

PAPER SKY BOOKSTORE: SURVEY RESEARCH CASE STUDY

Robert Robinson

November 4, 2016

Com. 564 Research Methods for Professionals

Washington State University

*University District
Bookstore, Spokane
Washington*

Table of Contents

Introduction.....	2
National Bookstore Demographics.....	2
Design.....	3-5
Draft pre-notification, cover letter and questionnaire	5-14
Pre-test results for pre-notification cover letter and questionnaire.....	15
Revised pre-notification, cover letter and questionnaire.....	16-25
Survey related exercises	
1. Five closed-ended questions and rewrites.....	26-28
2. Five closed-ended questions with changes levels of measurement.....	28-29
3. Confidence level: probability-based sample.....	30
4. Confidence interval-margin of error calculations.....	30-31
5. Discussion of research.....	32-33

Executive Summary

The purpose of this survey case study is to determine how the local community in Spokane Washington would receive a new bookstore in the University District. It is the goal of the study to understand the needs of the community and to understand the risks associated with opening a new brick-and-mortar store in the area. The primary focus of the study will be on nonstudents as the data on student purchasing patterns has already been evaluated. The key is examining the consumers who spend above the national average on books. Information concerning potential customers and their interests in relation to current reading trends, prices, product offerings, food and clothing options, store hours, transportation and parking issues as well as desired store attributes.

Paper Sky Bookstores management team is in the exploratory phase of discovery. The team will pre-test and develop pre-notification letters, cover letters and questionnaire. A probability-based sample of Spokane residents living within 12 miles of the proposed bookstore location reflects the general demographics of the target residents. It is recommended that a regular mail survey of local residents be conducted in order to use resources optimally through cost savings and allowing a more comprehensive reach in order to avoid coverage errors and increase external validity of results. In this exploratory phase, time to project completion is not a primary issue, rather the accuracy and external validity is the key focus.

National Bookstore Demographics

According to the U.S. Small Business Administration Bookstore 2012 report, the average household spends \$55.23 on bookstores. It was observed that members of specific market segments spent more than the national average (Bookstore, 2012). The chart presented below is taken from the Bookstore 2012 Report.

Customer Segment	Percent ABOVE National Average Spending on Books
Householders aged 45-64	12% to 24%
Married couples with no children at home	23%
Married couples with school-aged or older children at home	33% to 40%
Households in the West	41%
College Graduates (Bachelor's)	60%
Master's, Professional or Doctoral	156%

The highest demographic are individuals with masters, professional or doctoral degrees, followed by college graduates, households in the west, then married coupled with school-aged or older children at home, then married couples with no children. The age demographic of 45-64 spent 12 to 24 % above the national average. These demographic considerations are integrated into the design of the questionnaire.

Design

In developing the research design a number of key content areas were identified and will also be integrated into the design of the questionnaire. Knowing that bookstore revenues are on the decline nationally, it is important to know how customer segments currently make their purchases:

- Hard copies vs e-books.
- How does pricing impact purchases?
- What do customers perceive as ideal shopping experiences?
- What type of in-store food experiences, gift or clothing items would customers prefer. In a university town, like Spokane this may be important?
- In what way do customers see potential for outreach between the bookstore and the community?

Procedures: Step 1: Sampling: The Paper Sky Bookstore purchased a probability-based sample representing the target segment within a 12 mile radius of the proposed store location. The sample was selected based on a random sampling which generated a list of addresses. Anonymity is assured by not including resident names. The sample reflects the general demographics of the target audience. This step saves time by working with the established probability sample.

Step 2: Survey Component Evaluation Plan: In the development of the survey research, there is a pre-notification letter to inform respondents selected, that a survey will be sent to them for their ideas about a new bookstore in Spokane. The respondents are informed that a survey questionnaire will be arriving. The Paper Sky Management team will design a cover letter to accompany the survey. A pre-test of the pre-notification letter, cover letter and survey questionnaire will be conducted with 10 individuals. Time taken to complete the questionnaire was evaluated along with clarity of instructions, scale formats, what they liked or did not like about the questionnaire. This data will be evaluated and recommended changes will be made.

Step 3: Pre-notification letter, cover letter and questionnaire drafts. The pre-notification letter is drafted stating the purpose of the letter and motivating information about the survey to come. The cover letter describes the purpose of the survey and the value of the respondents' opinion. The survey includes questions designed to tap into respondents opinions about a book store in the area. Each one of 10 individuals will provide feedback on the pre-notification letter, cover letter and questionnaire.

Step 4: Results and revisions to pre-notification letter, cover letter and questionnaire. The results and recommendations were used to revise these survey components. A final draft is presented for pre-notification letter, cover letter and questionnaire.

Draft Pre-notification Letter



PAPER SKY BOOKSTORES

October 25, 2016

Paper Sky Bookstores

P.O. Box 1234

Spokane, Washington, 98749

Dear Resident,

You have been selected to help us determine your ideas for the development of a new bookstore in downtown Spokane. We have looked at the University District and feel that might be the best location for your convenience. In the next two weeks you will be receiving a survey so you can provide us with your opinions about what you expect and what you would prefer in your local bookstore. If you will be able to complete the survey by mail, we will send you a \$50 gift certificate which you can redeem at a local restaurant of your choice.

Thank you for your consideration.

Paper Sky Management Team

Draft Cover Letter



PAPER SKY BOOKSTORES

October 28, 2016

Paper Sky Bookstores

P.O. Box 1234

Spokane, Washington, 98749

Dear Resident,

We would like to invite you to give us your feedback and ideas about the development of a new bookstore in the Spokane University District. We understand there are existing bookstores. However, with your feedback and ideas, we may be able to develop tailor our store concept to what you might associate with an ideal bookstore experience. The type of information we will be asking about are your current reading preferences, preferred pricing, product offerings, in-store coffee, food, gift or clothing options, hours, parking and other desired features you can think of. Your response is confidential. The purpose is to better understand what our local community members desire in a bookstore. As a thank you, we will send you a \$50 gift certificate upon the returned survey which you can redeem at a local restaurant of your choice. When the survey is completed, please return it in the stamped and addressed envelope.

Thank you for your time, we value your opinion,

Paper Sky Management Team

Draft Questionnaire



PAPER SKY BOOKSTORES

Questionnaire Purpose: We would like to invite you to give us your feedback and ideas about the development of a new bookstore in the Spokane University District. We understand there are existing bookstores. However, with your feedback and ideas, we hope to develop tailor our store concept to what you might associate with your preferred bookstore experience.

This section helps us to know about your book shopping habits and preferences.

1. How often do you go to a bookstore?

- Daily
- Weekly
- Monthly
- Never
- Other, please specify

2. How many book purchases have you made over the last year?

- None
- 1-3
- 4-6
- 7-10
- 11+
- Don't Remember

3. What motivates you shop at a brick and mortar bookstore? Mark all that apply.

- Quality of store merchandise
- Book availability

- Desire to purchase a book
- Location
- Parking availability
- Customer representative knowledge
- Customer representative helpfulness
- Relaxed store environment with comfortable chairs
- Coffee and food offerings
- Gift selection
- Speakers and presentations
- Children's story time

4. What motivates you to shop for a book online? Mark all that apply.

- Ease of selection
- Availability
- Price
- Time efficiency
- Easy to browse
- Ease of purchase

5. As the bookstore experience changes over time, what are some of the features that would be appealing to you? Indicate as many as you wish.

- In-store coffee shop and food
- Online purchasing
- E-readers
- Excellent customer service
- Easy access to the store
- Available parking

- Magazine section.
- Gifts and clothing
- Extensive book selection
- Community reading programs for children
- Author presentations
- Community outreach programs partnered by the bookstore
- Community sponsorship of school reading programs
- Extended hours

6. If you were buying a GIFT, which of the following would you consider? (Check all that apply)

- University sporting wear
- University logo merchandise
- Washington State Cougar gear
- Gonzaga Bulldog gear
- University paraphernalia
- Art Prints
- Children's books
- Computer supplies
- General books
- Specialty books
- Special affiliation merchandise
- Men's clothing
- Women's clothing
- Music and video
- Other _____

7. In your opinion, how often do you buy books in these categories? Mark all that apply.

	Very often	Often	Once in a while	Rarely	Never
Arts and music	<input type="checkbox"/>				
Audio Books	<input type="checkbox"/>				
Biography	<input type="checkbox"/>				
Board Games	<input type="checkbox"/>				
Business and finance	<input type="checkbox"/>				
Best Sellers	<input type="checkbox"/>				
Children's Books	<input type="checkbox"/>				
Computers and internet	<input type="checkbox"/>				
Crafts and hobbies	<input type="checkbox"/>				
Crime, thriller and mystery	<input type="checkbox"/>				
Entertainment	<input type="checkbox"/>				
E-readers like Kindle, Nook	<input type="checkbox"/>				
Family and health	<input type="checkbox"/>				
Food and drink	<input type="checkbox"/>				
History	<input type="checkbox"/>				
Home and garden	<input type="checkbox"/>				
Literature and fiction	<input type="checkbox"/>				
Magazines and Periodicals	<input type="checkbox"/>				
Psychology	<input type="checkbox"/>				
Religion	<input type="checkbox"/>				
Science	<input type="checkbox"/>				
Science Fiction and fantasy	<input type="checkbox"/>				
Self-improvement	<input type="checkbox"/>				
Sports and outdoors	<input type="checkbox"/>				
Travel	<input type="checkbox"/>				
Other	<input type="checkbox"/>				

8. When you make a bookstore purchase what criteria influences your purchase?

	Not at all Important	Slightly Important	Neutral	Moderately Important	Very Important
Price	<input type="checkbox"/>				
Author	<input type="checkbox"/>				

Availability	<input type="checkbox"/>				
Cover Design	<input type="checkbox"/>				
Content Category	<input type="checkbox"/>				
Previewing in store	<input type="checkbox"/>				

9. What information sources do you consider in making your book selection choices? Mark all that apply.

- Newspaper book reviews
- Magazine book reviews
- Recommendations of friends and family
- Book review online sites
- Facebook
- Twitter
- Blogs
- Websites like Goodreads

10. How would you prefer to be informed about events/ promotions/ discounts by Paper Sky Bookstores?

- E-mail
- Social media
- Voice calls
- Print ads
- Direct mail advertising
- Other: _____

11. What kind of activities would be appealing to you as Paper Sky Bookstore reaches out to your community?

	Not Interested	Slightly Interested	Neutral	Moderately Interested	Very Interested
Weekly e-newsletter about new books	<input type="checkbox"/>				
School outreach partners	<input type="checkbox"/>				
In-store children's stories	<input type="checkbox"/>				
Author presentations	<input type="checkbox"/>				
Customer preference survey of book-speaker content.	<input type="checkbox"/>				
Bookstore sponsorship in local activities	<input type="checkbox"/>				
Special discounts	<input type="checkbox"/>				

12. What would your characteristics be in relation to the physical environment of the store?
Mark all that you prefer.

- Children's reading and play area
- Supervision of children in the area
- Comfortable seating in different store areas
- Coffee and food section
- Comfortable seating in the food area
- Free Wi-Fi
- Relaxed atmosphere
- Soft background music
- Other _____

In order to help us understand what you desire as a potential Paper Sky Bookstore customer, please indicate what characteristics best represent you. We wish to reassure you that all information will remain confidential and will not be used for any other purpose.

1. What is your gender?

- Male

Female

2. What age range are you?

Under 24

25-29

30-39

40-49

50-59

60 +

3. What is the highest level of education you have completed?

Completed some High School

High School/GED

Some college credit

Trade/Technical School

Associate Degree

Bachelor's Degree

Master's Degree

Graduate or Professional Degree

Doctoral Degree

4. Please indicate your range of personal yearly income before taxes during the past 12 months?

Less than \$25,000

\$25,000 to \$34,999

\$35,000 to \$49,999

\$50,000 to \$74,999

\$75,000 to \$99,999

\$100,000 to \$149,999

\$150,000 or more

5. Please indicate your marital status

- Single (never married)
- Married
- Separated
- Widowed
- Divorced

6. Describe your current employment status

- Full-time employment
- Part-time employment
- Self-employed
- Unemployed
- Looking for employment
- Retired
- Military service
- Other _____

Survey Pre-test Feedback and Revisions

The pre-notification letter, cover letter and survey were presented to 10 people. Time needed to complete the questionnaire ranged from 5-8 minutes. A number of recommendations and feedback were reported:

- Pre-notification letter:
 - Several respondents suggested modifying the pre-notification letter to simplify the language. Indicate time needed. Revisions were made and can be observed in the final draft.
 - A fifty dollar gift certificate was considered too much for a short survey, so \$10 was considered more appropriate.
- Draft cover letter:
 - Six respondents also suggested simplifying overly wordy sentences. Add approximate time to take.
 - It was also recommended to change the value of the gift certificate to \$10
- Draft Survey
 - The survey was presented in a dark blue font and charts. It looked okay on the computer view. However, the printed format was much lighter. There were complaints. Nine respondents suggested changing it to black so they could see it more clearly.
 - All respondents indicated that the length was okay.
 - The instructions should be simplified. Delete “we understand there are existing bookstores” Change “However, with your feedback and ideas, we hope to develop tailor our store concept to what you might associate with your preferred bookstore experience.” To “It will help design store characteristics more along the lines of your preferred bookstore experience.”
 - The format with items ranked by a chart was considered quick and efficient. However, the boxes for marking were too small and hard to see. The color blocking between lines combined with the small boxes made it confusing. So the charts were changed to black with larger boxes and clear lines between the content ratings.
 - Did not like questions on marital status. Kept it in to profile customer patterns.
 - There were too many different formats – circles or squares. Keep it one or the other for consistency.
 - Try to keep question charts on one page for easier answering.
 - Repetition in gift categories, don’t use word paraphernalia – maybe “gear”.
 - To question 9 add “Browsing in person” as an option.
 - Question 12, change from “what would your characteristics be” to “what would your preferred characteristics be”
 - Moved question to 9 to 12 and 12 to 11 to accommodate full charts on a page

Revised Pre-notification Letter



PAPER SKY BOOKSTORES

October 25, 2016

Paper Sky Bookstores

P.O. Box 1234

Spokane, Washington, 98749

Dear Resident,

You have been selected as a representative of the community to tell us your ideas for a new bookstore in downtown Spokane. The University District is an ideal location for your convenience. In the next two weeks you will be receiving a survey. This is your opportunity to provide us with your opinions. The survey should take no more than 10 minutes of your time. If you will be able to complete the survey by mail, we will send you a \$10 gift certificate which you can redeem at a local restaurant of your choice.

Thank you for your consideration.

Paper Sky Management Team

Revised Cover Letter



PAPER SKY BOOKSTORES

October 28, 2016

Paper Sky Bookstores

P.O. Box 1234

Spokane, Washington, 98749

Dear Resident,

We would like to invite you to give us your feedback and ideas about the development of a new bookstore in the Spokane University District. Your feedback and ideas in this survey will help us design a store to meet your needs. The survey should take no more than 10 minutes of your time. We ask questions about your current reading preferences, preferred pricing, product offerings, in-store coffee, food, gift or clothing options, hours, parking and other desired features you can think of. Your response is confidential. The purpose is to better understand what our local community members desire in a bookstore. As a thank you, we will send you a \$10 gift certificate upon the returned survey which you can redeem at a local restaurant of your choice. When the survey is completed, please return it in the stamped and addressed envelope.

Thank you for your time, we value your opinion,

Paper Sky Management Team

Revised Questionnaire



PAPER SKY BOOKSTORES

Questionnaire Purpose: We would like to invite you to give us your feedback and ideas about the development of a new bookstore in the Spokane University District. It will help us design store characteristics more along the lines of your preferred bookstore experience.

This section helps us to know about your book shopping habits and preferences.

1. How often do you go to a bookstore?

- Daily
- Weekly
- Monthly
- Never
- Other, please specify

2. How many book purchases have you made over the last year?

- None
- 1-3
- 4-6
- 7-10
- 11+
- Don't Remember

3. What motivates you shop at a brick and mortar bookstore? Mark all that apply.

- Quality of store merchandise
- Book availability
- Desire to purchase a book
- Location
- Parking availability

- Customer representative knowledge
- Customer representative helpfulness
- Relaxed store environment with comfortable chairs
- Coffee and food offerings
- Gift selection
- Speakers and presentations
- Children's story time

4. What motivates you to shop for a book online? Mark all that apply.

- Ease of selection
- Availability
- Price
- Time efficiency
- Easy to browse
- Ease of purchase

5. As the bookstore experience changes over time, what are some of the features that would be appealing to you? Indicate as many as you wish.

- In-store coffee shop and food
- Online purchasing
- E-readers
- Excellent customer service
- Easy access to the store
- Available parking
- Magazine section.
- Gifts and clothing
- Extensive book selection
- Community reading programs for children

- Author presentations
- Community outreach programs partnered by the bookstore
- Community sponsorship of school reading programs
- Extended hours

6. If you were buying a GIFT, which of the following would you consider? (Check all that apply)

- University sporting wear
- University logo merchandise
- Washington State Cougar gear
- Gonzaga Bulldog gear
- Art Prints
- Children's books
- Computer supplies
- General books
- Specialty books
- Special affiliation merchandise
- Men's clothing
- Women's clothing
- Music and video
- Other _____

7. In your opinion, how often do you buy books in these categories? Mark all that apply.

	Very often	Often	Once in a while	Rarely	Never
Arts and music	<input type="checkbox"/>				
Audio Books	<input type="checkbox"/>				
Biography	<input type="checkbox"/>				
Board Games	<input type="checkbox"/>				
Business and finance	<input type="checkbox"/>				
Best Sellers	<input type="checkbox"/>				
Children's Books	<input type="checkbox"/>				
Computers and internet	<input type="checkbox"/>				
Crafts and hobbies	<input type="checkbox"/>				
Crime, thriller and mystery	<input type="checkbox"/>				
Entertainment	<input type="checkbox"/>				
E-readers like Kindle, Nook	<input type="checkbox"/>				
Family and health	<input type="checkbox"/>				
Food and drink	<input type="checkbox"/>				
History	<input type="checkbox"/>				
Home and garden	<input type="checkbox"/>				
Literature and fiction	<input type="checkbox"/>				
Magazines and Periodicals	<input type="checkbox"/>				
Psychology	<input type="checkbox"/>				
Religion	<input type="checkbox"/>				
Science	<input type="checkbox"/>				
Science Fiction and fantasy	<input type="checkbox"/>				
Self-improvement	<input type="checkbox"/>				
Sports and outdoors	<input type="checkbox"/>				
Travel	<input type="checkbox"/>				
Other	<input type="checkbox"/>				

8. When you make a bookstore purchase what criteria influences your purchase?

	Not at all Important	Slightly Important	Neutral	Moderately Important	Very Important
Price	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Author	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cover Design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Content Category	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Previewing in store	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. How would you prefer to be informed about events/ promotions/ discounts by Paper Sky Bookstores? Mark all that you prefer.

- E-mail
- Social media
- Voice calls
- Print ads
- Direct mail advertising
- Other: _____

10. What kind of activities would be appealing to you as Paper Sky Bookstore reaches out to your community? Mark all that you prefer.

	Not Interested	Slightly Interested	Neutral	Moderately Interested	Very Interested
Weekly e-newsletter about new books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School outreach partners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In-store children's stories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Author presentations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customer preference about types of author presentations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bookstore sponsorship in local activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. What would be your preferred characteristics be in relation to the physical environment of the store? Mark all that you prefer.

- Children's reading and play area
- Supervision of children in the area
- Comfortable seating in different store areas
- Coffee and food section
- Comfortable seating in the food area
- Free Wi-Fi
- Relaxed atmosphere
- Soft background music
- Other _____

12. What information sources do you consider in making your book selection choices? Mark all that apply.

- Newspaper book reviews
- Magazine book reviews
- Recommendations of friends and family
- Book review online sites
- Facebook
- Twitter
- Blogs
- Websites like Goodreads
- Browsing in person

In order to help us understand what you desire as a potential Paper Sky Bookstore customer, please indicate what characteristics best represent you. We wish to reassure you that all information will remain confidential and will not be used for any other purpose.

13. What is your gender?

Male

Female

14. What age range are you?

Under 24

25-29

30-39

40-49

50-59

60 +

15. What is the highest level of education you have completed?

Completed some High School

High School/GED

Some college credit

Trade/Technical School

Associate Degree

Bachelor's Degree

Master's Degree

Graduate or Professional Degree

Doctoral Degree

16. Please indicate your range of personal yearly income before taxes during the past 12 months?

Less than \$25,000

\$25,000 to \$34,999

\$35,000 to \$49,999

\$50,000 to \$74,999

- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more

17. Please indicate your marital status

- Single (never married)
- Married
- Separated
- Widowed
- Divorced

18. Describe your current employment status

- Full-time employment
- Part-time employment
- Self-employed
- Unemployed
- Looking for employment
- Retired
- Military service
- Other _____

Survey related exercises

5a Five closed-ended questions and rewrites: Select five closed-ended questions from your survey and change the response scales. If you wrote the questions using Likert scale response items, for example, rewrite the same questions using semantic differential-type scale response items.

- How often do you rely on these information sources in making a book selection?

Newspaper book reviews	Often	___	___	___	___	___	Rarely
Magazine book reviews	Often	___	___	___	___	___	Rarely
Recommendations of friends and family	Often	___	___	___	___	___	Rarely
Book review online sites	Often	___	___	___	___	___	Rarely
Facebook	Often	___	___	___	___	___	Rarely
Twitter	Often	___	___	___	___	___	Rarely
Blogs	Often	___	___	___	___	___	Rarely
Websites like Goodreads	Often	___	___	___	___	___	Rarely
Browsing in person	Often	___	___	___	___	___	Rarely

- Indicate how important these characteristics are in relation to the physical environment of the store?

Children’s reading and play area	Very Important	___	___	___	___	___	Not important
Supervision of children in the area	Very Important	___	___	___	___	___	Not important
Comfortable seating in general	Very Important	___	___	___	___	___	Not important
A Coffee and food section	Very Important	___	___	___	___	___	Not important
Comfortable seating in the food area	Very Important	___	___	___	___	___	Not important
Free Wi-Fi	Very Important	___	___	___	___	___	Not important
Relaxed atmosphere	Very Important	___	___	___	___	___	Not important
Soft background music	Very Important	___	___	___	___	___	Not important

- How important are these characteristics in your bookstore shopping experience?

Quality of store merchandise	Very Important	___	___	___	___	___	Not important
Book availability	Very Important	___	___	___	___	___	Not important
Desire to purchase a book	Very Important	___	___	___	___	___	Not important

Location	Very Important	___	___	___	___	___	Not important
Parking availability	Very Important	___	___	___	___	___	Not important
Customer representative knowledge	Very Important	___	___	___	___	___	Not important
Customer representative helpfulness	Very Important	___	___	___	___	___	Not important
Relaxed store environment	Very Important	___	___	___	___	___	Not important
Comfortable chairs	Very Important	___	___	___	___	___	Not important
Coffee and food offerings	Very Important	___	___	___	___	___	Not important
Gift selection	Very Important	___	___	___	___	___	Not important
Speakers and presentations	Very Important	___	___	___	___	___	Not important
Children's story time	Very Important	___	___	___	___	___	Not important

- Indicate how often you buy gifts in these categories.

University sporting wear	Often	___	___	___	___	Rarely
University logo merchandise	Often	___	___	___	___	Rarely
Washington State Cougar gear	Often	___	___	___	___	Rarely
Gonzaga Bulldog gear	Often	___	___	___	___	Rarely
Art Prints	Often	___	___	___	___	Rarely
Children's books	Often	___	___	___	___	Rarely
Computer supplies	Often	___	___	___	___	Rarely
General books	Often	___	___	___	___	Rarely
Specialty books	Often	___	___	___	___	Rarely
Special affiliation merchandise	Often	___	___	___	___	Rarely
Men's clothing	Often	___	___	___	___	Rarely
Women's clothing	Often	___	___	___	___	Rarely
Music and videos	Often	___	___	___	___	Rarely

- Rate how you like or dislike the type of communication to inform you about events, promotions and discounts by Paper Sky Bookstores?

E-mail	Like ___ ___ ___ ___ ___ Dislike
Social media	Like ___ ___ ___ ___ ___ Dislike
Voice calls	Like ___ ___ ___ ___ ___ Dislike
Print ads	Like ___ ___ ___ ___ ___ Dislike
Direct mail advertising	Like ___ ___ ___ ___ ___ Dislike

5b Five closed-ended questions with changes in levels of measurement: Select five different closed-ended questions from your survey and rewrite the question (as closely as possible) changing the levels of measurement. If you wrote a question using a Likert or semantic differential response scale, for example, we will treat this as an interval level of measurement. Rewrite the same questions (as closely as possible) using a nominal or ordinal level of measurement.

Please answer the following questions by ranking your answers from 1 to 5.

1 is the highest and 5 is the lowest.

- Rank the characteristics that motivate you to buy your books online?

- ___ Ease of selection
- ___ Availability
- ___ Price
- ___ Time efficiency
- ___ Ease of purchase

- Rank in order of importance the criteria that influences your book purchase?

1 is the highest and 5 is the lowest.

- ___ Price
- ___ Author
- ___ Availability
- ___ Cover Design

___ Content Category

___ Previewing in store

- Rank the kind of bookstore-community outreach activities which would most to least appealing to you? 1 is the highest and 5 is the lowest.

___ Weekly e-newsletter about new books

___ School outreach partners

___ In-store children's stories

___ Author presentations

___ Bookstore sponsorship in local activities

- Rank the information sources you consider in making a book selection. 1 is the highest and 5 is the lowest.

___ Print book reviews

___ Recommendations of friends and family

___ Book review online sites

___ Social Media

___ browsing in person

- Rank what characteristics motivate you to shop at a brick and mortar bookstore. 1 is the highest and 5 is the lowest.

___ Quality of store merchandise

___ Book availability

___ Location

___ Parking availability

___ Customer representative knowledge

5c. Confidence level: probability-based sample. Complete the following calculations.

- Calculate the size of a probability-based sample (that is, the final sample or number of completed interviews) necessary to produce a survey with a 95% confidence level and a +/- 4% confidence interval.

Formula $n = (cl/ci)^2 (v)(1-v)$ n = number of completed interviews cl = (confidence level) 1.96 sd ci = (confidence interval) .04 v = (variance) .5	$n = (1.96/.04)^2 (.5) (1-.5)$ $n = (2401) (.5) (.5)$ $n = 600.25$ Recommended sample size 600
--	---

- Calculate the size of sample necessary to produce a survey with a 95% confidence level and a +/- 2% confidence interval.

Formula $n = (cl/ci)^2 (v)(1-v)$ n = number of completed interviews cl = (confidence level) 1.96 sd ci = (confidence interval) .02 v = (variance) .5	$n = (1.96/.02)^2 (.5) (1-.5)$ $n = (9604) (.5) (.5)$ $n = 2401$ Recommended sample size 2401
--	--

- Calculate the size of a sample necessary to produce a survey with a 99% confidence level and a +/- 3% confidence interval (just for fun). These may be hand written. Please show your work to receive credit.

Formula $n = (cl/ci)^2 (v)(1-v)$ n = number of completed interviews cl = (confidence level) 1.96 sd ci = (confidence interval) .03 v = (variance) .5	$n = (2.58/.03)^2 (.5) (1-.5)$ $n = (7396) (.5) (.5)$ $n = 1849$ Recommended sample size 1849
--	--

5d Confidence interval-margin of error calculations

Even though you have not completed your survey, calculate the confidence of interval or margin of error for the following number of completed interviews (use the 95% confidence level): 425 completed interviews, 517 completed interviews and 652 completed interviews. These may be hand written. Please show your work to receive credit.

<p>Calculate the confidence of interval or margin of error for the following number of completed interviews (use the 95% confidence level): 425 completed interviews</p> <p>e or ci =</p> $\sqrt{\frac{(v)(1-v)}{n}} (100) = \text{error or confidence interval}$ <p>ci= range of error or confidence interval sd=1.96 normal curve 95% v=variance .5 in this case n=number of completed interviews</p>	$e \text{ or ci} = \sqrt{\frac{(v)(1-v)}{n}} (100) =$ $1.96 \sqrt{\frac{(.5)(1-.5)}{425}} (100) =$ $1.96 \sqrt{0.0005882} (100) =$ $(1.96) (.0242528) (100) = 4.75354$ <p>ci= 4.7 %</p>
<p>Calculate the confidence of interval or margin of error for the following number of completed interviews (use the 95% confidence level): 517 completed interviews</p>	$e \text{ or ci} = \sqrt{\frac{(v)(1-v)}{n}} (100) =$ $1.96 \sqrt{\frac{(.5)(1-.5)}{517}} (100) =$ $(1.96) (.0219886) (100) = 4.30$ <p>ci= 4.3 %</p>
<p>Calculate the confidence of interval or margin of error for the following number of completed interviews (use the 95% confidence level): 652 completed interviews</p>	$e \text{ or ci} = \sqrt{\frac{(v)(1-v)}{n}} (100) =$ $1.96 \sqrt{\frac{(.5)(1-.5)}{652}} (100) =$ $(1.96) (.0195806) (100) = 3.83779$ <p>ci= 3.8 %</p>

Discussion

5e What potential issues will your research method raise in terms of internal and external validity, reliability, accuracy?

The data used with the confidence interval margins and sample size assumes that we are using a probability sample based on random selection. In this case the assumptions are met. The more representative the sample of the target population, the more accurately we can observe patterns of opinion. The confidence interval gives us some idea of how accurately we can generalize from this data. These calculations give us guidelines from which to proceed.

The probability sample used in this research provides a relatively accurate sample of the population from which a degree of external validity can be generated. With the confidence level of 95% using 425 completed interviews the margin of error was 4.7%. This would allow us to make generalizable inferences from the sample to the population representing a degree of external validity. In relation to internal validity, we have to evaluate if the questions proposed on the survey provide enough information to explain the outcome Paper Sky Bookstores wanted to research. At face value, the general information appears to be represented by the questions. However, it may be necessary to revise the questionnaire for a final evaluation. The questions do help us assess what the customers are looking for in a bookstore, but there is always room for improvement. It appeared that the questions were fairly consistent in producing similar information under the survey format, producing a somewhat reliable survey. Taken together, the validity and reliability considerations should work together to produce a fairly consistent survey.

Limitations

One of the question categories used was nominal level of measurement. Those are the questions where categorical items were marked as a choice. The purpose was so see what categories were important to the respondents. The information may be useful to sample opinions, but it will not provide data for statistical analyses.

Another main category of question type was based on interval data. The questions were mutually exclusive, exhaustive and ordered in the sense that there were equal intervals between responses. The data from these questions can be applied to statistical analysis if the sample also

is representative, which it is. A question measuring how many books were purchased in a year was based on a ratio scale, as the numbers assigned were real numbers. This question format uses a powerful scale that can also applied statistical tests. There is a mixed question pattern which leads to different analyses of the data. In the case of this survey, ease of response was considered which resulted in a mixed format pattern. The results can still be summarized by question type and analyzed for customer preferences.

Problems associated with mail surveys which places limitations on this research is the length of time it takes to complete the mailing, response and summary of the data. For example there is generally a low response rate for mail surveys. In this case a gift certificate was offered upon receiving the completed survey. This should help in improving response rate. The current study does not use a follow-up card as a reminder to complete the survey. This is a current limitation. A thank-you card or letter should also be included to encourage survey return rate.

References

- Bookstore 2012. Small Business Market Research Reports. SBDCNet. Retrieved from <http://www.sbdnet.org/small-business-research-reports/bookstore-2012>
- Fink, A. (2017). How to conduct surveys. Los Angeles, Sage.
- Austin, E. & Pinkleton, B. (2015). Strategic Public Relations Management. New York, Routledge.