

Conducting Market Research Using Primary Data



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Overview

- Purpose of market research
- Primary vs. Secondary data
- Surveys
- Survey strategies
 - Question formats
 - Analysis tips
- Additional resources



Market Research

- Market research often conducted to address one of the “4 Ps” of marketing:
 - Product
 - Price
 - Place
 - Promotion



Purpose of Market Research

- Purpose of market research should be clearly defined prior to beginning research
- May use market research to answer the following types of questions:
 - Who are potential customers?
 - Demographic characteristics, etc.
 - What products appeal to these customers?
 - Product characteristics, niche opportunities
 - When are customers purchasing products?
 - Seasonal appeal, day of week or time of day
 - Where do customers purchase similar products?
 - Farmers' markets, CSAs, retail
 - Which promotional outlets should be used to reach these customers?
 - Radio advertising, newspaper, bulk mail, etc.



Primary vs. Secondary Data

- Secondary data is data that has been previously collected by another researcher
- Can be used for market research, but because it has been collected for another purpose, its applicability may be limited
 - However, secondary data offers savings in both time and cost
- Primary data is collected by the researcher with a specific goal in mind
 - May be collected through surveys, focus groups, in-depth interviews, or through experiments



Surveys

- Surveys are probably the most popular method for collecting primary data
- Variety of methods including:
 - Mail survey
 - Telephone survey
 - Face-to-face interviews (in-person survey)
 - Internet survey
 - Dot survey
 - Observation
 - Informal interview



Survey choice

- Choice of survey method will depend on factors such as:
 - Number of responses surveyor wants
 - Time frame in which data must be collected
 - Characteristics of the population to be surveyed
 - Budget
- Note that regardless of survey type, all survey data is hypothetical
 - Respondents may say they value a certain product characteristic or are willing to pay more for certain attributes...
 - ...but their real-world behavior may not reflect what they say!



Mail surveys

- Mail surveys are written surveys sent to potential respondents by mail, and typically include a postage-paid return envelope
- For surveyors with a large budget, the goal may be to have a mailing list made up of:
 - A random sampling of households in the region of interest (city, state, nation, etc.), or
 - A targeted population (for example, people who held a state fishing license in a given year, or members of an environmental organization)
- However, smaller firms with budget constraints can make a mailing list of households from the phone book or online yellow pages (www.yellowpages.com) for free



Mail surveys

- Advantages of mail surveys
 - Can reach a large population fairly easily
 - Lower cost than some methods
- Disadvantages of mail surveys:
 - Response rates (number of people who return the survey) are typically low unless more than one form of communication is sent to the respondent
 - Advance notice of survey, reminder card, additional survey—all of which increase the cost of the study, in terms of money and time!
 - Lag time between when survey is mailed out and when it is returned
 - Returned surveys may be incomplete



Telephone surveys

- Telephone surveys are conducted by calling individuals and having them answer questions over the phone
- Advantages of telephone surveys
 - Interviewer can encourage respondent to answer all the questions
 - Responses can be analyzed immediately
- Disadvantages of telephone surveys
 - Expensive to pay telephone interviewers
 - As with mail surveys, random sampling is best, but call list can be put together from phone book if necessary



In-Person Interviews

- An in-person interview is a survey administered in a face-to-face fashion
- Advantages of in-person interviews
 - Interviewer can encourage respondents to finish survey
 - Results can be analyzed immediately
 - Specific populations can be targeted
 - Can interview at farmers' market, outside a certain grocery store, etc.
- Disadvantages of in-person interviews
 - Costly to pay interviewers
 - Some respondents may not be unwilling to reveal information about themselves to a stranger
 - Must have permission to conduct these interviews in a public place



Internet Survey

- An Internet survey is a survey that is both posted and filled out online
 - Surveyors generally send out a letter or post card inviting respondents to take the survey
 - Some Web hosting companies will invite respondents via email
- Advantages of Internet surveys
 - May be completed faster than mail surveys
 - May be less expensive to conduct than other survey types
 - Some software allows the surveyor to ensure that respondents have to answer all the questions
 - Results can be analyzed immediately
 - Some Web survey hosts offer analysis services as well—may be beneficial for surveyors who do not have strong statistical skills



Internet Survey, cont.

- Disadvantages of Internet surveys
 - Population of interest must have Internet access
 - Contacting the population of interest may be more difficult than with other methods
 - Surveyor must have some Internet skills
 - Some individuals may be uncomfortable providing sensitive information (such as household income) over the Internet



Internet Survey, cont.

- Survey Monkey (www.surveymonkey.com)
 - Has services to host and analyze surveys
 - Has services to contact respondents via email
 - User-friendly interface
 - 3 pricing levels
 - Basic: Free service, allows 10 questions per survey and 100 responses per survey
 - Monthly Pro: \$19.95/mo, allows unlimited questions and 1000 responses per survey
 - Annual Pro: \$200/yr, allows unlimited questions and responses



Dot Survey

- Dot surveys or posters are used to focus on just a few important questions
- Technique involves usually no more than four questions displayed on an easel in a public location (such as a farmers' market)
- Response categories are listed as well
- Respondents place stickers or “dots” in the proper category to indicate their response



Dot Survey, cont.

- Advantages of dot surveys
 - Offer an alternative to written and oral surveys
 - Simple to complete-has been found to increase response rates over other survey types
- Disadvantages of dot surveys
 - Can only ask a few questions
 - Respondents can see responses from other respondents-may be swayed by what they see
 - However, there is an argument that this effect is similar to real-world activity, such as fad items and impulse purchasing



Informal Interviews & Observation

- Informal interviews and observation may be slightly less scientific than other methods, but may be the best tool for some agribusinesses
- Informal interviews consist of asking the same simple but specific questions of many people to get an idea of what people are thinking
- Observation consists of observing consumers and taking note of their behavior



Informal Interviews & Observation, cont.

- For example, an operation that already grows organic produce, but has not been certified due to costs:
 - Informal interviews could be used to ask current customers how they feel about organic produce, whether they would be willing to pay more for the assurance of third-party organic certification, etc.
 - In the observation sense, the operation could find out how much the same certified organic products are selling for
- Another example is that of an operation that is considering producing a new crop or product:
 - Interviews can be used to determine what products current customers would like to have access to
 - Observation can be used to determine which products are popular through other vendors



Survey Strategies

- Focus groups and pilot surveys are often used to “test” a survey before it is distributed to potential respondents
- Allows surveyor to see in advance if questions are confusing or worded incorrectly, or if the survey structure is too complicated
 - All of which can decrease response rate and valid responses
- In the interest of time and money, a focus group can be assembled from your friends, family, neighbors, etc.
 - Make sure they understand that you need their honest opinion of the survey
 - Also keep in mind that people associated with agriculture may have more knowledge about the issues you address on your survey
 - This may have an effect on their responses or opinion of the survey



Survey Strategies, cont.

- It can be tempting to take advantage of the opportunity to ask survey respondents as many questions as possible
 - But “respondent fatigue” occurs when too many or too complex questions are asked-so try to keep it short and simple
- Try to use definitive language
 - i.e. rather than asking respondents if they usually eat meat every day, ask them if they eat meat more than five times per week
 - Avoiding words like “generally” and “usually,” which are subject to interpretation, can help you get more accurate responses



Question Formats

- Researchers have spent decades trying to determine the “best” question formats for surveys
 - Have found that the most suitable question depends on the information the surveyor wishes to obtain
- Common question formats include:
 - Multiple choice
 - Rating scales
 - Open-ended



Multiple Choice

- The multiple choice format asks a question and provides a list of responses for the respondent to choose from
 - Three or more choices (multiple choice)
 - Surveyor can ask for one or more than one response, depending on the question
 - Two choices: *yes* or *no* (dichotomous choice)
 - Only one choice
- Crucial that the surveyor or interviewer include explicit instructions as to how many responses are allowed!



Multiple Choice, cont.

- Advantages of multiple choice
 - Fairly simple to understand (dichotomous choice so simple that researchers have found it increases response rates)
- Disadvantages of multiple choice
 - Regardless of instructions, respondents may provide more than one response when only one response is asked for
 - Analysis may be a bit complicated for the inexperienced



Examples of Multiple Choice

1. What is your primary motive for attending this farmers' market?
(*choose only one*)
 - Purchase produce
 - Purchase packaged goods
 - Purchase ready-to-eat foods (vendors)
 - Social interaction
- 2. Which of the following types of foods do you purchase? (*select as many as apply*)
 - Organic
 - Natural
 - Local
 - Pesticide-free
- 3. Do you feel more inclined to purchase food products if samples are provided?
 - Yes
 - No
- 4. Is this your first time visiting this farmers' market?
 - Yes
 - No



Analysis of Multiple Choice

- To analyze the results of multiple and dichotomous choice questions, it is necessary to assign a numeric value to each question response
 - This can be done fairly easily using Microsoft Excel or other spreadsheet software.
 - For example, with questions (3) and (4), the “yes” responses may be coded as “1” and the “no” responses as “2.”
 - For multiple choice questions, the responses are typically coded in the order they appear on the survey.
 - For example, in question (1), “Purchase produce” would be coded as “1,” “Purchase packaged goods” would be coded as “2,” and so on.
- Once the responses are coded, the “count” function in Excel can be used to analyze the responses, while a pie chart can be used to graphically show responses



Analysis of Multiple Choice, cont.

- Below is an example of how the responses to question (1) may have turned out.
- Column A shows the identification numbers of the ten survey respondents (Survey ID).
- Column B contains the survey responses to the question (Q1).

	A	B
1	Survey ID	Q1
2	1	1
3	2	2
4	3	2
5	4	1
6	5	1
7	6	1
8	7	4
9	8	6
10	9	7
11	10	1

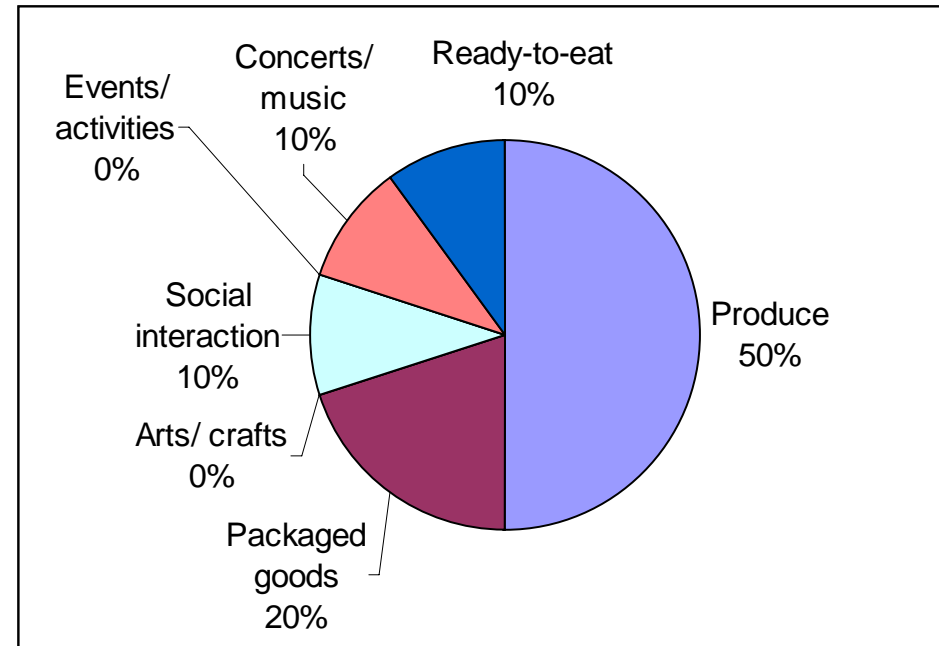
- Below is a potential next step in analysis
 - To count the number of responses for each category
- “Q1” shows each response category
- “Count” lists the number of responses for each category
- “Formula” shows the formula that was used in Excel to count the responses, based on the row and column locations of the responses shown at left

Q1	Count	Formula
Produce	5	=COUNTIF(B2:B11,1)
Packaged goods	2	=COUNTIF(B2:B11,2)
Arts/ crafts	0	=COUNTIF(B2:B11,3)
Social interaction	1	=COUNTIF(B2:B11,4)
Events/ activities	0	=COUNTIF(B2:B11,5)
Concerts/ music	1	=COUNTIF(B2:B11,6)
Ready-to-eat	1	=COUNTIF(B2:B11,7)



Analysis of Multiple Choice, cont.

- Pie charts can be created in Excel fairly simply using the Chart Wizard (instructions on how to use the Chart Wizard can be found in Excel's help menu).
- The data in the pie chart is the same as in the previous slide
- Imagine a surveyor asked this question to determine whether or not to further process his/her greens to create a salad mix for sale
 - Results are mixed
 - On the one hand, half of the respondents specified that they come to the farmers' market for produce
 - However, 20% (2 respondents) said they come to the market for packaged goods.
 - In this case, it may be a good idea to try a small trial of salad mix before committing to the plan



Rating Scales

- Rating scales allow survey respondents to indicate their level of agreement with a statement, or to rate the level of importance of a specific feature of a product or service.
- Advantages of rating scales
 - Relatively straightforward for respondents to understand
 - Less difficult to analyze than some of the other question formats
- Disadvantages of rating scales
 - Can only be used for certain types of questions



Examples of Rating Scales

- 5. Please specify if your level of agreement or disagreement with each of the following statements.

Statement	Strongly Disagree					Strongly Agree				
	1	2	3	4	5	1	2	3	4	5
I am concerned about the safety of my food	1	2	3	4	5					
I purchase foods that are already prepared (salad mixes, marinated meats, etc.)	1	2	3	4	5					
I am concerned about the origin of my food	1	2	3	4	5					
I prefer purchasing foods that have third-party certification (i.e. certified organic, certified pesticide-free)	1	2	3	4	5					

- 6. When making purchases from a specific farmer/producer at a farmers' market, how important are the following farmer/producer features?

Farmer/Producer Features	Not important		Somewhat Important		Very important		Extremely important	
	1	2	3	4	5	6	7	
Farmer/producer has a variety of products	1	2	3	4	5	6	7	
Farmer/producer has low prices	1	2	3	4	5	6	7	
Farmer/producer has organic products	1	2	3	4	5	6	7	
Farmer/producer is present at market	1	2	3	4	5	6	7	



Analysis of Rating Scales

- Rating scales can be fairly simple to analyze
 - Because the responses are already in numeric form, it is not necessary to recode them
- Rating scales may be analyzed by taking the average response
 - This will show how respondents feel, on average, about the statement or question
- It may also be helpful to analyze the responses by count, using either a pie chart or bar chart to show the responses relative to one another



Analysis of Rating Scales

- Here is an example of how the statement “Farmer/producer has organic products” may have turned out for question (6)
- Column A shows the survey ID number
- Column B lists each individual’s response to the question
 - Where 1 is “Not important” and 5 is “Extremely important,” as on the survey
- Here are the number of responses for each category (“Count”) and the formula used to obtain each count (“Formula”)
 - Formula based on the example at left
- Also shown is the average:
 - The average value of 4.3 shows that on average, respondents found this statement to be “Very important.”

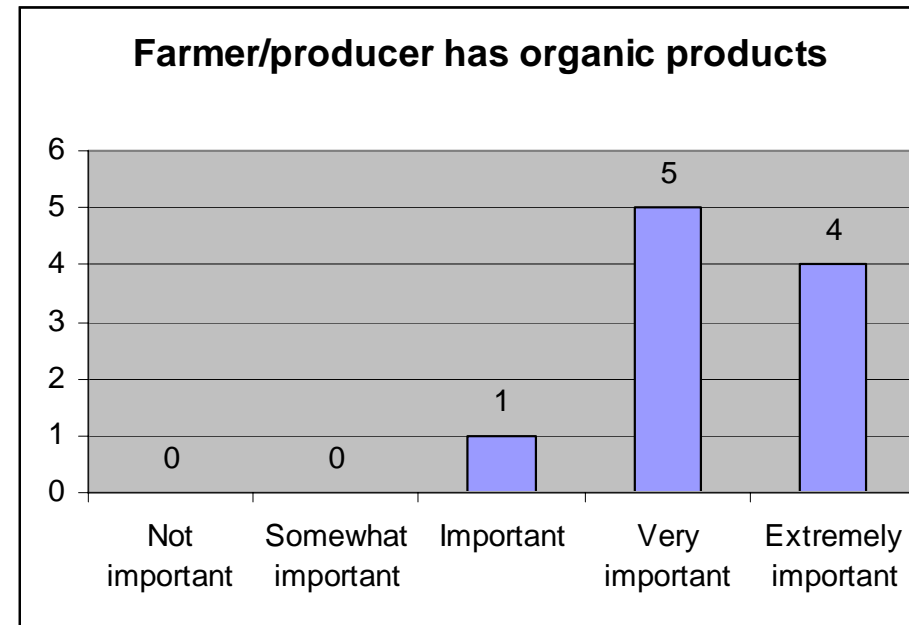
	A	B
1	Survey ID	Q6-Organic
2	1	3
3	2	4
4	3	4
5	4	5
6	5	5
7	6	5
8	7	4
9	8	4
10	9	4
11	10	5

Q6-Organic	Count	Formula
Not important	0	=COUNTIF(B2:B11,1)
Somewhat important	0	=COUNTIF(B2:B11,2)
Important	1	=COUNTIF(B2:B11,3)
Very important	5	=COUNTIF(B2:B11,4)
Extremely important	4	=COUNTIF(B2:B11,5)
Average	4.3	=AVERAGE(B2:B11)



Analysis of Rating Scales, cont.

- Here is a bar chart of responses to the statement “Farmer/producer has organic products” from question (6).
- Like a pie chart, a bar chart is a way of comparing the number of responses between questions.
 - Bar chart instructions are also in Excel’s Chart Wizard
- As the bar chart shows, the majority of respondents found the statement to be “Very” and “Extremely” important.
- Imagine a producer asked this question to determine whether or not he or she should proceed with plans to obtain organic certification
 - Results may indicate that such a move would be attractive to customers.



Open-Ended Questions

- An open-ended question poses a question to the respondent and asks him/her to write out his/her response
- While open-ended questions can provide a lot of information, they are problematic enough that many researchers try to avoid them
 - They require more effort on the part of the respondent
 - This effort may lead the respondent to skip the question or quit the survey entirely.
 - The open-ended nature also leaves the interpretation of the question up to the respondent
 - Responses may not be entirely what the surveyor was looking for
 - Because there are virtually infinite ways to respond, they can be difficult to analyze
 - Unless respondents tend to answer the question similarly
- However, open-ended questions can be useful in focus groups
 - The responses given by the focus group can be used to reformat the question into multiple choice.



Examples of Open-Ended Questions

7. When making purchases from a specific farmer/producer at a farmers' market, what farmer/producer features do you find most appealing?

8. What is your primary motive in attending this farmers' market?



Analysis of Open-Ended

- One of the difficulties in using open-ended questioning is analyzing the results
 - If the surveyor is not planning on surveying a large number of people and is looking for very general information, then open-ended questions can be helpful in a sort of “comment card” sense
 - However, if the survey is being given to a large number of people and the surveyor wishes to achieve specific responses, open-ended questions may not be the best format.
- If many open-ended questions need to be analyzed, it can be helpful to go through the responses looking for common “themes”
 - For example, in question (7), respondents may offer many similar responses, such as “price,” “quality,” and “reputation”
 - The person analyzing the data may wish to code all responses pertaining to “price” as “1,” “quality” as “2,” and so on
 - Once the data has been coded numerically, it can be analyzed using pie and bar charts to show how the responses stack up against one another.



Conclusion

- Primary data can be costly and time-consuming to obtain, but can provide specific answers to specific market research questions
- Surveys are a common method of obtaining primary data
 - The survey method to use depends on the information the surveyor wants, and the population of interest
- Question formats have an impact on the information the survey provides
 - Choice of question format also depends on the information desired and the population of interest, as well as the strengths of the surveyor



Additional Resources

- The USDA-ERS (Economic Research Service) collects data on sales and consumption of food and agricultural products in the U.S., including consumer survey data. ERS data can be found online at www.ers.usda.gov/Data.
- The USDA-AMS (Agricultural Marketing Service) provides data and publications on marketing agricultural products and focuses on direct outlets. AMS data and publications can be found online at www.ams.usda.gov.
- Marketing research companies and economic consulting firms can be hired to conduct primary data collection and analysis. RTI international is just one example. Information on RTI can be found at www.rti.org.



Thank you!

