

# **A BANK CUSTOMER ANALYSIS AND MORTGAGE SERVICES EVALUATION: IMPLICATIONS OF MARKET SEGMENTATION POLICIES**

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## **Abstract**

The scope of this paper is to examine market segmentation factors, as well as, bank customer attitudes and beliefs towards housing loans. The Greek mortgage market has experienced great developments in the latest years with high annual growth rates. Quantitative research was carried out by means of structured questionnaires with 20 items at a sample of 183 respondents in the area of Athens. Research found out that respondents are well-disposed towards house loans in order to purchase primary residence and half in order to purchase land. The required provision of information is searched through personal contacts with bank specialized staff. The primary criterion for bank selection is the existing cooperation with the bank, while recommendations by brokers, real estate contractors and lawyers are taken into consideration. Younger people are more well-disposed towards receiving financing for primary residence and land, while women are more positive towards buying land. Employees and existing clients, mainly higher education graduates, could be easily approached through direct mail techniques. Informational brochures could contain reference on the advantages of investing in real estate and the possibilities offered on financing for purchasing secondary residence.

**Key words:** Bank Marketing, Mortgage Services, Market Segmentation, Customer Profile.

**JEL Classification:** M31.

## **1. Introduction**

Important developments in the banking sector, such as the deregulation process, the implementation of new technologies and the constant increase in the number of offered products have resulted in the creation of a new environment with strong competition. Due to the fact that consumer behavior now changes easily, banking institutions cannot be certain that they will be able to maintain their clients.

In our times, when maintaining clients and performing cross sales play a determinative role in a bank's profitability, market segmentation and the examination of customer attitude and beliefs towards banking services in general, as well as, for specific products (such as housing loans) is becoming more and more essential. By implementing Customer Relationship Management (C.R.M.) and creating client databases, it is possible for credit institutions to analyze and perform effective and profitable market segmentation. This is possible through assessing information collected in order to determine common preferences and ways of behavior, depending on common characteristics of the various customer groups, such as demographic, geographical, psychological, etc.

These developments have enforced the adoption of banking marketing as a necessary tool for the survival of banking institutions, bringing complete changes in the banking philosophy. At the same time, developments in technology, which are translated as intensive use of information technology, allow for a decentralized collection of information, their direct transfer and their collective processing. This fact has facilitated the development of retail banking activities, a part of which is the issuing of mortgage services.

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## 2. The Domestic Mortgage Market

The Greek mortgage market has experienced great developments in the latest years with high annual growth rates. The above is apparent by available data on mortgage outstanding balances (Table 1) published by the Central Bank.

Table 1

Breakdown of Domestic Housing Loans

End of Year	Outstanding balances (million €)	Percentage change %	GDP %
2000	11,271.9	-	9.3
2001	15,652.2	38.9	11.9
2002	21,224.7	35.6	15.0
2003	26,534.2	25.0	17.3
2004	33,126.8	24.8	20.0
2005	43,199.4	30.4	25.1
2006	52,502.5	21.5	29.3

Source: Bank of Greece, Economic Research Dept., Bulletin of Conjunctural Indicators, No. 101, January 2007, p. 94.

The vast majority of mortgage loans are issued by commercial banks, as opposed to specialized credit organizations. Moreover, the rates of increase of home loan credits by commercial banks are clearly faster compared to the corresponding rates of specialized credit organizations.

What are the perspectives of the Greek mortgage market? All estimations and forecasts on mortgages (Centre of Planning and Economic Research, 2003) foresaw yearly borrowing expansions, mainly due to the expectations for further increase in real estate prices, which promise capital gains to all those who borrow in order to invest on real estate, the increase of population and the number of households, the tendency of immigrants from neighboring countries to buy real estate in Greece, as well as, to low interest rates combined with relatively low costs of mortgage debt compared to GDP. Other factors could act towards the opposite direction, such as the relatively high housing reserves (primary and summer residences) compared with the per capita income in Greece, the comparatively high number of unoccupied residences, the satisfactory level of supplies on houses for rent (at least in the large urban centers), as well as, the high level of housing prices from the moment this phenomenon reaches its peak.

The good perspectives in mortgage development combined with mortgage customer profile make this form of financing particularly attractive for banks. The average repayment period of a mortgage loan is nearly 20 years, thus ensuring "long-term" customers to banking institutions, as well as, prospective consumers for a series of other products banks may offer based on a closer relationship, new conditions for permanent cooperation and fixed revenues are created. The above result in an intense competition among banking institutions, aiming at increasing market shares not only through attractive interest rates, but also in terms of repayment flexibility (e.g. capability for readjusting paid installments according to the financial situation of the borrower).

The scope of this paper is to examine the profile and preferences of consumers regarding their choice of banking institution in receiving a mortgage loan, as well as, the factors and characteristics they consider important in home loan products. The base used to distinguish among the various client groups is demographic characteristics, such as gender, age, family life cycle, income, etc.

### 3. Past Literature

There are many references in international literature on market segmentation and the factors that affect the purchasing behavior of financial product consumers. According to them, a differentiation of author opinions has been recorded in two main categories: those who claim the importance of demographic-social characteristics to be the main segmentation factors and those who believe more in the reliability of psychological factors.

#### 3.1. Demographic and Social factors

A typical example of the former case is the paper by W. Boyd et al. (1994). It is a research that focuses on demographic characteristics, such as gender, age, marital status and records customer preferences in selecting their bank. Authors conclude in three main selecting criteria: the reputation of a banking institution, the deposit and loan interest rates.

A classification based on age has been attempted by Clarkson et al. (1990) who classify consumers into 3 categories based on their age and examine the preferences of each group for banking products and their level of satisfaction by their bank. The research mainly focuses on male customers with high income.

Marla Royne Stafford (1996) also highlights the importance of demographic characteristics stating that even though other types of segmentation are used (e.g. consumer behavior, psychological factors), a marketing expert should know and understand demographic criteria in order to be able to estimate the size, the approach and the effectiveness of the market. Moreover, demographic criteria constitute an easier means of segmentation. The author concludes that the notion of banking services quality is differentiated depending on age and gender, but not depending on the level of income.

According to Arthur Meidan (1996), the factors affecting the behavior of financial product consumers are divided in internal (psychological such as motivation, perceptions, and personal such as life cycle, age, profession, economic status, personality), external (cultural and social) and purchasing procedures.

#### 3.2. Psychographic Factors

Past literature regarding market segmentation based on psychological criteria is also extensive. Beckett et al. (2000) present a model that characterizes consumer behavior during the purchase of a financial service. By using as determinative factors of behavior the involvement in the service and the uncertainty of choice, they result in 4 types of consumers, depending on the combination of two characteristics.

The paper of G. McDougall et al. (1994) is also based on psychological characteristics, aiming at examining the way quality of offered services is perceived by different client groups.

Apart from the use and reliability of psychological characteristics as segmentation criteria and the supremacy of ad hoc segmentation, Harrison (1994) and Machauer et al (2001) further dispute the adequacy of demographic characteristics for market segmentation. Finally, regarding the usefulness of demographic characteristics and more specifically of the family life cycle, Dumont (2001) concludes that it remains one of the most useful segmentation criteria, when combined with the possibilities offered by new technologies for the creation of databases on consumer preferences.

It is worth mentioning that a significant number of papers examine the importance of origin as a criterion that affects purchasing behavior not only for financial products in general, but also for mortgages in particular. In spite of the fact that such type of segmentation (e.g. Spanish speakers, Afro-Americans, Asians, etc.) cannot be applied in the Greek society, in the near future, origin/nationality may constitute important segmentation criteria, when immigrants in Greece will have obtained financial power and become the target of credit institutions. Typical examples are the papers of Bourassa (2000) and Bostic et al. (2001) which examine the importance of racial origin and particularly the differences among aboriginal and European people of New Zealand, as well as, between the various races of the US, regarding their choices in obtaining a house and re-

ceiving financing. Similar conclusions are reached by Black et al. (2003), regarding the criteria used by various nationalities to select a credit institution in order to receive a housing loan. Finally, the differences that exist as part of the nationality are highlighted by Albers-Miller et al. (2000), who reach the conclusion that advertising financial services must be differentiated depending on the country. Another important contribution is the paper by Black et al. (2002) which examines the profile of consumers when selecting particular "distribution networks" (such as branches, ATMs, Internet, telephone, etc.) for their transactions.

### **3.3. Loan Characteristics**

The importance paid to the various characteristics of mortgage loans, as well as, the reasons for selecting among particular products (fixed interest rate, variable interest rate, etc.) have become the focus of Talaga and Buch (1998). The paper examines the weight of loan duration, the type of interest rate, the existence of other expenses and the bank's reputation in the selection process of mortgage loans. It is also attempted to create loan standards by combining the above characteristics (small duration, fixed interest rate, no expenses, and non-reputable institutions) and to classify these standards by preference. It must be noted that this paper does not refer to the amount of interest rate but only to its type (standard/variable), as it is thought by the authors that the amount is predefined by financial circumstances.

The same stands for the study by Breslaw, Irvine & Rahman (1994) which examines the reasons for selecting the duration of a loan and its compounding period. The paper concludes that there is an important relationship between age, family life cycle and income with the selection of a home loan product. It should be mentioned though that the study was carried out in Canada, where in that particular period the choices for mortgage products were relatively limited.

### **3.4. Mortgage and Bank Selection Criteria**

The recording of attitudes and notions of transaction parties regarding mortgage loans are provided in the paper by Wilhite & Park (2003), where the results of the study are presented after asking the consumers to rate the mortgage market. The study is divided in two different parts: a) the rating of the institutional framework and monetary regulations that rule the mortgage market, and b) the rating of services offered by credit institutions.

A significant effort to record and study the criteria for selecting a credit institution in order to obtain a mortgage loan is presented by Devlin (2002). The author attempts to note down the primary criteria and product characteristics (housing loan) that appear important during selecting a bank institution. The results are analyzed in conjunction with demographic characteristics, such as gender, social status, family income, nationality and educational attainments. In addition, the importance of "financial maturity" is also examined, i.e. the level of familiarity with complex financial products, as a factor of diversifying consumer opinions.

## **4. Research Methodology**

In order to examine the tendencies, opinions and consumer preferences in relation to mortgage services in Greece the method of questionnaires was used. The designing of the questionnaire was based on previous experiences by previous studies and in such a way as to collect extensive information on demographic data of the bank customer, as well as, extensive information on mortgage loans. Questions examine the familiarity of the sample with financial services, the general attitude (either positive or negative) towards the financing for real estate and the way selected by transaction parties to obtain information. Finally, the reasons that lead to the selection of a credit institution and the importance paid to the various characteristics of a mortgage loan were examined. Two main elements of mortgage loans (type of interest rate and proportion of financing) are examined thoroughly, as well as, which are considered as the most popular banking services which consumers wish to receive along with a mortgage loan.

More specifically, the present paper attempts to provide answers to the following questions:

H1. How positive is the attitude of consumers towards receiving a mortgage loan?

H2. How consumers wish to obtain information regarding mortgage loans?

H3. Which factors play the primary role in selecting a credit institution?

H4. Which of the characteristics of mortgage loans are considered by consumers as the most important?

A total of 250 questionnaires were distributed and 183 responses were received. The response rate was 73.2%, which is considered more than satisfactory. The questionnaires were filled in through personal interviews. After registering the questionnaires, a descriptive statistical analysis followed along with correlation analysis of all relevant questions. Data processing was carried out using the SPSS software.

## 5. Research Results

### 5.1. Demographic Factors and Bank Customers Profile

As appears in Table 2, the two genders are examined in the research. The age of respondents was mainly between 25 and 55, representing 84.1% of the sample, as people of the above age are usually the receivers of housing loans. Among those that responded that they have received a housing loan, 83.4% were up to 55 years of age, while only 16.6% were above 55 years.

Table 2

Profile of bank customers with mortgage loans

Gender	Men	58.3%
	Women	41.7%
Age	25-35	30.6%
	36-45	27.8%
	46-55	25.0%
	Over 55	16.7%
Educational Attainments	Primary	5.6%
	Secondary	38.9%
	Higher	44.4%
	Post-graduate/ PhD	11.1%
Marital Status	Single	5.6%
	Recently married without children	19.4%
	Married with children under of age	47.2%
	Married with adult children, financially dependent	13.9%
	Married with adult children, financially independent	13.9%
	Old, married people without children	0.0%
Family Income	€ 10,000-20,000	36.1%
	€ 20,001-30,000	38.9%
	€ 30,001-40,000	16.7%
	€ 40,001-50,000	8.3%
	Over € 50,000	0.0%
Employment	Salaried employees	66.7%
	Freelance professionals/ Business people	19.4%
	Retired	8.3%
	Domestic duties	5.6%

As “more frequent” users of housing loans appear those between 46 and 55 years old (29% of the sample), between 36 and 45 years old (22.7%), above 55 years (20.7%) and for those between 25 and 35 years of age (13.9%).

In terms of educational attainments, most of the respondents are high school, as well as, higher education graduates. These two groups represent 80.3% of the total sample and 83.3% of those that have received a housing loan.

In terms of marital status, the vast majority of the respondents (81.4%) belong to the first three family groups, i.e. single, new couples without children (including unmarried couples) and couples with children under of age.

Regarding receiving a mortgage loans, 47.2% of those that have already received one in the past belong to the group of new couples with children under of age, whereas 19.4% belong to the group of new couples without children.

Almost 90% of the respondents claim to have a family income of € 40,000.00, out of those 91.7% declare that have received a mortgage loan. On the contrary, out of those that claim to earn family income over € 50,000.00 no one has received a mortgage loan.

Regarding the professional identity of the respondents, the largest part of the sample consists of salaried employees (63.4%), followed by the self-employed (freelance professionals and business people - 21.9%). Similarly, salaried employees form the majority of those who have already received a housing loan at a percentage of 66.7%, followed by those who are engaged in domestic duties (33.3%).

### 5.2. Bank Services and Bank Customers' Behavior

As was expected, the vast majority of the respondents have already established cooperation with a bank (97.3%). Only 2.7% have not established cooperation with any credit institution. The most popular banking products are savings products and credit cards, as 81% of the respondents have a savings account in a bank and 58% have a credit card. 20% have already received a housing loan, while personal and business loans appear to be less popular with a percentage of 15% and 5%, respectively.

Most of the bank customers visit their bank 1-2 times every month (53%), a fact that is possibly related to the collection of salary and pension or even less times (26.8%). 18.6% visit their bank 1-2 times every week. Finally, a very small percentage (1.6%) performs daily transactions with a bank.

Regarding the intention of receiving financing through a housing loan, approximately  $\frac{3}{4}$  of the sample strive towards the financing of their primary residence, and 44% towards the financing for purchasing land. On the other hand, the financing of secondary or summer residence is not a main priority of the respondents at a percentage of 71% and 74%, respectively (Table 3).

Table 3

Intention of receiving a mortgage loan

	Certainly Yes		Probably Yes		Aggregated Percentage	Probably Not		Certainly Not		Aggregated Percentage
	Frequency	%	Frequency	%	%	Frequency	%	Frequency	%	%
Financing of primary residence	86	49.2%	44	25.1%	74.3%	20	11.4%	25	14.3%	25.7%
Financing of secondary residence	5	3.3%	39	26.0%	29.3%	33	22.0%	73	48.7%	70.7%
Financing of summer residence	6	4.0%	33	22.1%	26.1%	44	29.5%	66	44.4%	73.9%
Financing of piece of land	18	11.9%	48	31.8%	43.7%	30	19.9%	55	36.4%	56.3%

The answers provided to the question regarding the selected way of obtaining information is characteristic of the importance paid to personal contact with bank staff. Over ¾ of the respondents prefer to contact the bank’s staff for initially requesting information on mortgage loans (75.4%). Less popular ways of obtaining information are brochures (16.4%), the Internet (13.1%) and relevant press releases (9.3%). Yet, when they reach the final stage of selecting a mortgage loan, all respondents prefer personal contact with bank staff (95.1%), while alternative ways of obtaining information are preferred by less than 4% of the sample. Thorough research appears to strain most borrowers, as only 32.8% has responded that they would contact all the banking institutions to obtain information.

As shown in Table 4, most would choose to be informed by particular banks; the reasons for their choice is existing cooperation (84.7%), recommendations by friends or acquaintances (61%), as well as friends or relatives working for a bank (53.4%). Less importance is paid in the friendly environment (20.3%), recommendations by relating professionals, such as brokers, contractors, lawyers (18.6%) and advertising (15.3%).

Table 4

Reasons for selecting the bank that provides the information

FACTORS FOR SELECTING A BANK	FREQUENCY	PERCENTAGE
Existing cooperation	100	84.7%
Friends or relatives working in a bank	63	53.4%
Recommendations by friends or acquaintances	72	61.0%
Pleasant environment & friendly service	24	20.3%
Recommendations by broker, contractor, lawyer	22	18.6%
Advertising campaign	18	15.3%

It should be noted that for this particular question, respondents had more than one answering choices, this is why the summary of frequencies differs from the number of respondents.

**5.3. Mortgage Loan Characteristics**

Regarding the various characteristics of housing loans (Table 5) the focus is paid on the interest rate and the pay-back period, two elements that primarily affect periodic payment. The importance paid on the interest rate may be due to the following two reasons: a) it is the element of focus by banking institutions and is particularly stressed in housing loan marketing, and b) it constitutes an obvious and easily comparable characteristic for customers; as a result, it is often identified as the final cost of a loan.

Table 5

Importance paid on the various characteristics of mortgage loans

	Sum	Average	Standard deviation
Interest rate	678	3.92	0.274
Pay-back period	606	3.63	0.565
Proportion of financing	520	3.49	0.654
Flexibility in the amount of installments	529	3.39	0.792
Pre-payment penalty	512	3.30	0.856
Fast disbursement	502	3.26	0.791
Miscellaneous expenses	513	3.23	0.779
Life insurance of borrower	421	2.66	0.981
Favoring terms in other banking products	356	2,25	0.984

4: very important, 1: not at all important.

Great importance is also paid on the existence of a prepayment penalty, the disbursement time and the expenses charged. On the other hand, life insurance appears to be less important, a fact that could be interpreted as lack of future consideration by the consumer, as in most cases annual insurance expenses are considered as a further cost. Finally, consumers are less interested in offers of banking products by other institutions with favoring terms.

#### **5.4. Relevance with Previous Studies**

At this point, we should also mention that similar results were reached by previous studies and particularly in Great Britain. In a study performed using the method of discussion groups (Black et al., 2002) regarding the "distribution networks" for banking services, it is mentioned that the selection of the "distribution network" by consumers is directly related to the type and complexity of the banking service. Therefore, most of the participants in discussion groups have responded that in case they needed a housing loan, they would choose personal contact.

Correspondingly, in the paper of Ford and Jones (2001) on behalf of the Financial Services Authority, 95.6% of the respondents (who already use mortgage loans) have stated that they have contacted a member of staff or an intermediary in person when selecting their mortgage. Other popular ways of obtaining mortgage information, according to the above study, are newspapers and magazines, information brochures of banks, as well as friends and relatives at a percentage of 25%. Much less is the percentage for those who use the Internet. As appears, also in countries other than Greece where people are more familiar with using the Internet and the computer, the use of such means, at least for the purpose of obtaining information on housing loans, is limited. As Ford and Jones proved most consumers in the end choose the banking institution with which they have developed some sort of cooperation, while secondary reasons are recommendations by friends and promotion of the institution.

In a study conducted by the Council of Mortgage Lenders (2002) regarding the selection of a banking institution during the briefing stage, 32% of the respondents have stated that they would contact the largest banks, 20% that they would contact the bank with which they have already developed cooperation, 12% would request information by intermediaries, and 3% would ask for the opinion of their friends and relatives.

The research of Devlin (2002) on housing loans reaches similar conclusions: out of a list of 13 criteria for selecting a banking institution (reasons for selecting include the various features of housing loans, such as the interest rate, which are examined in detail by the current study in the next question), existing cooperation holds the 4<sup>th</sup> and 5<sup>th</sup> place (existing savings account and previously administrated loan), recommendations hold the 8<sup>th</sup> place, while the reputation and image of a banking institution holds the 12<sup>th</sup> place. Given that the professional image and reputation of a banking institution are elements that are largely promoted through advertising the results of the above study are very similar to the data provided in the current study.

Finally, the study of Boyd, Leonard & White (1994) regarding US consumer preferences in banking services reaches different conclusions. In this case, the main criterion for selecting a bank is its reputation. Possibly, this aspect of results determines the general differences between the US and Europe regarding the banking market; The US market functions with a far larger number of institutions, national and local, thus the reputation and image of a credit institution is of great importance.

#### **5.5. Correlation Analysis**

Research findings reveal that there are differences in the selection choices of men and women.

Men appear to be more frequent users of credit cards (65.3% against 44.7% of women). They pay more importance in advertising as a means to choose the institution for requesting information on housing loans, compared with women. Among those who would select a bank following a marketing campaign, 72% were men and 28% women (Table 6). This conclusion is contrary to the popu-



lar concept according to which women are more detached to financial services and more willing receivers of advertising messages.

Table 6

Cross-analysis results of gender and the importance paid on advertisements

		GENDER	
		MEN	WOMEN
Bank selection motivated by advertising campaigns	NO	44%	56%
	YES	72.2%	27.8%

When it comes to women, they appear to pay more importance on obtaining other supplementary products along with their housing loan, while they have a more positive attitude towards receiving financing for buying land (Table 7).

Table 7

Relationship between gender and receiving financing for buying land

Gender	Intention of receiving financing for buying land	
	Average	Standard deviation
Men	2.04	1.09
Women	2.38	1.01

Moreover, women are less likely to proceed with a through market research, as they have responded that they would request information by all banking institutions at a percentage of 23.5% against 40.8% of men. Finally, there is a negative correlation between gender and age, a fact that is coincidental and is due to the synthesis of the sample, as men represent a larger percentage of older people (Table 8).

Table 8

Correlation coefficients of the "gender" characteristic"

GENDER			
	r	sig.	df
Use of credit card	-0.195	0.008	181
Bank selection (to request information) motivated by advertising campaigns	-0.203	0.027	116
Importance paid to acquiring other products	0.182	0.020	156
Intention of receiving financing to buy land	0.163	0.043	149
Choice of the number of banks from which to request information	0.184	0.013	183
AGE	-0.164	0.26	181

As appears by the analysis of questionnaires, age is closely related to a number of questions. As expected, age is correlated not only with the family life cycle but also with the family income, as the majority of younger people belongs to the early stages of the family life cycle and has lower income. The above can also justify the increased interest of young people to receive financing in order to purchase primary residence or land. There is also relation to the type of profession, as shown in Table 9; among those between 25 and 35 years old, the majority is employees, possibly due to lack of available funds for opening a business. The largest part of freelance professionals

and business people are between 36-45 years old, while naturally the majority of retired people and those who are engaged in domestic duties are over 55 years old.

Table 9

## Cross-analysis of age and profession

Age	Profession			
	Salaried employees	Freelance professionals/ business people	Retired	Engaged in domestic duties
25-35	71.4%	26.0%	.0%	2.6%
36-45	68.2%	29.5%	.0%	2.3%
46-55	77.4%	16.1%	3.2%	3.2%
Over 55	24.1%	6.9%	62.1%	6.9%

As it was proved, young people pay more importance to obtaining supplementary products along with their housing loan and are more affected by the recommendations of friends and acquaintances. They appear to be more familiar with technology, as they prefer to initially search for information on mortgages through the Internet and the press. However, when the time arrives to make a final decision they seek for personal contact with banking staff. On the other hand, older people tend to prefer bank brochures in order to make a final choice. Older people are more likely to have savings and investment products, which can be explained by their higher income.

Finally, there is a correlation between the age and the preferred interest rate; older people clearly prefer fixed-interest rate products, which are considered to be more “conservative” (Table 10).

Table 10

## Age and preferred type of interest rate

Age	Type of interest rate		
	Fixed	Variable	Combined
25-35	39.0%	14.3%	<b>46.8%</b>
36-45	52.3%	6.8%	40.9%
46-55	51.6%	<b>32.3%</b>	16.1%
Over 55	<b>62.1%</b>	3.4%	34.5%

Table 11 shows all relevant correlation coefficients of the age factor.

Table 11

## Correlation coefficients of the Age factor

AGE	r	sig.	Df
FAMILY LIFE CYCLE	0.669	0.001	181
FAMILY INCOME	0.234	0.001	180
Intention of receiving financing to buy primary residence	-0.184	0.015	173
Intention of receiving financing to buy land	-0.180	0.027	149
EMPLOYMENT	0.463	0.001	179
Importance paid to acquiring other products	-0.163	0.041	156

Table 11 (continued)

AGE			
	r	sig.	Df
Selecting a bank for requesting information following recommendations by friends or acquaintances	-0.246	0.007	116
Obtaining initial information through the Internet	-0.165	0.026	181
Obtaining initial information through specialized press releases	-0.168	0.023	181
Obtaining final information by bank staff	-0.148	0.045	181
Obtaining final information through bank brochures	0.247	0.001	181
Use of savings/ investment products	0.218	0.003	181
Preferred type of interest rate	-0.171	0.021	179
GENDER			
	-0.164	0.26	181

Another demographic characteristic that is often used in market segmentation is educational attainments (Table 12). Research showed that there is no correlation between educational attainments and the intention of receiving a housing loan. On the contrary, there is a correlation with the way of obtaining information, as those with higher educational attainments prefer to be informed through brochures to a greater extent than lower educational level graduates. The above could be related to the fact that all relevant brochures use a more formal writing and contain more specialized terminology. There is also a positive correlation with the trust towards advertisements of banking products, a fact that can be justified by the lack of financial maturity and specialized knowledge on the part of those who have less educational attainments. As a result, these people select their banks based on the image perceived by marketing campaigns and not based on more rational criteria. Furthermore, educational attainments are positively correlated with the use of credit cards. People with higher educational attainments also claim to have higher income.

Table 12

## Educational attainments

EDUCATIONAL ATTAINMENTS			
	r	sig.	df
Obtaining initial information through bank brochures	0.169	0.022	181
Use of credit card	0.187	0.011	181
Bank selection (for requesting information) motivated by advertising campaigns	0.232	0.011	116
FAMILY INCOME			
	0.197	0.008	180

The family life cycle is fairly similar to the age parameter, as the early stages of the family life cycle are usually associated with younger people (Table 13). For this reason, all correlation coefficients of these two characteristics with the remaining questions are quite similar. Therefore, the correlation of the two parameters is also important. There is also a positive correlation with family income, as older people (who belong to later stages of the family life cycle) have higher income. There is also a correlation with the type of employment which is also explained with age. Moreover, families at later stages of the life cycle maintain to a great extent savings accounts in bank, a fact that can be explained not only by the existing relationship with the family income, but also by the need for saving money in order to cover possible unexpected need for cash. It is of great importance that existing debts for housing loans are more frequent at later stages of the family life cycle, as shown in the following table. This may be due to two reasons: 1) in Greek society it is common for parents to ensure a privately owned residence for their older children, and 2) at the

early stages of the family life cycle there is an increased need for obtaining residence, however low income does not allow for a loan.

Table 13

## Family life cycle

FAMILY LIFE CYCLE			
	r	sig.	df
AGE	0.669	0.001	181
FAMILY INCOME	0.184	0.013	180
EMPLOYMENT	0.367	0.001	179
Use of savings/ investment products	0.182	0.014	181
Existing debts for housing loan	0.204	0.006	181
Obtaining final information through bank brochures	0.234	0.001	181

Regarding the profession, it is related to demographic parameters and, to a lesser extent, to the remaining questions (Table 14). There is a correlation between profession and age; the majority of young people (25-35 years old) are salaried employees and the majority of older people (over 55 years old) are retired. There is also a correlation between profession and family life cycle, which is explained mainly by the concurrence of family life cycle with age. For the same reason, there is a negative correlation with the intention of receiving financing for purchasing primary residence or land.

Table 14

## Correlation coefficients of the "employment" characteristic

EMPLOYMENT			
	r	sig.	df
AGE	0.463	0.001	179
FAMILY LIFE CYCLE	0.367	0.001	179
Intention of receiving financing for purchasing primary residence	-0.185	0.014	172
Intention of receiving financing for purchasing land	-0.187	0.022	148
Use of savings/ investment products	0.157	0.035	179

As appears in Table 15, apart from the respondents who are engaged in domestic duties (a category that includes only 5 people, thus the results are difficult to generalize for the whole population), the higher average with the lower standard deviation is observed in salaried employees.

Table 15

## Correlation between profession and the intention of receiving financing for purchasing primary residence and land

Profession	Financing for primary residence		Financing for land	
	Average	Standard deviation	Average	Standard deviation
Salaried employees	3.32	0.884	2.33	1.044
Freelance professionals	2.69	1.217	2.19	1.091
Retired	2.37	1.422	1.33	0.767
Engaged in domestic duties	4.00	0	2.80	0.837

There is also a positive correlation between the profession and the use of savings or investment products, as 75% of salaried employees state that they hold savings accounts against 100% of retired people. The above is most probably related to the payment of pensions through bank accounts.

The last criterion used for the segmentation of the mortgage market is the family income, which is closely related to the age and the family life cycle, as well as to educational attainments (Table 16). Young people and those who are at the early stages of the family life cycle have lower income compared with older people. Moreover, people who have graduated from higher level educational institutions are better remunerated compared with others. There is also a correlation between the use of credit cards and savings and investment products, as those with higher income appear to be more familiar with banking services. In contrast with the above, those with less income show increased interest to acquire supplementary products along with their housing loan, which may be due to the fact that those with lower income do not have easy access to services, such as credit cards or personal loans, because of their low remuneration. Regarding the characteristics of mortgage loans, they focus more on the pay-back period and the interest rate, as these constitute determinative factors for the level of periodic installments which is their primary concern. There is also interest in higher proportions of financing. As shown in the data analysis, among those who would chose to receive financing for buying new residence at a percentage of 100%, 54.5% earn € 10-20,000, 29.5% earn € 20-30,000, 9.1% earn € 30-40,000, 4.5% earn € 40-50,000 and only 2.3% earn over € 50,000. Finally, it emerged that there is a correlation between income and the preferred interest rate, with the first two income categories preferring fixed-interest rate products due to the security the offer.

Table 15

## Family income

FAMILY INCOME			
	r	sig.	df
AGE	0.234	0.001	180
FAMILY LIFE CYCLE	0.184	0.013	180
EDUCATIONAL ATTAINMENTS	0.197	0.008	180
Use of credit card	0.154	0.038	180
Use of savings/ investment products	0.166	0.025	180
Importance paid in acquiring other products	-0.178	0.026	156
Importance paid in the pay-back period	-0.176	0.023	164
Importance paid in the interest rate	-0.168	0.028	170
Preferred proportion of financing	-0.179	0.016	179
Preferred type of interest rate	0.155	0.038	178

At this point it is worth mentioning that the interest for the above various characteristics has also been acknowledged by other studies, such as the one mentioned previously by Devlin (2002), in which the interest rate is the second most important criterion for selecting a banking institution, while the third most important is the amount of financing. In the last position (13<sup>th</sup>) is the quality of provided services, which generally corresponds to the "speed of disbursement" characteristic of the current study, which proved to be of less priority for respondents. Correspondingly, the interest rate appears to be an important priority also for US customers, as according to the article by Boyd, Leonard & White (1994) on US customer banking preferences, the interest rate is found in the second place among 11 other characteristics.

Fixed-interest rate loans seem to win over the respondents at a percentage of 48%, while 38% would prefer a combined loan. Variable-interest rate loans are not very popular, as appears by their preference percentage of 14%, a fact that may be due to more and more press releases that comment on the event of interest rate increases and the potential burden for borrowers who have received such loans. Almost  $\frac{3}{4}$  of the respondents would prefer to cover part of the expenses for purchasing new residence with personal funds, as 75.8% would prefer to receive financing for up to 80% of the residence's value. This notion may be influenced by the fact that most credit institutions in order to cover the whole value of real estate, either ask for higher interest rates or require for the existence of a second residence as a guarantee.

Finally, in the case other banking products are offered with favoring terms, 68% of the respondents would be interested in a savings account with higher interest rate, while 44% would strive towards a low-interest rate personal loan and credit card. This may be linked to the increased consumer needs during the period of purchasing residence, such as notary expenses, furniture and appliances expenses, etc. Equal importance is paid to the payment of bills (state-own firms) with no further charges (40%). Finally, the use of a check book is not considered as important (25%). Freelance professionals are more accustomed to using checks for payment, in which case the corresponding percentage is 37.5%.

## **Conclusions**

The mortgage sector is one of the most profitable and secure of the banking system. Issuing a housing loan not only helps create long-term relationships with customers and expand existing cooperations in the future, but also minimizes credit risks due to the strong guarantees it entails. For the above reasons, it constitutes a field in which all banking institutions wish to obtain a market share. Considering the size of this market which includes not only housing loans (primary residences, secondary residences, buying land, etc.), but also repair loans, it is evident that market segmentation and targeting the various sub-segments using different methods each time become indispensable.

Research found out that the largest part of respondents is well-disposed towards receiving a housing loan in order to purchase primary residence, and half of the respondents think positively of financing in order to purchase land. The same does not stand for purchasing summer residence or real estate for investment reasons. The above means that there is a great part in the market that remains unused by credit institutions and which, with the appropriate information and marketing could eventually become a list of clients.

Regarding the provision of information to customers on housing loans, there is a strong tendency towards personal contact with bank staff, compared with other impersonal forms of communication. The above is closely linked not only to the nature of the product (housing loan) which is for most people a critical life decision, but also to the personality of consumers who continue to prefer personal contact. Based on the above, we may say that the existence of specialized banking staff who are in position to consult and offer solutions at a personal level is thought as necessary for a bank that wishes to enter the mortgage sector.

The primary criterion for selecting a bank in order to request information on mortgage loans is existing cooperation, a fact that proves that the existing customers of a banking institution (holders of savings accounts, credit cards, paid employees) constitute a very good base for attracting mortgage clients. Although recommendations by brokers, real estate contractors and lawyers have not been very well accepted, yet they are taken into consideration by those that have not developed cooperation with any banks, thus allowing credit institutions to expand their list of clients. Based on the above, apart from efforts to attract clients, emphasis could be paid on establishing cooperation with banking professionals, thus creating a push & pull strategy mix.

Some of the characteristics of housing loans are more important than others. As shown by the total sample, miscellaneous expenses are not very important, a fact that leads to the conclusion that cer-

tain much-advertised housing loan offered that entail less expenses do not have the expected impact. On the other hand, other elements such as the prepayment penalty and the proportion of financing that are not equally mentioned in advertising, have proved to be more important for the respondents.

Regarding the analysis of demographic characteristics, younger people are more well-disposed towards receiving financing for the purchase of primary residence and land. Additionally, women are also more positive towards buying land. Therefore, a credit institution could focus on efforts to attract new clients through special programs for new borrowers or address women through promotional brochures sent along with credit card bills, monthly statements, etc. Similarly, salaried employees have shown increased interest in receiving housing loans and could become the target of some credit institutions by sending relevant information material or sales marketing techniques to payroll account holders.

Apart from one-to-one briefing which is the most popular way of communication, information brochures are strongly preferred by higher education graduates and people in general who are well-disposed towards receiving financing for purchasing real estate for reasons of investment. Existing clients, mainly higher education graduates could be approached through direct mail techniques. Informational brochures could contain reference on the advantages of investing in real estate and the possibilities offered on financing for purchasing secondary residence. Taking into consideration the fact that higher education graduates are usually credit card users, sending information brochures along with credit card bills would be a wise action.

Users of business loans, i.e. business people and freelance professionals, prefer to obtain information through the press. A banking institution can be advertised or become a sponsor in specialized publications of professional-sector magazines addressed to business people. Using the Internet is preferred by younger people, a fact that could be used by banking institutions to target this group.

Mortgage services have a long way to go in the Greek market which is suitable for effective and profitable market segmentation, providing credit institutions with the opportunity to adopt specialized marketing strategies. Further examination of consumer perceptions could prove to be useful, especially on customers who have already received a housing loan, in order to rate offered services and note down the problems located in the corresponding procedures (approval and disbursement of housing loans).

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