Project#4

International Market Segmentation for Global Retailers

Team InSights

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Honor Pledge:
We pledge on our honor that we have not given or received any unauthorized assistance on this assignment.

Executive Summary

Whole Foods, a grocery store catering to health conscious people by selling natural and organic food, is planning on expanding into Europe. To help Whole Foods strategize international expansion, we studied the impact of store factors such as atmosphere, service and price on supermarket store image. Our findings reveal 2 broad segments of consumers having different perceptions of store image drivers: Segment 1 consists of 25 regions whose customers consider price as the most important contributor to store image followed by service quality and atmosphere. Segment 2 contains 80 regions whose customers emphasize more on service and atmosphere rather than price to determine store image. We recommend that Whole Foods target Segment 2 regions, whose customers perceive good service and atmosphere as important indicators of Store Image, lining up with Whole foods' strengths. Moreover, Whole Foods should enter Europe through Germany, France and Italy because they have a high demand for natural and organic foods, few barriers to entry, abundant sourcing through Italy and France and are in close proximity for efficient distribution.

Introduction and Background

Whole Foods Market Inc. is a leading grocery retailer specializing in natural and organic foods with stores in USA, Canada and the UK. Whole Foods now wants to enter the European market by overlooking national boundaries and finding market segments based on the common needs of customers across different regions to enhance the effectiveness of marketing strategies.

Globalization has revolutionized market segmentation, which was traditionally based on factors such as demographics, lifestyles etc. but is now more sophisticated enabling segmentation across different countries based on their similarities with respect to consumer preferences and psychographics. The objective of this project is to devise an international expansion strategy for Whole Foods by using a study on supermarket store images and how it is affected by the atmosphere, service and price. This will be used to identify sustainable markets segment(s), to see if Whole Foods' positioning strategy matches customers' needs in these segments and devise a growth strategy.

Data and Methodology

Data for this project was collected as a part of a large-scale study on retail store image in seven EU countries including Germany, The Netherlands, Belgium, France, Italy, Spain and Portugal. Mail surveys were sent out to panel households living in 105 EU regions classified as per the EU NUTS 2 System (Nomenclature of Territorial Units for Statistics for the European Union). Each household was asked to identify its primary food retail outlet (defined as its most frequently visited food store) and then rate the overall store image as well as a variety of store image drivers, on a 1-7 point Likert scale, with 1 being the lowest rating.

The consumer responses were then used to identify different segments of regions based on the importance assigned to the store image drivers. A Mixture Regression Model was used for this segmentation purpose. It provided the probability of each region belonging to a certain segment and was used for classification of the regions into respective segments. The segments were then evaluated for feasibility of entry based on various parameters such as consumer expectations, opportunity in terms of market size, distribution challenges, sourcing, competitors, etc. and strengths of Whole Foods. Glimmix was used to execute the mixture regression model. *(Refer to Table 1 in Appendix for model equation)*

Key Findings

Looking at the average consumer ratings for the store image drivers – service quality (5.54), atmosphere (5.47) and price (5.57) leads to the impression that most consumers across all regions are quite price conscious. However the model indicates differently. Two prominent segments of regions are identified

that differ in the relative importance of these store image drivers. The results of the Mixture Regression Model are summarized below. *(Refer to Table 2 in Appendix for model findings)*

- Segment 1 consists of 25 regions and is mainly distributed over Spain and Germany with minimal presence in Italy, France, The Netherlands and Belgium. On the other hand, segment 2 is much larger, with 80 regions that are widely spread across all EU countries. *(Refer to Figure 1 in Appendix for segmented map of the EU regions)*
- In segment 1, price perception is the most important factor affecting store image, and is closely followed by service quality. An increase in price perception by 1 point (i.e., when the store offers low, reasonable prices) will drive up the store image by 0.297 points.
- Consumers belonging to segment 1 regions strongly consider the overall brand image of the retailer while building the store image (as indicated by the high intercept value of 1.725). This indicates that food retailers with strong global brand image will have an advantage in building their store image in these regions.
- Segment 2 consumers emphasize more on service quality and atmosphere rather than price to draw conclusions on store image. A 1 point improvement in service quality and atmosphere perception can enhance store image by 0.354 and 0.303 points respectively.

Conclusions and Recommendations

- Whole Foods offers top-quality organic and natural food, maintaining the strictest quality standards in the industry, and have an unshakeable commitment to customers' shopping experience through great service and atmosphere and sustainable agriculture. Playing to these strengths, we recommend targeting segment 2 regions. Customers belonging to these regions pay more importance to their shopping experience and therefore look for good service quality and atmosphere, which are the biggest strengths of Whole Foods.
- In addition, we recommend that Whole Foods should target those regions in segment 2 that have a 70% or greater probability of exhibiting the characteristics based on which the segment has been defined.
- Specifically, we recommend Whole Foods to enter the European market by targeting regions spread across Germany, France and Italy *(Refer to Figure 2 & Table 3 in Appendix for map and list of target regions).* The 45 regions across these three countries are in close proximity, enabling efficient and cost effective distribution. Also, Italy and France are major producers of organic food, enabling efficient sourcing. Based on external analysis, we find that the market size for organic food consumption in Germany, France and Italy is 4%, 2.3% and 3.3% of total food consumption respectively, which presents potential opportunity for organic food retailers. Although, there would be competition from other retailers, there is immense potential for specialized retailers such as Whole Foods due to the growing market and consumer preferences for healthier foods.
- As an entry strategy, we recommend Whole Foods to set up stores in regions around the tri-junction of Germany, France and Italy covering regions such as Dusseldorf, Stuttgart, Koln, Alsace, Champagne, Toscana, Umbria and Lombardia. These are the regions where customer preferences greatly line up with the strengths of the organic retailer. Also, taking advantage of the proximity of these regions and abundant sourcing in Italy and France, Whole Foods should set up sourcing and distribution centers in these areas to reduce costs and establish an efficient supply chain network.
- Later, Whole Foods can further expand to other profitable regions in North Germany, West France and South Italy depending on brand perception and financial feasibility.

Appendices

Table 1: Functional Form of Mixture Regression Model

Expected value of $Y_i = E[Y_i / s] = a_s + b_{1,s} X_{i,1} + b_{2,s} X_{i,2}$ for 's' segments

The unconditional distribution of Y_i can be obtained using the conditional distribution $P(Y_i / X,s)$:

$$P(Y_i) = \sum_{s=1}^{S} \pi_s P(Y_i / X, s)$$

where $\pi_s = prob.\,of\;belonging\,to\,segment\,s.$

Table 2: Model Results

SEGMENT 1:

Variable	Estimate	Std. Error	T-Value	P-Value
Service	0.269	0.025	10.538	0.000
Atmosphere	0.157	0.025	6.209	0.000
Price	0.297	0.021	14.205	0.000
Intercept	1.725	0.127	13.573	0.000
Segment Size	0.305			
Segment Variance	0.613			

SEGMENT 2:

Variable	Estimate	Std. Error	T-value	P-Value
Service	0.355	0.021	17.256	0.000
Atmosphere	0.303	0.021	14.705	0.000
Price	0.240	0.015	16.492	0.000
Intercept	0.696	0.093	7.459	0.000
Segment Size	0.695			
Segment Variance	0.333			

Figure 1: Segmented Map of EU Regions
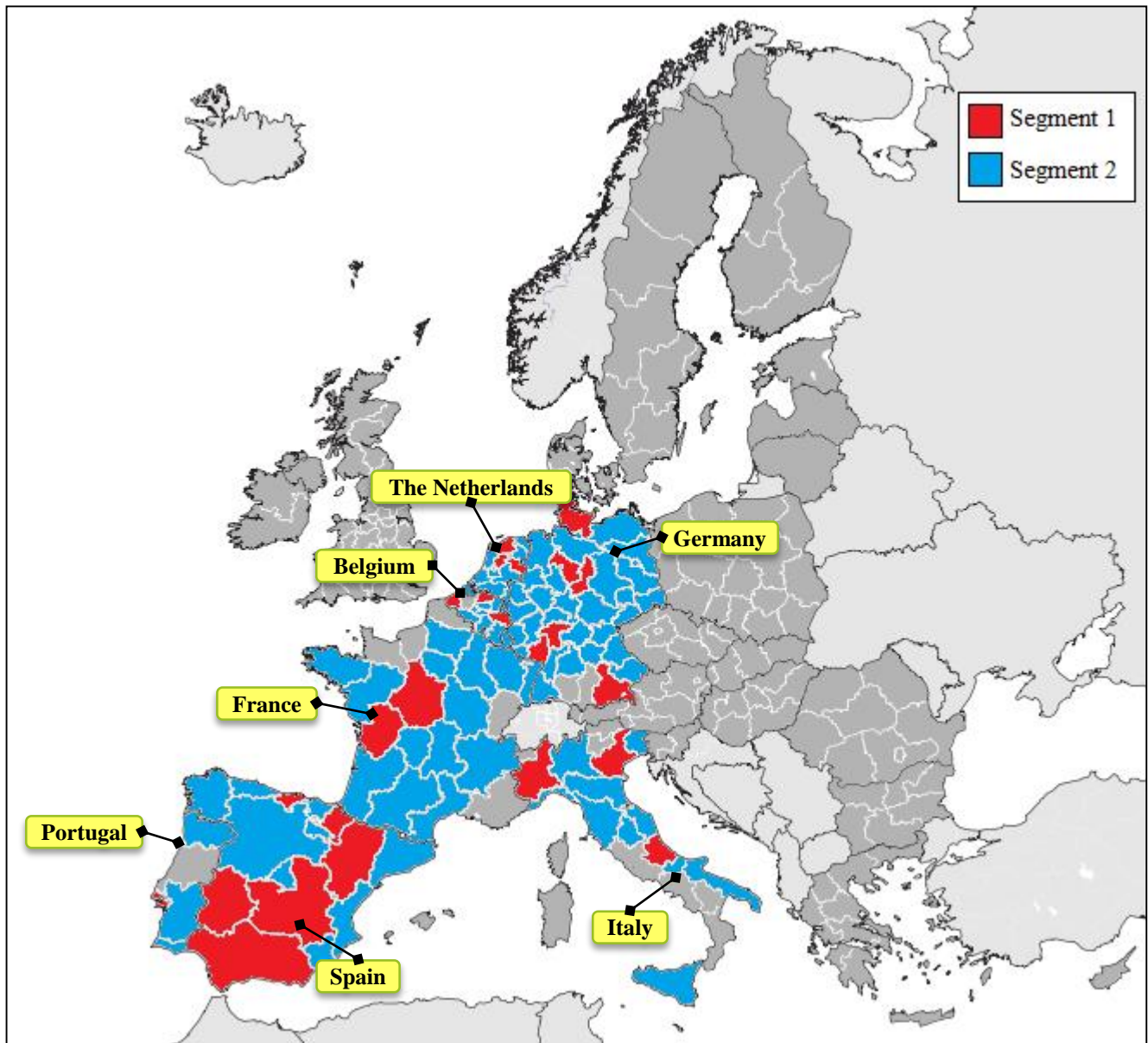
Regions highlighted in blue are those that exhibit the characteristics of segment 2. However, not all these regions show a strong inclination towards the characteristics based on which segment 2 has been defined. Therefore, we further refine these blue regions to only those which strongly exhibit characteristics of segment 2.

Figure 2: Map of Target Regions for Whole Foods
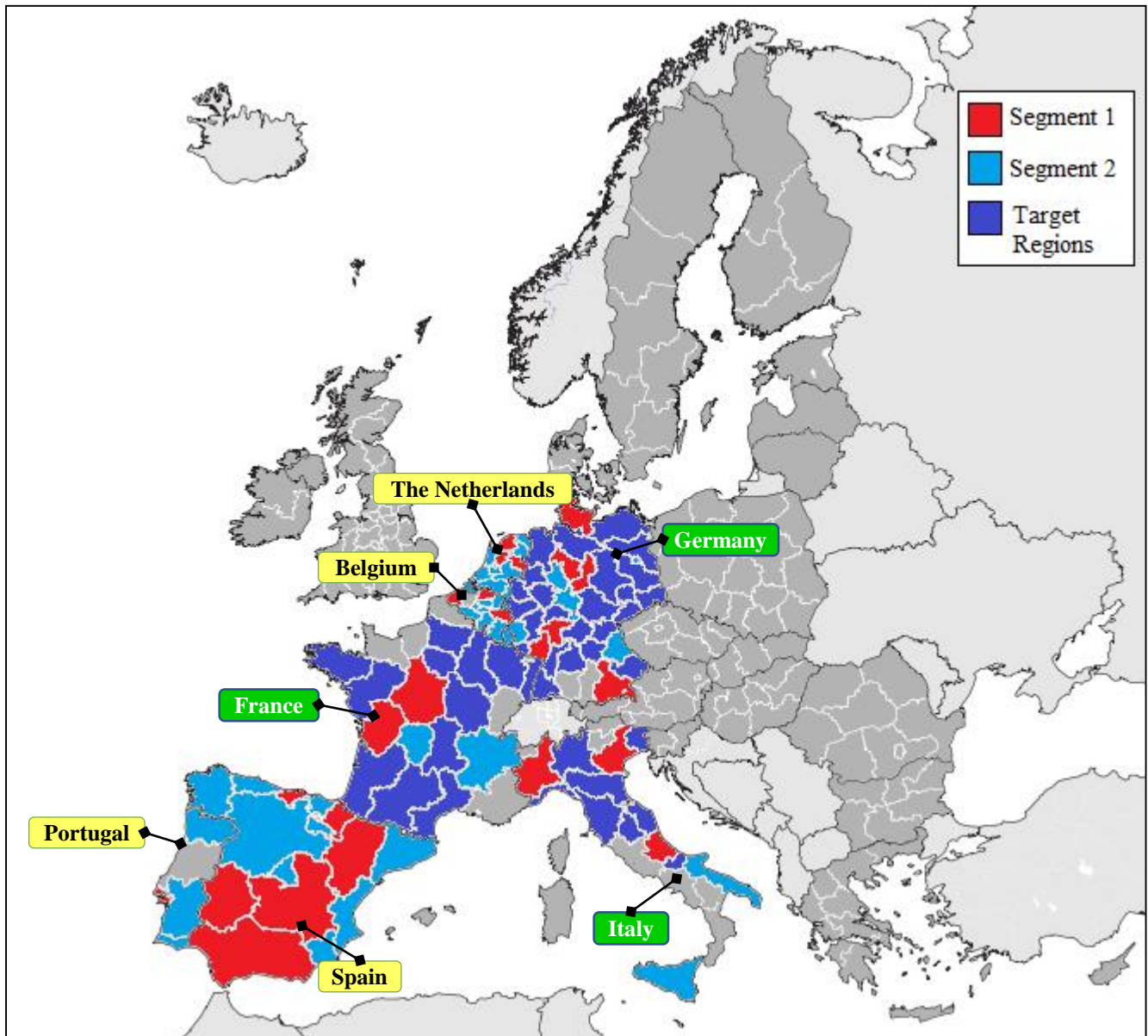
The regions highlighted in dark blue are the regions that we recommend Whole Foods to target.

Table 3: List of Target Regions for Whole Foods

Country	Region	Region Name
BRDeutschland (Germany)	1	Arnsberg
	3	Brandenburg
	5	Bremen
	6	Chemnitz
	8	Dessau
	10	Dresden
	11	Dusseldorf
	12	Freiburg
	13	Giessen
	14	Halle
	15	Hamburg
	17	Karlsruhe
	19	Koblenz
	20	Koln
	22	Luneburg
	23	Magdenburg
	24	Mecklenburg-Vorpommern
	25	Mittelfranken
	26	Münster
	27	Niederbayern
	29	Oberfranken
	32	Saarland
	35	Stuttgart
	36	Thuringen
	39	Unterfranken
France	65	Alsace
	66	Aquitaine
	67	Auvergne
	69	Bourgogne
	70	Bretagne
	72	Champagne-Ardenne
	75	IledeFrance
	76	Languedoc-Roussillon
	78	Lorraine
	79	Midi-Pyrenees
	81	PaysdelaLoire
	82	Picardie
Italia (Italy)	90	Emilia-Romagna
	91	Friuli-VeneziaGiulia
	93	Liguria
	94	Lombardia
	95	Marche
	96	Molise
	100	Toscana
	102	Umbria