

Starting a Business: Assessing the Market – Research and Opportunities

SUBMITTED BY: Nina Hoe, University of Pennsylvania

SUBJECT(S): Computation

GRADE LEVEL(S): 9, 10, 11, 12

≡ OVERVIEW:

In this lesson, students think about market research and market opportunities when starting a business. The class begins with a discussion of the factors that a business might want to consider about a population or region when thinking about starting a business. Students read two articles (one Knowledge@Wharton and one Wharton Global Youth Program) that discuss market opportunities and market research. As the main activity, the teacher should choose between two options (or do both, if time allows). In the first, students examine population statistic and census demographic information on different communities and locations to assess what type of business(es) would be successful given the demographics. In the second option, students conduct market research in their own classroom to assess the market opportunity for a given product or business.

≡ NBEA STANDARD(S):

- Computation, I. Mathematical Foundations
- Computation, II. Number Relationships and Operations
- Computation, V. Statistics and Probability

≡ RELATED ARTICLES:

- [“Young Entrepreneurs Make Headlines – and Cash”](#)
- [“This Tech Makes Sure One Bad Apple Doesn’t Spoil the Bunch”](#)

- “The Well-Dressed World of Kate D’Arcy, Organic Fashionista”
- “The Power of One African Teen’s Idea to Ward Off Lions”
- “Tackling the Problem of Hunger in America”
- “Sports and Math: A Winning Combination?”
- “Raising Llamas: Gustavo Maluéndez’s Path from Pretend Cattleman to Real-life Rancher”
- “Meet the Brightest Young Entrepreneurs: ‘Be Open-minded and Jump at New Opportunities’”
- “Connecting the Dots Between Architecture, Marijuana, Marketing and Life”
- “Behind the Puppy Dog Lenses, Snapchat Is a Living, Breathing Business”
- “A Teen Entrepreneur Ventures into Cyclist Safety and Product Sales”
- “A New Podcast Featuring Teen Innovators Explores the Future of the Business World”

Common Core Standard(s): High School Mathematics: Statistics and Probability

Objectives/Purposes:

- Students understand the importance of market research and assessing market opportunity.
- Students read relevant articles to learn about others’ use of market research.
- Students examine and analyze population statistics and census data to assess market opportunity in different areas.
- Students conduct market research in their own classroom.

Knowledge@Wharton Article:

“‘Walk the Market’: Tapping into Africa’s 900 Million Consumers”

Other Resources/Materials:

- Computer with Internet
- Calculators
- [Handout](#)

Activity

Whole Class Discussion (5 mins)

1. What are important considerations when thinking about starting a business?
2. Do you think that business owners think of a business they want to start and then find the best place to put it? Or do they look at a place and decide what business would work best?

Play the WGYG Glossary: [Market Research](#)

“Market research is the process of data collection, analysis and interpretation to make managerial decisions. A company is thinking about launching a new product, and it conducts market research on whether consumers would be interested in that product and how much they will pay for it.”

Note: **demographics** are statistical data relating to the population and particular groups.

Small Group/Pair Discussion (5-10 mins)

3. What population characteristics would be important to you when starting a business?
4. Think of any business that seems interesting to you. In what geographic region or social situation would this business be the most successful?
5. Think of any city, town, or community (can be virtual). What business do you think would have a good chance at being successful in this particular location?
6. What are ways that you can think of to conduct market research? (**look at statistics and demographics, interview people**)
7. What statistics would you want to collect?
8. How would you go about analyzing statistics? (**taking into account the cost to you of your product/service – can the demographic afford it?**)

Have students report back on their answers. Make a list of important statistics to look at when conducting market research. (**Average income, average age, what do people do in spare time, how far do they travel to work, what is the neighborhood like – urban, suburban, rural?**)

Guided Reading (10-15 mins)

Have students read the Wharton Global Youth Program Article: [“The Well-Dressed World of Kate D’Arcy, Organic Fashionista”](#)

- What market opportunity was recognized by Kate D’Arcy?

Have students read the Knowledge@Wharton Article: [“‘Walk the Market’: Tapping into Africa’s 900 Million Consumers“](#)

- What are the market opportunities present in Africa?
- How did the author realize these marketing opportunities?
- List some examples of companies that capitalized on market opportunities.

Small Group/Pair Activity (20 mins)

Depending on the interests of your class and the time available, choose between the two options.

Option 1:

Take a look at the following statics about some different communities/locations. ***You can assign student groups to all five communities/locations, fewer of them, or have different groups work on marketing to different locations.***

| Zambia | Number | Percent | Facebook Online Community | Number | Percent |
|--------------------|-----------------------------------|---------|----------------------------------|-------------|---------|
| Population | 11,862,740 | | Users | 750 million | |
| Male | | 50.7 | Male (in US) | | 42.2 |
| Female | | 49.3 | Female (in US) | | 55.7 |
| Official Languages | 8 – (English is 1 of them – 1.7%) | | Languages | >70 | |
| Median age | 17 | | Average age | 38 | |
| | | | | | |

| | | | | | |
|--|----------|------|--|--------------|----|
| Literacy Rate (people 15 and over that can read and write) | | 80.6 | Average number of friends | 130 | |
| People in Labor Force | | 50 | Users active per day | | 50 |
| INDUSTRY | | | Users in the US | | 30 |
| Agriculture | | 85 | Objects (pages, groups, events, community pages) | >900 million | |
| Industry (mining, chemicals, fertilizer) | | 6 | Avg connections to pages, groups, etc) | 80 | |
| Services | | 9 | Number of people using mobile access | 250 million | |
| Climate | Tropical | | Climate | Web-based | |

Census 2000 Demographic Profile

| | Philadelphia, PA | | Medford, OR | | Nederland, CO | |
|----------------------|-------------------------|---------|--------------------|---------|----------------------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Total Population | 1,517,550 | | 63,154 | | 3,166 | |
| Male | 705,107 | 46.5 | | 47.9 | | 52.9 |
| Female | 812,443 | 53.5 | | 52.1 | | 47.1 |
| Avg temperature | 54.3 | | 67.4 | | 44.7 | |
| Median age | 32.4 | | 37 | | | 36.7 |
| Race: White | | 45.0 | | 90 | | 96.9 |
| Black | | 43.2 | | 0.5 | | 0.2 |
| Am. Indian/Native AK | | 0.3 | | 1.1 | | 0.5 |
| Asian | | 4.5 | | 1.1 | | 0.7 |

| | | | | |
|---|--------|------|--------|--------|
| Native HI or Pac Isl | | 0.0 | 0.3 | 0.0 |
| Hispanic/Latino | | 8.5 | 9.2 | 1.8 |
| Other | | 4.8 | 3.9 | 0.6 |
| Two or more | | 2.2 | 3.2 | 1.2 |
| Avg Family Size | 3.22 | | 2.99 | 2.77 |
| Percent high school grad or higher (over 25) | | 71.2 | 83.3 | 97.9 |
| Percent bachelor's degree or higher (over 25) | | 17.9 | 21.1 | 62.8 |
| Married (over 15) | | 36.8 | 55.5 | 57.2 |
| Veterans (over 18) | | 10.9 | 18 | 8.1 |
| Native of State | | 87.8 | | 20.4 |
| Speaking a lang other than Eng at home | | 17.7 | 9.6 | 6.6 |
| People In labor force (over 16) | | 55.9 | 61.9 | 80.9 |
| Mean travel time to work (mins) | 32 | | 15.6 | 34.1 |
| Median household income | 30,746 | | 36,481 | 61,786 |
| Median family income | 37,036 | | 43,972 | 71,118 |
| Per capita income | 16,509 | | 20,170 | 34,712 |
| Families below poverty line | | 18.4 | 10.3 | 3.1 |
| Ind. below poverty line | | 22.9 | 13.9 | 5.2 |
| INDUSTRY | | | | |
| Agriculture, forestry, fishing | | 0.1 | 2.0 | 0.2 |

| | | | | |
|--|--|------|------|------|
| Construction | | 3.9 | 6.4 | 7.1 |
| Manufacturing | | 8.8 | 9.9 | 13.2 |
| Wholesale trade | | 3.0 | 3.6 | 1.6 |
| Retail Trade | | 10.4 | 18.1 | 12.1 |
| Transportation and warehousing, and utilities | | 5.9 | 3.9 | 1.3 |
| Information | | 3.0 | 2.4 | 4.3 |
| Finance, insurance, real estate, and rental leasing | | 7.7 | 5.8 | 3.8 |
| Professional, scientific, mgmt, admin, waste mgmt | | 10.5 | 8.0 | 16.8 |
| Educational, health and social services | | 26.0 | 21.6 | 20.0 |
| Arts, entertainment, recreation, accommodation and food services | | 8.1 | 8.9 | 9.8 |
| Other services (except public admin) | | 5.2 | 5.7 | 4.0 |
| Public Admin | | 7.4 | 3.6 | 5.7 |

1. Based on the statistics, decide on a business you think would be successful in your given market. (Assume that competition is equal in all sectors.)
2. Why do you think this business will be successful here? State several reasons.
3. What businesses do you think would be particularly challenging in this area? Why?

Option 2:

In your group, come up with an idea for a business or product that you think would appeal to your age group and demographic.

- Create a market research survey to give to your classmates to decide if your business or product would be successful for this demographic. Make sure to find out how much

people would be willing to pay for your service or product. You must come up with 5 – 10 questions that will allow you to better understand your market – not just “would you buy this product?” Think about what other factors might be relevant (i.e. how much money students have to spend per week; how they get to school – bus, walk, drive, bike; average age; etc.) Use the list you created at the beginning of class.

- Administer the survey to your classmates. This can either be done in the form of interviews or the questions can be written on the board and students can mark their answers. Alternatively if there is a copier on hand, copies can be made.
- Analyze result and determine if your product or business has a place in your market.

Tying It all Together:

Whole Class Discussion: (5 mins)

1. Have student groups report back on activities.
2. Why is market research important?

Practice Outside of the Classroom:

In your own community, do you see any market opportunities?

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