

W5 on Segmentation

In today's volatile and competitive economy, mass marketing is no longer the most efficient or cost-effective option to reach a target audience. With a limited marketing budget, why spend your resources marketing to an audience who is not likely to use your products and services? Market segmentation allows you to identify and define those who are likely to benefit from your products and services, while at the same time identifying those who are not viable prospects.

This overview is designed to illustrate the benefits of market segmentation research for a variety of marketing needs.

What is Segmentation Research?

In typical market research studies, variation in responses can be identified through statistical analysis based on demographic characteristics such as gender, age, ethnicity, region, and income. However, when examining the market as a whole, this method of strict demographic analysis does not give marketers and researchers the ability to understand and tailor their marketing strategies to address the complexity of consumer personalities and decision-making considerations.

Segmentation research, on the other hand, allows marketers and researchers to explore a target audience based on in-depth information beyond demographic characteristics. Segmentation is a valuable research tool used to help businesses develop and implement more effective marketing strategies during all phases of the marketing process – from product development through advertising campaign messaging. A segmentation study uses individuals' responses to questions concerning their core demographic makeup as well as attitudinal, behavioral, psychographic, category-related, and brand-related questions to allow businesses to identify and target distinct consumer groups within the marketplace.

In order for a segmentation scheme to be actionable, or for it to be possible to identify and market to the resulting segments in the future, the members of each segment must **think and behave similarly to one another** and must also **think and behave differently from the members of other segments**.

Figure 1, below, outlines further basic criteria for market segmentation:

EXISTS	The segment must represent a real situation that exists in the environment, not a data-only situation.
IDENTIFIABLE	The segment is defined by core variables that can easily be applied in other planning and marketing efforts.
STABLE	The segment represents an ongoing consistent situation that permits extraction of value within a reasonable amount of time.
REACHABLE	The segment must be able to be effectively reached through specifically targeted distribution or communication initiatives.

Figure 1: Criteria for Creating Strong and Actionable Segments

There are two generally accepted methods of segmentation research: **a priori** segmentation and **post hoc** segmentation.

- A Priori Segmentation:

In *A Priori Segmentation*, consumers are grouped based on a previously accepted classification scheme related to variations in customer behavior and purchase patterns.

Figure 2, below, is an example of an *A Priori Segmentation* that could be used to segment the fast food marketplace. These segments are based on general fast food purchase frequency and could be used to understand each segment’s perceptions, opinions, and usage of a particular fast food restaurant, including how the segments differ from one another.

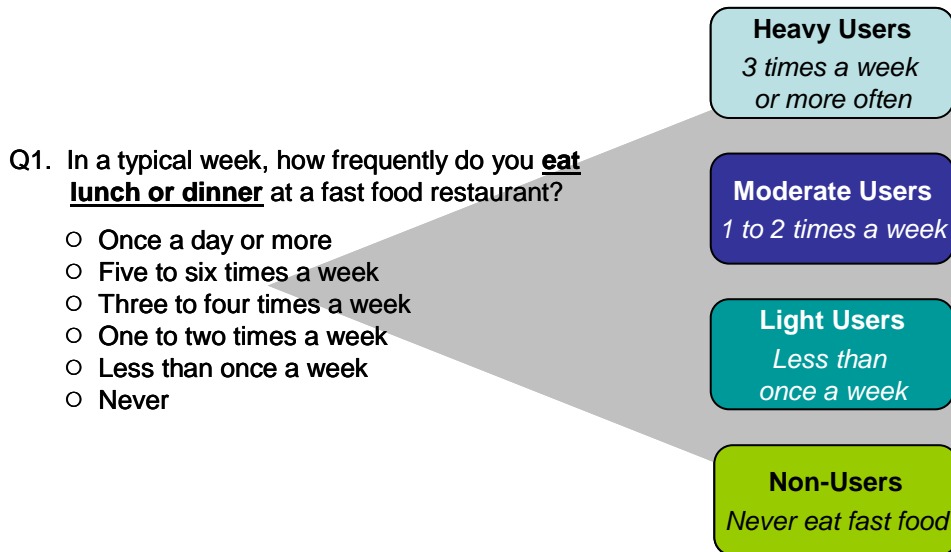


Figure 2: Example A Priori Segmentation

A Priori segments are the simplest to identify, as they are typically based on individual responses to just one behavioral or demographic question, as in the above example. However, because of this, they are also limited in their application outside of academic research when applied to test hypothetical theories. They rarely allow for the complexity and breadth of information that is often desired from a marketplace-oriented segmentation study.

- *Post Hoc Segmentation:*

In *Post Hoc Segmentation*, segments are developed based on the results of a broad array of questions pertaining to demographics, attitudes, behaviors, lifestyle and psychographics, category perceptions and preferences, and brand perceptions and preferences. Unlike *A Priori Segmentation*, *Post Hoc Segmentation* encompasses a variety of questions and scales that work in conjunction with one another.

Figure 3, below, is an example of a *Post Hoc Segmentation* that could be used to segment the fast food marketplace. Unlike the *A Priori Segmentation* scheme outlined above, which was based on a single question addressing purchase frequency, these segments are based on a wide variety of data points that encompass consumers' demographics, attitudes, behaviors, lifestyle and psychographics, category perceptions and preferences, and brand perceptions and preferences.

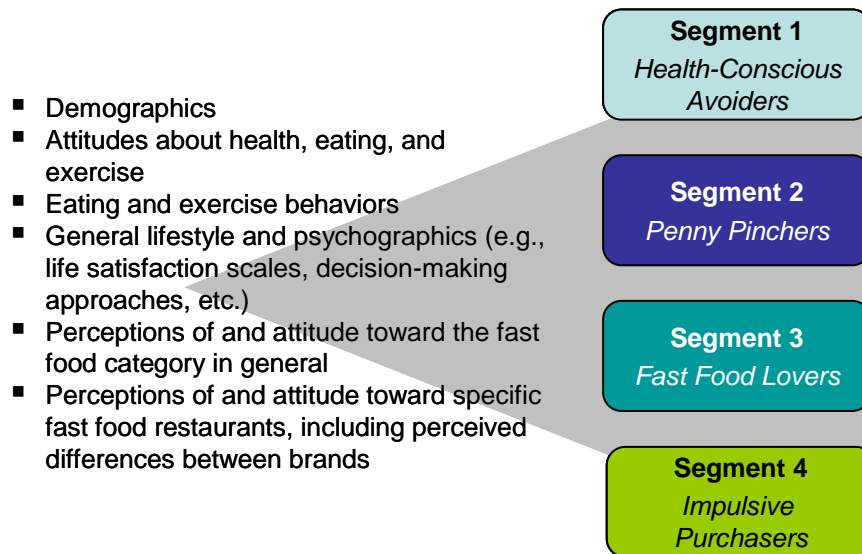


Figure 3: Example Post Hoc Segmentation

As illustrated above, *Post Hoc Segmentation* schemes are generally more investigative in nature and provide clients with actionable information with which to identify and differentiate homogeneous groups of target consumers. *Post Hoc Segmentation* research can provide information about how to target and market to groups based on what they think, how they feel, and how they act, in addition to basic demographic classifications.

Why Conduct Segmentation Research?

In today’s economy, companies must maximize their budgets by targeting the right audience with the products and messages that are most relevant to them. Segmentation research enables our clients to do this by identifying and contextualizing target and potential customers, as well as identifying those who should not be targeted for a particular product or service.

Segmentation research is particularly useful in answering the following types of questions:

- **Market Composition.** What groups exist that have needs that our products or services can fulfill?
- **Product & Brand Targets.** What types of individuals or businesses should we target to increase our sales?
- **Message Relevance.** How can we customize our marketing messages to resonate with target and potential customers?
- **Product & Brand Opportunity.** How can we identify opportunities for competitive differentiation?

Segmentation is a highly actionable approach to market research that, in our experience, yields a positive return on investment. *Figure 4*, below, features examples of the types of information that can be derived from a segmentation research study and what clients can do with that information.

Findings	Next Steps
A customer group exists that values strengths you possess, but their awareness and perceptions of your brand are weak.	Start a targeted brand awareness campaign and emphasize relevant needs proactively.
A customer group exists that has needs you can meet, but they are satisfied with their current suppliers.	Identify and capitalize on strengths that you have over your competitors and emphasize these strengths in a targeted marketing campaign.
A customer group with which you have a strong presence has emerging needs you are not currently able to address.	Prepare to take proactive steps to keep loyalty/preference strong and develop ways in which to address this group’s needs.
A customer group exists that has unmet needs you can address, but they have low or no awareness of your product category or brand.	Consider a longer-term marketing effort to raise awareness and increase confidence in the brand.

Figure 4: Hypothetical Segmentation Findings and Next Steps

How is Post Hoc Segmentation Research Conducted?

Questionnaire Development:

The most effective segmentation survey instrument includes a broad array of rating and scaling batteries addressing demographics, attitudes, behaviors, and psychographics. However, we at W5 do not employ a "standard" survey instrument for each segmentation study we conduct. Instead we develop general demographic, attitudinal, behavioral, and psychographic measures, as well as category- and client-specific measures that will best meet the strategic objectives driving the research initiative.

To generate the most appropriate and actionable segments from a Post Hoc Segmentation study, we believe in working closely with the client to identify needs, extract relevant information from existing research, and conduct exploratory qualitative research to expand upon our industry knowledge prior to designing the survey instrument. As a result, each client's segmentation study truly reflects their unique research needs and is positioned appropriately to reflect the culture of the organization.

W5 often takes a three-pronged approach to quantitatively assess respondents' attitudes, behaviors, psychographics, category-specific perceptions and preferences, and brand-specific perceptions and preferences:

- 1. Semantic Differential Scales
2. Likert-Style Rating Scales
3. Maximum Difference Scaling

Semantic Differential Scales are used to measure respondents' reactions to ratings on bipolar scales defined with contrasting adjectives at each end. Semantic Differential Scales allow W5 to capture a full spectrum of response among the target audience. Figure 5, below, offers an example of a Semantic Differential Scale.

For the next set of questions, we would like to understand how you think about yourself. For each scale, please pick where you think you fall on that scale. Do you see yourself as more... [Scale A: Impatient to Patient], [Scale B: Insecure to Confident], [Scale C: Introverted to Extroverted], [Scale D: Unappealing to Appealing]

Figure 5: Example Semantic Differential Scale

Likert-Style Rating Scales are used to measure respondents' reactions to specific statements. Typically, Likert-Style Rating Scales are used to measure a respondent's level of agreement or disagreement with a particular statement, and can therefore enable measurement of both positive and negative response levels. *Figure 6*, below, offers an example of the Likert-Style Rating Scale.

Now we would like to understand how well each of the following statements describes you. Using a scale from 1 to 7, where 1 means "Strongly Disagree" and 7 means "Strongly Agree," please indicate your level of agreement that each statement describes you.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I regularly engage in vigorous physical activity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being physically active is an integral part of my daily life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am often willing to sacrifice health benefits and nutrition for convenience when preparing or purchasing food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid pre-packaged or "fast" food because I cannot control the quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I only buy food products that I know are healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 6: Example Likert-Style Rating Scale

Maximum Difference Scaling is used to assess respondents' opinions and perceptions regarding the relative importance of a list of characteristics as they relate to the category or product of interest, forcing a "best" and "worst" choice among a limited list of options.

Traditionally, importance has been measured using a Likert-Style Rating Scale, in which the respondent assigns a value for each characteristic, using, for example, a scale from 1 to 7, where 1 represents "Not At All Important" and 7 represents "Extremely Important."

However, this approach can often lead to difficulties in the analysis phase. Often, many category or product attributes are rated highly in terms of stated importance, so a large number of the tested characteristics can receive very similar ratings near the top of the scale. Additionally, when characteristics are not traded off against one another, characteristics that are not considered opposites of one another are often given similar importance ratings.

Maximum Difference Scaling, on the other hand, enables high differentiation across the tested characteristics, as well as high differentiation among the respondents. *Figure 7*, below, is a sample approach to Maximum Difference Scaling.

We would like to understand how important different characteristics are to you when visiting a fast food restaurant.

Of these five options, which one option is the most important and which one option is the least important?

Most Important		Least Important
<input type="radio"/>	Accepts credit cards	<input type="radio"/>
<input type="radio"/>	Play area for children	<input type="radio"/>
<input type="radio"/>	High health inspection rating	<input type="radio"/>
<input type="radio"/>	Menu includes "Dollar" or "99 cent" options	<input type="radio"/>
<input type="radio"/>	Free drink refills	<input type="radio"/>

- 1 Nutritional value and caloric content
- 2 Flexibility in menu modifications
- 3 Availability of vegetarian menu choices
- 4 Friendly and courteous employees
- 5 Accepts credit cards
- 6 Well-maintained and clean bathrooms
- 7 Well-maintained and clean dining area
- 8 Supersized portions available
- 9 Low-fat items are noted
- 10 Menu includes "Dollar" or "99 cent" options
- 11 Free drink refills
- 12 Self-serve beverage area
- 13 Convenient and easy parking
- 14 Price
- 15 Play area for children
- 16 Availability of kid-friendly menu choices
- 17 High health inspection rating

Figure 7: Example Maximum Difference Scaling

- Questionnaire Fielding:

Although segmentation studies can be conducted either on the telephone or using an online methodology, W5 recommends an online approach. In our experience, an online methodology provides the most effective, cost efficient, time sensitive, and high quality solution for our clients' needs.

Because of the breadth of information covered in a segmentation survey instrument, a series of quantitative scalar rating questions (as outlined above) are used to capture information about consumers' demographics, attitudes, behaviors, lifestyles and psychographics, category-specific perceptions and preferences, and brand-specific perceptions and preferences. An online presentation of such questions allows respondents to complete the survey at their own pace, allowing for quick but thoughtful and accurate responses. Conversely, a telephone survey that includes repetitive scalar questions would arguably yield both lower response rates and lower data quality. With over 70% of U.S. adults accessing the Internet via computers at home, work, or school, an online methodology allows for data collection from a large sample set in a significantly shorter period of time than a telephone methodology would allow.

A minimum sample size of N=800 to N=1,200 is recommended in market-oriented segmentation studies to allow for the construction and analysis of alternative groups. This large sample is required so that within-group similarities and between-group differences are statistically reliable and can therefore be examined in depth.

- Pre-Segmentation Data Analysis:

In each study we conduct, W5 develops a detailed tab plan to guide development of data tabulations, representing all questions in the quantitative survey and appropriate banners summarizing sub-groups of respondents. W5 is responsible for all programming and software management used for development of analytical tools (SPSS, WinCross, Quantum, Sawtooth, etc., as appropriate).

W5 analyzes study data using appropriate and relevant standard statistical processing, such as t-test, ANOVA (Analysis of Variance), MANOVA (Multivariate Analysis of Variance), correlation, regression, and Chi-square procedures.

Upon development of data analysis tools, W5 conducts a thorough quality control review of all data files, data tables, cross tabulations, and other research results used in the quantitative analysis. W5 will apply best practices quality control procedures to ensure analysis and reporting is conducted to the highest standards and is in compliance with applicable regulations and client specifications. W5 desires to not only meet, but exceed, client expectations regarding the quality of the research analysis; to that end, W5 consultants work closely in teams to review all quantitative analysis tools.

How Are Segments Derived In Post Hoc Segmentation?

Segment composition is defined after the completion of the study based on consumers' demographics, attitudes, behaviors, lifestyles and psychographics, category-specific perceptions and preferences, and brand-specific perceptions and preferences.

The profiling of the segments focuses on understanding the following two key marketing issues:

1. What consumer segments exist and what is the relative size of each segment?
2. What are the behaviors, attitudes, and needs of each segment? How do they differ between segments?

Once defined, the value of each of these segments to the client can be derived by looking at measures such as price sensitivity and purchase likelihood. *Figure 8*, below, outlines the approach W5 takes to developing a custom segmentation model.

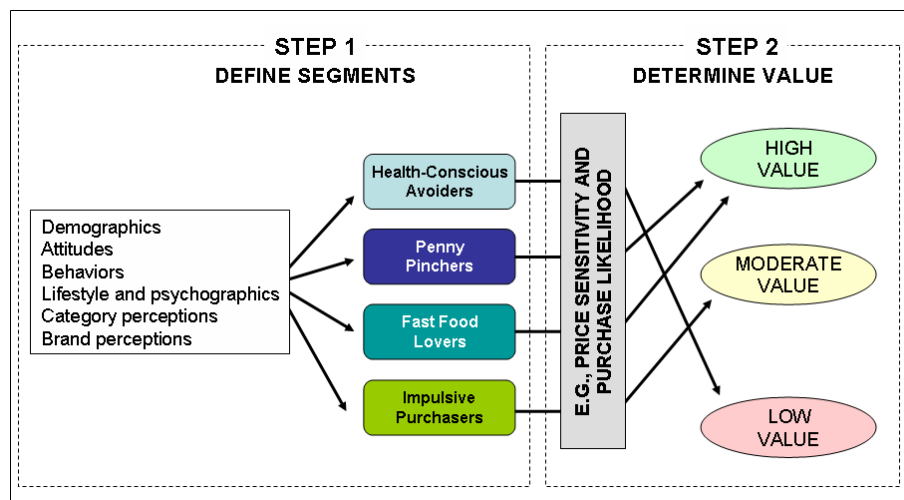


Figure 8: Custom Segmentation Model

W5 has the experience, knowledge, and analytical tools to accurately identify homogenous groups of consumers based on segmentation data. We recognize that the development of accurate, identifiable, and actionable consumer segments is both a science and an art. As such, we employ a multi-phased statistical approach to identify the most appropriate and actionable segment groups for each of our clients.

1. Factor Analysis:

W5 conducts a factor analysis as the first step of multivariate data analysis in developing the segmentation scheme to identify and describe the specific groups that exist within the marketplace. The use of factor analysis is based on the assumption that there are a few hidden, or underlying, factors that manifest themselves in the values of a full set of variables. As such, factor analysis is employed to reduce a full set of attitudinal, behavioral, psychographic, category-specific, and brand-specific measures into a smaller set of variables, known as underlying "factors."

For example, regarding the fast food marketplace, a desire to remain fit and in shape may be an underlying factor than manifests itself through such variables as frequency of exercise, calorie-counting behavior, avoidance of fast or pre-packaged foods, and general attitudes about the importance of daily activity and healthy eating. The factor analysis is conducted in order to identify these underlying factors.

Based on their responses to the full set of attitudinal, behavior, psychographic, category-specific, and brand-specific measures, each respondent is assigned a score for each of the underlying factors. Respondents with similar scores on an underlying factor, such as a desire to remain fit and in shape, as in the example above, also tend to provide similar answers regarding frequency of exercise, calorie-counting behavior, avoidance of fast or pre-packaged foods, and general attitudes about the importance of daily activity and healthy eating.

2. Cluster Modeling:

In order to generate the segmentation scheme, W5 produces cluster modeling of the data. Cluster analysis is one of the most commonly used quantitative analytical tools in market research.

To develop cluster solutions, W5 first identifies statistically significant differences in the underlying factors as determined in the factor analysis. W5 then identifies the factors that are relatively strong and relatively weak in explaining or predicting consumer behavior. The respondents who share like factors are then grouped into “clusters” of consumer types who can be described and targeted with relative ease.

Clusters consist of individuals who share a number of demographic attributes, attitudes, behaviors, and lifestyle characteristics. The process of defining the clusters, which is done by means of multivariate statistical modeling, is a combination of both science and art. The number and specificity of the clusters depends on the number of respondents included, the number and specificity of the questions asked, and which questions are ultimately included in the cluster definition. However, we at W5 recognize that results are not merely data-driven; they must also make theoretical sense and be appropriate to the business objectives at hand.

Typically, three or more alternative cluster solutions are developed for initial consideration. These cluster solutions are then evaluated and considered based on each client’s specific needs and objectives in order to determine the most actionable, reliable, and logical segmentation scheme.

In the following simplified example, outlined in *Figure 9*, four theoretically sound clusters emerged.

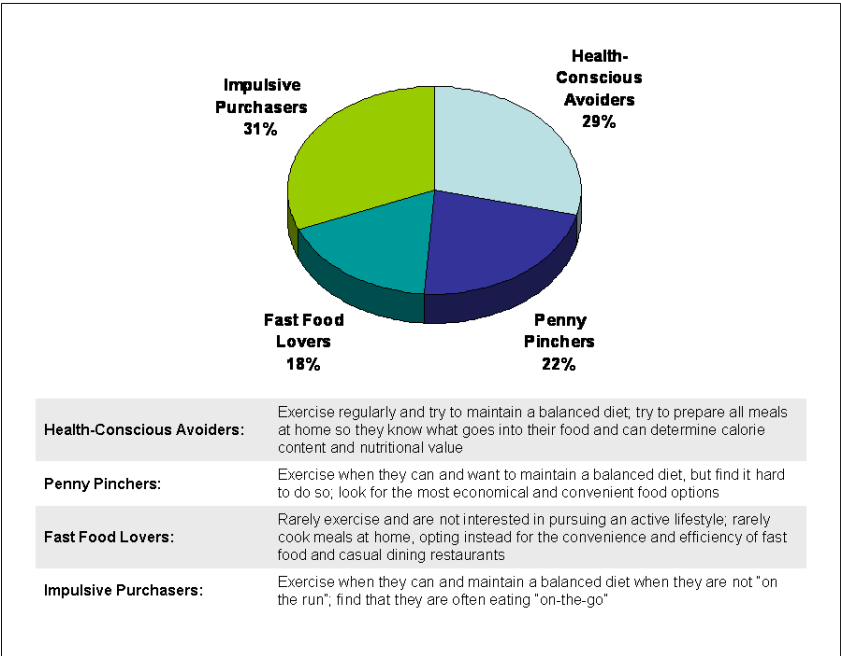


Figure 9: Example Cluster Solution

3. Discriminant Analysis:

W5 then employs a discriminant analysis to test the reliability of the segmentation scheme and develops a classification function to predict the segments into which future customers and prospects fall.

First, the sample is divided into two parts, with the discriminant analysis conducted on one half of the sample to define the classification function. The other half of the sample is identified using the resulting classification function. The newly identified segments are then compared to the segments identified in the original segmentation scheme. This process permits the testing of the reliability of the classification function through measurement of how accurately the function classifies the second half of the sample into the original segments.

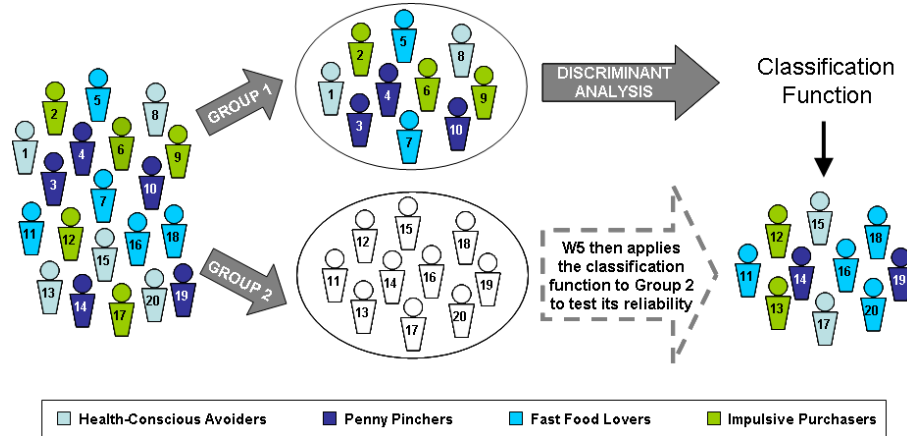


Figure 10: Discriminant Analysis

Using a discriminate analysis and testing the reliability of the segmentation scheme and classification function ensures that the resultant consumer segments are expected to be stable over time.

4. Predictive Algorithm:

The classification function developed through the discriminate analysis can be provided to the client to support future research. This algorithm is based on a condensed list of demographics, attitudes, behaviors, and lifestyles and psychographics and will allow the client to quickly classify participants in future research studies with a certain degree of reliability. Typically, predictive algorithms offer reliability between 0.65 and 0.70, meaning that they are able to accurately classify respondents into the correct segment between 65% and 70% of the time, compared to the overall segmentation conducted previously. A predictive algorithm is useful in follow-up studies to examine and understand consumer differences in opinions related to product development, pricing, and concept and message development, for example.

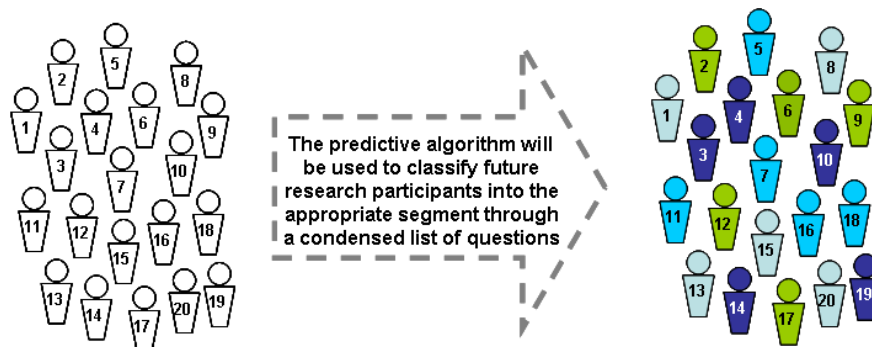


Figure 11: Application of a Predictive Algorithm

In addition, for each segmentation research study, W5 provides snapshot “profiles” of each of the segments, or clusters, to provide a simple reference tool for clients to better understand these target groups and potential consumers. These profiles are developed through evaluation of all of the data collected as applied to the client’s specific needs.

Figure 13, below, is an example of profiles of hypothetical consumer segments within the fast food marketplace.

	Health-Conscious Avoiders	Penny Pinchers	Fast Food Lovers	Impulsive Purchasers
Attitudes about health	Feel primarily responsible for their own health; do not believe that good or bad health is a matter of chance	Feel responsible for their own health, but express concern about the cost of healthy eating, gym memberships, etc.	Do not feel there is anything they can do to improve their health; think that good and bad health are a matter of chance	Feel generally responsible for their own health; although chance may play a role in health, they feel in control
Attitudes about eating and exercise	Think healthy eating and exercise are important; understand how many calories they should eat in a day and how often they have to exercise to maintain their weight	Think healthy eating and exercise are important, but, again, express concern about the cost of healthy eating, gym memberships, etc.	Do not understand their caloric needs and think exercise is a waste of their time	Think healthy eating and exercise are important, but say that they often do not have time to cook a healthy meal or exercise as often as they think they should
Eating behaviors	Avoid fast food restaurants and rarely eat at other restaurants; try to cook all meals at home	Try to cook meals at home, but complain about the cost of healthy food; eat at fast food restaurants to save both time and money	Rarely cook meals at home; typically eat at fast food or other restaurants because it is easier	Try to cook all meals at home, but often end up eating at fast food or other restaurants while they are out of the house, running errands, etc.
Exercise behaviors	Exercise 3-5 times a week	Exercise as often as they can, but usually less than once a week	Rarely or never exercise	Exercise as often as they can, but usually less than once a week
Demographics	Mostly married, many have children	Younger, mostly single without children	Younger, mostly single without children	Mostly married, many have children
Marketing implications	Not a likely target, but can emphasize the healthier fast food options	Likely target, can emphasize the convenience and cost efficiency of fast food restaurants	Likely target, emphasize convenience of fast food restaurants	Likely target, emphasize the convenience of fast food restaurants

Figure 13: Hypothetical Consumer Segment Profiles

Frequently Asked Questions

1. What are the benefits of working with W5 for segmentation solutions?

W5 possesses a wealth of experience developing relevant and actionable segment solutions for our clients. W5 understands that a gap often exists between theoretical marketing research and marketing and sales. As such, W5 works closely with each client to identify key business objectives, develop consumer segments that make statistical sense but also make sense in terms of these business objectives, and bring target consumers to life, allowing for a full understanding of what the target audience is really about – from a behavioral, psychographic, and attitudinal perspective.

Unlike many other marketing research firms, W5 does not subscribe to the idea that a client's needs can be met with a "standard" segmentation survey instrument. We work closely with our client to design a segmentation study to meet their specific needs and goals. Although we believe it is important to *refer* to previous research and our industry knowledge when developing survey instruments, we do not *rely* on previously designed and implemented survey instruments.

2. How can the results of a market-oriented segmentation study be applied to my business strategies?

In the development of a market-oriented segmentation study, W5 recognizes that the resulting segments must be relevant and actionable, meaning the client is able to use behaviorally, psychographically, and attitudinally based segments to address their business strategies. While profiling resulting consumer segments, W5 focuses on such lines of questioning as *desired products/services*, *price ranges* and *price sensitivity*, *information-seeking behavior*, and *media usage*. These lines of questioning allow W5 to make clear recommendations regarding the best products to market to a particular segment, purchase likelihood and approximate spend, likelihood to recommend and use a brand, and the best channel through which to reach this target segment.

3. How can the results of a market-oriented segmentation study be applied to future research?

In addition to developing a customized segmentation scheme designed to meet the client's industry- and brand-specific needs, W5 provides a customized predictive algorithm that can be used in future research to quickly identify a respondent's segment membership based on their responses to a condensed list of demographic, attitudinal, behavioral, psychographic, and category- and brand-specific questions. This predictive algorithm proves particularly useful in understanding how the specific segments within a client's target audience react to new product concepts, messaging, and brand imagery, to name a few examples.

4. What are the advantages of conducting segmentation studies online rather than through more traditional methods, such as using in-person, paper return mail, or telephone methodologies?

We have found that an online methodology provides the most effective, cost efficient, and time sensitive option for a segmentation research study. Because of their investigative and exploratory nature, segmentation survey instruments are often longer than other types of survey instruments, which is not only less expensive to conduct online, but also ensures the highest quality data. The completion of a robust and lengthy segmentation survey instrument in person, by mail, or by phone leads to difficulties in gaining accurate, thoughtful, and complete responses.

Want to Know More?

Visit our web site at www.W5insight.com or contact us at inquiry@W5insight.com or (919) 932-1117 for more information.

