

**Marketing Premium Food Products in Emerging Economies:  
The Case of Macedonian Cheese**

by

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**Abstract:** Developing food products with higher standards or brands in newly emerging markets presents a challenge to processors. This study focused on attributes that may increase cheese demand in Macedonian. Demand for higher quality, taste, consistency and certified "safe" cheese at premiums is relatively high. Income, region, shopping behavior and various other demographics all delineate potential consumers of premium cheese.

## **Marketing Premium Food Products in Emerging Economies: The Case of Macedonian Cheese**

As developing nations attempt to bring their economies in line with those of the rest of the developed world, they are faced with many difficult challenges. One of these challenges is how to develop consumer trust within a customer base that, in the past, has rarely experienced honesty in their existing regulatory systems. Macedonia, part of the former Yugoslavia, is just such a struggling country. Last spring we served as part of a consultant group from Colorado State University charged with the express purpose of helping Land O'Lakes Cooperative, in conjunction with USAID, to determine Macedonian consumer preferences. In this way, it was hoped that a seal of quality program could be developed that would begin to generate the trust necessary for the growth and economic success of the meat and dairy industries.

The scope of this study was limited to the meat processing and dairy industries as these two groups have suffered serious setbacks in the past. For example, brucellosis, an infectious disease in sheep, is affecting the sale of dairy products domestically and internationally. Additionally, foot and mouth disease in the sheep industry has severely impacted the export growth necessary for economic development. Thus, gaining trust and market share from both the domestic customer base and international trading partners was given a high priority.

Given this objective, we began the process of developing a consumer survey that could help Land O'Lakes determine what consumers considered to be important with respect to Macedonian meat and dairy products—information necessary to launch a successful seal of quality campaign. In order to accomplish this task, we first developed a survey to give to four different focus groups; namely, consumers, beef processors, dairy processors, and grocery retailers. The information from these focus groups was then used to generate a

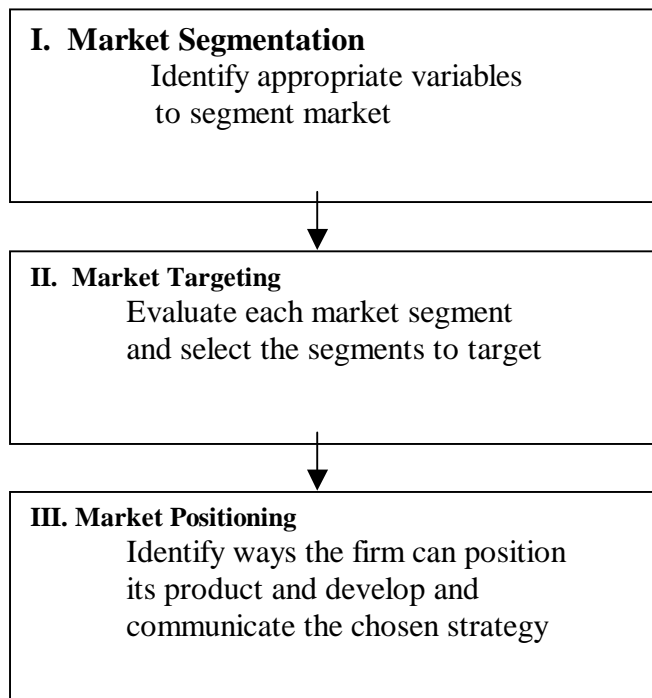
consumer survey that Land 'O Lakes could administer to selected Macedonians in order to gather the data necessary for the cooperative's seal of quality campaign.

The remainder of this paper will provide the results and recommendations obtained from this study. In particular, Section I will provide both the marketing model chosen and its theoretical basis. Section II will describe the survey, data used and the regression model. Section III presents and discusses the results obtained from the regression model, and Section IV will give a conclusion and recommendations for future research in this area.

### **Section I: Marketing Model and Analysis**

The model chosen for this analysis was developed by Philip Kotler and is widely used by the business community. See Figure 1.

**Figure 1. Market Analysis Model**



During the first stage, market segmentation, a firm needs to identify any appropriate variables such as geographic, demographic, or behavioral that would be useful in segmenting the market. The firm needs to decide how to segment the market in such a way that they will

be able to deliver a successful marketing plan that includes all appropriate variables and individual target groups. Focus groups and survey development are common methods that firms use during this stage.

Once the market segmentation stage is completed, the firm begins to target its market. Based on the results from the market segmentation, the firm now chooses the segments of the markets that it can best serve. At this time, the firm also needs to make a strategic decision regarding whether it will follow a marketing mix of undiversified, diversified or concentrated strategies. In the first case, undiversified strategy, the firm does not pay any attention to the different market segments but rather just markets to all of its customers in the same manner. A diversified marketing strategy recognizes that there are many market segments, with different needs and preferences that will react differently to various market strategies. The firm decides that it is cost effective to target these various segments with different marketing strategies. The concentrated marketing strategy entails selecting a market niche and following a concentrated strategy on a particular segment of the market with which the firm has a comparative advantage. Market positioning is the final phase of the analysis. The firm first identifies ways in which it can position its products in each or any of the targeted markets. Once this is completed, the firm can develop and communicate the chosen positioning concept to its customers.

As a consulting group, we were involved with the first stage, market segmentation. Our goal was to help Land O'Lakes segment the market so that the cooperative would be successful completing the second and third stages of their marketing plan. We used the focus groups to help determine the proper variables and questions that should be included in the survey. For example, with respect to geographic and demographic variables, we chose Skopje, the capital, since that city includes a broad sampling of both well-educated and working-class people living in Macedonia. We also went to the southern region of

Macedonia and interviewed people in Bitola, a relatively wealthy area. The industry focus groups and Land O' Lakes project leaders agreed that high-income customers would be one of the best initial customer bases for premium food products.

With the information provided by the focus groups and survey data, Land O'Lakes will be able to target their market to help guarantee successful delivery of their final product—the seal of quality program. Through a careful marketing program, the cooperative will be better able to instill trust in both domestic and international markets.

## **Section II: Data and Methodology**

Demand for various cheese attributes, including taste, high quality, consistent or standardized quality and assured healthy/safe food quality, appears to be relatively strong (Figure 2). Although only 5-10% of the survey respondents are willing to pay a 50% premium for cheese with one of these attributes, 80-90% are willing to pay some level of premium (at least 5%) for each of these attributes. Demand for these attributes is quite similar, with health and safety concerns being of greatest demand at both the lowest and highest premium levels (although high quality has almost the same market share at 50%). Good taste is important at lower premium levels, but demand for this attribute falls off quicker than any of the other attributes. Demand for consistent or standardized quality is always quite low.

The overall demand for various cheese attributes is promising for Macedonia producer. To improve the efficacy and efficiency of marketing strategies and activities, it is important to understand the set of consumers most likely to purchase premium cheese products. Figure 3 shows two sets of comparative demand curves. Each demand curve represents the average market share for each premium level across the four cheese attributes and three distinct market segments of consumers. The demand curve that includes all survey respondents is similar in level and curvature to Figure 2, but the demand curves representing

those consumers with the highest income and those that purchase the largest volumes of cheese (15 kg at a time) are significantly higher than the all-inclusive demand curve. This finding shows the likely importance of various demographics, purchasing behavior and consumer perceptions in assessing consumer demand, and adopting optimal marketing strategies.

Although the structure of the survey does not allow one to assess whether consumers would be willing to pay premiums additively (i.e, 10% for taste plus 5% for high quality) for these attributes, it is likely that premiums would be higher if a product possesses more than one desirable attribute. Moreover, it may be easier to target the segment of the market who is interested in such products if a broader set of attributes is guaranteed and promoted.

The information gathered from the survey is used to describe a consumer's willingness to pay for each of four cheese attributes at a thirty-percent premium level.<sup>1</sup> All 1219 observations are used in four separate and independent probit estimations. Demographic information, past purchasing behavior and attribute rankings are included as the descriptive variables to determine the likelihood of purchasing a Macedonian cheese with the specified attributes. Because of the interest Land O'Lakes has in providing a seal of quality to guarantee various attributes of the product, the survey design elicited customers' valuation of taste, past health scares, standards and overall quality with respect to cheese.

Each equation includes the relevant descriptors of the consumers who would be willing to purchase cheese at the various premium levels. If the consumer is willing to purchase at the premium level chosen, a one is returned, and if he/she is not willing to purchase, a zero is returned. The estimation of these probabilities must then limit the

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<sup>1</sup> Although data was collected for both the meat and dairy industries, this paper will focus on the dairy (and cheese in particular) only. The meat industry will be addressed in another paper at a later date.

predictions to values between one and zero. This is done by the employment of the standard normal distribution, and the probit, is an appropriate estimation technique.

The four equations are identical in composition, including the same set of independent variables. Further, the attributes evaluated are all variables that can be highlighted in the seal of quality program, a program whose successful marketing strategy depends upon establishing the relative importance of consumer concerns.

The first equation describes a consumer's willingness to pay for a domestic cheese product that has a superior taste. Preliminary focus groups in Macedonia indicated that the most popular domestic cheese is a salty, soft white cheese that resembles feta in appearance. Most cheeses sold in Macedonia tend to have a very strong flavor, with saltiness being a key indicator of quality. Also the taste attribute may describe this culture's preference for cheese made from sheep or mixed sheep and cattle milk.

The second equation describes the Macedonians' willingness to pay for a cheese product that has been certified to be healthy and safe. Until recently, most milk used in cheese production was not pasteurized; instead, cheese producers relied on long periods of aging to reduce the risk of disease.

The third equation identifies the target market segment's willingness to pay a thirty-percent premium for increased standardization of the domestic cheese market. The seal of quality program is expected to increase the regulation of the cheese market assuring consumers of a product's flavor, content and safety. The last equation describes the willingness of consumers to pay for a product containing consistent or standardized quality, a more generic specification of the other three attributes.

### **Section III: Findings and Discussion**

As Figure 2 illustrates, if a producer charges a 30% premium (which is the focus of the market selection analysis) it could still capture a 15-30% market share. Although the



choice of premium was somewhat arbitrary, it does represent a significant price premium for producers and appears to be an inflection point on the various demand curves. For the purposes of our analytical method, the 30% premium level provides a sufficient number of positive and negative consumer responses to allow for some delineation among explanatory variables.

The overall statistical significance of the four models estimated, together with numerous variable-specific results, indicate that the Macedonian cheese market can be segmented, and that a targeted marketing strategy may be successful. Several variables that explain shopping behavior, consumer demographics and perceptions are significant indicators of willingness-to-pay premiums for cheese attributes.

In the models for all four attributes, income is an important factor, as would be expected from the demand curve in Figure 3. As Table 2 shows, each increase in income level increases the probability of paying a 30% premium for a specific cheese attribute by 7-14%. Similarly, given the significant and negative results on lower volumes of cheese purchases, those that purchase 15 kilograms at a time are 7-20% more likely to purchase premium cheese products. These findings are not only important in targeting likely consumers, but are quite promising with respect to the level of sales that are possible. High income consumers that purchase the largest volume of cheese should be a consistent, high-volume customer base.

In all but one equation (good taste), the consumer's relative concern about prices (the higher the number, the more concerned a consumer was about that factor) indicated a lower likelihood of purchasing the attribute at a premium. The importance of price sensitivity is not surprising, but it is interesting to note that taste is less affected by such a concern. The only other variable that is significant in all four equations is the negative result on consumers in the Southern part of the country. Although this finding is not simple to explain (given our

limited knowledge of the country), it definitely signals that promotion and marketing efforts in that area may be ineffective.

There were also several attribute-specific findings that are of interest to the cheese industry. These effects will not only allow for more effective marketing activities, but also indicate that the attributes are perceived somewhat differently. This point is not clear given the strong similarities in overall demand (Figure 2), but may be important as a certification and promotion process is developed.

Taste had the most significant explanatory variables among the models. Although price sensitivity is not an important indicator, those individuals influenced by the origin of the product and nutritional value are more likely to purchase better tasting cheese at a premium. The appearance of the cheese is very important to this set of consumers. Alternatively, those concerned about food safety issues are less likely to buy such a product. Those with the lowest level of food expenditures are more likely whereas those with the second-lowest level are less likely to buy this product at a premium. Finally, this is the only model where educational level is important, with an Associate's degree decreasing the likelihood of purchasing at a premium. This demographic is more difficult to target, and given its insignificance in other models, is not essential to marketing.

The model for high quality cheese is the only case where some demographics are important. This model found that while females are less likely to pay a 30% premium for quality cheese, single-parent households were far more likely to make such a purchase. Supermarket customers are less likely pay a premium for quality. Finally, consumers in the Western region (along with the Southern region) are less likely to buy a quality product at a premium.

The model for cheese that is healthy and safe indicates that this attribute may be the least attractive to price-sensitive consumers (negative effects on price sensitivity and

importance of price in cheese purchases). The only other effect that is significant (given the effects that are common among all the models), is that consumers in the Northern region are more likely to purchase a certified product at a premium.

Finally, the model that assessed what type of consumers are more likely to purchase cheese of consistent or standardized quality at a premium has several interesting findings. Those who shop in neighborhood markets and green (outdoor) markets, as well as supermarket shoppers are less likely to purchase this product. So, those that buy directly from cheese processors are concerned about consistency. However, if the freshness of the cheese was quite important, it is less likely that consistency matters. Like the healthy attribute, these consumers are very price sensitive. Like taste, those who spend average levels on food (the middle two categories of expenditures), are less concerned about this attribute.

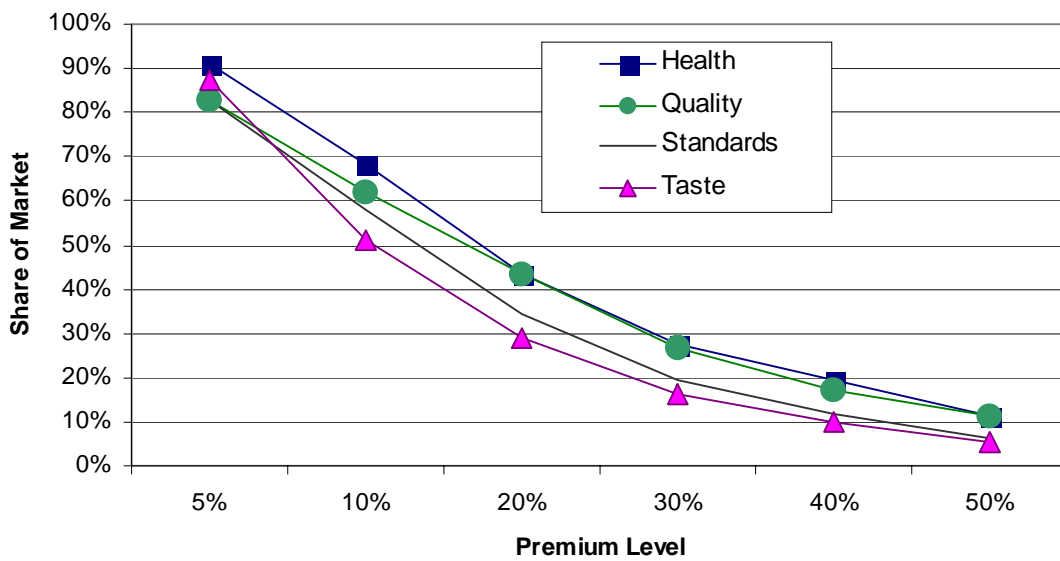
### **Conclusions:**

Developing markets, standards and brands in newly emerging markets presents a challenge to processors and retailers. Although there is a great potential to secure sufficient premiums to address these issues, it is not clear how best to go about such marketing activities. This study focused on several cheese attributes that may strengthen or increase demand for the domestic cheese industry. It appears that there are several targetable market segments that could serve as an initial customer base for certified or branded cheeses. Although they are not consistent across attributes, there are several factors that are general determinants of premium consumers (income, volume and region). Moreover, it is not clear what market potential exists for cheese that offers more than one of these attributes.

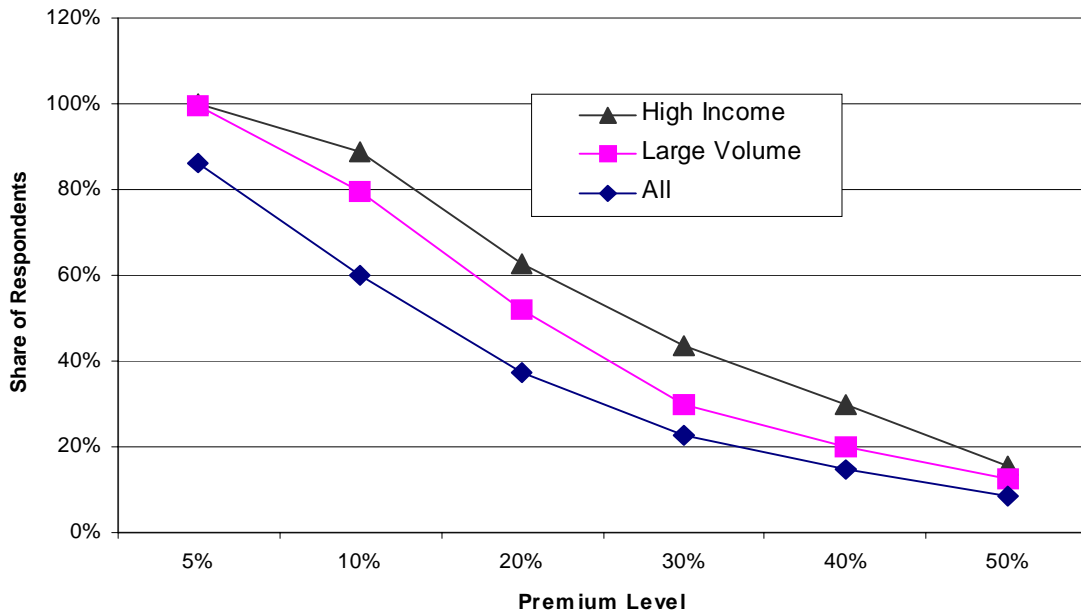
Developing a market strategy requires promotional and educational programs as well as market research. Although this study cannot assess how attributes are perceived, communicated or judged, it does offer some baseline information on where efforts can best

be focused. For instance, based on regional findings, it may be possible to determine cultural differences that may influence how consumers react to specific attributes, or simply how the cheese attribute is described. This may assist the industry in selecting the right type of labeling and promotional materials that attract the largest consumer base possible in the marketplace.

**Figure 2-Demand for Cheese Attributes**



**Figure 3- Cheese Attribute Demand Across Consumer Groups**



**Table 1: Marginal Effects**

<b>Willingness to Pay Premiums for Cheese Attributes</b>				
<b>Marginal Effects – 30% Premium Level</b>				
<b>VARIABLE</b>	<b>TASTE</b>	<b>HEALTH</b>	<b>STANDARDS</b>	<b>QUALITY</b>
DWKEXP1	10.65%**	7.07%*	3.17%	0.94%
DWKEXP2	-10.40%**	-4.95%	-5.99%**	-4.28%*
DWKEXP3	-5.07%	-5.32%*	-5.18%**	-2.91%
IMP	1.53%*	0.51%	1.06%*	0.45%
RPRICE	-6.45%	-14.39%**	-12.03%**	-14.92%**
RORIGIN	12.90%**	-0.11%	4.74%	2.55%
RHEALTH	-19.12%**	-5.81%	-7.82%	-12.09%
RNUTR	9.54%**	8.25%**	2.85%	-3.13%**
RSEAL	-7.37%	3.79%	-2.15%	6.09%
AGE	1.93%	0.56%	3.56%*	0.16%
FEMALE	-3.99%	-4.17%	-1.91%	-3.91%*
CHILD	-0.41%	0.05%	0.52%	-0.55%
INCOME	14.19%**	13.53%**	6.86%**	9.29%**
DNBHD	-3.78%	-1.21%	-3.77%	-2.74%
DGRNBHD	-11.32%	-7.19%	-11.00%**	-7.31%
DSUPMKT	-8.54%	-5.11%	-7.89%**	-8.38%**
DCHFRSH	-4.84%	-15.72%*	-10.38%**	-7.14%
DCHTSTE	0.89%	-12.54%	-10.35%*	-6.25%
DCH1KG	-17.22%	-14.70%**	-7.98%*	-11.77%
DCH2KG	-20.50%	-19.53%**	-10.75%**	-14.83%**
DCH6KG	-13.79%**	-13.16%	-7.28%**	-9.11%*
DCHHLTH	-3.36%	-15.10%	-11.52%*	-4.90%
DCHPR	-11.55%	-17.74%	-11.42%	-9.56%
DCHAVL	10.72%**	18.86%**	24.00%**	20.54%**
DCHAPP	-1.63%**	-12.78%**	-8.89%**	-1.98%**
DCHORIG	-0.39%**	-7.71%**	-7.09%**	-4.55%**
DHS	3.56%	5.11%	1.56%	6.10%
DASSOC	-10.84%**	-8.46%*	-5.36%*	-5.72%*
DUNIV	5.09%	6.05%	3.32%	6.95%*
DMASTER	8.75%	6.36%	3.08%	17.39%
DCPLKID	0.67%	2.58%	6.70%	6.67%
DMLTGEN	-2.91%	-0.19%	2.20%	3.93%
DSNGPARN	13.10%*	4.03%	6.16%	16.08%**
DCPLNOK	-11.61%*	-8.53%	0.69%	6.07%
DNORTH	-1.25%	8.42%**	-0.41%	-3.53%
DWEST	-5.17%	-4.42%	-4.65%*	-7.04%**
DSOUTH	-18.60%**	-15.31%**	-10.26%**	-9.86%**
CONSTANT	-0.80%	5.39%	14.67%	19.85%
Prediction Accuracy	85%	80%	81%	75%

\* indicates significance at the 10% level \*\* indicates significance at the 5% level

**Table 2: Descriptive Statistics**

Variable	Mean (Dummy variables = percentage of sample)
DWKEXP1: Dummy variable equal to one when weekly expenditures on food are less than 1000 denar, zero otherwise	12.80%
DWKEXP2: Equal to one when weekly expenditures are between 1001 and 1500 denar	34.37%
DWKEXP3: Equal to one when weekly expenditures are between 1501 and 2500 denar	35.85%
DWKEXP4: Equal to one when weekly expenditures are over 2500 denar	16.90%
IMP: Percentage of cheese purchases that are imported	21.318
RPRICE: Rank of importance of price of cheese on a scale of 1 to 5, completely unimportant to very important	4.0919
RORIGIN: Rank of importance of origin of cheese on a scale of 1 to 5	4.3175
RHEALTH: Rank of importance of health scares from cheese on a scale of 1 to 5	4.7006
RNUTR: Rank of importance of nutritional content of cheese on a scale of 1 to 5	3.9368
RSEAL: Rank of importance of a seal of quality on the cheese on a scale of 1 to 5,	4.5152
AGE: Age of respondents	41.65
FEMALE: Dummy variable equal to one when the respondent is female	40.9%
CHILD: Number of children living in the household	0.88925
INCOME: Six monthly income categories from less than 9000 to over 41000 denars	2.02
DNBHD: Dummy variable equal to one when the majority of grocery shopping is done at a neighborhood shop	24.40%
DGRNBHD: Equal to one when the majority of grocery shopping is done at a combination of neighborhood shop and green market	67.10%
DSUPMKT: Equal to one when the majority of grocery shopping is done at a large supermarket	4.84%
DCHFRSH: Equal to one when the most important attribute considered in purchasing cheese is freshness	15.91%
DCHTSTE: Equal to one when the most important attribute in purchasing cheese is taste	30.52%
DCHHLTH: Equal to one when the most important attribute in purchasing cheese is health scares	30.43%
DCHPR: Dummy variable equal to one when the most important attribute in purchasing cheese is price	9.84%
DCHAVL: Equal to one when the most important attribute in purchasing cheese is availability	1.15%
DCHAPP: Equal to one when the most important attribute in purchasing cheese is appearance	1.80%
DCHORIG: Equal to one when the most important attribute in purchasing cheese is origin	9.60%
DCHPKG: Equal to one when the most important attribute in purchasing cheese is type of packaging	.0492%
DCH1KG: Dummy variable equal to one when cheese purchases are less than one kilogram	38.06%
DCH2KG: Equal to one when cheese purchases are between two and five kg.	36.92%
DCH6KG: Equal to one when cheese purchases are between six and 15 kg.	15.99%
DCH15KG: Equal to one when cheese purchases are greater than 15 kg.	8.61%
DPRIM: Dummy variable equal to one when highest education completed is primary school	10.00%
DHS: Equal to one when highest education completed is high school	62.02%
DASSOC: Equal to one when highest education completed is an associate's degree	12.22%
DUNIV: Equal to one when highest education completed is university	15.50%
DMASTER: Equal to one when highest education completed is at least a masters	.025%
DALONE: Dummy variable equal to one when the household is a single adult, no children	2.54%
DCPLKID: Equal to one when the household consists of a couple and at least one child	58.74%
DMLTGEN: Equal to one when the household contains more than two generations	29.20%
DSNGPARN: Equal to one when the household is headed by a single parent	1.72%
DCPLNOK: Equal to one when the household consists of a couple with no children	4.35%
DNORTH: Dummy variable equal to one when the respondent resides in northern MK	37.49%
DWEST: Dummy variable equal to one when the respondent resides in western Macedonia	17.64%
DEAST: Dummy variable equal to one when the respondent resides in eastern Macedonia	19.93%