the market-size requirement. It is also important to note that these numbers are for standard, conventional strawberries and the market for a differentiated product will likely be different.

In the U-pick strawberry example, the producer may be interested in targeting families as consumers. In this case, it would be helpful to know whether nearby communities have enough families to make up a portion of the 65,000 customers needed to make the U-pick operation feasible. Let's say the U-pick operation is located near Bend, Oregon, which has 26,073 families with an average of 3.5 persons each and hence a market potential of 91,255 customers (U.S. Census, 2010). To determine what percentage of these families might visit the strawberry farm, we estimate 40%, or 36,502 customers, based on the USDA Forest Service's National Survey on Recreation and the Environment, which found that 62 million Americans visited farms one or more times in 2000 (almost 30% of the population) (Barry and Hellerstein, 2004). Additionally, the agritourism industry has been growing at a rate of around 6% annually in Europe and North America (Tchetchik, Fleischer, and Finkelshtain, 2008). Tourism also tends to be relatively more important for rural and urban counties in the West relative to other regions of the

United States. If each visitor purchased 16 pounds of strawberries a year—potentially for freezing, canning, or other production—the operation would only need 32,467 customers, fewer than the estimated potential number.

Destination Tourists

For many rural areas, the local consumer base may not be large enough to support the minimum sales needed for success. However, many rural areas in the West are located between major urban centers and national or state parks that serve as vacation destinations for many foreign and out-of-state visitors. Estimating the potential size of these markets requires information on where visitors are coming from and returning to after their destination visit. As an example, consider Grand Canyon National Park (GCNP), which attracts around 4.4 million visitors annually (see http://www.nps.gov/grca/learn/management/statistics.htm). Seasonal visitation is another important item to consider, and seasonal visitation to GCNP varies greatly. The National Park Service reports that annual visits to GCNP by season are 11%, 27%, 39%, and 23% for winter, spring, summer, and fall (see https://irma.nps.gov/Stats/Reports/Park/GRC).

Table 1 shows where these visitors stayed prior to their trip to GCNP and where they went after leaving the park. Consider a business located between Page, Arizona, and GCNP. The number of GCNP visitors passing the business location each month averages 13,567. This figure was calculated by taking the total number of annual visitors and multiplying it by the average percentage of visitors who visit Page before and after visiting GCNP, divided by 12 to obtain the monthly average (see equation 2). This calculation shows that GCNP visitation ranges from a low of around 5,970 visitors during each winter month to a high of 21,164 each month during the summer.

Table 1: Visitor Destinations Pre and Post Grand Canyon National Park

Destination	Before	After	Destination	Before	After
Flagstaff, AZ	17.5%	10.6%	St. George, UT	1.5%	1.4%
Williams, AZ	12.6%	7.3%	Scottsdale, AZ	1.4%	1.5%
Las Vegas, NV	9.4%	12.7%	Zion National Park, UT	1.4%	1.7%
Sedona, AZ	6.0%	6.7%	Jacob Lake, AZ	1.4%	<1%
Phoenix, AZ	5.3%	8.0%	Kingman, AZ	1.3%	2.1%
Tusayan, AZ	4.3%	2.4%	Tucson, AZ	1.2%	<1%
Page, AZ	3.4%	4.0%	Holbrook, AZ	1.1%	1.1%
Kanab, UT	1.9%	1.4%	Albuquerque, NM	1.0%	1.2%
Bryce Canyon National Park, UT	1.7%	2.1%	Cameron, AZ	1.0%	<1%

(2) $$\frac{\text{(Total annual visitors)*(Average percentage of visitors)}}{12} = \text{Average monthly visits}$$

Imagine an agritourism business plan that requires a minimum of $10,000 in sales each month to be viable, with expected average consumer expenditures of $25 per person. The business would need to attract 2.9% of GCNP visitors on average to make the business plan work (see equation 3, which uses numbers from the example). However, taking seasonality into consideration, the business would need to attract 6.7% of winter and 1.9% of summer visitors to GCNP. Given the relatively high percentage of

GCNP visitors needed to make this business plan work, trying to start on a smaller scale and/or gearing up before the more heavily traveled summer months might help a venture like this succeed.

(3) $$\frac{\text{Monthly sales needed}/\text{Expected sales per visitor}}{\text{Estimated monthly visitors}} = \text{Percentage of total visitors needed}$$

Estimating a Feasible Range of Prices

There are three major pricing approaches: cost-based, demand-oriented, and competition-oriented. However, they are not normally used independently. For example, if the price demanded in the market is less than the cost of production, then a cost-based pricing approach will not be profitable. Also, while the price of competitive products can be useful, it's optimal to design the product, service, etc. so that it is at least somewhat different from the competition, which will lead to higher market pricing.

Cost-Based Pricing

Cost-based pricing encompasses both cost-plus pricing (price equals total costs divided by the number of units) and mark-up pricing (a percentage is added to the cost of the product). Major drawbacks to cost-plus pricing are that the price isn't tied to consumer demand, there is no incentive to reduce costs, and the adjustments for rising costs are poor. Mark-up pricing is easy and can be used when there are too many products to estimate demand effectively, but it is not tied to demand and profits are biased by pricing.

Demand-Oriented Pricing

In demand-oriented pricing, the price is set at customer value (or willingness to pay). Price skimming is a practice where consumers are initially charged a high price in order to pick up consumers who are willing to pay a high amount. Gradually, the price is reduced in order to pick up consumers who are more price sensitive. Conversely, penetration pricing initially sets the price at a low level in order to capture market share, which discourages competition. The price can be increased later when the product has become popular among consumers. Penetration pricing is very common for new food products.

Competition-Oriented Pricing

Competition-oriented pricing is ideal when similar products exist. Penetration pricing can be used to stimulate interest in or demand for the product by setting a price that is lower than the competing product. Parity pricing simply means that the price is set equal to competing products, and premium pricing sets prices higher than the competing product. Premium pricing is often used to signal quality to consumers and may be an optimal strategy for high-quality specialty products.

When conducting a competitive analysis, consider the following:

- How many competitors operate in the market?
- Are competitors large or small? Near or far?
- What types and numbers of products do they sell?

- What pricing methods do they use?

Pricing Examples

Pricing Example: Pomegranate Juice Production

A pomegranate grower plans to produce and sell pomegranate juice at retail specialty and health stores. The grower has estimated the cost of production to be $0.80 for each 8 oz. bottle of juice and wishes to add a 20% profit to the cost of the juice, increasing the product price to $0.96 per bottle. The grower will sell the juice to a wholesaler who will charge a 25% margin, which increases the cost to $1.20 per bottle. The retailer will purchase the juice from the wholesaler and then sell it to the end customer for $1.68 a bottle, after they have added another 40% margin to the wholesale cost. Hence, the cost of the pomegranate juice has doubled from the original cost of production. Each stage of the supply chain adds their own margin to the cost; the percentages used here are the current standard for each stage.

If the grower wishes to test market his or her juice at direct markets such as farmers' markets, stands, etc., it's important that he or she initially price the product close to the end retail price, or $1.68 a bottle, to determine whether $1.68 will be profitable in the market. The average price for an 8 oz. bottle of pomegranate juice in the United States in 2013 was $1.47 (ERS, 2013). This price is lower than the price required, but consumers may be willing to pay much more than the U.S. average given that the intended market for this product is specialty stores, where consumers may value the health or other benefits of this product. Product packaging and labeling that appeals to the target market and clearly identifies product characteristics may also improve pricing.

Pricing Example: U-Pick Operation

Consider a U-pick strawberry operation that produces 10,000 pounds of strawberries per acre with $23,600 in revenue per acre, assuming a retail price of $2.36 per pound (U.S. average, ERS, 2013) If average per capita strawberry consumption is eight pounds per year, the producer can expect $18.88 in revenue for each person visiting the U-pick (8 X $2.36). In order to determine feasibility, the producer should now consider the costs of production for the strawberries as well as other costs such as visitor services, permits, etc. While calculating revenues and costs is relatively simple, many factors should be considered before making a pricing decision. For example, visitors may purchase more strawberries if they are attending the U-pick as a family outing or if they are interested in canning or freezing a large number of berries. Additionally, visitors may be willing to pay more if the strawberries are a specialty item. For example, the price for organic strawberries is $3.48 per pound (San Francisco Terminal, ERS, 2013).

Assessing Consumer Sensitivity to Pricing

Some determinants of consumer price sensitivity include the perceived substitution effect, the unique value effect, and the switching cost effect. The perceived substitution effect occurs when many substitutes exist, which may cause consumers to be more price sensitive. The unique value effect is achieved through differentiation. Consumers will be less price sensitive if the product or service is unique. The switching cost effect occurs when consumers are reluctant to change from one product to another due to a perception of large switching costs. Consumers can be reluctant to change and seek out new information about a product.

Other determinants of price sensitivity include the difficult comparison effect, the price-quality effect, and the expenditure effect. The difficult comparison effect essentially means that consumers are less price sensitive when it is hard to compare products and services. The price-quality effect is an association between a higher price and higher quality. Consumers may be less price sensitive if they are quality sensitive. The expenditure effect occurs when consumers are more sensitive to price changes on large, expensive products than on small, inexpensive ones. For example, consumers are more sensitive to changes in the price of meat than to changes in the price of salt.

Finally, the remaining determinants of price sensitivity include the fairness effect, inventory effect, and end-benefit effect. Consumers may be willing to pay more for a product if they feel the value or value-added provided is higher than competing products. They are also willing to pay more for items in season. For example, the demand and price of beef is higher in the summer due to outdoor grilling. Consumer will pay more for products that protect the environment, preserve agricultural open space, and support family farms or provide some other end benefit.

Food Product Pricing Resources

- Fresh and processed fruits and vegetables at http://www.ers.usda.gov/data-products/fruit-and-vegetable-prices.aspx
- Meats and poultry at http://www.ers.usda.gov/data-products/meat-price-spreads.aspx
- Organic foods at http://www.ers.usda.gov/data-products/organic-prices.aspx
- Drinks and meals away from home at http://www.ers.usda.gov/data-products/quarterly-food-away-from-home-prices.aspx

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Describe your enterprise or product. Begin by noting industry trends, general market conditions, and/or perceived marketing opportunities that may exist locally, regionally, nationally, or internationally. Then describe the unique features that distinguish your product or service within the marketplace. How easily could competitors imitate these features?

Enterprise or Product: ______________________________

Industry Trends/Changing Market Conditions:

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Characteristic 1: ______________________________

Easy to imitate? Y/N ____________

Characteristic 2: ______________________________

Easy to imitate? Y/N ____________

Characteristic 3: ______________________________

Easy to imitate? Y/N ____________

Summarize the unique features that distinguish the product/enterprise in the marketplace:

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What partners or other support do you have?

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Develop a profile of the customer(s) you intend to target by market segment. Note the geographic, demographic, and value characteristics of each segment. Be sure to describe customer needs and preferences relevant to your product/service.

Enterprise/Product: ____

Customer Segment:	**1.**	**2.**	**3.**
Geographic (location, state, county, etc.):	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________
Demographics (age, education, income, families, etc.):	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________
Values (local sourcing, open space, sustainability, etc.):	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________
Needs/Preferences:	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________ ____________________ ____________________

Business Management Module 2: Potential Volume

Use information about average product consumption, geographic location, and customer preferences to develop simple sales projections for each segment of your market. Be sure to specify the timeframe (month, season, year) for each projection. You may want to calculate your potential sales volume for best and worst case scenarios, adjusting the estimated sales volume per customer and the potential number of customers as market conditions may change. Finally, describe any assumptions upon which your sales estimates are based. Be sure to list data sources (such as surveys, market reports, online resources, etc.).

Enterprise/Product: ____

Time Frame: ____

Customer Segment:	**1.**	**2.**	**3.**
Potential number of customers: (a)	___________________	___________________	___________________
Estimated volume per customer: (b)	___________________	___________________	___________________
Potential sales volume: (a x b) =	___________________	___________________	___________________

Market Assumptions/Research Results:
Describe your marketing assumptions and research. Include information about general industry conditions, competition, and future market potential for your product.

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List the competitors for each of your markets. Describe their marketing strategies and the prices they charge. Note any advantages and disadvantages you may have with respect to your competition. Then develop and describe your strategy for competing or positioning your business in the marketplace.

Enterprise/Product ____

Market Segment:	**1.**	**2.**	**3.**
Competitor names:	____________________ ____________________ ____________________	____________________ ____________________ ____________________	____________________ ____________________ ____________________
Products/services:	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________
Major characteristics:	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________
Price range:	____________________ ____________________ ____________________	____________________ ____________________ ____________________	____________________ ____________________ ____________________
Our advantages:	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________
Our disadvantages:	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________

Competition Strategy:

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List the price range for similar products/services offered by competitors. Next, think about how you might price your product/service. Consider how much power you have to set the price and how sensitive demand is to price changes. Then describe your pricing strategies and list your low, expected, and high price under each pricing strategy alternative. Finally summarize your pricing strategy in the space provided.

Enterprise/Product: ____

Competitor/Industry Price Range: ____

Our power to set prices:	**(Low)**	**1**	**2**	**3**	**4**	**5**	**(High)**
Demand sensitivity to price changes:	**(Low)**	**1**	**2**	**3**	**4**	**5**	**(High)**

Price Range:	**Low**	**Expected**	**High**
Price Strategy 1:	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________
Price Strategy 2:	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________
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Pricing Strategy:

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Choose a promotional approach (product image, benefits, brand, etc.) for each customer segment. Then use your information about customer needs and preferences to develop a promotional message for this product. Next, think about what advertising tools and delivery methods you can use to communicate your message. Describe how often you intend to promote your product/service and communicate with customers (timing and frequency). It may be helpful to map out an advertising plan that corresponds with slow demand periods or peak product availability. Finally, summarize your promotion strategy for this product/service.

Enterprise/Product: ____

Customer segment:	**1.**	**2.**	**3.**
Approach: - Product image, benefits, brand, etc.	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________
Message: - "Slogan"	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________
Tools: - Flyers, websites, etc.	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________
Timing/Frequency:	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________
Message: - "Slogan"	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________	____________________ ____________________ ____________________ ____________________ ____________________

Promotion Strategy:

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