AN ANALYSIS OF FACTORS INFLUENCING THE DEVELOPMENT OF MODERN ROMANIAN RETAIL

Mihaela, Asandei[1], Andreea, Gangone[2], Cristina, Gănescu[3]

Abstract:

At the beginning of the millennium, Romanian trade is in an intermediate stage of a complex process of development, marked by efforts and attempts to modernize the forms of commerce. After 1995 and until now, Romanian retail market has experienced a steady increase due to the entry of international modern retail chains and to changes in the Romanian consumers' behaviour.

Currently, Romanian retail has great development potential, being in a phase of accelerated growth. In this stage, features of modern trade forms are established, competition increases, modern retail networks are reinforced and there are still attractive implantation locations that promise attractive profit margins.

Based on the premise that there is a wide range of factors that shape modern retail, this paper analyses the impact of macroeconomic variables on the development of Romanian retail market. The research methodology was based on multifactorial regression and statistical correlation. Study results showed that Romanian retail is influenced by gross domestic product, average monthly net salary, exchange rate of the national currency against the euro, and inflation rate.

Keywords: *trade, modern retail, retail cycle, life cycle of retail market.*

JEL classification: L81, M31, O11.

1. The concept of modern retail

Trade is a form of human activity that has forged throughout human history the most powerful and lasting ties between countries and peoples of the world. Trade is an exchange of products, knowledge and at the same time, a way to join together different nations (Iorga, 1937).

The concept of trade is defined as the exchange relationships between producers and consumers, relations which imply buying raw materials or goods for resale in the same physical state, under conditions which favour consumers (Dayan, 1992); as a branch of national economy, trade is an economic activity which enhances the values of goods through the sale process, an intermediary between production and consumption, a vital piece in the operating mechanism of the global economic system (Abaza, 1998).

According to the concept of sustainable social development, trade is of strategic importance for a balanced development of economic and social systems in any country.

Trade is influenced by the increase of complexity, concentration and modernization of businesses, by increasing standards of living and quality of life and is conditioned by the stage of development of the material and technical infrastructure which reached a high level of mechanization, automation, cybernation, by whether modern forms of commerce are used, trade staff is better qualified, services offered to consumers are expanded, market surveys are used increasingly.

Various forms of trade, from wholesale to retail, from traditional trade to modern trade, each with features and weights influenced by the degree of development of the national economy are deployed in the market.

Over the course of the past 150 years, Western European retail sales experienced significant structural changes called the "sequence of six revolutions" (Dayan, 1992) that characterized the dynamism and prosperity of distribution activities and contrasted with cyclical crises of the economic environment of each country (Ristea, et al., 2005): the emergence of large stores (mid 19th century), the development of branches (after approximately 20 years), the creation of popular stores (between the two world wars), the

1 Associate Professor, PhD, "Constantin Brâncoveanu" University of Piteşti, mihaela.asandei@yahoo.com
2 Senior Lecturer PhD, "Constantin Brâncoveanu" University of Piteşti
3 Senior Lecturer PhD, "Constantin Brâncoveanu" University of Piteşti

establishment of supermarkets (in the 50s), the domination of hypermarkets (early 60s), the maximization of service (early 80s).

Promoting free trade was the cornerstone of EU trade policy in the last five decades. Currently, the EU is the biggest player in international trade, carrying out 17% of global imports and exports. Trade is the key of Europe 2020 strategy and offers both less developed and richer countries benefits in terms of trade agreements and undeniable expertise in opening new markets.

In the European Union's view, the modern concept of retail concerns trade and distribution activities and involves a variety of forms (stores, e-commerce, open markets...), sizes (from small shops to supermarkets), products (food, non-food, prescription or over the counter drugs...), legal structures (freelancers, franchisees, integrated groups...), and locations (urban / rural, central / peripheral...) (European Commission, 2010).

The complex nature of modern retail cannot be reduced to the simple dichotomy of "small traders / big distributors". Indeed, in recent years, diversification dominated the strategies of large groups: from small neighbourhood stores to hypermarkets, through medium-sized stores such as supermarkets or the so-called "hard discount" stores.

In this regard, scholarly literature developed the wheel of retailing theory (Kotler, Keller, 2012) based on the principle of cyclicity of point-of-sale margins which focuses on distribution costs, meaning that a new form of retail distribution will be created on the market when it is able to operate in a profitable manner, practicing prices that are lower than those of competitors (Ristea, 2005).

According to this theory, the great wheel of retailing brings together four cycles corresponding to the major retail formats, namely: large shops, popular stores, supermarkets and hypermarkets. Each large retail format goes through three phases in its life cycle - launch, ascent and vulnerability.

Retail is thus very sensitive and vulnerable to the progress of its environment, but shows great ability to adapt to new market conditions. In this regard, a number of scholars have analysed the evolution of retail market using the concept of life cycle introduced in scholarly literature since the early 50s.

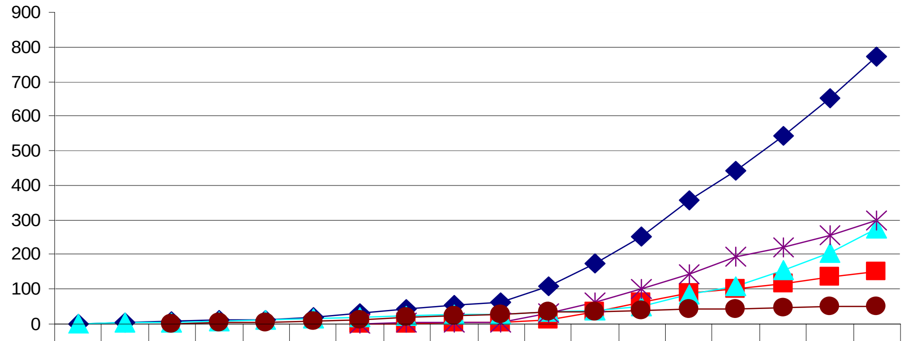
Thus, Davidson (Davidson et al., 1976) used this tool to define strategies for large retail formats seeking to adapt to market developments while generating high profit margins. Recently, other specialists have implemented the concept of life cycle in the retail market in general. Under this approach, the lifecycle of retail market consists of four stages: early growth and innovation stage, development stage, maturity stage, and decline stage (Perrigot and Cliquet, 2006).

In the present paper, we conducted an analysis of modern Romanian retail and brought scientific arguments regarding its positive development, in the context of contradictory developments of the overall economy.

2. Coordinates of Romanian trade during 1990-2012

Romanian retail experienced the most dynamic development compared to other EU countries. Specifically, during 2000-2010, the Romanian retail market experienced a sustained increase (Figure 1), with the highest rate of market growth (approx. 8.5% annually) in Central and Eastern Europe (Mihai, 2011). In 2012, Romania ranked third in the European Union in terms of increase of annual retail, with a prospect of an average of 5% per year for the next 10 years (Ilie, 2013).

Figure 1. The evolution of modern retail formats in the Romanian market



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nr. Total unități	1	3	6	10	13	21	32	43	56	64	109	175	252	356	443	543	651	773
Nr. Hypermarketuri							1	1	3	5	10	36	64	88	99	116	136	150
Nr. Supermarketuri	1	3	5	7	10	15	19	22	26	28	33	39	49	85	108	156	207	275
Nr. Magazine discount							1	2	4	4	32	64	100	142	194	223	257	297
Nr. Magazine cash&carry			1	3	3	6	11	18	23	27	34	36	39	41	42	48	51	51

Source: Data processed by authors using
http://www.magazinulprogresiv.ro/pagina/314/Retaileri_internationali.html, accessed on 11th February 2013.

Studies conducted in 2006 by Nielsen and GfK identified three stages in the evolution of Romanian trade until 2005. The first stage (1990-1996) was characterized by the emergence of a wide range of products on the market, by galloping inflation (1993) and a declining purchasing power of Romanian consumers. During this period the first supermarket (1995) and the first Metro (1996) opened and consumption reached a peak in 1998.

The second stage (1999-2002) is characterized by reduced consumption and diversification, the opening of the first Carrefour hypermarket (2001) and of the first discount store. The consumer credit boom, increasing consumer demands and focus on modern and online commerce mark the third stage (2003-2005). In 2003 a maximum of national consumption is reached and 2005 is a psychological milestone in the development of modern forms of trade in Romania.

During 2006-2008, Romanian retail grew steadily only to be interrupted by the economic crisis that has generated a decline that lasted until mid-2009. Romania entered the European Union in 2007 and this supported the development of retail trade by harmonizing tariffs and increasing imports.

In 2010, Romanian retail market was in the early stages of its growth (Balan, 2011) as illustrated by the fragmented nature of the market. In early 2011, the five largest retails in the Romanian market (Kaufland, Carrefour, real-, Penny Market and Plus) had a combined market share of only 22% (Vaschi, 2011), leaving room for new entries.

In 2011, the retail market in Romania grew from a situation in which traditional trade dominated to one of equal weight between traditional trade and modern commerce.

2012 was a year of diversification for Romanian retail market as every major retail chain developed a mix of different retail formats adapted to local specificities and targeting particular consumer segments. European Commission's analysts forecast moderate growth trends for Romania in 2012-2013 and a gradual recovery of private consumption up to a growth rate of 3.4% in 2013 (Tanase, 2012).

In 2013, the retail system in Romania is characterised by: maintaining traditional patterns of trade, the emergence of new retail formats and early stages of development of electronic commerce, medium and small urban settlements being new territories to conquer, which signifies great expansion potential for both discounters and small sized networks of stores. In addition, Romanian rural area, with about 10 million potential customers, is a very attractive market for large retailers. For 2013, experts predict the opening of more than 250 new units in the retail market, current investments preparing major international retail groups for sustained capitalization and for conquering market potential during future periods of economic boom.

For 2010-2020, Oxford Economics' analysts have predicted an average annual rate of growth of 5% (Craciun, 2011), as a result of upward trends of purchasing power, aggressive development of modern trade and changes in purchasing behaviour. These factors will contribute to the forecast growth of 62% of the retail market value, compared to an increase of 57% in Poland, 48% in the Czech Republic and 46% in Hungary (Ilie, 2013). If this forecast is achieved, Romanian retail market will begin to generate a turnover of 26 billion Euros annually.

3. Research methodology

The purpose of this research is to analyse Romanian retail developments in the context of the overall evolution of Romanian economy during 1995-2012. In this regard, we identified macroeconomic factors with major influence on the development of modern retail formats in Romania and we evaluated their impact on Romanian retail.

O1. The objective of this paper is to assess the impact of major macroeconomic variables on the dynamics of Romanian retail.

To follow the evolution of the Romanian retail market we used the number of retail units, regardless the type, as there are reliable data for the period under review. Retail turnover and increases of physical retail areas would have certainly been useful in the analysis, but there are no reliable statistical data to allow their quantification.

Out of many macroeconomic factors relevant for characterizing the state of the national economy, we used total GDP, expressed in euros, average monthly net salary (National Institute of Statistics, 2012a), inflation rate and EUR / RON exchange rate (National Institute of Statistics, 2012b) because these indicators reflect the level of development of the Romanian economy in the period under review from a double perspective: state and individual.

The values of these indicators are summarized in Table 1, but following the denomination of the national currency in 2005, data expressed in lei was normalized.

Table 1. Values of economic indicators in Romania, between 1995-2012

Year	Total number of retail units (RU)	GDP (billion Euro) (GDP)	Average monthly net salary (actual values)	Average monthly net salary (normalized values) (AMNS)	EUR / RON exchange rate (actual values)	EUR / RON exchange rate (normalized values) (ER)	Inflation rate (IR)
1995	1	27,4	215.791,08	21,579108	2.629	0,2629	32,3
1996	3	28,2	322.153,17	32,215317	3.862	0,3862	38,8
1997	6	31,2	636.987,83	63,698783	8.090	0,8090	154,8
1998	10	33,9	1.074.064,58	107,406458	9.989	0,9989	59,1
1999	13	33,4	1.554.903,08	155,490308	16.295	1,6295	45,8
2000	21	40,2	2.173.644,75	217,364475	19.955	1,9955	45,7
2001	32	44,8	3.053.764,50	305,376450	26.026	2,6026	34,5
2002	43	48,4	3.881.345,17	388,134517	31.255	3,1255	22,5
2003	56	50,3	4.868.270,42	486,827042	37.555	3,7555	15,3
2004	64	58,9	5.965.452,17	596,545217	40.532	4,0532	11,9
2005	109	79,2	737,83	737,83	36.234	3,6234	9,0
2006	175	97,1	1.029,17	1.029,17	3,5245	3,5245	6,56
2007	252	121,2	1.011,25	1.011,25	3,3373	3,3373	4,84
2008	356	136,8	678,75	678,75	3,6827	3,6827	7,85

Year	Total number of retail units (RU)	GDP (billion Euro) (GDP)	Average monthly net salary (actual values)	Average monthly net salary (normalized values) (AMNS)	EUR / RON exchange rate (actual values)	EUR / RON exchange rate (normalized values) (ER)	Inflation rate (IR)
2009	443	115,9	862,42	862,42	4,2373	4,2373	5,59
2010	543	122,0	1.335,42	1.335,42	4,2099	4,2099	6,09
2011	651	136,4	1.642,67	1.642,67	4,23,79	4,23,79	5,79
2012	773	136,4[1]	1.715,08	1.715,08	4,4560	4,4560	3,33

The hypotheses of the study are:
I1. Romanian retail market is influenced by GDP.
I2. Romanian retail market is influenced by average monthly net salary.
I3. Romanian retail market is influenced by inflation rate.
I4. Romanian retail market is influenced by EUR/RON exchange rate.

We used a methodology that was based on the multifactorial linear regression model. In the analysed econometric model, the number of retail units is the dependent variable, macroeconomic indicators being independent variables. Data analysis was performed using statistical methods of analysis and the Data Analysis module in Excel.

The research that validates the hypothesis is the following:

$$RU_i = b_0 + b_1 \times GDP_i + b_2 \, x \, AMNS_i + b_3 \, x \, ER_i + b_4 \, x \, IR_i + \varepsilon_i \quad (1)$$

(RU = number of retail units; GDP = total gross domestic product; ER = EUR / RON exchange rate; AMNS = average monthly net salary; IR = annual inflation rate; ε_i = error; i = years 1995 to 2012).

Multifactorial regression model results are summarized in Table 2.

Table 2. Results of the regression function

Regression Statistics	
Multiple R	0,948
R Square	0,899
Adjusted R Square	0,868
Standard Error	90,520802
Observations	18

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	948979,41	237244,85	28,95	0,0000002
Residual	13	106522,20	8194,02		
Total	17	1055501,61			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	-119,37546	89,34785	-1,33608	0,20444	-312,39977	73,64884	-312,39977	73,64884
GDP	2,61623	1,25542	2,08394	0,05746	-0,09595	5,32841	-0,09595	5,32841
SLMN	0,34459	0,10636	3,23996	0,00645	0,11482	0,57436	0,11482	0,57436
RLE	-39,46121	30,35053	-1,30018	0,21612	-105,02955	26,10712	-105,02955	26,10712
RI	0,53948	0,85228	0,63298	0,53773	-1,30177	2,38073	-1,30177	2,38073

Source: data calculated by authors

[1] National Institute of Statistics, estimated data

(r), the multiple coefficient of correlation, with a value of 0,948 is the correlation ratio that indicates a strong connection between Romanian retail and main factors of influence under analysis. The coefficient of determination - Rsquare - has a value of 0.899 and shows that 89.9% of the variance in Romanian retail can be explained by the variables taken into consideration. The adjusted correlation report shows that 0,868 of the total variance is due to the regression line, given the number of degrees of freedom. The F test shows the role of independent variables in explaining the dependent variable's evolution. The values of the F test (28,95) and of the significance threshold (0,0000002 <0,05) show that the regression model is valid and can be used to analyse the dependence between variables.

The b0 free term, with a value of -119,37 is the point of intersection of the regression line with the OY axis. Since statistical t = -1,336 and P-value = 0,204> 0,05, it means that the coefficient is significantly different from 0, with a confidence interval of [312,399; 73,648]. The coefficient for the GDP variable, with a value of 2,61623, is positive and indicates a direct link between RU and GDP, so that an increase of 1 Euro GDP increases RU by 2,61623 points.

Because the P-value = 0,057> 0,05, the coefficient is insignificant. The coefficient for the AMNS variable, with a value of 0,344, is positive and indicates a direct link between RU and AMNS, so that an increase of AMNS by 1 leu increases RU by 0.344 points. Since the P-value = 0,00645 <0,05, the coefficient is significant, with a confidence interval of [0,114; 0,574]. The coefficient for the ER variable, with a value of -39,461, is negative and indicates a reversed connection between RU and ER, so that an increase of ER by 1 leu causes a decrease of RU by 39,461. Because the P-value = 0,216> 0,05, the coefficient is insignificant.

The coefficient for the IR variable, with a value of 0,539, is positive and indicates a direct connection between RU and IR, so that an increase of IR by one unit increases the UR by 0,539 points. Because the P-value = 0,537> 0,05, the coefficient is insignificant.

The results of the econometric model are influenced by collinearity (Adams et al., 2007), which occurs when a group of independent variables are strongly correlated. In this case, there is an overestimation of the coefficient of determination and of the estimated coefficients of dispersion, which leads to bigger intervals of confidence and may distort the interpretation of the model. Showing the impact of multicollinearity is achieved by analysing the correlation matrix of independent variables as shown in Table 3.

Table 3. The matrix of correlation of independent variables

GDP	1			
AMNS	0,908726	1		
ER	0,798049	0,827076	1	
IR	-0,60951	-0,60749	-0,69433	1

Source: Data calculated by authors

An analysis of the results indicates that there are strong positive correlations between AMNS, ER and GDP and between ER and AMNS. The correlation matrix shows a moderate to strong negative correlation between RI and the other three independent variables.

The following regression model results from the analysis of coefficients:

$RU = 119{,}375 + 2{,}616 \times GDP + 0{,}344 \times AMNS + (-39{,}461) \times ER + 0{,}539 \times IR + \varepsilon i$, *(2)*

The results presented in Table 2 show that the hypotheses of the study are valid and therefore Romanian retail is influenced by: *GDP, average monthly net salary, exchange rate of the national currency against the euro and inflation rate.*

4. Conclusions

An important effect of globalization on economic systems is the emphasis placed on the role of networks, as experts appreciate that businesses that will succeed will be those that manage to develop the most effective global networks. Romanian retail market provides examples of such networks, from international chains to electronic commerce.

Research conducted shows that Romanian retail market is part of a positive trend, being influenced by the overall economic and social development of our country, analysed in terms of gross domestic product evolution, average monthly net salary, exchange rate and annual inflation rate. It is interesting to note that Romanian retail continued its positive development during the economic crisis of recent years, as demonstrated by attempts of major international investors to gain significant market share, which will generate substantial revenues during economic revival.

Study limitations result, on the one hand, from assessing Romanian retail only in terms of number of retail units and, on the other hand, from the small number of influencing factors being analysed. In the future, research will continue to design a methodology for calculating an index of retail development, which will be based on a larger number of determinants.

Bibliography:

1. Adams, J., Khan, H.T.A., Raeside, R., White, D., 2007. *Research Methods for Graduates Business and Social Science Students*. California: Sage Publications Inc.
2. Bălan, C., 2011. Current trends in consumer purchasing power in modern retailing in Romania, International Conference of the Institute for Business Administration in Bucharest, pp. 2-7.
3. European Commission, 2010. *Report from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, An exercise in monitoring retail market „Towards more efficient and fairer retail services in the internal market for 2020”*. [pdf] Bruxelles. Available at <http://ec.europa.eu/internal_market/retail/docs/monitoring_report_ro.pdf> [Accessed 14th of February 2013].
4. Crăciun, M., 2011. How good does the future of consumer goods market in Romania sound?, *Forbes Romania*, [Online] Available at <http://www.forbes.ro/Cat-de-bine-suna-viitorul-pietei-bunurilor-de-consum-din-romania_0_1456.html> [Accessed 05th of February 2013]
5. Davidson, W.R., Bates, A.D., Bass, S.J., 1976. The retail life cycle, *Harvard Business Review*, 54(6), pp. 89-96
6. Dayan, A., 1992. *Manuel de la distribution*, PUF, Paris.
7. Ilie, I., 2013. Surface War: retailers attack each other’s markets, Capital, [online] Available at: http://www.capital.ro/detalii-articole/stiri/razboiul-suprafetelor-retailerii-isi-ataca-reciproc-pietele-178240.html [Accessed 18th of February 2013]
8. Iorga, N., 1937. *Romanian trade history*, Tiparul Românesc, Bucureşti.
9. National Institute of Statistics, 2012a. Average net monthly earnings in total economy between 1991 – 2012, [online] Available at: <http://www.insse.ro/cms/rw/pages/castiguri91-2012.ro.do;jsessionid=8a9cf2b44b897118aa4b82c77468aa1d62f08c8f5f8f602d09cb854938e2b107.e38QbxeSahyTbi0Oaxf0> [Accessed 12th of February 2013]
10. National Institute of Statistics, 2012b. Annual indices of consumer prices and inflation rate between 1971-2012, [online] Available at: <http://www.insse.ro/cms/rw/pages/ipc.ro.do> [Accessed 12th of February 2013]
11. Kotler, Ph., Keller, K.L., 2012. *Marketing management*, 14E, Prentice Hall, Upper Saddle River, New Jersey.
12. Mihai, I., 2011. Who invests in modern commerce, *Business Magazine*, [online] Available at: <http://www.businessmagazin.ro/analize/comert/cine-mai-investeste-in-comertul-modern-8066688> [Accessed 07th of February 2013]
13. Patriche, D., 1998. *Treaty of economy of commerce* , Eficient Publishing House, Bucharest.
14. Perrigot, R., Cliquet, G., 2006. Past, present and future of a retail concept: hypermarket, 9eme Colloque EtienneThil, Conference on Retailing, La Rochelle, France, September 28-29.

15. Ristea, A.L., Ioan-Franc, V., Purcărea, Th., 2005. *Distribution economy*, Expert Publishing House, Bucharest.
16. Tănase M., 2012, The year of consolidation in modern retail, *Progressive Magazine*, January 2013, [online] Available at: <http://www.magazinulprogresiv.ro/articol/3797/2012_anul_consolidarii_in_retailul_modern.html> [Accessed 15th of February 2013]
17. Vaschi, M., 2011. How analysts see the present and future of retail, Modern Buyer, [online] Available at <http://www.modernbuyer.ro/actualitate/2-actualitate/2138-cum-vad-analistii-de-piata-prezentul-si-viitorul-retailului> [Accessed 10th of February 2013]