# ANALYSIS OF THE INFLUENCE OF SOME INDICATORS ON THE PROFITABILITY OF THE FMCG RETAIL MARKET IN ROMANIA

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# ABSTRACT

This paper analyzes whether certain indicators have an influence on the profitability of companies in the FMCG retail market in Romania. Furthermore the study reveals several concrete effects that some of the indicators can have on profitability. For this purpose a series of Pearson correlations were performed and a multiple linear regression model was also used. We have found that there is a whole range of interactions between particular indicators and the profitability of the firms studied, while capital and fixed assets do not play a significant role in determining profitability in the fast moving consumer goods sector.

**KEYWORDS:** Financial Performance, FMCG Sector, Profitability, Quantitative Indicators.

JEL CLASSIFICATION: D22, D47.

# **1. INTRODUCTION**

The Fast Moving Consumer Goods Industry (FMCG) has grown in the past 10 years in the global economy, so that today in almost every state in the world there are "serve yourself" markets where the customer takes on himself the products he wants to purchase. The basic features of retail stores are that they can be located in the vicinity of their customers' homes, spread throughout their territory so that all the population of a country can access the same store in different cities and each one has enough space for organizing merchandise.

Determinants of the rapid and significant development of this industry have emerged with equal weighting between traditional and modern trade in Romania in 2010. Changes in people's consumption behavior, higher purchasing power of the population and the continuous development of modern trade have accentuated the expansion of this sector (Deac et al., 2016).

The FMCG retail industry is considered to be one of the largest sectors in the Romanian economy, registering the highest increase of the retail volume among the EU member states in 2017 (Retail-FMCG.ro, 2017).

In the 2012-2016 time period, the contribution of the fast moving consumer good retail market to Romania's gross domestic product was over  $\in$  40 billion. The latest official figures indicate that in 2016 the FMCG sector contributed 5.9% to the GDP of the country, which represents over 10 billion Euros.

The profit of international retailers in Romania is not directly proportional only to the volume of sales or to the price of the products, knowing very well that most of them practice "the lowest price" marketing policies. Characterized by strong and efficient distribution networks, low operational

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costs compared to other industries, the significant presence of multinational corporations and exciting competition, the FMCG industry is highly profitable (Bagchi et al., 2012).

These qualitative features along with quantitative indicators such as the number of employees, capital, stocks, fixed assets and turnover bring insinuations into the company's profit structure. A rigorous analysis of these quantitative indicators can explain the direct influences on the profit manifestation, such as the fact that, from the start, firms must maintain their capital in the most favorable way so that they maximize their value, which will maximize profit.

The objective of this study is to find out how profits can be influenced by certain indicators in FMCG retail companies in Romania. This research will highlight which of these indicators can contribute to increasing the financial and operational performance of the most important FMCG retail companies in Romania. The study analyzed the variables using the multiple linear regression model that allowed the allocation of a future profit estimate at industry level.

# 2. LITERATURE REVIEW

The FMCG retail industry is extremely profitable by its very nature. It implies a great investment in setting up a company in this field, especially for promotional activities, but which is recovered once the company reaches its reputation in terms of number of open units, number of customers, frequency and quantity that they buy (Dima, 2016). Also, the advantage of these markets on the Romanian market is that they are multinational corporations, whose installation here was welcomed in the context of the need of the population to buy inexpensively and in the context of Romania's integration into the European Union and globalization (Micu et al., 2010). Another important feature of retail is the large product exposure space, variety and quantity that generate effective partnerships with suppliers, because they include reduced purchasing and shipping costs. Low costs, but also high competition in this market leads companies to practice low prices. More than highlighting the particular characteristics of this industry, some authors have shown how certain standard indicators in any private enterprise influence the profitability situation in the consumer goods retail sector. Like most specialists say, the need for company capital is changing over time, as does the domestic cash generation rate. Thus FMCG firms should try to support a harmonization of their assets and liabilities. In one study, the authors conclude that in the case of FMCG firms in India, there is a strong negative relationship between working capital management measures and corporate profitability (Bagchi et al., 2015). Quality is also an important parameter that influences the financial performance of businesses competing in the retail consumer goods market, as shown by a study on the performance of FMCG food companies in Pakistan. The author of the study states that in order to improve its business performance, a company in this industry needs to integrate the significance of quality into its mission and vision, using the concepts and practices of total quality management. Organizational performance in terms of income and profit improves when there is an adequate strategic intersection between total quality management and other complementary variables such as income, profit, reduction of food fats etc. (Shaikh, 2012). Analyzing the FMCG retail outlets in Turkey, specialists (Oraman et al., 2011) demonstrated that globalization has a beneficial impact on profitability and that companies in this country are not competitive on this criterion. They argue that the development potential of these companies is dictated by the economic, competitive and environmental conditions of the world market. Turkey needs competitive positioning at industry level. Market forces make customers responsive to a globally standardized product while economic forces dictate if a global strategy will generate a cost advantage. Globalization is unavoidable because large companies will require more globalized markets to remain profitable. However, globalization will not necessarily encompass all economies, as smaller businesses will be more successful if they meet the requirements of the local market. In theory, it is also possible for larger firms to address local needs in the global markets they are part of, which would make them even more successful. This latter scenario refers to the so-called "think global, act local".

As a combination of the two above-mentioned indicators, namely quality and globalization, some specialists believe that customer reflection criteria reflected in building a brand lead to better longterm performance in terms of sales and number of customers, thus generally increasing the profitability of FMCG companies, as shown, for example, in a research study conducted in the Swedish consumer goods sector (Anselmsson & Bondersson, 2015). The different levels and aspects of quality considered by customers must characterize a FMCG brand so that it can be successful. Moreover, these levels can refer to standard features or a global product, which means that the brand must have global addressability. Returning to the idea of "think global, act local", it does not mean that the brand does not have local identities, but on the contrary. It's just about conquering other economies, local customers for global products, and local customers who prefer predominantly goods on the local market. The same study also reveals that performance measurement is based on market data and actual purchasing behaviors rather than subjective intentions or attitudes or approximate evaluations. Therefore, this study avoids the classical bias problem that arises when general thinking measures and measures of compassion, that is intent, are included in the same study, largely due to the halo effect. Although the results of this study cannot be generalized for other industries, they indicate that, in order to understand the economic benefits of the brand, we cannot take into account only the best known measurement criteria.

Some specialists (Huang et al., 2014) show that stocks greatly influence the financial performance of retail companies in the FMCG industry. Today, one of the main concerns of retailers is to reduce stocks and control the level of security stocks. Stocks lead to profit losses and unhappy customers, while overlapping stocks generate additional inventory costs. The problem of unsold stocks characterizes even the most profitable FMCG chains in the world, because factors influencing this phenomenon vary and cannot be anticipated every time. In the consumer goods industry, the quantity of products purchased will always be high, and the stocks cannot be under-sized. The latter is practically a known risk and assumed by companies and their exhaustion or diminution falls under the attributions of marketing departments that will design attractive promotional policies around products with large stock.

One of the solutions to ameliorate this strain is based on more accurate predictions (Pîrjol and Radomir, 2017). In practice, many merchants use the "base-times-lift" approach by tracking barcodes to predict product sales. The approach is based on a simple method and takes into account the effect of promotions in an ad-hoc (spontaneous) way. Other research has proposed sophisticated models of machine learning algorithms trying to capture the effect of promotions more efficiently.

As we can see, literature provides us with several approaches when it comes to indicators or other factors that can influence companies' profitability and their financial performance in general (Armean and Ardeleanu, 2017), in the consumer goods industry, so this paper proposes in the next pages another approach that takes into account previous research.

# **3. METHODS**

# **3.1 Data collection and sample information**

The theoretical model was tested using a sample that we selected, which comprised several companies present on the FMCG retail market in Romania. The data on the variables of the theoretical model were selected from the companies' reports submitted to the Romanian Finance Ministry over a period of five years, 2012-2016. The selection criterion was that the average turnover in the last five years to be over one billion Euros, so it resulted in selecting 10 companies.

# 3.2 Variables

In our study, the dependent variable used was Net Profit because it is a very good indicator of financial performance and also the data was available for the entire sample, helping us achieve our goal. We also considered six independent variables: Turnover, Number of employees, Capital, Debt, Stocks and Fixed Assets.

#### **3.3. Statistical techniques**

The study analyzed the influence of the independent variables on the evolution of the net profit associated with FMCG retail companies in Romania. For this, we studied the indicators that directly influence the net profit. Pearson's correlation and multiple linear regression were used as statistical analysis techniques of the variables with the net profit as the dependent variable.

# 4. ANALYSIS AND RESULTS

As a first part of our analysis we studied the evolution of the retail FMCG market in Romania during 2012-2016 and also the performance of the most important FMCG retail companies in Romania. Thus, FMCG retail companies in Romania have been associated with strategic groups that have been identified on the basis of certain characteristics. Four strategic groups have been created: Cash & Carry, Hypermarket, Discounter and Supermarket. Companies in the Cash & Carry strategic group have as their main features that they are business to business companies that support local businesses by opening up for various forms of partnership while targeting a professional customer segment. Also, this type of company has over 100 employees per store. The Cash & Carry companies used in this study were Metro and Selgros. The strategic group called Hypermarket is differentiated from Cash & Carry because it addresses a large mass of customers and the retailers that have been included in this segment are those who offer a wide and varied range of products including both food and non-food products in order to satisfy a large variety of needs. In terms of number of employees, it ranges between 100 and 400 employees. This group included: Kaufland, Carrefour, Auchan and Cora. The Discounter was another strategic group that was identified in the Romanian market, in which Lidl, Penny and Profi discounters were framed. They were characterized by a low number of employees per store compared to Cash & Carry and Hypermarket groups, having between 10 and 16 employees per store. This segment was characterized by low prices in accordance with a satisfactory quality. They are encouraging local production by introducing local products in their varieties. The last strategic group identified was the Supermarket where, for the Romanian market, the Mega Image supermarket chain was taken into consideration due to its very strong presence. This segment can be characterized by: proximity, quality and uniqueness.

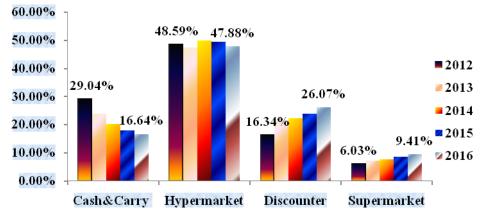


Figure 1. The evolution of the structure of the FMCG retail market depending on market share

Source: Authors, based on the calculation of official data from the Ministry of Public Finance

According to the data analyzed and summarized in Figure 1, the segment called Hypermarket is the leader of the consumer goods market, given that its market share has been around 50% over the past five years, thus managing to cover half of the market. The Cash & Carry segment has seen a decline

in market share of around 13% over the last five years, which was not the case for the Discounter segment, which has seen a rapid growth with a 10 percent increase in market share over the past 5 years. The Supermarket segment has a market share of 10% and also has an ascending trend.

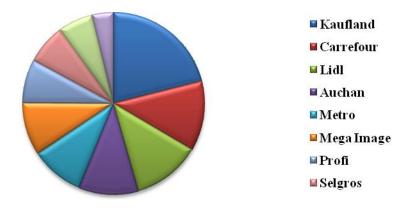


Figure 2. Market share per company

Source: Authors, based on the calculation of official data from the Ministry of Public Finance

The performance of the most significant and important FMCG retail companies in Romania can be measured through several indicators. Figure 2 summarizes the market share held by the most important consumer goods retail companies in Romania, based on the market share of each of them. Kaufland is the undisputed leader with almost double the market share of its competitors, followed by Carrefour, the company we can expect from an interesting development in the upcoming period. The Schwarz group, owner of Kaufland and Lidl currently dominates the market both in hypermarkets and discounters segments, with a cumulative market share of about 33%.

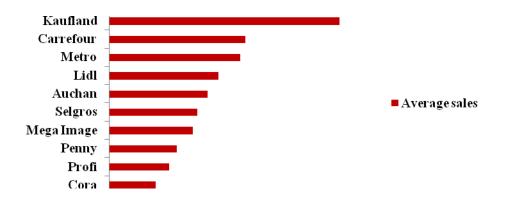
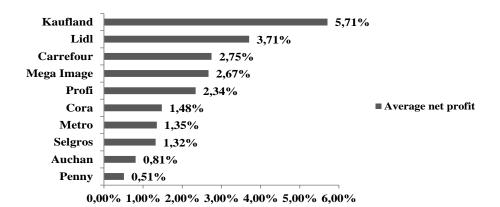


Figure 3. Average sales over the past 5 years

Source: Authors, based on the calculation of official data from the Ministry of Public Finance

Financial performance through sales and profits is another important indicator of the overall performance of the FMCG retail market in Romania. Figure 3 shows the average sales in the last 5 years of the main companies in the industry. We can see a significant difference between the first and second position, and also the fact that the hypermarket segment has the highest sales level.



# Figure 4. Net average profit for 5 years

Source: Authors, based on the calculation of official data from the Ministry of Public Finance

The average market profitability over the last 5 years was around 2.7%. Figure 4 shows that Hypermarket, Discounter, and Supermarket companies generally have a net profit average over the past 5 years, which is higher or close to the average market profitability calculated over the same time span. Instead, the Cash & Carry segment recorded, for the period under review, a net average profit below average market profitability although the level of sales is comparable.

Figure 5 shows significant differences in efficiency from the perspective of the indicator measuring the sales per employee of the main market companies. On the basis of this indicator, both Cash & Carry and Discounter companies occupy the top positions as financial performance.



# Figure 5. Average sales per employee for 5 years

Source: Authors, based on the calculation of official data from the Ministry of Public Finance

Figure 6 shows the sales average of the number of stores owned by the companies surveyed. The existence of significant productivity gaps between companies surveyed based on the indicator used can be explained by the fact that FMCG retailers in Romania are in different stages in their development cycle and are also at different times of efficiency of their activity.

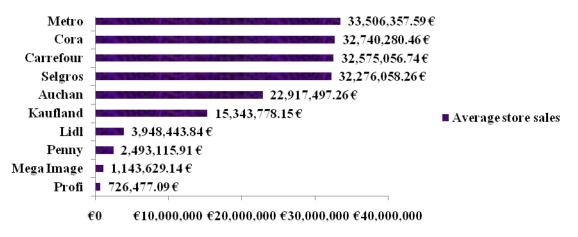


Figure 6. Average store sales per 5 years

Source: Authors, based on the calculation of official data from the Ministry of Public Finance

The average number of employees per shop was depicted in Figure 7, showing that the Discounter and Supermarket companies have a low number of employees compared to Cash & Carry and Hypermarkets. Interestingly, Metro achieves the largest sales volume per store, with the lowest number of employees compared to other companies doing comparable sales per store.

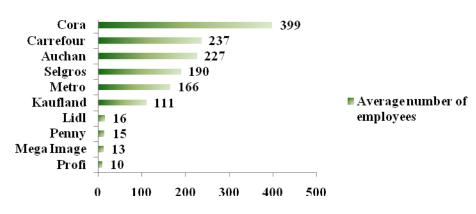


Figure 7. Average number of employees per store

Source: Authors, based on the calculation of official data from the Ministry of Public Finance

In the second part of our analysis, the data were tested to see if they were distributed normally and if we could use the proposed statistical analysis techniques. To determine whether the collected data had a normal distribution, the Shapiro-Wilk test was applied (p>.05) (Shapiro and Wilk, 1965; Razali and Wah, 2011), then a visual inspection of the resulting histograms, normal QQ plot and box plot was performed, resulting that the net profit dependent variable was approximately normally distributed for all categories of FMCG retail companies in Romania for which variables have been studied, with a skewness of 0.804 (Standard Error = 0.717) and a 0.883 (SE = 1.400) kurtosis for the Cash & Carry category, skewness of 1.093 (SE) = 0.616) and kurtosis of 0.142 (SE = 1.191) for the Hypermarket category and skewness of 1.153 (SE = 0.616) and kurtosis of 0.190 (SE = 1.191) for the Discounter category (Doane and Seward, 2011; Cramer, 1998; Cramer and Howitt, 2004).

Table 1 summarizes the results of the Pearson-type correlations between the variables: Turnover, Number of employees, Capital, Debts, Stocks, Fixed Assets and Net Profit. We wanted to see if the selected indicators have influence and if they correlate with the net profit of the companies studied.

Thus, statistically significant correlations were found between these variables, all positive with a P value of .000.

I able 1. Pearson Correlation of variables							
		Turnover	Net Profit	Number of	Capital		
				employees			
	Pearson Correlation	1	.904**	.784**	.818**		
Turnover	Sig. (2-tailed)		.000	.000	.000		
	N	50	40	50	50		
	Pearson Correlation	.904**	1	.807**	.868**		
Net Profit	Sig. (2-tailed)	.000		.000	.000		
	N	40	40	40	40		
Number of	Pearson Correlation	.784**	.807**	1	.770**		
Employees	Sig. (2-tailed)	.000	.000		.000		
	N	50	40	50	50		
	Pearson Correlation	.818**	.868**	.770**	1		
Capital	Sig. (2-tailed)	.000	.000	.000			
	N	50	40	50	50		
	Pearson Correlation	.869**	.811**	.819**	.740**		
Debt	Sig. (2-tailed)	.000	.000	.000	.000		
	N	50	40	50	50		
	Pearson Correlation	.926**	.839**	.779**	.831**		
Stocks	Sig. (2-tailed)	.000	.000	.000	.000		
	N	50	40	50	50		
	Pearson Correlation	.832**	.860**	.847**	.953**		
Fixed Assets	Sig. (2-tailed)	.000	.000	.000	.000		
	Ň	50	40	50	50		
		De	ebt	Stocks	Fixed Assets		
	Pearson Correlation	.8	69	.926**	.832**		
Turnover	Sig. (2-tailed)	.000		.000	.000		
	N	50		50	50		
	Pearson Correlation	.811**		.839	.860**		
Net Profit	Sig. (2-tailed)	.000		.000	.000		
	N	40		40	40		
Number of	Pearson Correlation	.819**		.779**	.847		
Employees	Sig. (2-tailed)	.000		.000	.000		
1	N	40		50	50		
	Pearson Correlation	.740**		.831**	.953**		
Capital	Sig. (2-tailed)	.0	.000		.000		
1	N	50		50	50		
Debt	Pearson Correlation	1**		.851**	.818**		
	Sig. (2-tailed)			.000	.000		
	N	50		50	50		
	Pearson Correlation	.851**		1**	.814**		
Stocks	Sig. (2-tailed)	.000			.000		
Stoorts		50		50	50		
	Ν	5	0	50	50		
			8**	.814**	1**		
Fixed Assets	N Pearson Correlation Sig. (2-tailed)	.81					

Note: \*\*. Correlation is significant at the 0, 01 level (2-tailed) *Source:* Authors, statistical analysis of collected data

Given that the variables studied correlate according to the Pearson correlation coefficient, we tried to create a net profit estimation model based on the variables that can modify it to see a closer influence of some indicators on the profitability of FMCG retail companies in Romania. For this, multiple linear regression was used which was based on the following equation of regression:

$$\bar{NP} = \beta(i.v.1) * i.v.1 + \beta(i.v.2) * i.v.2 - Constant$$
(1)

Where:

NP = Estimated net profit  $\beta = Unstandardized regression coefficient$ i.v.1 = independent variable 1 i.v.2 = independent variable 2

i.v.2 = independent variable 2

Independent variables fall within the 95% confidence interval and Number of employees and Turnover have a statistically significant impact on Net Profit because the value of p < .05 (see Table 2).

The value of Adjusted R is 0.833, meaning that 83.3% of the dependent variable is influenced by the independent variables, and the value of P (sig) is less than 0.05, so the regression is statistically significant.

The model predicts that at the level of the FMCG retail market, as the number of employees' increases by 1, the net profit will increase by 12197 RON and the turnover will remain the same. As the turnover increases by one unit, the profit will increase by 0.054 RON, as the number of employees remains unchanged. (e.g. turnover increases by 10000 RON - profit increases by 540 RON).

Model		Unstandardized	Coefficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	-172243218.775	23360323.991		-7.373	.000
	Number of employees	12197.019	5170.548	.250	2.359	.024
	Turnover	.054	.008	.707	6.666	.000
Model			95.0% Confidence Interval for B			
			Lower Bound Upper Bound			Bound
(Constant)			-219575731.178 -12		-124	910706.371
1	Number of er	1720.494			22673.544	
Turnover			.037			.070

Table 2. Multiple Linear Regression results with net profit as dependent variable and number						
of employees and turnover as independent variables						

Source: Authors, statistical analysis of collected data

Independent variables fall within the 95% confidence interval and Debt and Stocks have a statistically significant impact on net profit as the value of P (sig) is less than 0.05 (see Table 3). The value of Adjusted R is 0.726; meaning that 72.6% of the dependent variable is influenced by the independent variables, the value of P (sig) is less than 0.05, so the regression is statistically significant.

The regression model predicts that at the level of the FMCG retail market in Romania, as the debts increase by one unit, the net profit will increase by RON 0.072; while the stocks remain unchanged (e.g. debts increase by 10000 RON - the profit increases by 720 RON). As stocks grow with one unit, the profit will increase by 0.540 RON and the debt level will remain unchanged (e.g. stocks increase by 10000 RON - profit increases by 5400 RON).

and stocks as independent variables							
Model		Unstandardized Coefficients		Standardized	t	Sig.	
				Coefficients			
		В	Std. Error	Beta			
	(Constant)	-140386897.479	34817982.638		-4.032	.000	
1	Debt	.072	.032	.354	2.246	.031	
	Stocks	.540	.158	.539	3.422	.002	
Model			95.0% Confidence Interval for B				
			Lower Bound		Upj	per Bound	
	(Cons		-210934831.478		-69838963.480		
1	1 Debt			.007		.137	
Stocks				.220		.859	

# Table 3. Multiple Linear Regression results with net profit as dependent variable and debt and stocks as independent variables

Source: Authors, statistical analysis of collected data

The Fixed Assets and Capital variables fall within the 95% confidence interval and have no statistically significant impact on net profit, as the value of P (sig) is greater than 0.05 (see Table 4). The value of Adjusted R is 0.752 which means that a percentage of 75.2% of the dependent variable could be influenced by the independent variables; the value of P (sig) is less than 0.05, so the regression is statistically significant.

The regression model predicts that for the FMCG retail market in Romania, both fixed assets and capital have no influence on the net profit of the companies for the sample we have studied.

Table 4. Multiple Linear Regression results with net profit as dependent variable and fixed
assets and capital as independent variables

Model Unsta		Unstandardize	d Coefficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	-4739298.374	16886290.889		281	.781
	Fixed Assets	.037	.029	.346	1.276	.210
	Capital	.081	.041	.537	1.978	.055
Model		95.0% Confidence Interval for B				
		Lower Bound		Upper Bound		
(Constant)			-38954173.701		29475576.953	
1	Fixed Assets			022		.095
	Capital			002		.163

Source: Authors, statistical analysis of collected data

# **5. CONCLUSIONS**

Our study revealed significant positive influences of some indicators on the net profit of the analyzed FMCG retail companies in Romania. From the total number of indicators examined, the

study indicated that the turnover, number of employees, debts and the stocks, all indicators described in quantitative terms, influence to a greater or lesser extent the net profit of the companies in the studied sample. An interesting discovery is that fixed assets and total company capital have no influence on net profit, according to the theoretical model used, although we would have expected at least the company's capital to contribute significantly to its profits.

The Hypermarket segment holds the largest market share and records the largest volume of sales in the Romanian FMCG retail market for the period studied. This is happening even though only a few years ago, the Cash & Carry segment recorded the largest market share and sales volume.

Our study focused on the investigation of some FMCG retail indicators at industry level, data collection being performed for the most important companies in the field and did not focus only on the study of certain companies, which gives the possibility of generalizing the results to some extent.

The study contributes with several managerial implications by suggesting that firms should not stop over analyzing the influence of only one or too few indicators that can influence their profitability. As some specialists say (Ambler & Roberts, 2008), the idea of a "good at everything" indicator is tempting, but if that indicator is not chosen correctly, there is a risk of taking an unprofitable path. In formulating the strategy, companies need to carefully choose their indicators to analyze their financial performance, and this paper provides an overview over some elements that can influence profitability. Companies should also study how these influences work in the industries in which they operate by correlating both survey data and data actually collected from the market.

This study has a number of limitations. First of all, the results are limited to large retailers placed in a specific geographic area, in Romania, and also in a specific FMCG area, retail. Secondly, the sample is quite small, which could be detrimental to the potential for generalizing the results. Last but not least, the data on the indicators that can influence the profit were limited, which did not allow us to carry out a much more detailed analysis and for a period of more than five years.

# REFERENCES

- Ambler, T., Roberts, J.H. (2008). Assessing marketing performance: don't settle for a silver metric. *Journal of Marketing and Management*, 24 (7-8), 733-750.
- Anselmsson, J., Bondersson, N. (2015). Brand value chain in practice; the relationship between mindset and market performance metrics: A study of the Swedish market for FMCG. *Journal of Retailing and Consumer Services*, 25, 58-70.
- Armean, D., & Ardeleanu, M. L. (2017). Performance Management By Cvp Analysis. Business Excellence and Management, 7(2), 72-93.
- Bagchi B., Chakrabarti, J., Roy, P.B. (2012). Influence of Working Capital Management on Profitability: A Study on Indian FMCG Companies. *International Journal of Business and Management*, 7-22.
- Cramer, D. & Howitt, D. (2004). The SAGE dictionary of statistics. London: SAGE.
- Cramer, D. (1998). Fundamental statistics for social research. London: Routledge.
- Deac, V., Dobrin, C., & Gîrneață, A. (2016). Customer Perceived Value-An Essential Element in Sales Management. *Business Excellence and Management*, 6(1), 43-55.
- Dima, C. (2016). New Approaches of Investment Management Used in Context of Territorial Intelligence. *Business Excellence and Management*, 6(4), 36-44.
- Doane, D.P. & Seward, L.E. (2011). Measuring Skewness. *Journal of Statistics Educational*, 19 (2), 1-18.
- Huang T., Fildes R., Soopramanien D. (2014). The value of competitive information in forecasting FMCG retail product sales and the variable selection problem. *European Journal of Operational Research*, 237, 738-748

- Micu A., Micu A.E., Capatina A., Nistor C. (2010). Design of a Customer-Centric Balanced Scorecard-Support for a Research on CRM Strategies of Romanian Companies from FMCG Sector. *Recent advances in management, marketing, finances 5(9)*.
- Oraman Y., Azabagaoglu M.O., Inan I.H. (2011). The Firms' Survival and Competition through Global Expansion: A Case Study from Food Industry in FMCG Sector. *Procedia Social and Behavioral Sciences*, 24, 188-197.
- Pîrjol, F., & Radomir, L. L. (2017). The Role Of Internal Communication On The Efficiency Of The Activity In An Organization. *Business Excellence and Management*, 7(2), 27-45.
- Razali, N.M. & Wah, Y.B. (2011). Power comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling tests. *Journal of Statistical Modeling and Analytics*, 2(1), 21-33.
- Retail-FMCG.ro. (2017). *România, cea mai mare creștere a volumului de retail dintre țările UE, în mai 2017*. Retrieved July 5, 2017, from https://www.retail-fmcg.ro/analize/romania-crestere-volum-retail-mai.html.
- Shaikh J.M. (2012). TQM and Business Performance: An Investigation into FMCG Companies in Pakistan. *International Journal of Scientific & Technology Research*, 1-10.
- Shapiro, S.S. & Wilk, M.B. (1965). An Analysis of Variance Test for Normality. *Biometrika*, 52(3/4), 591-611.