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## PREDICTING RETAIL BANKING CONSUMER BEHAVIOUR USING STATISTICS

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### Abstract:

The purpose of any economic-based activity is the creation of needs. As the financial activities are not an exception to this rule, understanding clients' necessities and their satisfaction is of primary concern for all financial institutions. Being conversant with the exact details that constitute client behaviour and the processes that lead to particular decisions, has become an advantage for financial institutions investing resources in it. Finally, it will not only pay off by satisfying the clients' needs, but it will also secure a long-standing loyalty and relationships with them. As all relationships, the one between the client and the bank requires support and mutual understanding.

Given the Serbian retail banking market, we may conclude the following: firstly, there is still potential for doing business in this field; secondly, the particular segments of customers would accept new products; and thirdly, banks have to focus on the highest ranking clients concerning their credit worthiness. As regards the client behaviour over different product offerings, we can conclude that cash loans and credit card holders are not price sensitive, and that subsequently, the existing holders intend to increase their credit exposure.

### Key words:

retail banking,  
clients behavior,  
segmentation,  
loyalty.

### INTRODUCTION

The banking industry faces intense competition and the frequent shifting of customer base continues to be of primary concern. Focused customer segmentation for cross-selling and up-selling of products and services has become a necessity. Given the fierce competition and high customer attrition rate, modern banking requires efficient tools and means to promote products and services to the existing and prospective customers, increase revenue, improve customer loyalty, and thus strengthen customer base.

Provided that there is a system that could statistically predict sales behaviour of prospective customers, each institution may benefit immensely by allocating the available resources from Above the Line sales related activities, to one-on-one based personalized actions.

The research was focused on retail segment clients in Serbia with two aspects of the analysis. Namely, the first one refers to pre-selection of clients with the aim to find the least possible risky clients, on the one hand, and the most worthy ones, on the other hand. The second aspect refers to segmentation of clients

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in order to find the most attractive niche and create suitable product offer for them.

The assumptions consider the standard banking environment where the objective of each retail manager is to maximize profit at minimum cost. So, the starting hypothesis is as follows: customers will behave based on the standard patterns following the pre-defined calculation methodology.

The data used for the subject analysis consider only part of the retail banking business industry, *i.e.* overdrafts, consumer loans, housing loans and credit cards. Limitations might exist given the different credit policies applied by each financial institution running business in Serbia, as well as the different products' primary focus of each financial institution.

## PERSONAL SELLING AND MARKETING

Although different industries have developed different selling strategies and approaches, the importance of personal selling still remains high. It is obvious that personal selling requires a two-way communication which in the case of a financial institution, includes an individual who aims at persuading the other individual to take the appropriate action (Brassington, 2010). The post purchase satisfaction cannot be ignored. It always serves as the base for building long and profitable relationships (Muller & Nordman, 2004; Storbacka & Nenonen, 2014; Storbacka & Pennanen, 2014).

The marketing mix to support the personal selling depends on the parameters that define the particular consumers understanding and perception of services satisfaction (Ajzen, 2008). Many international banks see that there is no easy way to create marketing mix synergies, as standardization is always subject to different regulatory frames, cultures, languages and social perceptions.

For a bank, marketing is the concept of implementation and achievement with all available means and objectives, development of coherent and satisfying market segments, determined and selected in advance (Kumar, 2013; Rose & Hudgins, 2013).

In the second half of the 20th century, the entire retail banking industry profile changed due to diversified banking services, by engaging in some operations formerly incumbent of specialized banks, as well as by the provision of new services in border areas with other financial operators.

This extension of banking services aimed obviously at profit, but simultaneously, sought to assist the clients, providing them with the access to useful

and desirable services. Around the 1970s, banks developed programs to support businesses and widely promote banking products and services to meet customer requirements.

## THE PLANNED BEHAVIOUR THEORY

The planned behaviour theory (TPB) is designed to predict and explain human behaviour within a certain framework. It was initiated in 1991 by Icek Ajzen as an extension of the reasoned action theory due to its limitations, *i.e.* failing to explain behaviours over which humans had limited volitional control (Godin & Kok, 2001; Conner & Armitage, 2001).

The main element is one's intention to adapt certain behaviour. The intentions are recognised as the steaming power influencing behaviour, and they are the best effort indicators for humans who are about to take seriously a "call to action". The adaptation of the majority of behaviours depends to a certain extent on the so called no generating factors which translate into the availability of opportunities and resources (Miller, 1956). These can be time, money, competences, co-operation with other *etc.* (Ajzen, 1991; Ajzen, 2002; Ajzen, 2008). Such parameters represent the real control of the human over the behaviour. If a human has the necessary opportunities and money, and intends to adapt behaviour, then he/she should succeed in doing so (Fishbein, 1979; Raz, 2010).

The TPB sets three independent terms as the basics elements of the intentions. The first is the attitude towards the behaviour, referring to the degree to which one considers positively or not the subject behaviour. The second characteristic is the subjective norm that refers to the perceived social pressure for the adaptation of certain behaviour. The third characteristic is the level of the perceived behavioural control (Campbell & Russo, 2001; Farr, 1994; Read & Miller, 2014).

The perceived behavioural control is very important for TPB. The perceived behavioural control refers to one's understanding of easiness or difficulty to adapt behaviour. The perceived behavioural control differs given different situations and environments. Therefore, it might be the case for a human to believe that results mostly depend on his/her personal behaviour, but at the same time, to believe that the possibilities to adapt the anticipated behaviour are low (Ajzen, 1991; Ajzen & Fishbein, 2010).

A generic rule applying in TPB is that the more favourable the attitude and the subjective norms to the behaviour, the higher the perceived control is, in

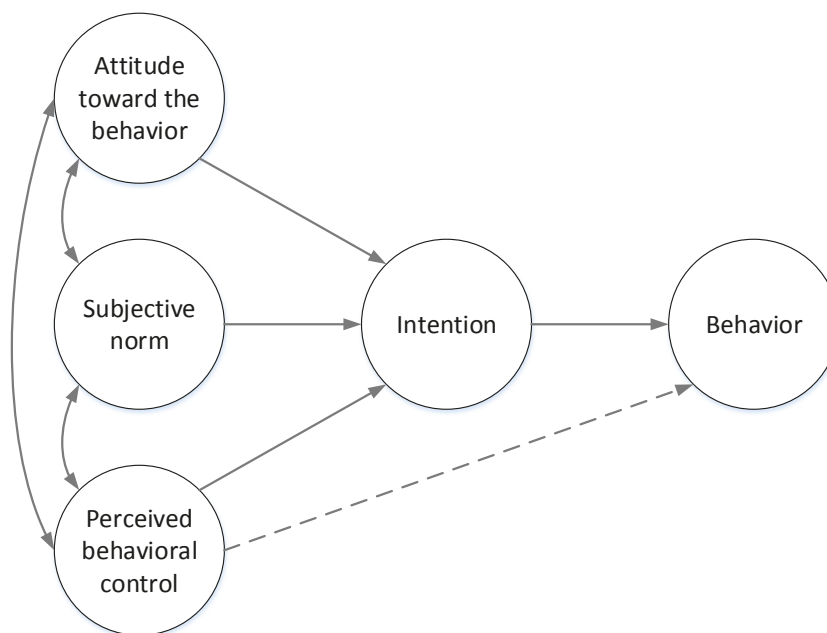


Figure 1. Theory of planned behaviour  
Source: Ajzen (1991)

which case the intention of an individual to adapt certain behaviour becomes very possible.

According to TPB, the adaptation of behaviour is a function that links the intentions with the behavioural perceived control (Armitage & Conner, 2001).

### SALES: CREDIT WORTHINESS AND SELECTION OF PRE-APPROVED CLIENTS

A large volume of data was examined using primarily the “over-underrepresentation” theory that intends to identify the propensity of clients to react positively to a bank’s offer. Using the data that segment the same customers’ universe before and after the particular product offerings, we identified the likelihood of customers to either reply positively to a new product offering, or reply positively to a counter offer aiming to retain potential defectors.

The first step considered all prospects being analysed primarily for their credit worthiness, and subject to their eligibility, for their willingness to apply for another product. The ability of a financial institution to penetrate the whole of a particular market is not to be overlooked. The credit worthiness eligibility of the entire Serbian population is indicatively used in order to identify the credit potentials of the whole market before entering into a behavioural analysis.

The “propensity to buy/defect” approach was also supported by the full operational analysis of the product/service offer effort, as we do not stay only at the willingness level of the clients, but we sought to identify the efficiency of all steps mediating from the positive answer of clients up to the final credit disbursement/client retention by means of a mathematical model.

The business case focuses on particular products of a retail banking environment, *i.e.* credit cards, personal loans, debt consolidation loans and overdrafts.

It is of paramount importance to detect the possibilities to “enter” an overall market. The analysis which assesses the creditworthiness of the entire population of a country, characterizing it as “bankable” or not, is essential for understanding the market perspectives, but also for positioning retail banking products using different priorities set. The criteria used for assessing the eligibility of the prospects were: Employment Status-Age-Income-Availability of Fixed phone number-Credit Bureau historic and current delays-Debt to Income Ratio-Pool Scorecard and Internal Grading. The following analysis was applied to the entire Serbian population in August 2014.

It can be seen that in a certain population of 7,181,505 inhabitants of Serbia, 908,000 make up the potential “bankable population”. The most noticeable results can be divided in two groups, the employed



and the pensioners' prospects. When it comes to the former one, the exclusion criteria with the higher percentages are credit bureau delays (36.5%), DTI/Scoring (29%), employment (24%), income (13.5%) and age (11.5%).

The higher exclusion criteria for the latter are income (29.2%), age (27.3%), credit bureau delays (26%) and DTI/Scoring (22%).

An in-depth one-to-one comparison between the employed individuals and pensioners needs to rely on many aspects, such as the structure of the economy, the historic evolution of public vs. private sector, the compensation strategy of the country, the infrastructure *etc.* A snapshot approach could definitely observe that the pensioners tend to be relatively more credit worthy based on the criteria that they can really in-

Segments and steps:	Bankable Population - Results								
	Belgrade	Vojvodina	Central & Western Serbia	Southern & Eastern Serbia	Total		Share	Criteria	Isolated effect
	Total population								
	1,660,156	1,917,325	2,013,322	1,590,702	7,181,505		100%		
A. Employed population	564,702	446,184	403,358	305,756	1,720,000		24.0%		
B. Pensioners	402,476	437,235	465,312	383,037	1,688,060		23.5%		
Total bankable population - employed + pensioners:	277,000	263,500	197,000	170,500	908,000				
	% of Total population:						12.6%		
	% of Employed + Pensioners:						26.6%		
A. Employed									
step 1: No of employed people	564,702	446,184	403,358	305,756	1,720,000		100%		
ABS clients - employed	4%	3%	3%	6%	-72,438		4.2%	ABS Clients	-4.2%
step 2: Employed / new clients:	539,574	431,004	389,414	287,570	1,647,562		95.8%		
% of employed - aged 20-67:	88%	88%	88%	88%	-197,086		11.5%	Age	-11.5%
step 3: Employed / new clients / age 20-67	475,029	379,446	342,831	253,170	1,450,476		84.3%		
% of population with fixed phone:	92%	92%	92%	92%	-116,038		6.7%	Phone	-6.7%
step 4: Employed / new clients / age 20-67 / fixed phone	437,026	349,090	315,405	232,916	1,334,438		77.6%		
% of employed - aged 20-67 - with salary 20k+:	88%	84%	78%	76%	-231,613		13.5%	Salary	-13.5%
step 5: Employed / new clients / age 20-67 / fixed phone / salary 20k+	386,505	292,944	246,882	176,494	1,102,825		64.1%		
% of employed - aged 20-67 - salary 20k+ with CB ok	66%	73%	64%	73%	-347,037		20.2%	CB	-36.5%
step 6: Employed / new clients / age 20-67 / fixed phone / salary 20k+ / CB ok	255,093	213,849	158,004	128,841	755,787		43.9%		
% of (employed & aged 20-67 & salary 20k+ & CB ok) with (DTI & Score)						acceptable			
out of which will apply for All In One	25%	63,773	53,462	39,501	32,210	188,947	67%		
out of which will apply for Car Loans	2%	5,102	4,277	3,160	2,577	15,116	90%		
out of which will apply for Cash Loans	60%	153,056	128,309	94,803	77,305	453,472	70%	13%	DTI and Score
out of which will apply for Consumer Loans	3%	7,653	6,415	4,740	3,865	22,674	80%		
out of which will apply for Credit Cards	10%	25,509	21,385	15,800	12,884	75,579	75%		
step 7: Bankable population - employees	100%	179,500	150,500	111,000	90,500	531,500	30.9%		
B. Pensioners									
step 1: No of pensioners	402,475	437,235	465,312	383,038	1,688,060		100%		
% of pensioners - aged lower than 20 and higher than 67:	N/A				1,227,263		72.7%	Age	-27.3%
step 2: % of pensioners - aged 20-67:	292,610	317,881	338,294	278,478	1,227,263		72.7%		
ABS clients - pensioners	2%	1%	1%	2%	-19,051		1.1%	ABS Clients	-1.1%
step 3: Pensioners / new clients:	287,217	314,916	333,703	272,376	1,208,212		71.6%		
% of population with fixed phone:	92%	92%	92%	92%	-96,657		5.7%	Phone	-5.7%
step 4: Pensioners / new clients / age 20-67 / fixed phone	264,239	289,723	307,007	250,586	1,111,555		65.8%		
% of pensioners - pension 20k+:	62%	60%	50%	51%	-492,288		29.2%	Salary	-29.2%
step 5: Pensioners / new clients / age 20-67 / fixed phone / income 20k+	163,417	173,066	154,050	128,734	619,267		36.7%		
% of population with CB delay	75%	82%	70%	78%	-146,542		-8.7%	CB	-26.0%
step 6: Pensioners / new clients / age 20-67 / fixed phone / income 20k+ / CB ok	122,562	141,914	107,835	100,412	472,724		28.0%		
% of (pensioners & aged 20-67 & income 20k+ & CB) with (DTI & Score)						acceptable			
out of which will apply for All In One	25%	30,641	35,479	26,959	25,103	118,181	74%		
out of which will apply for Car Loans	2%	2,451	2,838	2,157	2,008	9,454	95%		
out of which will apply for Cash Loans	60%	73,537	85,149	64,701	60,247	283,634	83%	6%	DTI and Score
out of which will apply for Consumer Loans	3%	3,677	4,257	3,235	3,012	14,182	84%		
out of which will apply for Credit Cards	10%	12,256	14,191	10,784	10,041	47,272	71%		
step 7: Bankable population - pensioners	100%	97,500	113,000	86,000	80,000	376,500	22.3%		

Table 1. Bankable Population - Results





fluence, see credit bureau delays and DTI/Scoring. Unlike these personal characteristics that indicate particular consumer behaviour towards credit repayments and social profile, both income and age criteria are “out of reach” and are not subject to behavioural changes.

## SALES: METHODOLOGY FOR PROPORTIONAL REPRESENTATION

The subject methodology is based on the over/under representation principle in order to prove that different client categories do not only have a higher propensity to buy (see inclination to reply positively to a product’s offer), but also deliver the best final results compared to the resources used.

The methodology considers the percentage split of sub - segments between two similar micro societies. A simple example can be the professions or educational levels, which make up the existing portfolio of any clientele’s database.

Should the percentage representing the profession “Teachers” remain the same between the clientele’s database used for the selection of the prospects and the final disbursed credit list of clients, we may come to the conclusion that “Teachers” are not influenced by the subject product offering. If “Teachers” are over-represented in the final disbursed credit list of clients, we conclude that the reason of their disproportional representation can only be what is mediated from their initial selection, and their final “call to action” which was the product’s offering.

It is quite the opposite reason that leads a particular segment not existing or not being under-represented in the final client list. Its’ “indifference” is explained by the prospects’ negative answer to the product offering that will result in having no representative of the particular segment in the final list of clients.

The outcome is defined by dividing the relevant percentage enjoyed by the particular product among the same client group, by the one resulted after the completion of the campaign. As a leading example, we could use the overdraft representation before and after the execution of debt consolidation campaign. Out of 8,760 pre-selected prospects, 31.08% were overdraft holders at the time of campaign creation. At the end, out of 313 clients that had only their debt consolidation loan disbursed, the representation of overdraft increased to 64.54%.

## SALES: OPERATIONAL EXECUTION

At the final stage, after having “secured” both the creditworthiness and the propensity to buy of the prospects, it is important to secure the operational execution by coming to conclusions for each step of the product sales circle.

The following steps represent a standard retail banking procedure for credit related products and they refer to a branch network dominated type of banking.

Each and every step is an inevitable part of the process that intends to use the merits of each of the elements that participate to the maximum, aiming to sell most products while using the least possible

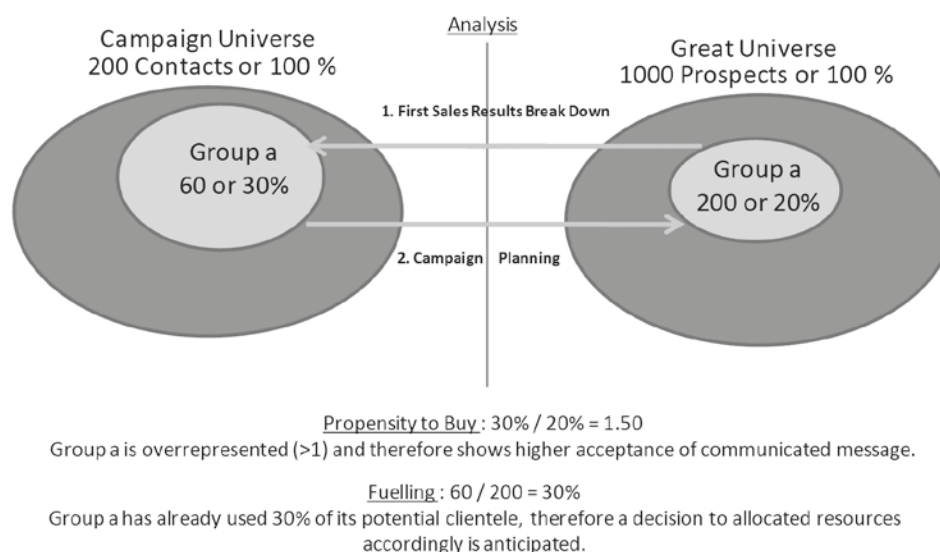


Figure 2. Propensity to buy methodology

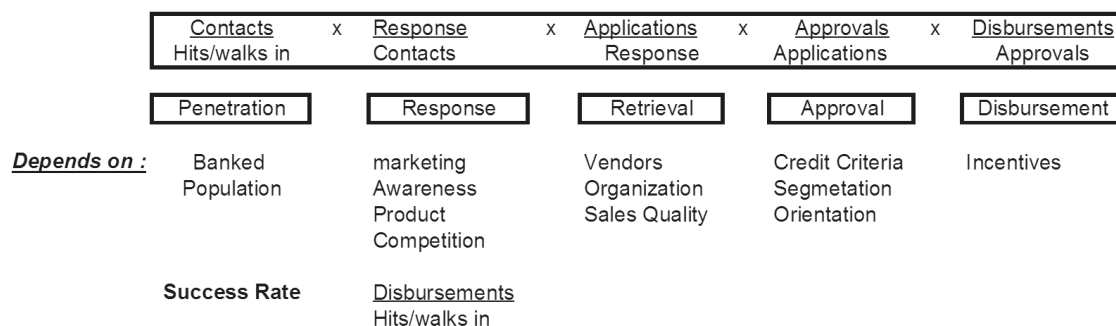


Figure 3. Products sales circle

amount of resources. As each step depends on different aspects, the best coordination and prediction of behaviour based on the historic data is the ideal objective of every business manager.

The fine tuning of all sales steps is the required objective for any financial institution that aims to optimize resources and customer experience. All personalized and above-the-line campaigns that can measure branch network walk inners owe to consider the historic data series before coming to a final decision.

## CONCLUSIONS-PROPENSITY TO BUY AND OPERATIONAL EXECUTION

The “propensity to buy” analysis performed on a sample of 33,021 clients through 24 different campaigns proved that both consumer and housing loan holders present a relative high promptness only to credit cards offering. In the case of housing loan holders, the explanation lies with the new needs created after the property purchase and the relatively low DTI ratio (debt to income) burden of credit cards to credit bureau. It is acceptable though from such client category to serve their needs even at a higher cost as their already used DTI ratio does not allow further exposure to standard amortized products. The consumer loan holders demonstrate behaviour similar to the cash loan holders and overdraft/credit cards. For them, extending the credit burden at a higher level, both interest rate wise and product’s nature wise (see revolving *vs.* standard amortized one) does not seem to be a preventing factor.

The following four tables present the analytical results. The cells marked in grey colour in Table 5 display the client categories over-represented, *i.e.* indicating a higher propensity to buy for the particular product offer.

The analysis of sales operational execution also proved interesting behavioural patterns. The most obvious one is that the higher the response rate, the higher the commitment of the prospects to deliver the full documentation for credit assessment.

The cash loans (19.07%) and the credit cards (16.58%) are the leaders in response rate followed by proportionally high retrieval rates of 48.41% and 40.19%, respectively.

Unlike common sense that would suggest higher response and retrieval rates for prospects aiming for debt consolidation loans, this is not the case. The well-established opinion that the existing creditors would react higher than anybody else to the call for reducing their monthly credit obligations is not only supported by the relative low percentage of response rate (14.9%), but also by the respective retrieval one that cannot reach more than 34.37%.

It is important to state that the initial hypothesis that customers will behave based on the standard patterns following the pre-defined calculation methodology proved to be correct to a great extent.

The findings were threefold. Firstly, securing that Serbia is strategically still a “place to be” for retail banking business as a descent part of the population is “bankable”; secondly, identifying the particular segments of customers with the higher inclination to answer positively to a new product offering; thirdly, focusing on those that have the highest probability to reach the final credit approval stage.

Different segments were identified and cross-checked for their behaviour over different products offers. We shall try to summarize by concluding that the existing cash loans and credit card holders are not price sensitive and intend to increase enormously their current credit exposure. It is also the case that



Campaign no	Product Type	Uploaded No in campaign	Product mix before BTL						
			Debts Con.	Car	Cash	Consumer	Housing	Overdraft	CC
	All in One	8760	2508	93	3915	342	965	2723	3936
1	BTL Debts Cons. J13	2327	168	32	823	80	871	635	1206
2	BTL Debts Cons. M14	2300	584	27	1197	82	47	615	932
3	BTL Debts Cons. Ap14	1028	1028	1	470	47	17	508	421
4	BTL Debts Cons. J14	941	122	10	206	16	30	401	487
5	BTL Debts Cons. S14	2164	606	23	1219	117	0	564	890
	Cash	10921	1556	107	5839	852	305	3388	4560
6	Alpha Cash GS	2269	653	43	1148	89	155	1127	1489
7	BTL Kes 1	621	39	5	551	48	16	210	221
8	BTL Kes 2	532	40	2	473	45	4	129	150
9	BTL Kes 3	882	78	3	783	65	10	245	247
10	BTL Kes 4	645	82	4	579	40	4	183	196
11	BTL Kes 5	752	85	4	663	54	8	295	230
12	BTL Kes 6	363	69	6	267	60	9	147	105
13	BTL Kes 8	803	102	9	282	70	19	277	283
14	BTL Kes 9	501	74	6	187	95	9	119	98
15	BTL Cash	413	40	0	240	32	3	130	112
16	BTL Kes 10	828	75	7	241	69	18	187	220
17	BTL Kes 12	593	72	2	253	122	14	145	112
18	BTL Kes 13	719	69	6	166	45	9	185	289
19	BTL Vacations Cash	1000	78	10	6	18	27	8	808
	Overdraft	6652	524	97	1280	140	6	172	2405
20	BTL Overdraft M13	3778	509	92	1258	136	3	170	2372
21	BTL Overdraft A14	2874	15	5	22	4	3	2	33
	CC	6688	492	41	1738	144	109	2153	1928
22	BTL CC Dina M14	1500	77	5	259	19	3	343	214
23	BTL CC Dina S14	2136	171	14	615	68	11	585	616
24	BTL CC Visa Classic	3052	244	22	864	57	95	1224	1098

Tables 2. Before the campaign commences analysis (numeric)

Campaign no	Product Type	Uploaded % in campaign	Product mix before BTL						
			Debts Con.	Car	Cash	Consumer	Housing	Overdraft	CC
	All in One	100.00%	28.63%	1.06%	44.69%	3.90%	11.02%	31.08%	44.93%
1	BTL Debts Cons. J13	100%	7.22%	1.38%	35.37%	3.44%	37.43%	27.29%	51.83%
2	BTL Debts Cons. M14	100%	25.39%	1.17%	52.04%	3.57%	2.04%	26.74%	40.52%
3	BTL Debts Cons. Ap14	100%	100.00%	0.10%	45.72%	4.57%	1.65%	49.42%	40.95%
4	BTL Debts Cons. J14	100%	12.96%	1.06%	21.89%	1.70%	3.19%	42.61%	51.75%
5	BTL Debts Cons. S14	100%	28.00%	1.06%	56.33%	5.41%	0.00%	26.05%	41.13%
	Cash	100%	14.25%	0.98%	53.47%	7.80%	2.79%	31.02%	41.75%
6	Alpha Cash GS	100%	28.78%	1.90%	50.59%	3.92%	6.83%	49.67%	65.62%
7	BTL Kes 1	100%	6.28%	0.81%	88.73%	7.73%	2.58%	33.82%	35.59%
8	BTL Kes 2	100%	7.52%	0.38%	88.91%	8.46%	0.75%	24.25%	28.20%
9	BTL Kes 3	100%	8.84%	0.34%	88.78%	7.37%	1.13%	27.89%	28.00%
10	BTL Kes 4	100%	12.71%	0.62%	89.77%	6.20%	0.62%	28.37%	30.39%
11	BTL Kes 5	100%	11.30%	0.53%	88.16%	7.18%	1.06%	39.23%	30.59%
12	BTL Kes 6	100%	19.01%	1.65%	73.55%	16.53%	2.48%	40.50%	28.93%
13	BTL Kes 8	100%	12.70%	1.12%	35.12%	8.72%	2.37%	34.50%	35.24%
14	BTL Kes 9	100%	14.77%	1.20%	37.33%	18.96%	1.80%	23.75%	19.56%
15	BTL Cash	100%	9.69%	0.00%	58.11%	7.75%	0.73%	31.48%	27.12%
16	BTL Kes 10	100%	9.06%	0.85%	29.11%	8.33%	2.17%	22.58%	26.57%
17	BTL Kes 12	100%	12.14%	0.34%	42.66%	20.57%	2.36%	24.45%	18.89%
18	BTL Kes 13	100%	9.60%	0.83%	23.09%	6.26%	1.25%	25.73%	40.19%
19	BTL Vacations Cash	100%	7.80%	1.00%	0.60%	1.80%	2.70%	0.80%	80.80%
	Overdraft	100%	7.88%	1.46%	19.24%	2.10%	0.09%	2.59%	36.15%
20	BTL Overdraft M13	100%	13.47%	2.44%	33.30%	3.60%	0.08%	4.50%	62.78%
21	BTL Overdraft A14	100%	0.52%	0.17%	0.77%	0.14%	0.10%	0.07%	1.15%
	CC	100%	7.36%	0.61%	25.99%	2.15%	1.63%	32.19%	28.83%
22	BTL CC Dina M14	100%	5.13%	0.33%	17.27%	1.27%	0.20%	22.87%	14.27%
23	BTL CC Dina S14	100%	8.01%	0.66%	28.79%	3.18%	0.51%	27.43%	28.84%
24	BTL CC Visa Classic	100%	7.99%	0.72%	28.31%	1.87%	3.11%	40.10%	35.98%

Tables 3. Before the campaign commences analysis (percentage)

their intentions are not time-limited to accept verbally the new product offer, but they will demonstrate commitment to it by showing to be very determined to deliver all required documentation for credit assessment.

Given that both products enjoy one of the highest nominal interest rates in the Serbian market, it is not unusual that they have become the most wanted segments triggering banks to argue over them.



Campaign no	Product Type	Approved No in campaign	Product mix after BTL (approved)						
			Debts Con.	Car	Cash	Consumer	Housing	Overdraft	CC
	All in One	313	313	0	77	8	11	202	173
1	BTL Debts Cons. J13	50	50	0	19	2	7	24	24
2	BTL Debts Cons. M14	23	23	0	3	0	0	13	17
3	BTL Debts Cons. Ap14	149	149	0	29	3	1	111	82
4	BTL Debts Cons. J14	37	37	0	7	1	3	26	19
5	BTL Debts Cons. S14	54	54	0	19	2	0	28	31
	Cash	761	138	5	761	24	8	426	362
6	Alpha Cash GS	100	34	3	100	5	3	65	62
7	BTL Kes 1	63	18	1	63	2	0	43	29
8	BTL Kes 2	68	10	0	68	0	1	26	29
9	BTL Kes 3	131	26	0	131	1	1	70	56
10	BTL Kes 4	51	5	1	51	3	0	25	22
11	BTL Kes 5	63	11	0	63	2	1	40	25
12	BTL Kes 6	38	8	0	38	2	1	20	10
13	BTL Kes 8	30	3	0	30	2	0	17	18
14	BTL Kes 9	20	0	0	20	0	0	8	7
15	BTL Cash	47	10	0	47	0	0	29	17
16	BTL Kes 10	50	3	0	50	2	0	31	29
17	BTL Kes 12	30	4	0	30	2	0	18	11
18	BTL Kes 13	43	3	0	43	3	1	26	23
19	BTL Vacations Cash	27	3	0	27	0	0	8	24
	Overdraft	198	21	2	60	3	0	198	103
20	BTL Overdraft M13	142	21	2	47	3	0	142	87
21	BTL Overdraft A14	56	0	0	13	0	0	56	16
	CC	333	48	1	93	15	6	209	333
22	BTL CC Dina M14	68	7	0	20	2	0	34	68
23	BTL CC Dina S14	207	21	1	47	10	1	128	207
24	BTL CC Visa Classic	58	20	0	26	3	5	47	58

Tables 4. After the campaign ends analysis (numeric)

Campaign no		Approved % in campaign	Product mix after BTL (approved)						
			Debts Con.	Car	Cash	Consumer	Housing	Overdraft	CC
	All in One	100.00%	100.00%	0.00%	24.60%	2.56%	3.51%	64.54%	55.27%
1	BTL Debts Cons. J13	100.00%	100.00%	0.00%	38.00%	4.00%	14.00%	48.00%	48.00%
2	BTL Debts Cons. M14	100.00%	100.00%	0.00%	13.04%	0.00%	0.00%	56.52%	73.91%
3	BTL Debts Cons. Ap14	100.00%	100.00%	0.00%	19.46%	2.01%	0.67%	74.50%	55.03%
4	BTL Debts Cons. J14	100.00%	100.00%	0.00%	18.92%	2.70%	8.11%	70.27%	51.35%
5	BTL Debts Cons. S14	100.00%	100.00%	0.00%	35.19%	3.70%	0.00%	51.85%	57.41%
	Cash	100.00%	18.13%	0.66%	100.00%	3.15%	1.05%	55.98%	47.57%
6	Alpha Cash GS	100.00%	34.00%	3.00%	100.00%	5.00%	3.00%	65.00%	62.00%
7	BTL Kes 1	100.00%	28.57%	1.59%	100.00%	3.17%	0.00%	68.25%	46.03%
8	BTL Kes 2	100.00%	14.71%	0.00%	100.00%	0.00%	1.47%	38.24%	42.65%
9	BTL Kes 3	100.00%	19.85%	0.00%	100.00%	0.76%	0.76%	53.44%	42.75%
10	BTL Kes 4	100.00%	9.80%	1.96%	100.00%	5.88%	0.00%	49.02%	43.14%
11	BTL Kes 5	100.00%	17.46%	0.00%	100.00%	3.17%	1.59%	63.49%	39.68%
12	BTL Kes 6	100.00%	21.05%	0.00%	100.00%	5.26%	2.63%	52.63%	26.32%
13	BTL Kes 8	100.00%	10.00%	0.00%	100.00%	6.67%	0.00%	56.67%	60.00%
14	BTL Kes 9	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	40.00%	35.00%
15	BTL Cash	100.00%	21.28%	0.00%	100.00%	0.00%	0.00%	61.70%	36.17%
16	BTL Kes 10	100.00%	6.00%	0.00%	100.00%	4.00%	0.00%	62.00%	58.00%
17	BTL Kes 12	100.00%	13.33%	0.00%	100.00%	6.67%	0.00%	60.00%	36.67%
18	BTL Kes 13	100.00%	6.98%	0.00%	100.00%	6.98%	2.33%	60.47%	53.49%
19	BTL Vacations Cash	100.00%	11.11%	0.00%	100.00%	0.00%	0.00%	29.63%	88.89%
	Overdraft	100.00%	10.61%	1.01%	30.30%	1.52%	0.00%	100.00%	52.02%
20	BTL Overdraft M13	100.00%	14.79%	1.41%	33.10%	2.11%	0.00%	100.00%	61.27%
21	BTL Overdraft A14	100.00%	0.00%	0.00%	23.21%	0.00%	0.00%	100.00%	28.57%
	CC	100.00%	14.41%	0.30%	27.93%	4.50%	1.80%	62.76%	100.00%
22	BTL CC Dina M14	100.00%	10.29%	0.00%	29.41%	2.94%	0.00%	50.00%	100.00%
23	BTL CC Dina S14	100.00%	10.14%	0.48%	22.71%	4.83%	0.48%	61.84%	100.00%
24	BTL CC Visa Classic	100.00%	34.48%	0.00%	44.83%	5.17%	8.62%	81.03%	100.00%

Tables 5. After the campaign ends analysis (percentage)

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## PREDVIĐANJE PONAŠANJA FIZIČKIH LICA KAO KORISNIKA USLUGA U BANKARSKOM SEKTORU NA OSNOVU STATISTIKE

### Rezime:

Cilj bilo koje ekonomske aktivnost, a naročito finansijske, jeste stvaranje potreba. Kako finansijske aktivnosti nisu izuzetak tome, primarni cilj bilo koje finansijske institucije jeste razumevanje i zadovoljavanje potreba klijenata. Veoma je važno da finansijske ustanove budu upoznate sa detaljima vezanim za ponašanje klijenata i procesima koji utiču na klijente pri donošenju odluke. Na taj način će se zadovoljiti ne samo potrebe klijenata, već i pridobiti lojalnost klijenata, i uspostaviti dobri dugoročni odnosi sa njima. Kao i svaki drugi, odnos između klijenta i banke trebalo bi da bude zasnovan na uzajamnoj podršci i razumevanju.

Imajući u vidu bankarsko tržište za fizička lica (*retail market*) u Srbiji, mogu se izvesti sledeći zaključci: prvo, da i dalje postoji veliki potencijal za poslovanje u ovom domenu; drugo, da je određeni deo klijenata voljan da prihvati nove proizvode, i treće, da banke moraju da obrate posebnu pažnju na klijente sa najvećom kreditnom sposobnošću. Što se tiče odnosa klijenata prema različitim ponudama proizvoda, možemo zaključiti da korisnici gotovinskih kredita i korisnici kreditnih kartica nisu cenovno osetljivi, te da stoga postojeći korisnici teže povećanju svoje kreditne izloženosti (zaduženosti).

### Ključne reči:

bankarstvo za fizička lica (retail banking), ponašanje klijenata, segmentacija, lojalnost.

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