

# The structure of customer behaviour among university students

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## Abstract

The aim of our study is to overview the life style based segmentation and to analyze the structure of consumption of university students. Former studies highlight that the youth have a special structure of consumption and shopping behaviour. In our study we analyzed the overall consumption structure of university students to illustrate their special life style. They are hedonic and spendthrift and they spend mainly on food, entertainment and IT products. In an empirical research we questioned 441 respondents of Széchenyi István University in Hungary about their customer behaviour and structure of consumption. We identified the main product and service groups. University students give the highest amount of money for meal and travel.

## 1. Introduction

As businesses have begun to realize that the success of operations is more and more dependent upon an adequate knowledge of consumer behaviour, the importance of lifestyle market segmentation has increased steadily (Michman, 1991). The Life-Style Analyses (LSA) appeared after the analysis of social stratifications (Utasi, Á., 1982., Fábrián & Robert & Szivós, 1998). The sociologists and marketing researchers supposed that values, lifestyle and behaviour are similar in the same social classes for example the ESOMAR method and ABCD classification (Engel & Blackwell & Miniard 1995, Hofmeister-Tóth Á., 2003; Veres & Hoffmann & Kozák, 2006, Hradil, 1988). The LSA can be divided into two main groups: (1) the *consumption of family* (2) *personal life-style* (Schiffman & Kanuk, 2004). According to Gluchowski (1987) the lowest common multiple of all LS definitions is: "the typical and irreplaceable structure of individuals' and groups' behaviour perceived in their everyday life". The theoretical basis of our present study is the definition of Gluchowski. Despite the importance of this topic and the considerable dialogue and research that has been generated around it, there are a few works that put LS market segmentation among university students into critical perspective (Michman, 1991). We present in recent study only the multidimensional methods and we emphasize the groups of youths.

## 2. Theoretical background

In the theoretical background we presented only some of the LSA, we emphasized the consumption group of youth. The consumer behaviour of university students is different and is strongly separated from other consumer groups, that's why the analysis of this group can be interesting and can present novel results. Overall we can determine that the consumer behavior of the university student is hedonistic (Hofmeister-Tóth, Á. & Totth G., 2004), this group is very active in consumption and in shopping, they often overspend, and the financial situation of the members of group is significantly different (depends on the status of the family). The Prizm research (LSA analysis in USA) realizes two different groups of youth. *Young Influentials*: reflects the fading glow of acquisitive yuppiedom. Today, the segment is a common address for younger, middle-class singles and couples who are more preoccupied with balancing work and leisure pursuits. *Boomtwn Singles*: Younger, single, and working-class, these residents pursue active lifestyles amid sprawling apartment complexes, bars, convenience stores, and laundromats. The Sinus-milieu model (LSA analysis method) was demonstrated in 1982 (Töröcsik, 2004). We can find the youth in two different groups. *Hedonist milieu*, which is 20 percent of the population, likes good life. They like extreme products and sports. *Alternative milieu* devaluates the consumption and hedonism, and likes environmentally friendly products. (Hradil, 1994). A research was done in 1985 in Germany, which had three parts: Life-Style indicator (lifestyle, psychology, life word), socio

demographics, media usage. The group of “*Tom*” is relevant in our research: they are group-orientated youth, cool, and would like to satisfy their needs (Hradil, 1994). Young and Rubicam made a Hungarian life-style research with methods VALS (Cahill, D.J. 2006, Józsa, 2004, Schiffman, L.-Kanuk, L., 2004). The members of *Unique* are highly educated university students who like every new and interesting brand (Hofmeister-Tóth Ágnes, 2003). The GfK Research Institute conducted analyses in six countries in 1995 (Hofmeister-Tóth Ágnes, 2008; Veres & Hoffmann & Kozák, 2006). The member of *Up-and-Coming* group searches new challenges; they are youth, optimistic and dynamic. TGI Hungary Marketing Research Inc. has made a research with methods AIO and VALS (Wedel, M & Kamakura, W., 2003) and found three different Life-style typology (a) brand usage (b) communication, (c) consumer life-style in their model (Németh, I. & Veres, Z. & Kuba, P. 2007). The youth belong to the group of *Youthfully Brave* by the communication typology, these people like challenges and life, they are brand- and quality oriented and the appearance is important for them. The members of *Adventure-Oriented* group (by the dimension of consumer life-style) are brand- and fashion oriented, open to new products, and they are liable to make a decision quickly. The research of Euro-Socio-Styles was conducted by GfK Research Institute in 2004 and 2005 in ten Middle-Eastern-European countries. The researchers developed three dimensions after the results: occupancy vs. existence, quietness vs. passionate life. (Töröcsik, M.,2006). In this study there are eight different groups, the youth pertain to the group of *Crafty Word* (9.3%). They are dynamic, successful and they would like to excel and to be free and independent. Professor Töröcsik has created the Life-Inspiration model, her hypothesis was that people living quick life have bigger income and are higher educated and have closer contact with IT products (Töröcsik, M., 2007, p. 136.). Nine groups were separated; the university students belong to the group *Hedonic* (12%). Their rapidness is average, because they “spin” just at the weekends, live in bigger cities, have a lot of IT products and the communication tools are important, too. TÁRKI and GfK made a research in 2008, they segmented eight consumer groups. The *Hedonic* group was the youngest (17%), with poor and wealthy members. People spend more than their income, give a lot of money for IT products, cultural services, fashioning and food. The members of this group (57%) consume alcohol regularly at parties and in clubs (TÁRKI, 2008).

### **3. Empirical research**

#### **3.1 Objectives**

The aim of our study was to investigate the structure of consumption of university students in West Pannon Region and to understand the differences of spending based on social class. As the students of Széchenyi István University of West Pannon Region in Hungary come from families with different social background and their income status is heterogeneous, they can be segmented easily and the differences in their consumption habits can be illustrated easily as well. At the beginning of our research we defined the following research question ‘on what kind of products and services do students spend their money and what are the differences between social classes.

#### **3.2 Methodology**

To address the above mentioned research question the method of primary research and personal questioning was chosen. Before the construction of the questionnaire we asked 18 students (9 from the faculty of economics, 6 from the engineering sciences, 3 from law and political sciences) to write diary panels. In the diary panel they had to note down what kind of products they bought and where and services they required and how much money they spent on these services. In this exploratory phase of our research the major product categories and services were identified.

#### **3.3 Sample and data collection**

441 university students (39% females and 59.6% males) were questioned with the method of surveying. Stratified sampling was used and stratification variables were faculties. Finally students were achieved in the following proportion: 9.3% from law and political sciences, 13.8% from faculty of economics, 6.3% from health and social studies and 69.4% from engineering sciences. The survey was conducted in November 2009 with the help of professors and lecturers during the lessons. We used close-ended questions, mainly nominal and ratio scales. Students had to evaluate what type of products and services they spend on. They had to esteem the average amount of money in a month spent on certain product categories and services.

### 3.4 Data processing

The data analysis was accomplished with SPSS statistical software. Multivariate techniques were used especially factor analysis and ANOVA to reveal the research question. Cronbach's  $\alpha$  method was used to test the reliability of principal components. In case of multivariate techniques conditions were taken into consideration, and the relevance of each method (Malhotra, 2005). The level of significance was considered to be 0.05. First segments based on social status were distinguished and the main product- and service groups, and then an analysis of variance was conducted to identify major differences in the structure of consumption.

## 4. Results

### 4.1 Segments based on social status

The segmentation was developed by income level (amount of money in a month) since this is the only relevant category in case of university students. Extreme cases were excluded from the sample and altogether 396 students were included in the analysis. Four groups of university students were distinguished (A) students belonging to the upper class are those who have high income (they not only get money from their parents, but they also make a living of their own, which is the characteristic of this group) (B) students belonging to the upper middle class, (C) students belonging to middle class and (D) students belonging to the lower class. Considering the material possession, students belonging to A social class have own flats and cars, valuable cell phones and notebooks or computer. Students of the upper middle class have own cars and valuable cell phones. Students of lower social classes have personal computers, but wealthier students have notebooks. The cross tabulation resulted that in the upper class, students of law and political sciences are in the highest amount.

**Table 1** Description of each segment

	FREQUENCY	INCOME IN A MONTH USD <sup>1</sup>	MATERIAL POSSESSION	FACULTIES
<i>A – upper class</i>	9.8%	308 – 661	Own flat Own car	Law and Political Sciences
<i>B – upper middle class</i>	14.1%	221 – 307	Own car	Engineer Sciences_1 <sup>2</sup> Engineer Sciences_2
<i>C –middle class</i>	36.6%	132 – 220	Own PC	Engineer Sciences_2
<i>D – lower class</i>	39.4%	0 – 131	Own PC	Engineer Sciences_2

The main source of income of students is family support and employment regardless the social class. Students receive only a smaller amount of money from scholarship of the university or of foundations and from social aid.

<sup>1</sup> The exchange rate was determined by the official rate of Hungarian National Bank 18 June 2010. (1 USD = 227 HUF)

<sup>2</sup> At the investigated university there are two main faculties for engineers, one for civil-, building and transportation engineers and one for information specialists, electrical -, mechanical engineers. In our study we use the expression engineer\_1 for the previously mentioned group and engenieer\_2 for the last-mentioned group.

## 4.2 Structure of spending

Data collected from field survey was analyzed by using EFA analysis. We included 26 variables measured on ratio scales in the analysis. It can be said that there are strong correlations between variables and the values of MSA ( $0.524 < V < 0.828$ ) and KMO (0.730) are adequate and the Bartlett test is significant ( $\chi^2 = 1947.373$ ;  $df = 325$ ,  $p = 0.000$ ). The method of factor extraction was principal components analysis. The method used for rotation of factors was the Varimax. Relying on the prior criteria and the method of maximum likelihood the ten factor solution seemed to be adequate. The numbers of extracted factors are eight that have Eigen values more than 1. Table 2 shows the results obtained from the factor analysis after rotation of factor matrix. The factor analysis on 26 variables yielded ten-factor solution accounting for 64.591 % of the variance explained. Communalities are above 0.501 and the value of Cronbach's  $\alpha$  are between 0.515 and 0.758, which is considered to be adequate (Malhotra 2005, Tai 2005,). Considering the structure of spending it can be said that the standard deviation is very high since some students spend a lot of money on service, but some people do not spend at all. The major expenditure of students is meal and travel and accommodation (Table 2).

**Table 2** Results of factor analysis

The name of factor	Variables	Loadings	Variance	Budget per capita
<b>1. Entertainment and sustenance</b>	Dancing party, entertainment	0.71	8.656%	8.29% USD 9.83
	Party	0.66		
	Photocopying	0.64		
	Detergent	0.44		
	Clothing	0.40		
<b>2. Alcohol and cigarette</b>	Cigarette	0.79	7.693%	9.77% USD 11.59
	Alcohol bought in club	0.72		
	Alcohol bought in store	0.65		
<b>3. Consumer electronics</b>	IT products	0.73	7.482%	6.39% USD 7.57
	Technical products, mobile phones accessories	0.71		
	Cinema	0.63		
<b>4. Public education</b>	Museum	0.75	7.077%	0.63% USD 0.75
	Classical music concerto	0.67		
	Pop concert	0.58		
	Theatre	0.39		
<b>5. Accommodation</b>	Cost of accommodation	0.83	6.355%	17.95% USD 21.28
	Overheads	0.73		
<b>6. Self-actualization</b>	Language lesson	0.83	6.133%	4.54% USD 5.38
	Service of cosmetics	0.64		
<b>7. Meal and travel</b>	Meal	0.73	5.762%	33.06% USD 39.20
	Travel (season ticket, fuel)	0.68		
<b>8. Learning</b>	Learning (schoolbook, school equipment)	0.78	5.461%	3.09% USD 3.67
	Books (not schoolbook)	0.49		
<b>9. Livelihood</b>	Meal in buffet, student's canteen, restaurant, home-delivery service	0.70	5.351%	11.98% USD 14.20
	Cosmetic products	0.60		
<b>10. Sport</b>	Sport-services	0.86	4.621%	4.31% USD 5.11

## 4.3 Differences between social classes

Relying on the results of ANOVA there are statistically significant differences between money spent on different services and products based on social classes. Students belonging to upper social class can afford more money on the identified product and service categories than students of lower social classes. However we found that differences between social classes are the most important (Table 3).

**Table 3** Differences between social classes

	ENTERTAINMENT AND SUSTENANCE USD/MONTH	ALCOHOL AND CIGARETTE USD/MONTH	CONSUMER ELECTRONICS USD/MONTH	ACCOMMODATION USD/MONTH	SELF-ACTUALIZATION USD/MONTH	MEAL AND TRAVEL USD/MONTH	LEARNING USD/MONTH
<i>A – upper class</i>	21.74	19.66	7.06	40.71	11.07	53.70	5.80
<i>B – upper middle class</i>	20.89	17.50	9.18	25.34	5.74	52.80	5.46
<i>C – middle class</i>	14.78	12.70	8.40	23.82	5.71	43.80	3.00
<i>D – lower class</i>	10.03	6.35	5.00	13.90	4.28	27.00	3.30
<i>Average</i>	14.18	11.12	6.88	21.17	5.55	38.59	3.70

Analyzing the spending structure we can say that students of group D (lower class) spend in every category under the average. Students of group A often spend two (Entertainment and sustenance, self-actualisation, meal and travel), or sometimes three times more (alcohol and cigarette) than the students of group D. Students of group C spend close to the average. Based on these it can be said that there are differences in the spending structure of the groups, and the difference is based on income.

### 5. Consequences and suggestion

In our study we identified those groups of products and services that university students spend on money. We highlighted the values of university students, which products and services are the most important for them. Students of law and political sciences have the largest budget in a month, which means that they can afford more money on the identified service groups. The practical use of our study is that companies can understand the structure of consumption of university students. There are at Széchenyi István University 8000 full times students and they spend their money in the region, in the city and in the stores next to the University. The companies has products and services in the different quality and price so can to find the different social classes of the student the correct products and services. It is evident that a university contributes to the development of a region. University students can be very good sources of revenue of real estate market, supermarkets and service provider of public transport. The limit of our study is that we concentrated on students of one university, so we could determine generalizations just for one institution. These results are considered to be exploratory results and we plan to test our hypothesis in the future with other students at different universities. We find necessary to check the consumer behavior of university students in more details to be able to recognize the regional differences in consumer behavior. This survey is considered to be a pretesting since our main aim was to explore the structure of consumption of university students and highlight the major differences between

faculties. Relying on the results of our pretest we plan to specify our questionnaire and conduct the survey with a larger sample including university students from other Hungarian and Eastern European countries.

## References

- Burke, V., Milligan, R.A.K., Beilin, Dunbar, D., Spencer, M., Balde, E., Gracey, M.P., 1997. Clustering of healthy behavior among 18-year-old Australians. *Prev. Med* 26,724-733
- Cahill, D.J. 2006. *Lifestyle Market Segmentation*, The Haworth Press Inc.
- Engel, J. F., Blackwell, R.D. , Miniard, P.W. 1995. *Consumer Behavior*, The Dryden Press.
- Fábián, Z., Róbert, P., Szivós, P. 1998. Anyagi-jóléti státuszcsoporthoz társadalmi miliói (Social milieu of the welfare status-groups), In: *Társadalmi Riport* (Kolosi-Tóth-Vukovich Eds.), TÁRKI, Budapest.
- Gluchowski, P., 1987. Lebensstile und Wandel der Wahlerschaft in der Bundesrepublik Deutschland, in: *Aus Politik und Zeitgeschichte* (Beilage zur Wochenzeitschrift Das Parlament), B 12, 21.3. 1987, S. 18-32.
- Hagoel, L., Orel, L., Neter, e., Silman, Z., Renert, G., 2002. Clustering woman's health behaviors. *Health Educ. Behav.* 29. 170-182.
- Hetesi, E., Andics, J., Veres, Z., 2007. Az életstílus kutatási eredmények fogyasztásszociológiai interpretációs dilemmái (Results of life-style analyses and its dilemmas of consumer-sociological interpretation), *Szociológiai Szemle*, 3-4, 115-134.
- Hofmeister- Tóth, Á., 2008. *A fogyasztói magatartás alapjai* (Basis of consumer behavior), Aula Kiadó, Budapest.
- Hofmeister-Tóth, Á., 2003. *Fogyasztói magatartás* (Consumer behavior), Aula Kiadó, Budapest.
- Hofmeister-Tóth, Á., Totth, G., 2004. Wine Purchase Behaviour and Personal Value Based Consumer Segmentation, in: Berács & Lehota & Piskóti & Rekettye (Eds.) *Marketing Theory and Practice, a Hungarian Perspective*, Akadémiai Kiadó, Budapest.
- Hradil, S., 1987. Sozialstrukturanalyse in einer fortgeschrittenen Gesellschaft Von Klassen und Schichten zu Lagen und Milieus, Opladen.
- Hradil, S., 1988. Die Chancen der „neuen Unübersichtlichkeit“, in: *Soziologische Revue*, S. 21-28.
- Hradil, S., 1994. Régi fogalmak és új struktúrák. Milió-, szubkultúra- és életstílus kutatás a 80-as években (Milieu- subculture- and life-style research in the 1980's). In: Andorka, R. & Hradil, S. & Peschar, J.L. (Eds), *Társadalmi rétegződés* (Social stratification), Aula Kiadó, Budapest.
- Józsa, L., 2004. *Marketing strategy*, Akadémiai Kiadó, Budapest.
- Keller, S., Maddock, J.E., Hannover W., Thyran, J.R., Basler, H., 2008. Multiple health risk behaviors in German first year university student. *Prev. Med.* 46. 189-195.
- LaBrie, J.W., Pedersen, E.R., Lamb, T.T., Quinlan, T., 2007. A campus-based motivational enhancement group intervention reduces problematic drinking in freshmen male college students, *Science Direct, Addictive Behaviours*, 32, 889-901.
- Ma, J., Betts, M.N., Hampl, J.S., 2000. Clustering of life-style behaviors: the relationship between cigarette smoking, alcohol consumption, and dietary intake. *Am. J. Health. Promot.* 15. 107-117.

- Malhotra, N., 2005. Marketingkutató (Marketing research), Akadémiai Kiadó, Budapest.
- Michman, R. D., 1991. Lifestyle Market Segmentation, Praeger Publishers, New York
- Németh, I., Veres, Z., Kuba, P., 2007. Az életstílus és a pénzzel kapcsolatos beállítódás szerepe a hosszú távú, befektetés típusú vásárlásokban (The life-style and the disposition of money in the investment-type buying), In.: *Marketing & Menedzsment*, 3, 51-61.
- Schiffman, L., Kanuk, L., 2004. Consumer Behavior, Pearson Education International.
- Tai, S. H. C., 2005. Shopping styles of working Chinese females. *Journal of Retailing and Consumer Services*, 12 (3) 191-203.
- TÁRKI Social Research Institute Inc., 2008. Customer Segmentation, Budapest.
- Theodorakis, Y., Papaionnou, A., Hatzigeorgiadis, A., Papadimitriou E. 2005. Patterns of health-related behaviors among hellenic students. *Hellenic J. Psychologie*, 2, 225-242.
- Törőcsik, M., 2004. Generational Consumer Behaviour and its Marketing Consequences, in: Berács & Lehota & Piskóti & Rekettye (Eds) *Marketing Theory and Practice, a Hungarian Perspective*, Akadémiai Kiadó, Budapest.
- Törőcsik, M., 2006. Fogyasztói magatartástrendek (Trends in consumer behavior), Akadémiai Kiadó, Budapest.
- Törőcsik, M., 2007. Vásárlói magatartás (Customer behavior), Akadémiai Kiadó, Budapest.
- Utasi, Á., 1982. Életstílusok (Life-styles), In: Várnai Györgyi (Eds.) *Elméletek és hipotézisek (Theories and hypothesis)*, Társadalomtudományi Intézet, Budapest.
- Veres, Z., Hoffmann, M., Kozák, Á. (Eds).2006.. *Bevezetés a piackutatásba (Introduction into market research)*, Akadémiai Kiadó, Budapest.
- Wedel, M., Kamakura, W. 2003. *Market segmentation Conceptual and Methodological Foundations*, Kluwer Academic Publisher.