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## CUSTOMER RELATIONSHIP MANAGEMENT IN THE FIELD OF BUSINESS SERVICES

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### Abstract

Customer relationship management (CRM) witnesses an increasing significance in the process of redefining the marketing function of contemporary organizations in the services sector. CRM represents an iterative process aimed at improving interactions with customers and balancing companies' customer portfolio. Hence, the article focuses on CRM practices of companies specializing in the provision of business services in Bulgaria. These practices are explored through the standpoint of a developed conceptual model of the strategic CRM process and methodological tools for its analysis. As a result the article identifies opportunities for the development of customer relationship management practices.

### Keywords:

Big data, CRM-process, CRM-vision, CRM-basis, CRM-strategies / programs.

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One of the important conditions for business success is the ability of companies to process huge volumes of structured, semi-structured and unstructured data (big data) for business goals. The massive of data is growing quickly and it is expected that by 2020 there will be more than 16 zettabytes of useful data (16 Trillion GB), which suggests growth of 236% per year from 2013 to 2020 (Turner et al., 2014). Big data is a new generation of managing strategies, technologies and architectures, designed to economically extract value from very large volumes of a wide variety of data by enabling high-velocity capture, discovery and/or analysis (Anshari and Alas, 2015). Databases are used for analyzing customer behavior, creating customer profiles and models (Peppers, D., Rogers, M., 1997; Shepard, D., 1995) as well as making decisions for determining the form of the future communication as per segments and customers.

The ability of companies to adequately manage huge volumes of customer data is related to the prior specification of criteria, metrics and methods of data collection, structuring, analyzing, storing, publishing etc. This requires horizontal and vertical harmonization of all activities and processes aiming to attract customers, sales and after-sales service in companies. In this respect, CRM systems, that are being increasingly implemented in business, are achieving consistency between the following elements: (1) customer-oriented strategy, aiming to describe the customer-oriented value positions from the dimension of customers and companies; (2) consistent experience of cross channel interactions; (3) effective closed loop marketing, sales and services; (4) effective integration of cross company operation (Wang, 2016).

CRM represents an iterative process aimed at improving interactions with customers and balancing companies' customer portfolio (Stanimirov et al. 2016). CRM has become one of the new paradigms of modern marketing and an important tool for many companies aspiring to build long-term and cost-effective relationships with their customers (Kim, H. et al., 2010).

However, the success of CRM projects is not unconditional. Along with the positive effects of CRM on consumer behavior (Barone et al., 2000), better market performance (Alsmadi, S., Alnawas, I., 2001), financial result (Lamparello, D., 2000), less mistakes in customer service (Gudkova, S., 2005) and perception of advertising messages (Ross et al., 1992), evidence shows that a solid share of CRM projects failed to achieve set goals. In different contexts this share tends to vary between 30% and 80% (Nelson, S., 2002).

In specialized literature, attempts have been made to diagnose the reasons for the failure of some CRM projects. These include: understanding the CRM approach only as a simple technological solution (Johnson, J., 2004); lack of strategic vision and planning of some companies (Day, G., 2003); lack of focus (Cook, R. 2017), lack of ability for effective management and integration of the CRM technology in the sales process (Erffmeyer, C., Johnson, D., 2001), flaws in the reorganization of key business processes in companies (Rigby, D. et al., 2002), inadequate training of employees to accept CRM (Arussy, L. 2017).

Despite the afore-mentioned conclusions, there is still insufficient study of the causes which have led to the failure of a large number of CRM projects; operationalization and validation of the CRM process, etc. The focus of attention of many specialists have been placed exclusively on the creation of strategies and programs for interaction with customers, at the expense of activities and measures for implementation and control. Consequently, the strategic process of customer

relationships management cannot be planned and sized up in its entirety, which obstructs creating conditions for subsequent evaluation of its efficiency.

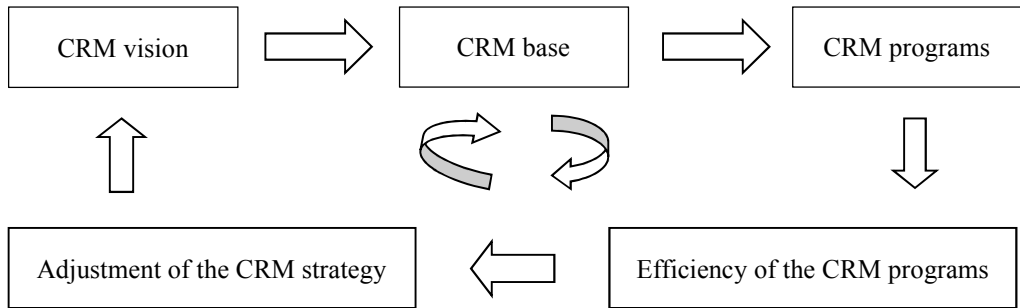
In line of the above, *the purpose of the present article is to present a summary of practices in interaction with customers of companies operation in the field of business services in Bulgaria and outline opportunities for the development of those practices.* The idea is to find out whether the selected/surveyed companies recognize the need to manage their customer relationships and whether and how they actually implement this process.

### **Research methodology**

The study uses the components of the CRM diamond model (Mack, Mayo, Khare, 2005) as a starting point, dynamizing them by following the logic of the CRM model, developed by Alsmadi and Alnawas (Alsmadi, S., Alnawas, I., 2001). The latter model consists of a series of steps that managers need to follow in order to successfully implement CRM systems: defining the company's strategic vision; specifying CRM goals; preparing a CRM strategy; providing conditions for the implementation of the CRM project; managing CRM programs; bilateral communication to direct the CRM process; measuring the efficiency of CRM programs; adjusting the CRM strategy.

Combining said models is imperative, given the holistic nature of the CRM concept. The Mack, Mayo, and Khare model provides an orientation regarding the CRM components and, in that sense, it is descriptive in its nature. The Alsmadi and Alnawas model presents the development of the combination of these components, which makes it process-oriented. There are structural differences between the descriptive and process-oriented model. The descriptive model consists of three blocks: CRM Vision, CRM Base, and CRM activities. The following components, which are simultaneously present in the process model, are explicitly missing there: goals, strategy, bilateral communications to direct the CRM process, measuring the program efficiency and adjusting the strategy.

Both models are used as a basis for an adapted original conceptual model of the strategic CRM process (Figure 1).



**Figure 1. A conceptual model of the strategic CRM process**

In the survey conducted, separate blocks of questions (between 2 and 7) are provided for each of the stages of the process, depending on its specificity. The total number of operational variables amounts to 55. A uniform logic was used to define them. A generalization question was provided for the assessment of each stage of the strategic CRM process. The stages of the process have been decomposed into separate blocks that describe the separate CRM components. The stages "CRM efficiency" and "CRM adjustment" are an exception of the presented logic where after the generalized assessment, operationalization is directly conducted. The reason for this is that the program efficiency and the strategy adjustment are not components of the descriptive model in their nature but aim to dynamize it by monitoring the natural course of the CRM process.

Data was collected through a direct personal survey. All blocks of questions were assessed using a standardized 5-point scale (from 1 "the statement does not describe our environment at all" to 5 "the statement fully describes our environment"). The assessment scales have been tested for reliability using the Cronbach's Alpha criterion.

Objects of the survey are managers of companies, specialized in offering 4 kinds of business services: accounting, financial, marketing and legal services. The choice of respondents at senior management level is governed by the fact that they are involved in setting the company's goals and making the strategic decisions about their companies. The number of respondents is as follows: accounting services – 141, financial services – 115, marketing services – 104 and legal services – 120. Said number embraces managers who participated in the survey but it should also be taken into account that more than one questionnaire can be filled in within one company. The sample is of the "voluntary respondents" type. The sampling base is not listed, as there is no data on individual sampling units.



### CRM-practices assessment

An analysis of the variables in the model, presented in Fig.1, was conducted in order to explore the CRM practices in the different branches.

**First stage. CRM vision.** The highest average assessments are observed with companies specializing in financial and marketing services where up to 94% of respondents have a clear vision for their customers that allows them to effectively manage their relationships (Table 1). The highest standard deviation is established for law firms where about 25% do not share the statement about the existence of a clear CRM vision. Regardless of the higher value of the standard deviation here, the variance for none of the branches reaches the critical level of 50%, which means that the dispersion is within acceptable limits.

Table 1

#### Vision for Customer Relationship Management

Measuring instruments	Type of services offered			
	Accounting	Financial	Marketing	Legal
Average Arithmetic	4,43	4,64	4,58	4,15
Standard Deviation	0,70	0,71	0,66	1,21
Variation Coefficient	0,16	0,15	0,14	0,29

The components "guidelines for relationship management" and "customer analysis and assessment" are evaluated within the frames of the CRM vision. The respondents are convinced that the systematic customer relationship management increases the profitability of the company. The relative share of representatives of accounting, financial and marketing firms who partly or fully share this opinion lies between 94% and 98%. Only for the law firms, where a positive assessment (4,15) on this issue is also formed, the share of the respondents with a positive response to this question amounts to about 70%.

Assessments with a small degree of dispersion are formed which serve to indicate that companies have specific aims for management of the relationship and take specific measures in this area. In the four researched branches, a significant share of managers (between 30% and 43% as per branch) do not think that customers are treated or shall be treated differently depending on their status. This statement contradicts the statement that targets are defined depending on the customers. It is understood that relations must be managed but such a statement is not realizable provided that the customer base is not differentiated and not interacted with according to the goals.

Overall, in the four researched business areas a significant proportion of managers (between 85% and 91% for accounting, financial and marketing and 66% for legal services) are convinced in the need for systematic analysis and customer assessment as well as determination of prospective customers based on them. An interesting decrease in the magnitude of the average assessments is established for the statement that customer analysis and assessment are obligatory conditions in order to distinguish between significant and insignificant customers. A possible explanation for this is that a large number of companies do not conduct special customer analyses (especially in small companies that do not have CRM software) and the importance of customers is determined intuitively or based on metrics such as: customer's share in the sales, customer's share in the profits, customer's contribution by sharing positive information and attracting new customers, providing important market information etc.

Managers who took part in the survey (65% of the participants working in the legal branch and between 85% and 90% of those operating in the other business areas) are aware that analysis and assessment of customers is a necessary condition for effective interaction with them. According to the respondents, the efficiency of the interaction depends on the ability of companies to tailor their offers according to individual customer requirements.

**Second Stage. CRM base.** The highest average assessments are observed for companies specializing in financial services (up to 91% of respondents declare that they have the conditions for effective customer relationship management; see Table 2). The CRM base is operationalized through four components: corporate culture, organizational structure, customer research activities and database management.

Table 2

**Conditions for efficient Customer Relationship Management (CRM base)**

Measuring instruments	Type of service offered			
	Accounting	Financial	Marketing	Legal
Average Arithmetic	4,35	4,45	4,32	3,96
Standard Deviation	0,80	0,73	0,82	1,10
Variation Coefficient	0,18	0,16	0,19	0,28

Customer-orientated corporate culture is expressed through the opinion of staff operating at various hierarchical levels that customers are a major factor for the development of the business. This opinion is shared by a significant number of

managers (between 81% and 93%). Managers think that the front-office staff is familiar with the company's goals and strategies on customer relationship management. They also share the opinion that surveyed companies have clear procedures for implementing customer-oriented activities such as offer-making, services, claim management etc.

Organizing staff training in terms of customer service is part of the customer-orientated corporate culture. A high level of dispersion which reaches the critical level of 50% is observed in this respect. The data show that only financial and credit institutions (87%) tend to train their staff to work and interact with customers. Such trainings are true (even under certain conditions) only for 36% of accounting, 55% of marketing and 41% of law firms.

**The organizational structure** is another component of the CRM base. It concerns provision of conditions streamlining the procedures and activities associated with the CRM process. As per this indicator, the financial services sector is most positively presented. The opinion of the managers involved in the survey regarding the organizational structure is theoretical and in many cases not based on certain facts. The average assessments regarding the presence of a person or special company department which adopts its offers to individual customers are much lower than the overall assessments for an existing appropriate organizational structure to implement the CRM concept. Some of the modifications of the offers are based on information from the operational contacts with the customers without conducting specially targeted research (which is not a negative fact itself). Another possibility is to modify the offers hoping that certain effects will be achieved in this way, e.g. changes are made through the trial and error method.

The next component within the CRM base is connected to **the activities of customer research**. For this component the lowest average assessments are formed within the strategic CRM cycle. The reason for this conclusion is the lack of well-established practices for systematical research of customers in different segments. Although a significant number of companies (between 59% for accounting services and 80% for financial services) declare that they research their customers according to certain criteria and on this base they make management decisions on how to interact, the criteria for customer monitoring are not defined. These do not include the following criteria: volume of purchases, customer's contribution to the profit, frequency of purchases, willingness to provide market information in order to generate ideas to improve the offers.

The last element of the CRM base is the **"database management"**. The distribution of the assessments within this block shows that almost all companies

offering financial and marketing services (90% - 92%) perform data systematization and analysis that allows them to manage their relationships with their customers.

The existence of customer databases does not directly mean that this is a good basis for relationship management. The question is "what exactly is the information in the databases and in what cases it can be useful?" It turns out that part of the information arrays does not contain behavioral information (frequency and volume of purchases, number of complaints, etc.). When there are large customer databases and desire to tailor the offers, this does not allow taking into account customer's past behavior. Therefore, it cannot be said that the preparation of the offers takes into account all the important aspects that are relevant to future customer behavior.

An even smaller share of the companies make use of specialized software to help them analyze customer groups and make offers according to them. Companies, specializing in financial services (74% have such software) and marketing services (60% have such software) are best represented in this respect.

**Third stage. CRM programs development.** The highest average assessments are observed with companies specializing in financial and marketing services where up to 78% of the respondents declare that they implement flexible customer interaction programs (Table 3).

The assessment of the CRM programs has been carried out taking into account three aspects: the company's flexibility in the management of the service process, management of the customer lifecycle and practices in customer segmentation.

Table 3

### CRM programs as per branches

Measuring instruments	Type of service offered			
	Accounting	Financial	Marketing	Legal
Average Arithmetic	3,09	4,21	4,14	2,80
Standard Deviation	1,35	0,99	1,03	1,35
Variation Coefficient	0,44	0,24	0,25	0,48

**The flexibility of companies** to manage the service process is associated with the ability of the firms to adapt their offers to meet their customers' specific requirements. In this respect the best results are achieved by marketing and financial companies. The most dynamic elements in the offers of the companies are communications and prices. Almost all companies specializing in marketing services

(94%) state that they can change their ways of communication in order to meet the requirements of strategic customers. This is true for 85% of financial and credit institutions. The lowest level of communication flexibility is established for law firms. A similar distribution of the average assessments is also established for the price flexibility of companies according to their business field. Again, the highest degree of flexibility is established for companies specializing in marketing services (77%), followed by financial companies (74%). The poorest performance in terms of flexible pricing is established for law firms, which is understandable given the fixed price levels for part of the services in this branch.

The second component of the CRM programs are **practices for customer lifecycle management**. Once again, companies offering financial and marketing services exhibit the best performance. Between 88% and 91% of them organize and implement CRM programs according to the stages of the customers' life cycle. Comparing the summarized assessment of the lifecycle management estimates to the assessments of the operationalized variables reveals that companies focus their efforts on attracting and keeping customers. Practices in reactivation of already lost customers are significantly less used.

The last component within the stage "CRM programs" is the **"segmentation of the customer base"**. The data show divergence of managers' opinions even within each of the four researched branches. Between 52% and 67% of managers surveyed declare the existence of practices for grouping customers into segments based on demonstrated common features, but among the criteria for customers' classification behavioral indicators such as demonstrated preferences, ways of communication, etc. are less used.

**Fourth stage.** *CRM programs efficiency assessment* (Table 4). The highest average assessments were observed with companies specializing in financial and marketing services, where between 63% and 79% of the respondents state that they have developed standards to determine whether their programs for interaction with customers are efficient. In accounting and legal firms the average assessments lie within the neutral part of the scale (3,16 and 2,79).

Table 4

**Efficiency of CRM programs**

Measuring instruments	Type of services provided			
	Accounting	Financial	Marketing	Legal
Average Arithmetic	3,16	4,05	3,76	2,79
Standard Deviation	1,43	1,12	1,14	1,43
Variation Coefficient	0,45	0,28	0,30	0,51

These assessments are logical as they are comparable to assessments for the development and implementation of flexible programs for interaction with customers. The dispersal here comes close to and for law firms exceeds the critical level of 50%. The reason thereof is the high share of managers (between 50% and 58% for both branches) in whose opinion their companies lack standards for assessing the efficiency of programs for interaction with customers.

The efficiency of CRM programs is assessed on the basis of indicators that differ from the commented ones: proportion of attracted customers to targeted customers and share of customers lost as per years. The design of the research questionnaire helps little to identify exactly what assessment criteria of the efficiency of the customer relationship management process are used. Based on the results formed to date, in view of components from other stages of the strategic CRM process, it can be assumed that there are no specific indicators but intuitive assessments made by people who make management decisions.

**Fifth stage. CRM-strategy adjustment.** The highest average assessments were observed with companies specializing in financial and accounting services, where between 65% (accounting companies) and 89% (financial companies) of respondents said they monitor the implementation of strategies for managing relationships with customers and, if necessary, adjust them (Table. 5).

Table 5

**Practices in adjustment of CRM strategies**

Measuring instruments	Type of services provided			
	Accounting	Financial	Marketing	Legal
Average Arithmetic	3,60	4,31	3,07	3,09
Standard Deviation	1,19	0,88	1,48	1,36
Variation Coefficient	0,33	0,20	0,48	0,44

For marketing and legal companies, average assessments lie within the neutral part of the scale (3,07 and 3,09). There, the dispersion approaches the critical level of 50%. The reason for this is the high relative proportion of managers (between 50% and 57% for both branches) according to whom their companies either lack strategy or fail to monitor the implementation of the CRM strategy and, if necessary, adjust it. Activities for adjustment of the CRM strategy are assessed based on a summary variable and two operationalizing variables. These are associated with the presence of a mechanism for monitoring the implementation of the strategy as well as a working mechanism intended to adjust the strategy in case of identified problems. The most favorable assessments are submitted by financial and accounting companies where 88% and 55% respectively of the surveyed managers provide an affirmative answer about the existence of practices to monitor performance and adjust the strategy if necessary. The lower values of the average assessments of the existence of mechanisms for monitoring and adjustment of the strategy once more indicate that some companies only intuitively estimate the success of the strategy and choose the correct format and time for its adjustment.

A better picture of the development of the CRM process can be obtained by comparing the average assessments for the last three stages (Table. 6).

The data in Table 6 lead to the following conclusions concerning the implementation of programs for customer relationships management:

- some of the accounting firms lack clearly developed programs for interaction with customers, but their managers have some reference points (standards or indicators) against which they can estimate the efficiency of their interaction with customers. At the same time, the share of managers who are ready to change the offer if necessary is higher than the share of managers who have developed clear standards for evaluation of the efficiency. This means that a significant part of the decisions in relation to CRM are simply intuitive and are not based on specific standards.

Table 6

**Summary assessments for the implementation  
of the CRM programs as per branches**

Measuring instruments	Type of services provided			
	Accounting	Financial	Marketing	Legal
Availability of CRM programs	3,09	4,21	4,14	2,80
Assessment of the efficiency of CRM programs	3,16	4,05	3,76	2,79
Adjustment of the CRM programs	3,60	4,31	3,07	3,09

- In most financial and marketing companies there are programs for customer interaction, however not all users of such programs appreciate their efficiency. This might be seen as a weakness as it can incur extra costs for lack of guarantees that funds for interaction with customers are spent appropriately. Financial companies show the highest grade of flexibility as compared to the other three branches, despite the fact that modifications in the offers of financial and insurance companies are not based on specific evaluations of measurement efficiency so far.

- The narrowest range in average assessments for all three indicators are observed in companies specializing in legal services. This means that some companies have clear rules on how to interact with customers and use standard procedures to evaluate whether the interaction is effective and undertake adjustments accordingly.

### **Inferences**

The analysis of the CRM practices of companies conducted so far has led to the following important inferences:

*First.* The respondents believe that systematic customer relationships management increases the profitability of companies. However, some of them have no clear vision for their customers which prevents them from effective management of their relationships with customers.

*Second.* Every third manager believes that customers are equally important, which according to the CRM principles will not allow them to exploit the positive effect of differentiating customers and tailoring offers.

*Third.* According to managers, the efficiency of customer interaction depends on the ability of companies to customize their offers. This conclusion corresponds to the



basic principles of CRM concept, but at the same time it contradicts the previous conclusion that customers must not be differentiated. It is unlikely to regard customers as equally important and at the same time try to personalize the offers. It should also be noted that the personalization of the offer must comply with the capabilities and the customer's desire to provide a certain return of the cost of the customization. Therefore, personalization can be efficient only if the customer can create certain benefits for the offering party which repay and exceed the costs for the personalization of the offer.

*Fourth.* Results show that a significant share of the surveyed companies (over 50%), in three of the researched branches, do not train their staff to work with customers. This prevents to formulate a homogeneous opinion on the corporate culture of the companies and it can lead to loss of customers in the long term.

*Fifth.* In general, within the strategic CRM process the following components are claimed to be problematic: customer research and customer base segmentation. Managers shall put more effort into finding the right approach to collecting customer data and determining the criteria for grouping them according to similarity levels. This can help companies to build accurate customer profiles and differentiate the components of the offers according to the identified customer profiles. Such an approach may increase the efficiency of the relationships management process.

*Sixth.* It was established that a large number of companies have customer databases. At the same time, accumulated data arrays do not contain behavioral information that can be of great help in offer-making. It is recommended to design databases taking into account criteria which are relevant for the respective company and are focused on behavioral data.

*Seventh.* In the researched branches the opinion prevails that there are conditions for efficient relationships management but this statement is theoretical and not based on certain facts. A significant part of the companies do not conduct any special analyses on customers and the importance of customers is mainly determined by intuition. In most cases, companies do not have a department or a person who is in charge of customer research and/or of customizing offers to fit individual customers' needs. Therefore, part of the modifications of offers are again carried out intuitively or based on information from operational contacts with customers without conducting specifically targeted research. This conclusion however, is not necessarily negative because in certain situations (e.g. small customer databases) it is more appropriate to research customers during the interaction with them than to conduct targeted research. In situations with large and diverse customer portfolio and diverse product mix such an approach is not recommended.

*Eighth.* Some of the surveyed companies have clearly developed programs for customer interaction however not all users of such programs appreciate their efficiency. Managers of companies that lack comprehensive programs for interaction with customers and standards for their assessment use methods (which are not explicitly mentioned by managers) designed to assess efficiency of customer interaction.

### **Conclusion**

In view of the above study, we are to offer certain recommendations. It is essential for managers to pay attention to the CRM vision as a ground on which efficient actions towards customers shall be taken (that will bring increased profitability for the offering parties). Managers should accept the foundation principle of different customer value if they wish to develop and implement customized strategies. At the same time, they should bear in mind that personalization can be efficient only if the customer creates certain benefits for the offering party which will repay or exceed the costs for the personalization of the offer. Further on, it is recommended that each company identifies specific parameters necessary to measure the efficiency of the customer interaction.

### **References**

1. Alsmadi, S., Alnawas, I. (2001) Empirical Investigation of the CRM Concepts in the Jordanian Context: The Case of Banks and Financial Institutions. *Journal of Business International and Management*, 6 (2), February, p. 183.
2. Arussy, L. (2017) CRM failure: The top six reasons CRM programs fail. From Available: <http://searchcrm.techtarget.com/answer/CRM-failure-The-top-six-reasons-CRM-programs-fail> [Accessed: 15/8/2017].
3. Anshari, M., Alas, Y. (2015) Big Data Era: Big Challenges for ASEAN Economic Community. *International Conference on Asean Studies 2 (ICONAS 2)*, 3-5 August.
4. Barone M. et.al. (2000) The Influence of Cause-Related Marketing on Consumer Choice: Does One Good Turn Deserve Another? *Of the Academy Journal of Marketing Science*, 28, Spring, p. 248-262.
5. Cook, R. (2017) Three Reasons CRM Fails, Available from: <http://www.crmsearch.com/crm-failures.php> , [Accessed: 15 /8/2017].
6. Day, G. (2003) Creating a Superior Customer-Relating Capability. *Management Review Sloan*, 44 (3), p. 77-83.

7. Gudkova, S. (2005) CRM! Pochemu vnedrenie, a ne «korobka»? Bankovskoe Obozrenie, 3, 2005. Available from: <http://www.cmdsoft.ru/about/prensa/007> [Accessed: 14/8/2017], (in Russian) .
8. Erffmeyer, C., Johnson, D. (2001) An Exploratory Study of Sales Force Automation Practices: Expectations and Realities. *Selling of Professional Journal & Sales Management*, 21 (2), p. 167.
9. Johnson, J. (2004) Making Technology CRM Work. *British Journal of Administrative Management*, 39 (3), p. 22-23.
10. Kim, H. et al. (2010) Integration of Firm's Resource and Capability to Implement Enterprise CRM: A Case Study of a Retail Bank in Korea. *Support Systems Decision*, 48 (2), p. 313-322.
11. Lamparello, D. (2000) Doing More for the Right Customers. *Bank Systems and Technology*, 37 (1), p. 10-11.
12. Mack, O., Mayo, M., Khare, A. (2005) A Strategic Approach for Successful CRM: An European Perspective. *Problems and Perspectives in Management*, 2, p. 100.
13. Nelson, S. (2002) CRM: From "Nice to Have" to Necessity. *Gartner Group*, Available from: [q3h3vwb.tripod.com/msce630.../as signment.html](http://q3h3vwb.tripod.com/msce630.../as signment.html) [Accessed: 5 / 5 / 2017].
14. Peppers, D., Rogers, M. (1997) Enterprise One-to-One. Tools for Competing in the Interactive Age, New York: Currency Doubleday, p. 11-12.
15. Rigby, D., Reichheld, F., Schefter, PH. (2002) Avoid the Four Perils of CRM. *Harvard Business Review*, Feb., p. 103.
16. Ross et al. (1992) Consumer Perceptions of Organizations That Use Cause Related Marketing. *Journal of the Academy of Marketing Science*, 20 (1), p. 93-98.
17. Shepard, D. (1995) The New Direct Marketing: How to Implement A Profit-Driven Database Marketing Strategy, New York: Irwin.
18. Stanimirov, E. Zhechev, V., Stanimirova, M. (2016) Strategic Readiness for CRM Process Management: the Case of Business Service Companies in Bulgaria. *Inquiry - Sarajevo Journal of Social Sciences*, 1, p. 9.
19. Turner, V., John F., Reinsel, D., Minton, S. (2014) The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things. *From IDC for Report EMC*, April. Available from: <https://www.emc.com/collateral/analyst-reports/idc-digital-universe-2014.pdf> [Accessed: 15/8/2017].

20. Wang, L. (2016) The New Trend and Application of Customer Relationship Management under Big Data Background. *Modern Economy*, 7, p. 841-848. Available from: <http://dx.doi.org/10.4236/me.2016.7808>.  
<http://www.crmsearch.com/crm-explained-implementation.php#crm-mistakes> .  
[Accessed: 15/8/2017].



## INCOME, INCOME INEQUALITY AND HEALTH: EVIDENCE FROM NIGERIA

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### Abstract

This study examines the effects of income and income inequality on health in Nigeria in the course of 1980-2014. The study adopts the ARDL Bounds testing approach to investigate the effects of income and income inequality on health in the long- and short-run periods. It was revealed that income has a significant positive relationship with health both in the long run and in the short run, implying that income is a major protecting factor against poor health. On the other hand, income inequality was found to have a significant negative relationship with health in Nigeria, both in the long run and in the short run.

Given the attendant impact of income and income inequality on population health, measures and programmes that guarantee adequacy of income and ensure equitable distribution of income should be core components of the economic policies of the Nigerian government.

### Keywords:

Income, income inequality, health outcomes, cointegration, Nigeria.

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## Introduction

Over the years, Nigeria has consistently remained one of the world's leading exporter of oil and recorded huge gains during the oil boom era. However, the country still harbours large number of people living in abject poverty, with the gap between the poor and the rich increasingly widened while health status of many of the citizenry is very poor. Health status is hypothesized to increase with disposable income, as income determines the resources available to an individual for acquiring goods, including medical ones. This is because in any given period, a person chooses bet-

ween the consumption of goods from which he derives utility and investing in his health by consuming health care, medical goods or other activities that are beneficial to health. Based on this premise, the poorest consult fewer specialists, dentists and opticians, and use less hospital and nursing care (Jusot, 2006). The impact of variation in income and income distribution on health is, therefore, a serious issue of concern. This is because a number of empirical studies have shown that income is a key determinant of an individual's life satisfaction. There has been a great majority of studies focusing on the nexus between income, income distribution and health in the developed economies, while studies on the less developed countries have remained scanty and scarce.

Examining the effects of income and income inequality on health in Nigeria is quite expedient for obvious reasons. Despite being the largest economy in Africa, health outcomes - life expectancy rate, infant mortality rate, under-five mortality rate, etc, have remained intriguingly unimpressive. As in 2014, life expectancy at birth still stood at 52.8, infant mortality rate was put at 74.3 per 1,000 live births while under-five mortality rate was still as high as 117.4 per 1,000 live births (World Bank, 2015). The Nigerian government has been striving to end preventable deaths of newborns and children under age of five. It is also making concerted efforts to minimize neonatal mortality/under-5 mortality by 2030 as encapsulated in the Goal 3 of the Sustainable Development Goals (SDG)<sup>2</sup>. It is therefore imperative to understand the critical roles of income and income distribution in devising policies and measures for achieving this goal. More so, avalanche research in health economics has linked improved public health to higher average income by prescribing increases in GDP per capita for improving social well-being in the poor countries (Pritchett and Summers, 1996; Dollar and Kraay, 2002; Rajan, Kennedy and King, 2013). Similarly, earlier studies on few developing countries that shared specific features with Nigeria (like India and China) have shown that income inequality, aside from material variables like average income and poverty, is culpable for high mortality rates and thereby hinders the gains associated with rising income (Li and Zhu, 2006; Rajan et al., 2013; Feng, Wang, Jones and Li, 2012). Thus, this paper examines how income and income inequality affect health outcomes in Nigeria.

The rest of the paper is into four sections. Section 2 is on the review of relevant literature. Section 3 focuses on data and the methodology while section 4 is on results and discussion. Section 5 contains the policy recommendations and concludes the paper.

## **2. Literature Review**

The hypotheses on health-income nexus centre round three income-related variables: average income, poverty and income inequality. The causal mechanisms are -

investment in infrastructure and social capital at the societal-level as well as personal protection of health and individual stress at the individual level (Rajan et al., 2013). The relationship between income and health has been extensively dealt with in the health economics literature. This relationship is premised on the absolute income hypothesis (AIH). This hypothesis contends that individuals with higher level of income tend to have better health status. This hypothesis emanated from earlier works of Omran (1971) and Preston (1975). Omran (1971) submits that health status improves as average income rises, but the increase will later be at a decreasing rate (after a point of inflexion) due to epidemiological transition. Epidemiological transition is a period when the pattern of diseases changes from infectious to degenerative diseases, when the burden of mortality is mainly composed of the older rather than the younger generation. Likewise, Preston (1975) established a positive association between income and health, particularly in the poor countries. Generally, the absolute income hypothesis (AIH) in health economics posits that an individual's absolute level of income exerts positively on his or her health, with a possible concave causal relationship arising between income and health over time. By implication, additional increases in an individual's income leads to improvement in health, at a decreasing rate (Karlsdotter, Martin and Gonzalez, 2012).

On the other hand, the relationship between income inequality and health is based on the income inequality health. This hypothesis posits that income inequality exerts adversely on the health of individuals even when their income is held constant. Income inequality affects the health of both the rich and the poor via disinvestment in public health and human capital, erosion of social capital or stressful social comparison. The hypothesis has both the weak and the strong versions (Mellor and Milyo, 2002). The weak version of the hypothesis stipulates that income inequality is inimical to the health of only the least well off in a society i.e. the harmful effect of inequality on health decreases with one's income rank. On the other hand, the strong version of the hypothesis posits that the effect of income inequality is similar for all members in a society irrespective of their levels of income (Li and Zhu, 2006). Income inequality is hypothesized to affect health via specific channels: through its link with reduced social spending, through erosion of social capital while income inequality also leads to psychosocial effects from social comparisons among individuals (Kawachi and Kennedy, 1999; Feng et al., 2012). The validity of the income inequality hypothesis has been proven by avalanche of studies on many developed countries and relatively fewer developing countries (Li and Zhu, 2006; Ram, 2005; Ram, 2006; Wen, Browning and Cagney, 2003; Chen and Meltzer, 2008; Wilkinson, 1992, 1996; Qi, 2013; among others).

In a study on 56 selected low-income and high-income countries, Rodgers (1979) found that life expectancy was majorly determined by income inequality (proxied by Gini coefficient) reiterating that this observation was more peculiar for the developed and egalitarian countries. However, Gravelle, Wildman and Sutton (2002) found that the association between income inequality and health could either be positive or even be negative, and was never statistically significant. Similarly, Wen, Browning and Cagney (2003) found that income inequality is not a significant factor driving health when there is control on neighbourhood economic structure in USA. Pritchett and Summers (1996) found a negative relationship between the level of income and mortality rates, implying that the wealthier tends to be healthier. Benzeval and Judge (2001) found that long-term income is more significant for health than current income while levels of income are more important than income change. They also submitted that persistent poverty is more detrimental to health than occasional episodes with income reductions exerting significantly on health than increases in income. Similarly, Gangadharan and Valenzuela (2001) established a significant negative relationship between gross national products (GNP) and both the infant mortality rate and the child mortality rate in a study on 51 countries. The study also found a significant positive relationship between gross national products and life expectancy as well as healthy life expectancy. Contoyannis, Jones and Rice (2004) examined health dynamics, health and income using the British Household Panel Survey (BHPS) data. They disaggregated income into current and permanent income. They observed that current income influences significantly health status of man while it exerts no significant impact on health status of women.

In another study examining cross-country association between income inequality for 108 countries (comprising 18 OECD countries and 90 LDCs), Ram (2006) found a very strong correlation between income and health. Income exerted a very significant negative effect on mortality for all the countries. In separate analyses involving only the less developed countries (LDCs), poverty index<sup>3</sup> had positive relationship with infant mortality rate while income was having a negative relationship with infant mortality. Income inequality also had a positive relationship with the mortality rate. He inferred that income inequality other than poverty contributed more to infant mortality rate in the LDCs. He stressed that both income and GINI (a measure of income inequality) have larger effects in the LDCs. Jones and Wildman (2008) investigated the relationship between income and health based on the British Household Panel Survey (BHPS). A positive and significant relationship existed between income and health for both men and women, when the measure of relative deprivation was excluded from the model. When the measure of relative deprivation is included in the



model, the relationship was still significant and positive for men and women, but was not significant using the random effects estimator. Bloom and Bowser (2008) also found a positive correlation between income and rising life expectancy for United States counties between 1970 and 2000.

Chen and Meltzer (2008) found that lower relative income and higher income inequality may increase the incidence of obesity and hypertension among a sample of rural Chinese residents but not among their urban counterparts. They also found that income inequality contribute significantly to ill-health in Chinese provinces based on data set extracted from the China Health and Nutritional Survey (CHNS). Karlsdotter et al. (2012) found a correlation between higher level of personal income and a lower probability of negative health outcomes. Specifically, per capita income was found to be related to diminution in chronic health condition in Spain. Per capita welfare (a measure of income inequality) was also found to be significantly associated with chronic illness. Meanwhile, Qi (2012) reported no independent detrimental effect of country-level income inequality on self-rated general health of individuals using a sample of 19 OECD and 34 non-OECD countries. Oshio, Umeda and Fujii (2013) found no significant relationship between current income and self-rated health in any of their specified models whereas reduction in income from the previous year brought about a reduction in self-rated health in Japan. Based on Vietnam National Health Survey (VNHS), Sepehri and Guliani (2015) found a significant effect of household socioeconomic status (SES) on the health of children in Vietnam.

### 3. Methodology and Data

This paper uses annual time series data on infant mortality rate, real per capita income, CO<sub>2</sub> emissions (metric tons per capita) and GINI coefficient (measure of income inequality) from 1980-2014. Data on real per capita income, real per capita income and CO<sub>2</sub> emissions (metric tons per capita) were obtained from the World Development indicators while data on GINI coefficient were obtained from the Standardized World Income Inequality Database (SWIID). The period covered by the study was mainly based on the availability of data on income inequality.

The model for the study is from earlier studies on the health implications of income and income inequality by Rodgers, 1979; Flegg, 1982; and Ram, 2005.

$$\text{IMR} = f(\text{PCI}, \text{INQ}, \text{CO}_2) \quad (i)$$

IMR is infant mortality rate, PCI is the real per capita income, CO<sub>2</sub> is the CO<sub>2</sub> emissions in metric tons per capita while INQ denotes GINI coefficient. The inclusion of CO<sub>2</sub> is due to its impact on health outcome (see Gangadharan and Valenzuela,

2001). Theoretically, increases in level of income is anticipated to result into diminution in infant mortality rate (i.e. population health is expected to improve). On the other hand, income inequality is expected to be positively associated with infant mortality rate. This is in tandem with the postulation of the income inequality hypothesis (IIH). Likewise, carbon dioxide emissions are expected to be inimical to health. Hence, a positive relationship is theoretically plausible between carbon dioxide emissions and infant mortality rate.

The model is re-specified in econometric form as:

$$\ln \text{IMR}_t = \alpha_0 + \beta_1 \ln \text{PCI}_t + \beta_2 \text{INQ}_t + \beta_3 \ln \text{CO}_{2t} + \mu_t \quad (ii)$$

The study adopts the ARDL Bounds test pioneered by Pesaran and Shin (1999) for certain advantages it has over other techniques of cointegration. First, it can be applied irrespective of whether the underlying variables are  $I(0)$ ,  $I(1)$  or a combination of both. Secondly, unlike the Engle and Granger (1987) and Johansen (1988) multivariate cointegration approach, it is not sensitive to the values of nuisance parameters in finite sample thereby making its small sample properties superior. Third, the error correction model (ECM) can be derived from ARDL through a simple linear transformation, which integrates short run adjustments with long run equilibrium without losing long-run information. In addition, the ARDL approach is known to provide unbiased long-run estimates even when some of the variables are endogenous (Adom, Bekoe and Akoena, 2012; Pahlavani, Wilson and Worthington, 2005).

Consequent upon the features of the ARDL approach, it is adopted in modeling the effect of foreign direct investment on poverty reduction in Nigeria. With this approach, the real per capita income is expressed as a function of the lagged value of itself and the current and lagged values of the explanatory variables. Since there is no prior information about the direction of the long-run relationship among the variables, the following Unrestricted Error Correction Model (UECM) equations are estimated, considering each of the variables in turn as dependent variable:

$$\begin{aligned} \Delta \ln \text{IMR}_t = & \alpha_{0\text{IMR}} + \sum_{j=1}^q \beta_{j\text{IMR}} \Delta \ln \text{IMR}_{t-j} + \sum_{k=0}^r \beta_{k\text{PCI}} \Delta \ln \text{PCI}_{t-k} + \sum_{l=0}^s \beta_{l\text{INQ}} \Delta \text{INQ}_{t-l} \\ & + \sum_{m=0}^t \beta_{m\text{CO}_2} \Delta \ln \text{CO}_{2t-m} + \psi_{1\text{IMR}} \ln \text{IMR}_{t-1} + \psi_{2\text{PCI}} \text{PCI}_{t-1} + \psi_{3\text{INQ}} \text{INQ}_{t-1} + \psi_{4\text{CO}_2} \ln \text{CO}_{2t-1} + \mu_t \end{aligned} \quad (iii)$$

$$\begin{aligned} \Delta \ln \text{PCI}_t = & \alpha_{0\text{PCI}} + \sum_{j=1}^q \beta_{j\text{PCI}} \Delta \ln \text{PCI}_{t-j} + \sum_{k=0}^r \beta_{k\text{IMR}} \Delta \ln \text{IMR}_{t-k} + \sum_{l=0}^s \beta_{l\text{INQ}} \Delta \ln \text{INQ}_{t-l} \\ & + \sum_{m=0}^t \beta_{m\text{CO}_2} \Delta \ln \text{CO}_{2t-m} + \psi_{1\text{IMR}} \ln \text{IMR}_{t-1} + \psi_{2\text{PCI}} \text{PCI}_{t-1} + \psi_{3\text{INQ}} \text{INQ}_{t-1} + \psi_{4\text{CO}_2} \ln \text{CO}_{2t-1} + \mu_t \end{aligned} \quad (iv)$$

$$\begin{aligned} \Delta \ln \text{INQ}_t = & \alpha_{0\text{INQ}} + \sum_{j=1}^q \beta_{j\text{INQ}} \Delta \ln \text{INQ}_{t-j} + \sum_{k=0}^r \beta_{k\text{IMR}} \Delta \ln \text{IMR}_{t-k} + \sum_{l=0}^s \beta_{l\text{PCI}} \Delta \ln \text{PCI}_{t-l} \\ & + \sum_{m=0}^t \beta_{m\text{CO}_2} \Delta \ln \text{CO}_{2t-m} + \psi_{1\text{IMR}} \ln \text{IMR}_{t-1} + \psi_{2\text{PCI}} \text{PCI}_{t-1} + \psi_{3\text{INQ}} \text{INQ}_{t-1} + \psi_{4\text{CO}_2} \ln \text{CO}_{2t-1} + \mu_t \end{aligned} \quad (v)$$

$$\begin{aligned} \Delta \ln \text{CO}_{2t} = & \alpha_{0\text{CO}_2} + \sum_{j=1}^q \beta_{j\text{CO}_2} \Delta \ln \text{CO}_{2t-j} + \sum_{k=0}^r \beta_{k\text{IMR}} \Delta \ln \text{IMR}_{t-k} + \sum_{l=0}^s \beta_{l\text{PCI}} \Delta \ln \text{PCI}_{t-l} \\ & + \sum_{m=0}^t \beta_{m\text{INQ}} \Delta \ln \text{INQ}_{t-m} + \psi_{1\text{IMR}} \ln \text{IMR}_{t-1} + \psi_{2\text{PCI}} \text{PCI}_{t-1} + \psi_{3\text{INQ}} \text{INQ}_{t-1} + \psi_{4\text{CO}_2} \ln \text{CO}_{2t-1} + \mu_t \end{aligned} \quad (vi)$$

The parameters  $\psi_i$ , where  $i=1,2,3,4$  are corresponding long run multipliers,  $\Delta$  is the first difference operator while  $\beta_j, \beta_k, \beta_l, \beta_m$  are the short-run dynamic coefficients of the underlying ARDL model.  $\mu_t$  is the white noise error term.

Based on equation (ii), we test the null hypothesis that:

$H_0 : \psi_1 = \psi_2 = \psi_3 = \psi_4 = 0$  (i.e. no cointegration) against the alternative hypothesis,

$$H_1 : \psi_1 = \psi_2 = \psi_3 = \psi_4 \neq 0$$

The calculated F-statistic is compared with the two critical values for upper and lower bounds in order to determine the presence of cointegration. If the calculated F-statistics lies above the upper level of the bound, the null hypothesis is rejected, indicating the existence of cointegration. If the calculated F-statistics falls below the lower level of the bound, the null hypothesis cannot be rejected, indicating lack of cointegration. If however, it falls within the bound, the result is inconclusive.

Once the existence of the cointegration is confirmed, equation (ii) is estimated using the following ARDL (m, n, p, q) model:

$$\begin{aligned} \ln \text{IMR}_t = & \alpha_0 + \sum_{p=1}^m \alpha_1 \ln \text{IMR}_{t-p} + \sum_{p=0}^n \alpha_2 \ln \text{PCI}_{t-p} \\ & + \sum_{p=0}^p \alpha_3 \ln \text{INQ}_{t-p} + \sum_{p=1}^q \alpha_4 \ln \text{CO}_{2t-p} + \varepsilon_t \end{aligned} \quad (vii)$$

Furthermore, the short-run relationship is estimated with the aid of the following error correction model:

$$\begin{aligned} \Delta \ln \text{IMR}_t = & \sigma_0 + \sum_{p=1}^n \sigma_1 \Delta \ln \text{IMR}_{t-p} + \sum_{p=0}^n \sigma_2 \Delta \ln \text{PCI}_{t-p} + \sum_{p=0}^n \sigma_3 \Delta \ln \text{INQ}_{t-p} \\ & + \sum_{p=0}^n \sigma_4 \Delta \ln \text{CO}_{2t-p} + \phi \text{ECM}_t + v_t \end{aligned} \quad (\text{viii})$$

Where  $\phi$  measures the speed of adjustment,  $\sigma$  are the coefficients relating to the short-run dynamics of the model convergence to equilibrium,  $\text{ECM}_t$  is the error correction term and it is defined as:

$$\begin{aligned} \text{ECM}_t = & \ln \text{IMR}_t - \alpha_0 - \sum_{p=1}^m \alpha_1 \ln \text{IMR}_{t-p} - \sum_{p=0}^n \alpha_2 \ln \text{PCI}_{t-p} \\ & - \sum_{p=0}^p \alpha_3 \ln \text{INQ}_{t-p} - \sum_{p=0}^q \alpha_4 \ln \text{CO}_{2t-p} \end{aligned} \quad (\text{ix})$$

Asteriou and Hall (2007) noted that most macroeconomic time series are trended and therefore in most cases are non-stationary. In addition, when the computed F-statistic falls inside the upper and lower bounds, a conclusive inference cannot be made without knowing the order of integration of the underlying regressors. Therefore, unit root tests of the variables need to be conducted before proceeding with the ARDL technique (Narayan, 2004).

#### 4. Empirical Results

Table 1

##### Descriptive Statistics of the Variables

	IMR	CO <sub>2</sub>	INQ	PCI
Mean	110.4143	0.613380	45.24012	698.5974
Median	120.4000	0.644398	43.66020	605.7565
Maximum	128.9000	0.924785	53.37352	1091.637
Minimum	74.30000	0.322040	40.65027	494.2390
Std. Dev.	18.56349	0.171713	3.906578	187.5283
Skewness	-0.742905	-0.003672	0.626308	0.809505
Kurtosis	2.002378	1.921556	2.024498	2.156393
Jarque-Bera	4.670871	1.696182	3.675947	4.860433
Prob.	0.096768	0.428232	0.159140	0.088018

Table 1 presents the number of observations, minimum, maximum, standard deviation and coefficient of variation for all variables from 1980 to 2014. The table shows that all the series are highly consistent as their mean and median values are perpetually within the maximum and the minimum values of these series. Infant mortality rate and carbon dioxide emission are both negatively skewed while per capita income and income inequality (measured by the GINI coefficient) are positively skewed. Finally, the probability that the Jarque-Bera statistic exceeds (in absolute term) the observed value indicates that the carbon dioxide emission and income inequality have normally distributed error term.

Table 2

## Correlation Matrix

	CO <sub>2</sub>	IMR	INQ	PCI
CO <sub>2</sub>	1.000			
IMR	0.181 (0.297)	1.000		
INQ	-0.467* (0.005)	0.612* (0.000)	1.000	
PCI	0.032 (0.855)	-0.873* (0.000)	-0.650* (0.000)	1.000

*The value in the parentheses are probability values. \* denotes 5 percent level of significance.*

Table 2 reveals that a highly significant positive relationship exists between income inequality and infant mortality rate (a measure of health outcome). This is in line with the a priori expectation as increase in the gap between the rich and the poor is anticipated to have deleterious effects on health. A highly significant negative relationship exists between the income and infant mortality rate. This implies that the health status tends to improve as the level of income rises. Meanwhile, a highly insignificant positive relationship is observed between carbon dioxide emission and health.

Table 3

**Statistical output for unit root test (Ng-Perron)**

Variables	MZa	MZt	MSB	MPT
$\ln \text{IMR}_t$	-72.32*	-5.99	0.08	1.35
$\ln \text{PCI}_t$	-1.30	-0.64	0.50	49.90
INQ	-4.13498	-1.39861	0.33824	5.97219
$\ln \text{CO}_2$	-6.40421	-1.78296	0.27840	14.2279
$\Delta \ln \text{PCI}_t$	-15.30***	-2.74	0.18	6.08
$\Delta \text{INQ}$	-7.09165***	-1.86775	0.26337	3.50877
$\Delta \ln \text{CO}_2$	-16.3276***	-2.85689	-2.85689	5.58310

\*,\*\*\* denote rejection at 1% and 10% respectively.

Results from our unit root test indicate that infant mortality rate is stationary at level while per capita income, the GINI coefficient and carbon dioxide emission are all stationary at first difference.

The result of the Bounds Cointegration test is in Table 4. This result emanates from the estimation of equations (iii-vi) to examine the existence of long run relationships among the variables.

Table 4

**Results of ARDL cointegration test**

Model for Estimation	F-statistics	Lower-upper bound at 1%	Lower-upper bound at 5%
$F_{\text{IMR}}(\text{IMR}_t/\text{PCI}_t/\text{INQ}_t/\text{CO}_{2t})$	8.87*	4.29-5.61	3.23-4.35
$F_{\text{PCI}}(\text{PCI}_t/\text{IMR}_t/\text{INQ}_t/\text{CO}_{2t})$	10.42*	4.29-5.61	3.23-4.35
$F_{\text{INQ}}(\text{INQ}_t/\text{IMR}_t/\text{PCI}_t/\text{CO}_{2t})$	6.15*	4.29-5.61	3.23-4.35
$F_{\text{CO}_2}(\text{CO}_{2t}/\text{IMR}_t/\text{PCI}_t/\text{INQ}_t)$	9.60*	4.29-5.61	3.23-4.35

The \*,\*\*denote the rejection of the null hypothesis at 1% and 5% level of significance respectively. The critical values are provided by default using E-VIEWS 9.

When each of infant mortality rate (**IMR**), per capita income (**PCI**), income inequality (**INQ**) and carbon dioxide emission (**CO<sub>2</sub>**) is specified as the dependent variable, the calculated F-Statistic is 8.87, 10.42, 6.15 and 9.60 respectively. Each of these values is higher than the upper bound critical value at 1 percent level of

significance. This indicates that the null hypothesis of no cointegration is not acceptable at the 1% level. Thus, per capita income, income inequality as well as carbon dioxide emissions (in metric tonnes per capita) could be treated as having relationship with the infant mortality rate in the long run in Nigeria.

It could be deduced from table 5 that per capita income exerts negatively on infant mortality rate at 1 percent level of significance i.e. increases in income translates into diminution in mortality rate. The result indicates that 1% increase in per capita income translates into 0.51% reduction in infant mortality rates. This implies that as income rises at individual level, health status tends to improve. This corroborates the submission of Pritchett and Summer, 1996; Benzeval and Judge, 2001; Ram, 2006; Jusot, 2006, Bloom and Bowser, 2008; Li and Zhu, 2006; Jones and Wildman, 2008; Qi, 2012; Rajan et al., 2013, among others. This portrays the fact that access to more financial resources tends to make better health services affordable to the rich Nigerians and income seems to be a very strong protecting factor against ill health.

Table 5

**Statistical output for long-run regression model**  
**Dependent variable: InIMR<sub>t</sub>**

Variables	Coefficient	Std.Error	t-Statistics	p-value
lnPCI <sub>t</sub>	-0.518*	0.119	-4.348	0.000
INQ <sub>t</sub>	0.011***	0.006	1.923	0.071
lnCO <sub>2t</sub>	-0.032	0.047	-0.674	0.509
Constant	7.567	0.732	10.342	0.000

\*,\*\*\* denotes significance at 1% and 10% respectively.

Some of them even go beyond the shores of the country to seek better health care (i.e. health tourism) given the comatose state of the Nigerian health sector. The strong relationship between income and health to the fact that access to health is not guaranteed for all in Nigeria. In addition, the strong association between income and health in Nigeria indicates that qualitative health is not accessible to all and sundry, and as such, income seems to play key role in healthcare consumption. The scenario is different in the case of the developed countries (where the citizenry has a better and improved access to healthcare) and factors other than income have been identified to be more important in determining population health.

Also in line with the theoretical expectation, income inequality exerts positively on infant mortality rate at 10 percent level of significance. Thus, as income inequality

risers, health tends to deteriorate in Nigeria. Hence, individuals at the lower rung of the income ladder usually have fettered and unequal access to quality diet and qualitative health compared to individuals at the upper rung of the income ladder. Consequently, inequality in income is a major causal factor for health inequality in Nigeria. This also indicates that policies relating to income distribution or redistribution have far-reaching implications on health outcomes. Findings from this study replicate those of Rodgers, 1979; Ram, 2005; Ram, 2006; Chen and Meltzer, 2008; Feng et al., 2012; Karlsdotter et al., 2012; Rajan et al., 2013. Specifically, this study corroborates submission of Li and Zhu (2006). Contrary to expectation, carbon dioxide emission exerted an insignificant negative effect on mortality, with 1% increase in carbon dioxide emission resulting into 0.032% fall in mortality rates. This is indeed contrary to Gangadharan and Valenzuela, 2001; as it is expected that increases in carbon dioxide emission should exert positively on rates of mortality.

From Table 6, contemporaneous income also exerted negatively on infant mortality rate at 10 percent level of significance in the short run. Thus, the higher the level of income, the better the health status or income seems to be a strong protecting factor against bad health in Nigeria. Nevertheless, the effect of income on health was found to be more pronounced in the long-run than in the short-run period in Nigeria, while the initially prevailing level of income was found to be positively related to infant mortality rate.

*Table 6*

**Statistical output for the short-run model**

<b>Dependent Variable: <math>\Delta \ln \text{IMR}</math></b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
$\Delta \ln \text{IMR}(-1)$	4.678	1.287	3.635	0.002
$\Delta \ln \text{IMR}(-2)$	-3.545	1.632	-2.172	0.044
$\Delta \ln Q$	0.004	0.002	1.738	0.099
$\Delta \ln Q(-1)$	-0.011	0.003	-3.991	0.001
$\Delta \ln Q(-2)$	0.016	0.003	5.889	0.000
$\Delta \ln Q(-3)$	-0.008	0.002	-5.180	0.000
$\Delta \ln \text{PCI}$	-0.041	0.024	-1.749	0.097
$\Delta \ln \text{PCI}(-1)$	0.045	0.022	2.057	0.055
$\Delta \ln \text{CO}_2$	-0.005	0.008	-0.680	0.505
$\text{ECT}(-1)$	-0.174	0.035	-4.962	0.000



Like in the long run period, the contemporaneous level of income inequality was found to be positively associated with infant mortality rate at 10 percent level of significance i.e. as income inequality rises, population health tends to deteriorate. It therefore indicates that income inequality has a modest but statistically significant deleterious on health both in the short-run and the long-run periods. Two-year lagged income inequality exerts positively and significantly associated with infant mortality rate while both the one-year lagged and the three-year lagged income inequality are negatively and significantly associated with infant mortality rate.

The coefficient of the error correction term is negative and statistically significant at the 1 percent. It confirms the existence of a short-run relationship in the model and reveals that the speed of adjustment from short-run disequilibrium to long-run equilibrium is 17.4%. This implies that the adjustment takes place relatively slowly. It also implies that when there is any disturbance, convergence to equilibrium is relatively slow with 17.4% of adjustment occurring in the first year. Consequently, for an initial error of 1%, 17.4% of the error would be corrected in the first year.

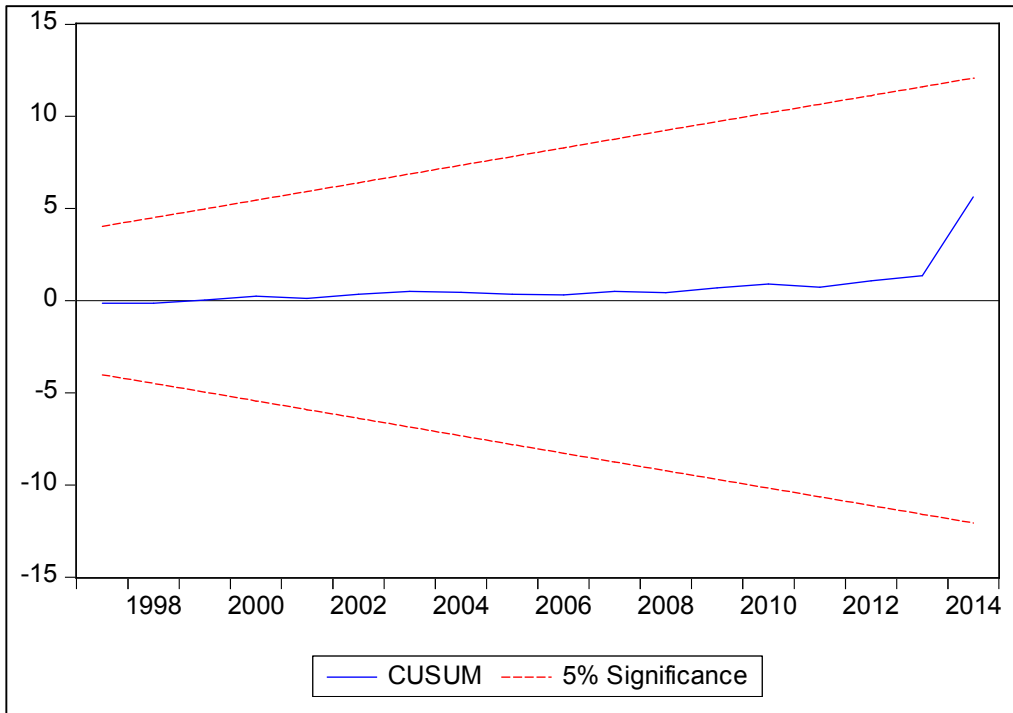
The results of the diagnostic tests are in Table 7. The table shows that the errors are normal. The model also passes both the Breusch-Pagan-Godfrey heteroskedasticity test and the autoregressive conditional heteroskedasticity (ARCH) test. The serial correlation test reveals that the model has no problem of autocorrelation. Meanwhile, the Ramsey reset test suggests that the model has problem of misspecification.

*Table 7*

**Statistical output for Diagnostic tests**

Test	F-Statistics	Prob. Value
Normality test	0.555	0.758
ARCH test	0.111	0.742
Heteroskedasticity	1.887	0.108
Serial Correlation	0.806	0.464
Ramsey reset test	6.032	0.025

It is quite vital to note that issue of specification has been a major and peculiar issue in the literature in terms of modeling the nexus between income, income inequality and health (Gravelle et al., 2000; Ram, 2005). Nevertheless, the CUSUM recursive test confirms reasonable level of stability in the modeled relationship.



### Conclusion and Policy Implications

Our finding on the strong negative relationship between income and infant mortality is an indication that individual-level poverty has deleterious effect on health in Nigeria. This paper has evidently shown that both individual income level and income inequality are vital in determining health in a developing economy like Nigeria. Owing to the foregoing analysis, the poor or the low-income Nigerians are more susceptible to poor health conditions. This finding obviously contravenes the assertion of Wilkinson (1996) and Deaton (2003) who opined that average income supposed to be strongly associated with health in the less developed countries while income inequality is only observable and a relatively more significant determinant of health in the developed countries.

Given the attendant impact of income and income inequality on population health, measures and programmes that guarantee adequacy of income and ensure equitable distribution of income should be core components of the economic policies of the Nigerian government. In addition, critical reforms need to be initiated in the health sector to mitigate the long-term inequality in access to health care services.

### End Notes

- <sup>1</sup> Corresponding author.
- <sup>2</sup> Goal 3 of the SDG focuses mainly on ensuring healthy lives and promoting well-being for all at all ages.
- <sup>3</sup> Poverty index is the percentage of population whose income is below the international poverty line of one PPP dollar per day (per person).

### References

1. Adom, P.K., Bekoe, W., and Akoena, S.K. (2012) Modeling aggregate domestic electricity demand in Ghana: An autoregressive distributed lag bounds cointegration approach, *Energy Policy*, Vol. 42, pp. 530-537.
2. Asteriou, D., Hall, S.G. (2007) *Applied econometrics*, Revised Edition. New York: Palgrave Macmillan.
3. Benzeval, M., Judge, K. (2001) Income and health: the time dimension, *Social Science and Medicine*, Vol.52, pp. 1371–1390
4. Bloom, D. E., Bowser, D. M. (2008) The population health and income nexus in the Mississippi River Delta region and beyond. *Journal of Health and Human Services Administration*, Vol. 31, No.1, pp. 105 – 133.
5. Chen, Z., Meltzer, D. (2008) Beefing up with the Chans: Evidence for the effects of relative income and income inequality on health in China Health and Nutrition Survey, *Social Science and Medicine* Vol. 66, pp. 2206 – 2217.
6. Contoyannis, P. Jones, A. and Rice, N. (2004) The dynamics of health in the British Household Panel Survey, *Journal of Applied Econometrics*, Vol. 19, pp. 453-503.
7. Deaton, A. (2003) Health, inequality and economic development, *Journal of Economic Literature*, Vol. 41, pp. 113-158.
8. Dollar, D., Kraay, A. (2002), Growth is good for the poor, *The Journal of Economic Growth*, Vol. 7, No.3, pp. 195-225.
9. Engle, R.F., Granger, C.W.J. (1987) Cointegration and error correction representative: Estimation and testing, *Econometrica*, Vol. 55, pp. 251-276.
10. Feng, Z., Wang, W., Jones, K., and Li, Y. (2012) An exploratory multilevel analysis of income, income inequality and self-rated health of the elderly in China, *Social Science and Medicine* Vol. 75, pp. 2481– 2492.
11. Flegg, A.T. (1982) Inequality of income, illiteracy and medical care as determinants of infant mortality in underdeveloped countries, *Population Studies*, Vol. 36, No.3, pp. 441-458.

12. Gravelle, H., Wildman, J., and Sutton, M. (2002) Income, income inequality and health: What can we learn from aggregate data? *Discussion Papers in Economics* 26, University of York.
13. Gangadharan, L., Valenzuela, M. R. (2001) Interrelationships between income, health and the environment: extending the Environment Kuznets Curve hypothesis, *Ecological Economics*, Vol. 36, pp. 513-531.
14. Johansen, S. (1988) Statistical analysis of cointegrating vectors, *Journal of Economic Dynamics and Control*, Vol. 12, pp. 319-334.
15. Jones, A. M., Wildman, J. (2008) Health, income and relative deprivation: Evidence from the BHPS, *Journal of Health Economics*, Vol. 27, pp. 308-324
16. Jusot, F. (2006) The shape of the relationship between mortality and income in France, *Annals D'economie Et De Statistique*, No 83/84, pp. 90-122.
17. Karlsdotter, K., Martin, J., Lopez, M., and Gonzalez, A. (2012), Multilevel analysis of income, income inequalities and health in Spain, *Social Science & Medicine* Vol. 74, pp. 1099-1106.
18. Kawachi, I., Kennedy, B.P. (1999) Income inequality and health: pathways and mechanisms, *Health Services Research*, Vol. 34, pp. 215-227.
19. Li, H., Zhu, Y. (2006) Income, income inequality, and health: Evidence from China, *Journal of Comparative Economics*, Vol. 34, pp. 668-693.
20. Mellor, J.M., Milyo, J. (2002) Income inequality and health status in the United States: Evidence the current population survey, *The Journal of Human Resources*, Vol. 37, pp. 510-539.
21. Narayan, P.K. (2004) Reforming critical values for the bounds F-statistics approach to cointegration: An application to the tourism demand model for Fiji, Discussion Paper No. 02/04, Monash University, Victoria, Australia.
22. Omran, A. (1971) The epidemiological transition: A theory of the epidemiology of population change, *Milbank Memorial Fund Quarterly Health and Society*, Vol. 49, pp. 509-538.
23. Oshio, T., Umeda, M., and Fujji, M. (2013) The association of life satisfaction and self-rated with income dynamics among male employees in Japan, *Japan and the World Economy*, Vol. 28, pp. 143-150.
24. Pahlavani, M., Wilson, E., and Worthington, A.C. (2005) Trade-GDP nexus in Iran: An application of the autoregressive distributed lag (ARDL) model. *American Journal of Applied Sciences*, Vol. 2, No. 7, pp. 1158-1165.

25. Pesaran, M.H., & Shin, Y.C. (1999) *An autoregressive distributed lag modeling approach to cointegration analysis*. In Strom, S. (Ed) *Econometric and economic theory in the 20<sup>th</sup> Century: The Ragner Frisch Centennnnal Symposium*, Cambridge: Cambridge University Press.
26. Preston, S.H. (1975) The changing relation between mortality and level of development, *Population Studies* Vol. 29, pp. 231-248.
27. Pritchett, L., Summers, L. H. (1996) Wealthier is healthier, *The Journal of Human Resources*, Vol. 31, pp. 841-868.
28. Qi, Y. (2012) The impact of income inequality on self-rated general health: Evidence from a cross-national study, *Research in Social Stratification and Mobility*, Vol. 30, pp. 451-471.
29. Rajan, K., Kennedy, J., and King, L. (2013) Is wealthier always healthier in poor countries? The health implications of income, inequality, poverty, and literacy in India, *Social Science & Medicine*, Vol. 88, pp. 98-107.
30. Ram, R. (2005), Income inequality, poverty and population health: Evidence from recent data for the United States, *Social Science and Medicine*, Vol. 61, pp. 2568-2756.
31. Ram, R. (2006), Further examination of the cross-country association between income inequality and population health, *Social and Medicine*, Vol. 62, pp. 779-791.
32. Rodgers, G.B. (1979), Income and inequality as determinants of mortality: An international cross-section analysis, *Population Studies*, Vol. 33, No. 2, pp. 343-351.
33. Sepehri, A., Guliani, H. (2015), Socioeconomic status and children health: evidence from a low-income country. *Social and Medicine*, Vol. 130, pp. 23-31.
34. Wen, M. Browning, C. R., and Cagney, K. A. (2003), Poverty, affluence, and income inequality: Neighbourhood economic structure and its implications for health, *Social Science and Medicine*, Vol. 57, pp. 843-860.
35. Wilkinson, R.G. (1992), Income distribution and life expectancy. *British Medical Journal*, Vol. 304, pp. 165-168.
36. Wilkinson, R.G. (1996). *Unhealthy societies: The afflictions of inequality*. London: Rutledge.
37. World Bank (2015). World Development Indicators.



## TRENDS AND DETERMINANTS OF BULGARIA'S INTERNATIONAL DEBT SECURITIES FINANCING

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### Abstract

The paper analyzes the specific features of the financing of Bulgarian economic agents through the international debt securities market (IDSM). The time period is from the 3<sup>rd</sup> quarter of 1989 to the 1<sup>st</sup> quarter of 2017. The study entails two stages of analysis. The first stage identifies and analyzes the trends including the amount of debt denominated in international securities, the choice of market segment, the interest rate structure and the currency structure. The second stage identifies and analyzes the determinants that stand behind the trends. The two-stage analysis is further divided in three different sections for each stage, dedicated to the three sectors: the general government, the financial corporations and the non-financial corporations. Four hypotheses are tested. The first one, that the public sector has the leading role in respect to the amount of financing received from the IDSM, is accepted. The second one - that since Bulgaria is a small open economy, the three sectors participate actively in the international money and bond markets, is rejected. The third one, that Bulgarian economy is financed predominantly through the IDSM by issuing fixed interest rate instruments, is accepted. The fourth one, that the implementation, the functioning and the exit strategy of the currency board in Bulgaria determine the choice of the euro as a currency of denomination of the Bulgarian debt issued on the IDSM, is also proven to be true.

### Keywords:

International debt securities market, general government, financial corporations, non-financial corporations.

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## Introduction

The channels of financing a certain economy have been an object of greater academic attention since the Second World War. The reason is that these channels had a much more important role for economic development given the new international economic structure and the way international economic relations were realized.

In the contemporary economic environment the international debt securities market (IDSM) is one of the main sources of financing. It has developed considerably since the 1960s. The participants include not only private corporations and financial institutions but also sovereign entities. The international debt securities are debt securities issued in a market other than the local market of the country where the borrower resides, i.e. issued in any market by a non-resident.

In recent decades the IDSM has established itself as one of the channels for financing the economic activity in Bulgaria. This paper analyzes the idiosyncrasies of that channel. There are a lot of aspects concerning the topic that can be an object of research – the general guidelines for international debt management, the legal aspects, the debt problems and debt crises, the financial and regulatory framework, the functioning of the regulatory institutions, the financial infrastructure, the way clearing and settlement systems work, the tax treatment, the behaviour of the market participants, the asymmetric information, etc. This study focuses on the overall trends and determinants of Bulgaria's international debt securities financing.

## **2. Literature**

The participation of Bulgarian economic agents and their use of different debt instruments in the IDSM is not a topic that has been largely studied in academic literature.

The main focus has been on the Bulgarian Brady bonds. Houben (1995) and Alexandrov (1995) analyze the initial creation of the Brady bonds. Bobeva et al. (1995) study the link between the Bulgarian foreign debt bonds and the privatization in the country. Budina and Manchev (2000a, 2000b) make an empirical assessment of the determinants of Bulgarian Brady bond prices. Minassian (2005, 2007a) conducts an overall analysis of the sovereign debt management of the Brady bonds. Todorov (2013) studies the idiosyncrasies of the default yield spreads of the Bulgarian Brady bonds in relation to corresponding default yield spreads of sovereign Brady bonds from other emerging markets.

Rowland and Torres (2004), and Rowland (2004) include the Bulgarian Brady bonds along with those of other countries to study the determinants of spread and creditworthiness for emerging market sovereign debt. They use respectively a panel data study and a pooled data analysis. Strahilov (2006) includes the Bulgarian Brady bonds in the study of the determinants of country risk in Eastern European countries. He uses cointegration.

Some researchers investigate the prices and yields of Brady bonds during crises or in relation to a debt crisis and they include the Bulgarian ones as well. Fry et al.

(2002) and Dungey et al. (2002) examine the international contagion effects from the Russian crisis. Miller and Zhang (2000) focus on sovereign liquidity crises. Izvorski (1998) explores the connection with default probabilities. Dahiya (1997) examines the risks and returns of Brady bonds in a portfolio framework. Aktug et al. (2012) study the period between 2001 and 2007 analyzing sovereign credit default swap and bond markets. Todorov (2010) analyzes the country yield spreads of emerging markets during six crises: Mexico (1994-1995), Russia (1998), Brazil (1998-1999), Argentina (2001-2002), Brazil (2002), and USA (2007-2009).

The studies that focus on other types of Bulgarian international debt securities are a few. Pirian (2003) and Minassian (2007b) examine the link between some of the issues of Bulgarian government eurobonds and global bonds and the elimination of Brady debt instruments as liabilities for the Bulgarian government. Yordanov (2012) includes Bulgarian international bonds in an analysis of the informational content of the risky spreads in a multifaceted way from no-arbitrage financial and macroeconomic points of view.

So far there has been no comprehensive study of Bulgaria's international debt securities financing. The current article aims to fill that gap.

### 3. Methodology

For approximately four decades until 1989 the Bulgarian economy functioned as a centrally planned economic system. Moreover, international economic relations were mainly focused on the countries of the Eastern bloc and were realized through specific economic channels, institutions and instruments. That is why debt financing through international securities was not considered as a good option for the economy. The international debts were mainly in the form of bank loans. The current international financial market situation at the time additionally facilitated such an approach. There was some official financing as well.

For this reason the current study of Bulgaria's international debt securities financing encompasses **the period from the 3<sup>rd</sup> quarter of 1989 to the 1<sup>st</sup> quarter of 2017**. Thus the frame is large enough for capturing the entire transition period of the economy and the years of mixed market economy as well. The study entails **two stages of analysis**.

*The first stage* is to identify and analyze the trends. It includes the following subcomponents:

- The amount of debt denominated in international securities;
- The choice of market segment – the international money market or the international bond market;



- The interest rate structure – the choice between fixed and floating interest rate instruments;

- The currency structure – the choice of different currencies of denomination.

**The second stage** is to identify and analyze the determinants that stand behind the trends. This will give depth to the study as not only the facts are important but their explanation as well.

The two-stage analysis is further divided in **three different sections for each stage**. Separate attention is paid to the three sectors: the general government, the financial corporations and the non-financial corporations.

The following definitions are used.

➤ *The general government* is defined as the central government, local government and social security funds and excludes the central bank and publicly owned corporations.

➤ *The financial corporations* are firms that are principally engaged in providing financial services, such as financial intermediation, financial risk management or liquidity transformation. They include the central bank (BNB – The Bulgarian National Bank), banks and non-bank financial corporations.

➤ *The non-financial corporations* are firms whose principal activity is the production of market goods or non-financial services. They include legally constituted corporations, branches of non-resident enterprises, quasi-corporations, notional resident units owning land, and resident non-profit institutions that are market manufacturers of goods or non-financial services.

The main focus of the study will be the testing of **four hypotheses**.

The **first one** is: *The public sector has the leading role in respect to the amount of financing received from the IDSM*. Historically this has been the trend as far as the emerging markets and the developing countries are concerned. The hypothesis will be tested not only for the absolute amount of debt issued, but also for the determination of the overall dynamics. It will be done in the following way.

First, the trend of the overall debt amount ( $ODA$ ) will be calculated using the Hodrick-Prescott filter. This two-sided linear filter decomposes the time series into two components: a trend component and a stationary (cyclical) component. The stationary one is defined as the difference between the original series and its trend ( $ODA_t - ODA_t^{trend}$ ). The filter calculates the trend ( $ODA_t^{trend}$ ) through the smoothing of the original time series ( $ODA_t$ ) by minimizing the deviations of  $ODA_t$  from  $ODA_t^{trend}$ . The following formula is used:

$$\text{Min} \sum_{t=1}^T (ODA_t - ODA_t^{\text{trend}})^2 + \lambda \sum_{t=2}^{T-1} [(ODA_{t+1}^{\text{trend}} - ODA_t^{\text{trend}}) - (ODA_t^{\text{trend}} - ODA_{t-1}^{\text{trend}})]$$

Second, the correlation between the amount of debt of the different sectors and the  $ODA^{\text{trend}}$  will be calculated. Since the  $ODA$  is comprised of the amount of the debt of the three sectors, the correlations coefficients will show which of them is the leading one in the determination of the trend.

The **second hypothesis** is: *Since Bulgaria is a small open economy, the three sectors participate actively in the international money and bond markets.* The hypothesis corresponds to the traditional notion of the small open economy theoretical model.

The **third hypothesis** is: *Bulgarian economy is financed through the IDSM predominantly by the issuing of fixed interest rate instruments.* These kinds of instruments are the prevailing ones as far as the IDSM is concerned as a whole.

The **fourth hypothesis** is: *The implementation, the functioning and the exit strategy of the currency board in Bulgaria determine the choice of the euro as a currency of denomination of the Bulgarian debt issued on the IDSM.* When considering the euro, it is clear that it can be part of the analysis after its introduction in 1999. The data, however, allows comparing it on another basis – as “the sum of ECU, euro and legacy currencies now included in the euro”. The currency board was implemented initially with the German mark as a reserve currency, but in the very law for its implementation it was stipulated that it would be replaced by the euro.

The hypothesis is a logical supposition because the fixed exchange rate and the prospective of the euro being an official domestic currency remove to a great extent the currency risk. This kind of risk in the lev-euro relation is almost non-existent since there is only a very low hypothetical probability of a currency crisis leading to the end of the currency board without joining the eurozone.

**The data** that is used is taken from the Bank for International Settlements (BIS) which provides quarterly data available on the web site of the institution ([www.bis.org](http://www.bis.org)), and the Bulgarian Ministry of Finance, again available on the web site of the institution ([www.minfin.bg](http://www.minfin.bg)).

## 4. Trends

### 4.1. The General Government

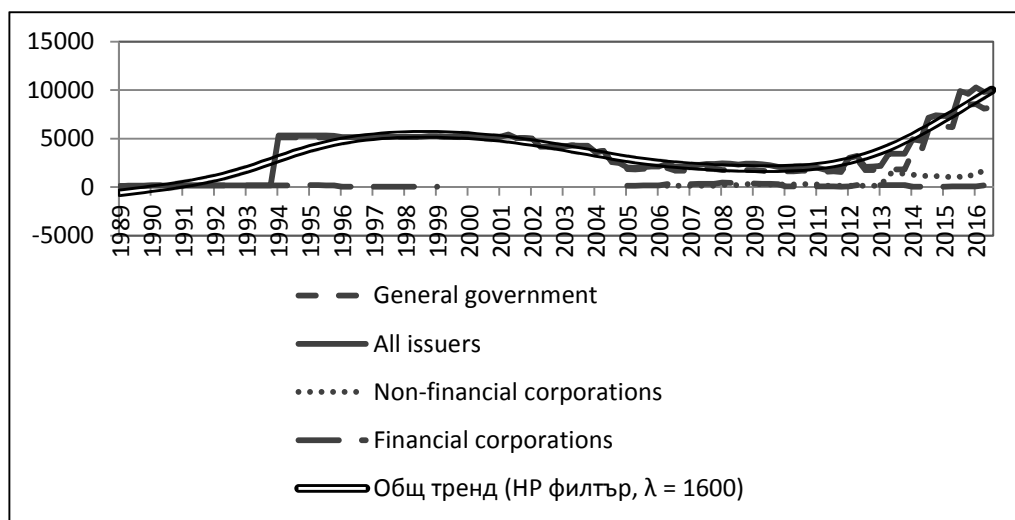
The data shows that the general government has treated this channel of financing as an important one. Four different specific periods can be identified on the basis of the dynamics of the amount of outstanding debt.

❖ The first one is from 1994 to 2001. The general government enters the market in 1994 and the debt stays relatively stable till the end of this period.

❖ The second period is from 2002 to 2005. The trend here is different. From \$5.4bn at the end of 2001 the amount of debt plunges to \$1.84bn at the end of 2005.

❖ The third period is from 2006 to the second quarter of 2012. The debt is relatively stable at that low level.

❖ The last one is from the third quarter of 2012 to the first quarter of 2017 when the overall trend is steeply upward.



Source: BIS

**Fig. 1. Participation of Bulgarian economic agents in the IDS  
(amount of outstanding debt in millions of USD)**

The data shows that the general government is the main Bulgarian sector that participates in the IDS. From 1994 forward it traditionally has over 70% (for some years even 100%) of the outstanding debt amounts.

The overall dynamic of the financing of the Bulgarian economy through the IDS largely follows the dynamic of the general government debt. This is evident by the very high value of the correlation coefficient describing the comovement of the amount of debt of the general government and the overall trend of the amount of Bulgarian debt for the period 3<sup>rd</sup> quarter of 1994 – 1<sup>st</sup> quarter of 2017.

Table 1

**Correlation between the amount of debt of the general government  
and the trend of the overall Bulgarian debt amount for the period  
3<sup>rd</sup> quarter of 1994 – 1<sup>st</sup> quarter of 2017**

Variables	Correlation Coefficient
<i>General Government – ODA<sup>trend</sup></i>	0.8991*** (0,000)

**Notes:** \*\*\* – significant when  $\alpha = 0,01$ ;  
In brackets – p-value of the coefficient

As far as the interest rate structure is concerned, there is a significant change. Initially the debt comprises of floating interest rate instruments. From 2001 to 2005, however, the debt with fixed interest rate payments gradually becomes predominant.

The duration of the debt instruments is mid-term or long-term and the government does not borrow from the international money market.

There is a clear pattern in the choice of currency. Initially the emphasis is on the USD. From 1997 the emphasis is on the euro. As a result of that almost all of the debt is denominated in euro.

#### 4.2. The Financial corporations

The financial corporations are the first to borrow from the IDSM.

The data shows that there is outstanding debt until 1999. The Bulgarian financial institutions decide to borrow again from the IDSM in 2005. The initial amount (i.e. in the 3<sup>rd</sup> quarter of 2005) is \$153m and in the following years the sum never reaches very high values. The maximum value is \$462m in the 3<sup>rd</sup> quarter of 2008 but in the 3<sup>rd</sup> quarter of 2016 it falls to \$85m.

Table 2

**Correlation between the amount of debt of the financial corporations  
and the trend of the overall Bulgarian debt amount**

Variables	Period	Correlation Coefficient
<i>Financial Corporations – ODA<sup>trend</sup></i>	3 <sup>rd</sup> quarter 1989 – 3 <sup>rd</sup> quarter 1999	–0.6159*** (0,000)
	3 <sup>rd</sup> quarter 2005 – 1 <sup>st</sup> quarter 2017	–0.4361*** (0,002)

**Notes:** \*\*\* – significant when  $\alpha = 0,01$ ;  
In brackets – p-value of the coefficients

The calculation of correlation between the amount of debt of the financial corporations and the trend of the overall Bulgarian debt amount in the IDSM is presented in table 2. The results have two main features. First, the coefficients are negative, i.e. the financing of the sector and the overall financing of the economy move in opposite directions. Second, the coefficients are much smaller than the one for the general government. These two conclusions mean that the sector does not have a significant impact on the overall dynamics.

From the three sectors, the financial institutions have the least average amounts of outstanding debt and at the end of the analyzed period their debt is very small. Its average amount is 4.79% of the overall average amount for the period and for the last quarter is 1.88% of the overall debt. This means that not only the amount of debt has a negligible influence, but the interest rate, maturity and currency structures as well. The IDSM has not been one of the significant avenues of pooling financial resources for the financial corporations.

#### ***4.3. The Non-financial corporations***

The non-financial corporations decide to use financing from the IDSM rather late in comparison to the other two sectors. Bulgarian firms start to issue debt in 2006.

Three of the new gross issues quarters are negligible in terms of amount (\$4m in the 4<sup>th</sup> quarter of 2015, \$2m in the 2<sup>nd</sup> quarter of 2016, and \$2m in the 1<sup>st</sup> quarter of 2017). The largest ones are the last quarter of 2013 (\$1.226bn) and the 3<sup>rd</sup> quarter of 2016 (\$613m).

As a result from 2006 till the third quarter of 2013 the amount of outstanding debt ranges between \$125m and \$310m. In the 4<sup>th</sup> quarter of 2013 the debt surged to \$1.394bn. After a fall to nearly \$1bn, in 2015 it again sharply rises in the third quarter of 2016 to \$1.630bn.

The large new issues cause a significant divergence between the amounts borrowed by financial and non-financial corporations from the 4<sup>th</sup> quarter of 2013 on. At the end of 2013 the non-financial corporations' debt is more than six times larger and in the 3<sup>rd</sup> quarter of 2016 – more than 19 times larger.

Table 3

**Correlation between the amount of debt of the non-financial corporations  
and the trend of the overall Bulgarian debt amount for the period 4<sup>th</sup>  
quarter of 2006 – 1<sup>st</sup> quarter of 2017**

Variables	Correlation Coefficient
<i>Non-financial corporations – ODA<sup>trend</sup></i>	0.8621*** (0,000)

**Notes:** \*\*\* – significant when  $\alpha = 0,01$ ;  
In brackets – p-value of the coefficient

The correlation between the amount of debt of the non-financial corporations and the trend of the overall Bulgarian debt amount is positive and with a high value coefficient. Nevertheless, the coefficient is smaller than the one of the general government.

Bulgarian non-financial corporations use the IDSМ only for long term financing, i.e. they participate in the bond market but do not take part in the money market.

The main emphasis is on fixed interest rate debt. An exception is the three year period beginning from the 3<sup>rd</sup> quarter of 2008 when there is approximately equal share of fixed and floating rate debt.

Both domestic and foreign currency debt is issued. However, after the 4<sup>th</sup> quarter of 2013 there is a change in the emphasis. Till that moment, there is no clear advantage of the foreign currency debt. From that quarter on, the share of domestic currency debt becomes very small and from the 2<sup>nd</sup> quarter of 2016 – non-existent. Among the foreign currencies the choice of corporate managers falls almost exclusively on the euro.

## 5. Determinants

### 5.1. The General Government

The main determinant for the general government is the fiscal policy stance and more specifically, the budget deficit financing.

Generally there are five main sources from which the excess budget expenditure ( $\theta$ ) above the budget revenues ( $\gamma$ ) can be financed.

$$\theta - \gamma = \Delta\mu + \Delta\psi + \Delta\omega + \Delta\nu + \Delta\varphi$$

The first one is a change in the money supply and more specifically – a change in the monetary base ( $\mu$ ). Such changes, however, are not recommended because of

the inflationary effect that they have. Hyperinflations appear namely because of them. In some countries there are formal bans on such activities (as is the case with article 123 of the Lisbon Treaty, for instance). The Bulgarian national bank did finance the deficits in like manner and the result was a financial crisis in 1996-1997.

The second option is the use of a reserve fund ( $\psi$ ). In Bulgaria such a function has the Fiscal Reserve.

The third alternative is borrowing from commercial banks or other banking institutions ( $\omega$ ).

The fourth way to finance the deficits is to use official financing from international financial institutions (IMF, WB, EBRD, EIB, etc.), other governments, foreign central banks, etc. ( $\nu$ ).

The fifth alternative is the most often used one in contemporary sovereign debt management. It is the issuing of government securities ( $\varphi$ ). This is how the Bulgarian government has predominantly borrowed after 1990.

In 1990 the Bulgarian government, led by prime minister Andrey Lukonov, declared a moratorium on servicing its external debt (mainly the debt of Foreign Trade Bank and some other debts). A year later negotiations with the creditors from the London Club were initiated. An agreement was signed in 1994 with which the debt was reduced and restructured in accordance of the conditions of the Brady plan. The government reduced its \$8.16bn debt to Brady bonds with a face value of \$5.1bn. The initial debt and the bonds were denominated in USD. Three types of international bonds were issued: Discount Bonds (DISCs), Front-Loaded Interest Reduction Bonds (FLIRBs) and Interest Arrears Bonds (IABs). This explains how and why the government entered the IDSM.

After the Brady bonds issue there were several eurobonds or global bonds issues placed on the IDSM: 12.11.2001 (€250m); 10.4.2002 (€835.5m); 9.10.2002 (\$511.5m); 3.7.2012 (€950m); 27.6.2014 (€1.493bn); 20.3.2015/14.11.2015 (€3.15bn); 15.3.2016 (€1.994bn).

The decline of the debt in the second identified period can be explained by two determinants. First, a change in the debt management strategy was made. The government wanted to eliminate the Brady bonds mainly in order to secure a better image, a higher credit rating and lower interest rates. This was realized in practice by swap operations (swap between Brady and global bonds) and additional buy-backs of Brady bonds. Second, budget surpluses were deliberately realized, parts of which were used to buy back debt securities.

The surge in the fourth period is a result of a change in the fiscal stance. From budget surpluses the government budget started having deficits. There was a need for

additional financing. As is seen by the data above, most of the global bonds and eurobonds we issued during this period.

There was a significant change in the sovereign debt management policy in relation to the choice of interest rates and currencies as well.

By 2005 all the Brady bonds, all of them denominated in USD, were bought back and eliminated as a debt liability. Almost all the eurobonds and global bonds issues were, on the other hand, denominated in euro. There is only one exception – one of the issues in 2002, but it was repaid in full in 15.1.2015 and is no longer a part of the government liabilities. The main explanation is the currency board, which has the euro as a reserve currency, and also the perspective of exit from the currency board – joining the eurozone. This has been explicitly stated in the debt management strategy of the government.

The Brady bonds were securities with floating interest rates. They were linked to the 6 month USD Libor plus a fixed percentage of 13/16%. The global bonds and the eurobonds were with fixed interest rates. This explains the significant change from floating to fixed interest rate instruments during the period. The main reason stated by the government was that they make future cash flows connected with them predictable. In this way the debt burden and the pressure on the budget can be planned and managed.

### ***5.2. The Financial corporations***

The fact that the financial corporations borrowed first from the ISDM can be explained by Bulgaria's specific economic system before 1990.

In the almost exclusively state-owned centrally planned economy there was no place for private entrepreneurship and private borrowing from the international financial markets. Banks were the main financial corporations. There were only several banking institutions and all of them were owned by the state. Foreign Trade Bank was the corporation which performed all international banking transactions and was the institution which borrowed international funds. The economy's financing through the international markets was done through it.

There were major changes in the economy since 1990. However, until the privatization, done mainly at the end of the 1990s, the banking sector was still dominated by state-owned banks. The legacy could not be removed easily.

The fact that the financial corporations do not use significantly the ISDM is determined by the banking structure in the country. The Bulgarian financial system is a bank-based one. Bulgarian banks use mainly domestic sources for raising funds. During most of the years in the analyzed period they had a high liquidity. Bank deposits



are the preferred form of a saving instrument by Bulgarians. The deposit base has steadily been rising over the years. Moreover, there is a large share of banks which are not local. They are parts of international banking networks and can easily find funds from other related financial institutions.

### ***5.3. The Non-financial corporations***

The main determinant for the non-financial corporations' participation in the ISDM and their debt dynamics is liquidity management. Firms started relative late issuing debt because they raised funds mainly from local financial institutions and especially banks. Because of the currency board, interest rates in the country are closely related to the ones in the eurozone and a large number of loans are in euro.

Until 2012 the amount of debt is small. In the following years more managers decided to use the ISDM because of liquidity concerns. The main sector that acquired funds was the energy sector. The state-owned Bulgarian Energy Holding (BEH) has successfully placed two eurobond issues listed on the Irish Stock Exchange. The first is a five-year €500m issue in 2013 and the second one is a €550m issue in 2016 which carries an annual coupon of 4.875%.

Bulgarian non-financial corporations issue bonds because their goal is to manage liquidity in a long term fashion. This explains why they do not participate in the international money market.

The currency board is the main factor that prompts the use of the euro as a currency of denomination. The logic is the same as described for the other economic agents.

The emphasis on fixed interest rate debt is determined by the desire to have predictability in future cash flows. From the point of the investors in Bulgarian bonds the interest rate risk would be lower if the instruments were with floating rates. In this way the duration would be smaller because the interest rate would be updated in smaller fixed periods. Moreover, Bulgarian bonds by definition are not short term instruments, which makes interest rate risk even more important. The investors, however, also want predictability, which makes fixed interest rates preferable for both sides of the debt deals.

## **6. Conclusion**

The analysis identified and analyzed the main patterns of way Bulgarian economic agents borrow funds from the ISDM as well as the main determinants that stand behind them. It also tested the four hypotheses defined in the beginning. There are several conclusions that can be made.

***The first hypothesis is proven to be true.*** The public sector does have the leading role in respect to the amount of financing received from the IDSM. From 1994 forward it has over 70% of the outstanding debt amounts. Moreover, most of the debt of the non-financial corporations is again part of the consolidated public sector.

Although there are different determinants that explain the debt dynamics of the three sectors, the strongest one that prevails in shaping the overall dynamic of the international debt securities financing of the Bulgarian economy, is the fiscal stance and the financing of the budget deficits in line with the general sovereign debt management strategy. The correlation coefficient of the general government is positive and the largest of all the sectors.

***The second hypothesis should be rejected.*** Although Bulgaria is often characterized as a small open economy, the three sectors do not actively participate in the IDSM. The general government is the only one that has a steady presence since 1994. The non-financial corporations are involved more actively in the last few years. Historically the first sector to participate in the market during the period is the sector of financial corporations. As a whole, however, they rarely use this market as a source of funds.

Furthermore, the money market is not used by the sectors of the economy. The economic agents prefer mid-term and long-term financing. They do not want to burden their budgets in a short-term fashion. They try to balance the debt burden over time. This allows the government to spend funds in other areas and public investments are not impaired. The corporations, on the other hand, are able to manage their liquidity in a better way.

***The third hypothesis is to be accepted.*** The Bulgarian economy is financed through the IDSM predominantly by the issuing of fixed interest rate instruments because of the predictability of the future cash flow that they offer. Floating interest rate securities are just a small part of the overall debt securities. This is in line with the overall interest rate structure of the international debt instruments in the IDSM.

***The fourth hypothesis is also proven to be true.*** The implementation, the functioning and the exit strategy of the currency board in Bulgaria do determine the choice of the euro as a currency of denomination of the Bulgarian international debt securities. The euro, as a reserve currency and as a perspective future domestic currency, offers considerable benefits in respect to the currency risk involved. That is why many economic agents, like the government for example, have shifted their preference from the USD to the currency of the eurozone. After the introduction of the currency board it has gained the predominant share of the currencies used by Bulgarian debtors.

## References

1. Aktug, R. E., G. Vasconcellos, Y. Bae (2012). The dynamics of sovereign credit default swap and bond markets: empirical evidence from the 2001 to 2007 period. *Applied Economics Letters*, Vol. 19, Issue 3, pp. 251-259.
2. Alexandrov, S. (1995). Bulgarian Brady Bonds, Bank Review, Bulgarian National Bank, *BNB Quarterly Journal*, 1/1995.
3. Bobeva, D., S. Kassidova, I. Avramov (1995). Bulgarian Foreign Debt Bonds in Privatisation, Bank Review, Bulgarian National Bank, *BNB Quarterly Journal*, 3/1995.
4. Budina, N., T. Mantchev (2000a). Determinants of Bulgarian Brady Bond Prices: An Empirical Assessment. Policy Research Working Paper No. WPS 2277, The World Bank, Washington D.C.
5. Budina, N., T. Manchev (2000b). Fundamentals in Bulgarian Brady Bonds: Price Dynamics. Bulgarian National Bank, Discussion Paper No. 12.
6. Dahiya, S. (1997). The Risks and Returns of Brady Bonds in a Portfolio Framework. *Financial Markets, Institutions & Instruments*, Vol. 6, Issue 5, pp. 45-60.
7. Dungey, M., R. Fry, B. González-Hermosillo, V. Martin (2002). The Transmission Of Contagion In Developed And Developing International Bond Markets. Risk measurement and systemic risk - Proceedings of the Third Joint Central Bank Research Conference, BIS, pp. 61-74.
8. Fry, R., V. Martin, Br. Gonzalez-Hermosillo, M. Dungey (2002). International Contagion Effects from the Russian Crisis and the LTCM Near-Collapse. IMF, Working Paper No. 02/74.
9. Houben, A. (1995). Commercial Bank Debt Restructuring: The Experience of Bulgaria. IMF, Policy Discussion Papers Papers on Policy Analysis and Assessment No. 95/6.
10. Izvorski, Iv. (1998). Brady Bonds and Default Probabilities. IMF Working Paper No. 98/16.
11. Miller, M., L. Zhang (2000). Sovereign Liquidity Crises: The Strategic Case For a Payments Standstill. *The Economic Journal*, Vol. 110, Issue 460, pp. 335-362.
12. Minassian, G. (2005). Breydiodiseyata na Balgariya. Bulgarian National Bank, Discussion Paper No. 51 (in Bulgarian).
13. Minassian, G. (2007a). Conversion of Bulgarian Brady Bonds: Five Years After. *Economic Thought*, Yr. XXII, Issue No: 7, pp.3-26.
14. Minassian, G. (2007b). Aktivnite operatsii s vanshniyadalg – opit zapetgodishna ravnosmetka. *Economic Thought*, Issue 4/2007, pp. 3-30 (in Bulgarian).

15. Pirian, A. (2003). Bulgarian Brady Bonds And The External Debt Swap Of Bulgaria. NISPAcee occasional papers. Vol. 4, No. 2, pp. 3-15.
16. Rowland, P. (2004). Determinants of Spread, Credit Ratings and Creditworthiness for Emerging Market Sovereign Debt: A Follow-Up Study Using Pooled Data Analysis. Banco de la Republica de Colombia, Portada Borradores de Economía, WorkingPaper No. 296.
17. Rowland, P., J. Torres (2004). Determinants of Spread and Creditworthiness for Emerging Market Sovereign Debt: A Panel Data Study. Banco de la Republica de Colombia, Portada Borradores de Economía, WorkingPaper No. 295.
18. Strahilov, K. (2006). The Determinants of Country Risk in Eastern European Countries. Evidence from Sovereign Bond Spreads. College of Europe, BEER Paper No. 8.
19. Todorov, V. (2010). Finansovikriziistranovi risk nanovovaznikvashtitepazari. *An Annual Book of University of Economics – Varna*, Vol. 82, Varna, Science and Economics, pp. 363-403 (in Bulgarian).
20. Todorov, V. (2013). Spetsifikanastranoviya risk naBalgariya v sravnenie s ostalitenovovaznikvshtipazari. *Perspektivipredindustrialniyabiznes*, Varna, Ikoconsult, pp. 79-83 (in Bulgarian).
21. Yordanov, V. (2012). The Bulgarian Foreign and Domestic Debt – A No-Arbitrage Macrofinancial View. William Davidson Institute Working Paper No. 1032.



## DETERMINANTS OF BORN-GLOBAL FIRMS: EVIDENCE FROM NIGERIA

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### JEL E1

### Abstract

Firms' Internationalization is a gradual and incremental process where firms concentrated in their home country and internationalized over a period. This research work has sought to find out the determinants of born-global firms in Nigeria. 121 copies of questionnaires were administered to selected companies in Nigeria, only 102 were returned. Only 64 firms met the criteria for classification as a born-global firm. Logistic regression was employed to analyse the data. The response rate is 84.30%. The result reveals that Enterprise Support Agencies (ESA) network and cultural proximity increase the probability of a Nigeria exporting MSMEs being a born global firm, but the technology level at which the firm does business, does not significantly increase the probability of a Nigeria exporting MSME being a born-global firm. It is recommended that the government should enhance the capacity of the enterprise development agencies as well as create more awareness about its operations.

### Keywords:

Internationalization,  
Born-Global, Enterprise  
Support Agencies (ESA),  
Cultural Proximity,  
Technology Level.

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## Introduction

Internationalization of firms has traditionally been a gradual and incremental process, firms concentrated in their home country and internationalized over a long time, some firms have operated locally for 7,10,15 and even 20 years before internationalizing. However, international entrepreneurship literature documents that some firms internationalized early, some internationalized in less than 3 years after creation, while some even began exporting since their creation, with most of these firms usually having a global orientation since inception. This class of firms are called

international new venture or born global firms. Born global firms differ from the traditional form of firms' internationalization that is characterized by gradual or incremental entry into a foreign market and usually operates locally for over 6 years before internationalizing. Born global firms on the other hand internationalize rapidly and they usually have an international orientation from inception.

Scholars have studied the features as well as the determinants of born global firms in developed economies (Chetty& Campbell-Hunt, 2004; Crick & Spence, 2005; McKinsey& Co., 1993). Scholars equally studied the features and determinants of born-global firms in emerging and some developing economies (Escandon, 2009; Cancino& La Paz, 2010; Dibetal, 2010; Amoros et al., 2012; Cancino& Coronado, 2014), but studies of the features and determinants of born global firms in Nigeria and West Africa region are sparse. The broad objective of this study is to explore the determinants of born-global firms in Nigeria as compared to traditional (gradual) internationalizing firms; furthermore, the study will be guided by the following specific objectives. First, to investigate whether Nigeria born-global firms are involved only in more technological sectors or whether they are also players in sectors classified as low-tech. Second, to understand how networking with government agencies influences the internationalization of born-global entrepreneurship. Third, to identify the scope of the internationalization of born-global firms in terms of cultural distance.

The study is particularly important, because Nigeria is an import-dependent economy, that imports virtually everything, including commodities, whose raw materials are abundantly available in Nigeria, for instance, tooth picks, matches, petroleum products are still been imported into the country, despite the fact that wood and crude oil are abundantly available.

## **2.0. Literature Review**

Recent studies in Nigeria have revealed that some firms internationalized early, some firms in Nigeria began exporting less than 6 years after creation, some were even established with the aim of exporting a particular product or combination of product. The Nigeria export promotion council reveals that some firms began exporting very early and most of these firms are micro, small and medium-sized enterprises (MSMEs) (NEPC, 2017). Therefore, most of these early internationalizing firms in Nigeria, known as born-global firms are MSMEs, which enter foreign market by majorly adopting exportation entry strategy.

### ***2.1.1. Born-Globals***

During the 1970s the dominant internationalization strategy was of incremental export development, where a firm's internationalization commences with its entry into an international market in incremental or gradual steps, and this usually takes long years from foundation to internationalization, that is, some firms internationalized after 6 to 20 years of operating in their home country. However in the 1980s the concept of firms that possess global vision from inception, with export revenue accounting for a significant percentage of total revenue emerged. Welch and Luostarinen (1988) first introduced the concept of the 'Born Global firm. The term 'Born Global' has been widely used since the study by McKinsey & Company (1993) conducted in Australia about the early internationalizing firms and they conclude that Born Global firms are very flexible, close to the customers and able to adapt the products according to the market needs and wants. They produce innovative technology products targeted to international niche markets, which compete on quality and value created.

A year after the study by McKinsey & Company (1993), Oviatt and McDougall (1994) defined international new venture (INV) as a "business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries" while Knight and Cavusgil (2004) used the term born global and defined it as "business organizations that, from or near their founding, seek superior international business performance from the application of knowledge-based resources to the sale of outputs in multiple countries".

Cavusgil and Knight (2015) opine that the term born global is less precise than international new venture, which is supported by Coviello (2015) when he refers to the multiple forms of INVs introduced by Oviatt and McDougall (1994) and the importance of geography while defining a company, that may not have a global focus but instead a regional or international one. Nevertheless, 'born global' is the terminology most used and known.

Different authors' definitions agreed that the distinctive characteristics of these firms are their international origins and early internationalizing path. Regarding the duration between the creation of a born global firm and its commencement of international business activities, Rennie (1993) posits that these are companies that internationalize within 2 years after the company inception. However, most scholars suggest that 6 years and younger is suitable (Zahra, Ireland & Hitt, 2000). Garcia-Cabrera, Garcia-Soto & Suarez-Ortega (2017) opine that a firm's capabilities influence a new venture propensity to become a born-global firm.

In summary, all the definitions stated above agreed that a Born Global is a young firm, established by an entrepreneur with a strong international background, with the aims to attain foreign markets entry at their inception by offering to niche markets an innovative and first-rate product that fits its customer needs and wants. We thereby posit that Born-global firms are firms that internationalized within four years after start-up and derive 20percent of their revenue from foreign business activities.

### ***2.1.2. Drivers of Born Global Firms***

Scholars in the field of international business have recognized some factors that drive the creation of born global firms; they have linked this growing propensity with the changing economic, technological, and social conditions. They argue that enhancement of international communication and transportation reduces the operational and transactional costs of doing international business and increases homogenization of markets in distant countries, and makes the conduct of international business easier to comprehend. Firms need to internationalize in order to sustain the degree of products' specialization and the consequent increase of niche markets that new market conditions are requesting. Moreover, the needs and wants of buyers are becoming more homogeneous and financial markets have had to be internationalized.

Globalization leads to an increased homogenization of buyer preferences around the world that simplifies product development and positioning in foreign markets, making international business easier. Technological advances in information and communications technologies, production methods, transportation, and international logistics have reduced transaction costs and facilitated the growth of international trade. New production processes are making small-scale operations more economical and therefore specialization, customization and niche production is more viable. Transportation is more frequent, reliable and cheaper which has reduced the cost barriers of international business and the developments in communication have made world markets more accessible at a lower cost.

People, including the founders of the born globals, have more sophisticated abilities, there are higher numbers of employees with competence to communicate, understand and operate in foreign markets due to the growing number of people with international experience, consequence of exchange programs or increasing international business activities. This exchange of people between countries is making national boundaries less important and the markets more homogeneous. (Oviatt and McDougall 1994; Loper, 1995; Madsen & Servais, 1997; Knight & Cavusgil, 2004). Martin, Javalgi & Cavusgil (2017) posit that born global firms can enhance their



performance by overcoming their asset-constrained conditions, through ambidextrous innovation. The rising availability of international financing opportunities by most governments, through the establishment of export promoting agencies led to the creation of these early internationalizing firms. A very good example is the establishment of Nigeria Export Promotion Council (NEPC), a Nigerian government agency with the mandate of promoting exportation, as well as providing supports to exporters, through training, finance, and networking among others.

### ***2.1.3. Traditional (Gradual) Internationalization***

Prior to the advent of born global firms, firms internationalized incrementally, that is, firms gradually internationalized, characterized by a time lapse of many years to internationalize between the foundation of the firm and its first international activity. Johanson and Vahlne, 1977 opine that the knowledge and information impacting the behavior of firms in entering foreign markets, not just the magnitude of its resources in competing, explains why firms generally begin an internationalization process at a later stage in their development and why that process takes place gradually. A firm targets culturally close markets at the beginning of its internationalization, that is, markets that have a similar language, political system, trade practices and culture. The start of an international expansion will thus entail little risk and be implemented mainly through indirect exports to similar markets, which allow the firms to improve its understanding of the foreign markets. That understanding helps them to commit more resources to international business activities (Blankenburg-Holm, 1995).

According to Johanson and Vahlne (1977), firms are expected to go through the stages, from low to high commitment entry modes. There are four stages, called the “establishment chain”. That includes; No regular export activities, Export via independent representatives, Establishment of an overseas sales subsidiary, overseas production (Andersen, 1993). A company stores knowledge and enhances its presence in a foreign country by passing these stages. In stages 1 and 2 market-specific knowledge is not that needed as in further stages. When a company has learned more about a foreign market, it moves to Stage 3 and 4. Kontinen and Ojala (2010) posit that in market selection, firms usually choose a nearby market, and then distant ones. Companies tend to favor nearby countries within a low cultural distance when they start internationalizing and after that expand to culturally distant markets.

## **2.2. Theoretical Review**

### **2.2.1. Uppsala Theory**

Uppsala model was developed by Johanson and Vahlne (1977) on the basis of arguments from the behavioral theory of the firm, in the theory of the growth of the firm (Penrose, 1957) and in the incremental decision making process (Carlson, 1966). The theory postulates that organizations internationalize gradually, starting with low commitment entry modes, mainly by indirect exports and after improving their knowledge of the host country, the organizations then employ high commitment strategies, like a joint venture or wholly-owned subsidiary and in internationalizing, organizations concentrate on culturally close foreign markets, that is, countries with similar culture, language, and political system.

Based on empirical observations researchers explain theoretically the internationalization of firms and describe the expansion from a learning viewpoint, because according to Johanson and Vahlne (1977), firms' internationalization is tightly connected with knowledge acquisition and learning. In selecting a market, firms usually choose a nearby market, and then distant ones. Firms tend to favor nearby countries within a low cultural distance when they start internationalization and after that expand to culturally distant markets, international commitment decisions are made incrementally because of market uncertainty, risks, and opportunities. According to the Uppsala model, firms are expected to go through the stages, from low to high commitment entry modes. There are four stages, called the "establishment chain", which includes; No regular export activities, Export via independent representatives, Establishment of an overseas sales subsidiary, overseas production (Kontinen&Ojala, 2010).

### **2.2.2. Born Global Theory**

The born global or international new venture model postulates that some firms, mostly young small and medium-sized enterprises (SMEs) expand rapidly, and moreover they start internationalization from start-up, instead of gradual internationalization. They prefer to enter foreign markets immediately. In order to internationalize rapidly, they use such factors as founder-entrepreneur's knowledge (Oviatt & McDougall, 2000) and network of contacts (Crick & Jones, 2000) and their corporate relationships with public and private agents (Simoes & Dominginhos, 2001). These firms have proactive international strategy, offer unique products and services; they are willing to take risks. Frequently, such SMEs are firms that produce highly specialized technology-intensive goods and occupy narrow specific market

niche. But despite this common association with high-tech industry it would be correct to say that there are no limitations related to industry. For instance, international new ventures can be found in such sectors as arts and crafts (McAuley, 1999), management services (Oviatt& McDougall, 1995), manufacturing (Rennie, 1993) and sea products (Knight et al., 2001). They are innovative and creative not only in technology, but also in the way they conduct business.

According to Zahra, Ireland and Hitt (2000) INVs are those firms whose foreign trade activity constitutes more than 25% of their sales over a period of less than 6 years of establishment. Different terms were used in literature, for instance they were first called innate exporters (Granitsky, 1989), then born internationals (Ray, 1989), subsequently infant multinationals (Lindqvist, 1991) and high-technology start-ups (Jolly et al., 1992). Further proposed were the terms global start-ups (Oviatt& McDougall 1995), instant internationals and international entrepreneurs, more frequently used were the names: born global (Rennie 1993; Knight &Cavusgil 1996; Moen 2002; Chetty& Campbell-Hunt 2004) and international new ventures (Oviatt& McDougall 1994; Bloodgood et al. 1996).

This study has adopted the born-global theory, because it captures the subject matter. However, some modifications were effected, including, the selection criteria for the firms, which were limited to firms that internationalized within four years after start-up and derive 20 percent of its revenue from foreign business activities.

*Table 1.1*

### Comparison of U-Model and Born Global Theory

	<b>U-Model</b>	<b>Born Global Theory</b>
<b>Firm Characteristics</b>	Old firms with mostly large size	Young firms with small size, an hybrid structure and limited tangible assets
<b>Business Strategy</b>	Not referred in the model	Offer innovative products, with high quality and performance that are cost effective, to niche markets
<b>Approach to internationalization</b>	Reactive and opportunistic	Proactive and structured
<b>Speed of internationalization</b>	Slow and incremental	Rapid internationalization
<b>Domestic market</b>	Strong domestic base before internationalization	Not important: small or non-existent
<b>Psychic Distance</b>	Internationalize to close psychic distance countries	Psychic distance is not a constraint for internationalization
<b>Reasons to internationalize</b>	Domestic downturns and seek more solid market platform	Grow and exploit foreign markets opportunities to increase global market share and profits
<b>Market advantage</b>	Various years of operations	Strong knowledge-base and technology competence
<b>Vision of foreign market</b>	Foreign market is seen as involving risk and uncertainty: company keeps risk taking at a low level	Foreign markets are seen as an opportunity
<b>International knowledge and experience</b>	Expertise in internationalization can only be acquired with experience after the company' internationalization and it involves many people	Entrepreneur is crucial in the internationalization process: detains international experience and knowledge of foreign markets
<b>Market commitment decisions</b>	Gradual acquisition, integration and use of knowledge. Due to market uncertainty, market commitments are made in small steps	Entrepreneur has experiential knowledge about foreign markets, so market commitments are taken faster
<b>Role of Networks</b>	Networks are used in early stages and gradually replaced with firm's own resources	Networks are crucial for the firm expansion, rapid creation and different markets exposure
<b>Special Case</b>	Non-existent	Born-again global firms

*Source: Pereira (2015).*

### 2.3. Empirical Review

McKinsey & Company (1993) conducted a study on three hundred and ten (310) small and medium-sized enterprises in Australia. The initial exporters were divided into two groups, one with more traditional domestic-based firms, which created a strong domestic base before exporting, and covered 75% of the total sample. The

second group was formed by the so-called Born Globals, which started exporting within less than 2 years of operation and were exporting 75% of their total sales. These Born Globals were very flexible, close to the customers and able to adapt the products according to the market needs and wants. They produced innovative technology products targeted to international niche markets, which competed on quality and value created.

Cancino and Coronado (2014) explores the determinant of born global firms in Chile, using survey research method, the findings suggest that a foreign capital network, an economic development agencies network, the cultural distance from the countries receiving the exports, the localization of the SME in the capital city, and the company's size are factors that significantly increase the probability that a young Chilean exporter will be classified as born-global. In contrast with the high technology content of the born-global companies that has been reported in developed countries, the technology level was not relevant in how quickly the Chilean SMEs internationalized

Mohammed (2017) identified the determinants of export propensity and intensity of small and medium enterprises (SMEs) in Nigeria. He estimated an export model for SMEs, comprising a system of two equations, one export propensity and the other for intensity. The analysis revealed that the firm's age, labor productivity, access to loans and infrastructure are robust determinants of export propensity. In addition, the results confirmed that a firm's age, labor productivity, capital intensity, skill intensity, access to loans, managerial experience, and infrastructure increase the export intensity.

Yipeng (2017) investigated the role of transnational entrepreneurs in growing born global firms, with a focus on the growth process facilitated by collaborative entry mode. The author chose the solar photovoltaic industry as a case study. This industry is a particularly good context for the study because many firms in this industry sell knowledge-intensive products internationally from their inception. The primary data consist of 32 in-depth interviews with entrepreneurs, industry association representatives, research institute scholars, and professional service firms. The study highlighted the importance of transnational entrepreneurs who develop born global firms to maturity by using their technological knowledge, international connections, and bicultural advantages to navigate and leverage institutional complexity. Collaborative entry mode with distributors enables born global firms' high growth rapidly, whereas transnational entrepreneurs play a central role in building and expanding international network. Initial public offering in overseas stock exchange accelerates the high growth trajectory of born global firm by signaling its maturity.

Garcia-Cabrera, Garcia-Soto & Suarez-Ortega (2017) examined knowledge spillovers and firms' capabilities as a propelling factor for young SMEs' propensity to export and to become a born-global firm. Through the application of Binomial Logistic Regression Models, using survey research design, by employing a sample of 242 young Spanish manufacturing SMEs. The findings revealed that knowledge spillovers rather than firms' capabilities influence young SMEs propensity to export, while firms' capabilities rather than knowledge spillovers influence a new venture propensity to become a born-global firm.

Martin, Javalgi & Cavusgil (2017) explored how born-global firms can enhance their performance by overcoming their asset-constrained conditions. The authors developed and tested a framework that explores the role of balanced innovation approach on the ambidextrous innovation of born-global firms. The findings revealed that positional advantage mediates the relationship between competitive strategy and export ventures performance. Furthermore, ambidextrous innovation is a key decision-making input for performance enhancement of born global firms in Mexico.

### **3.0. Methodology**

This study employed a survey research design, 121 exporting micro, small and medium-sized enterprises (MSMEs) were purposefully selected and a structured questionnaire was administered to their various chief executives. Though, most scholars applies the criteria of Knight and Cavusgil (1996), who classified companies as born-global if they began to export within three years after start-up and more than 25 percent of revenue is accounted for by export. This study, having considered the peculiar nature of Nigeria economy, classifies a born-global firm as a firm that internationalizes within four years after start-up and generate more than 20percent of total revenue from foreign operation. The study adapted the questionnaire used by Cancino and Coronado (2014), out of the 121 questionnaire administered, only 102 were returned and out of which only 64 firms met the criteria for classification as a born-global firm. Logistic regression was employed to analysis the data.

#### **3.1.1. Variable Definition and Coding**

Born-globals are firms that internationalized within four years after creation and export more than 20% of its sales, therefore, firms that meet these criteria have a value of 1 while firms that don't, have a value of 0. Enterprise Support Agencies (ESA) network is defined as a dichotomous variable that has a value of 1 if the firm has support from government agencies furthering MSME export development and 0 if it does not. Cultural distance is defined as the percentage of culturally distant

customer countries compared to all countries to which an MSME exports, based on language difference, we classified countries where the official language is English as culturally proximate countries.

Countries where other languages are spoken were classified as culturally distant. Culturally distant countries take the value 0, while culturally proximate countries take 1. Technology level is defined as a dichotomous variable that uses a value of 1 if the company participates in technology sectors rated high-technology or medium high-technology and 0 if they are rated medium-low or low.

### ***3.1.2. Hypotheses***

Entrepreneurs relate with government agencies, especially government agencies that support exports and start ups. The importance of a government network to MSMEs is a well-known fact in the literature, particularly since many countries set up a good number of enterprise support agencies (ESA) to boost enterprise creation, entry to new markets, the development of innovative products and carrying out research and development (Moen & Servais, 2002; Cancino and Coronado, 2014). There are so many ESAs in Nigeria and they include: Nigeria Export Promotion Council, Small and Medium Scale Enterprises development Agency of Nigeria, Bank of Industry, Federal Institute for Industrial Research, among numerous others, all of which aimed at enhancing entrepreneurial activities in the country:

H<sub>1</sub>. Taking part in the ESA network increases the probability of a Nigeria exporting MSME being a born-global firm.

But it is not just governmental networking that is important for rapid internationalization. Johanson and Vahlne (1990) posit that the geographic and cultural distance between the markets could condition the export behavior of MSMEs, taking into account the risks implicit in international business. According to Andersen (1993), the gradual approach to internationalization means that MSMEs begin exporting to similar markets, ideally neighboring markets, in the early stages of development. A notable and differentiating aspect of born-global firms is that they do not decide where they will export based on smaller existing cultural distances. Born-global firms based their decision regarding their target markets on the profitability expected from each market and they manage to position themselves in those markets because of the international experience that the entrepreneurs themselves or their network contacts have.

H<sub>2</sub>. Cultural proximity of an exporting firm to its target foreign markets increases the probability of a Nigeria exporting SME being a born-global firm.

Another element that is analyzed to a great extent in the literature on born-global firms bears a relationship to the features of the product or service marketed abroad (Bell, 1995; Oviatt and McDougall, 1994). Provided it is innovative, knowledge-intensive or can be rated highly technological, it will be easier to enter international markets and take a competitive position, complementary to the vision of the entrepreneur, his network contacts, and the choice of export markets, the technology level of the product sold is also a stimulus to a rapid internationalization (Zahra et al., 2000).

Innovative entrepreneurship undertake activities that aim to create new technologies that will result in increasing their competitiveness compared to companies doing business in the same market or in creating new business opportunities for themselves in other markets. Thus, investments in R&D and technology development inside companies are key factors in explaining a substantial part of their internationalization strategy.

H<sub>3</sub>. The technology level of the industry in which the company does business increases the probability of a Nigeria exporting MSME being a born-global firm.

#### 4.0. Empirical Findings and Discussion

Table 4.1

Parameter Estimates

bornglobal <sup>a</sup>		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
.00	Intercept	-19.484	.723	725.533	1	.000			
	[technology=.00]	16.416	.000	.	1	.	.13474124.862	.13474124.862	.13474124.862
	[technology=1.00]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[ESA=.00]	-16.416	7611.750	.000	1	.998	7.422E-008	.000	. <sup>c</sup>
	[ESA=1.00]	0 <sup>b</sup>	.	.	0	.	.	.	.
	[culturaldistance=.00]	-16.416	5673.463	.000	1	.998	7.422E-008	.000	. <sup>c</sup>
	[culturaldistance=1.00]	0 <sup>b</sup>	.	.	0	.	.	.	.
Author's computation from Logistic regression (SPSS) output.									
a. The reference category is: 1.00.									
b. This parameter is set to zero because it is redundant.									
c. Floating point overflow occurred while computing this statistic. Its value is therefore set to system missing.									



From the table 4.1, the result reveals (wald= 0.000 and sig of 0.998) that taking part in ESA network increases the probability of a Nigeria exporting MSMEs being a born global firm. The result further reveals that cultural proximity to the MSMEs target foreign market increases the probability of a Nigeria exporting MSMEs being a born-global firm (wald= 0.000 and sig 0.998). Furthermore, the result reveal that the technology level which the firm does business do not significantly increase the probability of a Nigeria exporting MSME being a born-global firm.

### **5.0. Conclusion, Recommendations and Suggestions for Further Studies**

The study examines the factors that determine the development of born-global firms in Nigeria, using 64 exporting micro, small and medium enterprises in Nigeria that started exporting within 4 years after creation and obtain over 20 percent of their total revenue from export. The results reveal that most born-global firms in Nigeria receive support from government agencies (enterprise support agencies), which aid their early internationalization. The study further reveals that most born-global firms in Nigeria export predominantly to English speaking countries, thereby exporting to culturally proximate countries. Finally, the study reveals that born-global firms in Nigeria, unlike their counterpart in developed economies operate in low technology areas.

It is therefore recommended that the government should enhance the capacity of the enterprise development agencies, as well as create more awareness about their operations. Entrepreneurs should also network with the ESAs, so as to benefit from the various support packages of the ESAs. The government should also enhance its relationship with countries that are culturally proximate to Nigeria, particularly countries that speak our language (English).

The measurement of the variables is a potential limitation, for instance, cultural distance is not only measured by language, future studies can incorporate other components of cultural distance, furthermore, future studies can also examine other determinants of born global firms.

### **References**

1. Amoros, J.E., Etchebarne, S. & Felzensztein, C. (2012). International entrepreneurial firms: A Latin-American perspective. *Esic Market Economic and Business Journal*, 43, (3), 497-512.
2. Andersen, O. (1993). Internationalization process of firms: A critical analysis. *Journal of international business studies*, 24(2), 209-32.
3. Babatunde, M.A. (2017). Export propensity and intensity of Nigerian SMEs. *Journal of small business and entrepreneurship*, 29(1), 25-55.

4. Bell, J. (1995). The internationalization of small computer software firms: A further challenge to stage theories. *European Journal of Marketing* 29 (8), 60–75.
5. Blankenburg-Holm, D. (1995). A network approach to foreign market entry, in Moller, K. & Wilson D. (Eds), *Business Marketing, An Interaction and Network Perspective*, Kluwer Academic Publishers, Boston, 375-405.
6. Bloodgood, J. M., Sapienza, H. J., & Almeida, J. G. (1996). The internationalization of new high potential U.S. ventures: Antecedents and outcomes. *Entrepreneurship theory and practice*, 20(4), 61-76.
7. Cancino, C. & La Paz, A. (2010). International new ventures: Trescasoschileno-Exitosos. *Academia, RevistaLatinoamericana de Administracion*, 45( 2), 140-162.
8. Cancino, C.A. & Coronado, F.C. (2014).Exploring the determinants of born-global firms in Chile.*Academia RevistaLatinoamericana de Administración*. 27 (13), 386 – 401
9. Carlson, S. (1966). *International Business Research*. Uppsala: ActaUniversitatisUpsaliensis
10. Chetty, S. & Campbell-Hunt, C. (2004). A strategic approach to internationalization: a traditional versus a born-global approach. *Journal of International Marketing*, 12, 57-81.
11. Coviello, N. (2006). The network dynamics of international new ventures.*Journal of International Business Studies*, 37(5), 713–731.
12. Crick, D. & Jones, M.V. (2000).Small high-technology firms and international high-technology markets.*Journal of International Marketing* 8(2), 63-85.
13. Crick, D. and Spence, M. (2005). The internationalisation of high performing UK high-tech SMEs: A study of planned and unplanned strategies. *International Business Review*, 14( 2), 167-185.
14. Escandon, D.M. (2009). Factoresqueinciden en la creaci\_ón de born global en Colombia, *EstudiosGerenciales*, 25(113), 55-73.
15. Garcia-Cabrera, A.M., Garcia-Soto, M.G., & Suarez-Ortega, S.M. (2017). Macro-level spillovers and micro-level capabilities as antecedents of young SMEs' propensity to export and to become a born global. *International entrepreneurship and management journal*, 13(4), 1199-1220.
16. Granitsky, J. (1989). Strategies for innate and adoptive exporters: Lessons from Israel's case. In: *International marketing review*, 6(5), 50 -65.
17. Johanson, J., &Vahlne, J.E. (1977). The internationalization process of the firm—a model of knowledge development and increasing foreign market commitments.*Journal of International Business Studies* 8(1), 23–32.

18. Jolly, V. K., Alahuta, M., & Jeannet, J. P. (1992). Challenging the incumbents, How high technology start-ups compete globally. *Journal of strategic change*, 1(1), 71-82.
19. Knight, G., & Cavusgil, S.T. (2004). Innovation, organizational capabilities, and the born global firm. *Journal of International Business Studies*, 35(2), 24–14.
20. Kontinen, T. & Ojala, A. (2010), Internalization pathways of family SMEs: psychic distance as a focal point. *Emerald*, 3, 437-454.
21. Lindqvist M. (1991). Infant multinationals and the internationalization of young technology-based Swedish firms. Doctoral dissertation, Stockholm.
22. Madsen, T.K., & Servais, P. (1997). The internationalization of born globals: an evolutionary process? *International Business Review*, 6(6), 561-583.
23. Martin, S.L., Javalgi, R.G., & Cavusgil, E. (2017). Marketing capabilities, positional advantage, and performance of born global firm: Contingent effect of ambidextrous innovation. *International business review*, 26(3), 527-543.
24. McAuley, A. (1999). Entrepreneurial instant exporters in the Scottish arts and crafts sector. *Journal of International Marketing*, 7(4), 67-82.
25. McKinsey and Co (1993). Emerging Exporters: Australia's High Value-Added Manufacturing Exporters. McKinsey and Company and the Australian Manufacturing Council, Melbourne.
26. Moen, O. & Servais, P. (2002). Born global or gradual global? Examining the export behavior of small and medium-sized enterprises. *Journal of International Marketing*, 10(3), 49-72.
27. Mohammed, N., Abaho, E., Sudi, N., & Kusemererwa, C. (2017). Internationalisation of SMEs: does entrepreneurial orientation matter. *World Journal of Entrepreneurship, Management and Sustainable Development*, 13(2), 96-113.
28. Nigeria Export Promotion Council (NEPC) (2017). Half year report.
29. Oviatt B.M., & McDougall, P.P. (1994). Towards a theory of international new ventures. *Journal of international business studies*, 25(1), 44-64.
30. Oviatt, B. M., & McDougall, P. P. (2000). International entrepreneurship: The intersection of two research paths. *Academy of Management Journal*, 43, 902– 908.
31. Penrose E.T. (1959). *The theory of the growth of the firm*. Oxford: Basil Blackwell
32. Ray, D.M. (1989). Entrepreneurial companies, born international: Four case studies. Babson Entrepreneurship research conference paper.
33. Rennie, M.W. (1993). Born global, *McKinsey Quarterly*, 4, 45-52.
34. Rodriguez-Serrano, A., & Martin-Armario, E. (2017). Born-global SMEs performance and dynamic absorptive capacity: Evidence from Spanish firms. *Journal of small business management*, 1(1), 1-29.

35. Simoes, V., & Dominginhos, P. (2001). Portuguese Born Globals: An Exploratory Study. 27th EIBA Conference at ESCP-EAP, Paris, France, December 13-15, 2001.
36. Welch, L., & Luostarinen, R., (1988). Internationalization- evolution of a concept. *Journal of general management*, 14(2), 34-55.
37. Yipeng, L. (2017). Born global firms' growth and collaborative entry mode: the role of transnational entrepreneurs. *International Marketing Review*, 34 (1), 46-67.
38. Zahra, S., Ireland, R. & Hitt, M. (2000). International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. *Academy of Management Journal*, 43(5), 925-950.



## IMPACT OF PRODUCT ATTRIBUTES AND ADVERTISEMENT ON CONSUMER BUYING BEHAVIOUR OF INSTANT NOODLES

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### Abstract

Advertisement is a very important marketing tool that exerts considerable influence on consumers' brand preferences and their purchase behaviour towards such brands. Advertising does this by promoting product attributes that form the basis for consumers' evaluation of products they ultimately purchase. This study examined the effects of product attributes and advertisement on consumer purchase behaviour of Indomie noodles, in Delta State, Nigeria. Primary data for the study were collected with the aid of structured questionnaire from 389 Indomie consumers in six urban centres by simple random and quota sampling techniques. The results indicated that purchase frequency had positive and significant correlation with advertising, and advertising media; while multiple regression results showed that advertising and product attributes had statistically significant influence on consumer buying behaviour. Brand image, product quality and ease of preparation were the dominant predictors of consumer behaviour respectively. The author concluded that although advertisement can change consumers' attitude towards a product, product attributes are a critical determinant of the final purchase decision.

### Keywords:

Consumer Buying Behaviour, Advertising, Product Attributes, Purchase Frequency.

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## Introduction

The volume of instant food products consumed in Nigeria may not be well known, but there is no doubt that advancement in processing technology is constantly introducing new and different forms of fast and easy to prepare food products to the market each year. Instant food products are products which are prepared and packaged often in powdered form which require only the addition of a liquid such as water or milk for final preparation (Oxford Advanced Learners Dictionary). A variety of such products is consumed as regular meals in homes and restaurants across the na-

tion. According to Jit (2013), the very term 'instant food' connotes simple, fast and convenient food, which is easy and fast to prepare, hygienic and also convenient to eat. Instant noodle is a type of food product made from varieties of dough formed into shapes of long thin ribbons, strips, curly-cues, waves, helices, pipes, tubes, strings, which are usually cooked in a mixture of boiling water and, or oil (Shah and Jetwat, 2012).

Indomie instant noodles are a popular food product consumed by many Nigerians of diverse socio-economic status. And in response to increasing demand for the product, several variants of the product have been processed and packaged by the manufacturer to meet the needs of the growing customer base. The consumption of instant noodles has been growing steadily for several years in Nigeria, reaching 1.65 billion servings in 2016 (World Instant Noodles Association, 2017). Several factors are responsible for the rapid increase in the consumption level of instant noodles amongst Nigerians. Globalisation and influence of foreign cultures have brought about rapid changes in lifestyle of the populace, and coupled with the fast pace of life, has enhanced consumers' preference for fast and easy to cook types of food. Furthermore, the rapid changes in the roles of women in our society, who have to combine their traditional responsibilities with own businesses or paid employment, to contribute to the socio-economic well-being of the family, has made Indomie noodles a regular meal in many homes (Table 1).

*Table 1*

**Instant Noodles Consumption in selected African Countries**

Country	Year				
	2012	2013	2014	2015	2016
Nigeria	1,340	1,430	1,520	1,540	1,650
South Africa	170	170	190	190	200
Egypt	150	170	190	200	210
Kenya	NA	NA	40	40	50
Ethiopia	NA	NA	40	50	40

**Unit:** Million Servings; NA; not available.

**Source:** World Instant Noodles Association (WINA), 2017.

The present day business environment has become hyper-competitive due to continual entry of new players that are deploying huge resources and state-of-the-art technology to carve a niche for themselves, and win customers. Besides, there is also a growing and intense competition amongst existing operators either to win or retain

existing customers or to expand their market share. Thus many producers, particularly manufacturers of instant food products, have found advertising as a strong weapon by which they can reach their target market quickly and continually. Advertising is any form of paid non-personal communication about the products or services of a firm to target audience by means of mass/broadcast media (Ayanwale, Alimi and Ayanbimipe, 2005). Advances in information and communication technology have accentuated the place of advertising in the marketing of food products, as promotional messages can reach customers and prospective consumers over several platforms, and on the internet. Over the years, instant food producers have deployed different forms of advertising methods in a creative and well executed manner to persuade consumers regarding their behaviour and purchase decision. They include print media such as newspapers, magazines, and brochures; outdoor media such as billboards and events; and internet, television and radio broadcast. However, of all the advertising media, television appears to be the most potent medium due to its mass reach and influence on individual's attitude, behaviour and life style (Latif and Abideen, 2011).

Although a number of studies may have been carried out on the impact of advertising on consumer behaviour of food products and beverages in Nigeria, not many studies have investigated the joint impact of product attributes and advertising on consumer purchase behaviour of Indomie instant noodles in Delta State, Nigeria. This study intends to close this gap by examining how attributes of Indomie noodles may have influenced continued patronage of the products by consumers in southern Nigeria, with focus on Delta State. Identification of such critical attributes will enable manufacturers of convenience products to maintain a competitive advantage over their industries. The study therefore addressed the research questions; what was the nature and strength of the association between purchase frequency, advertising and sources of consumers information on Indomie noodles?; To what extent did attributes of Indomie noodles and advertising affect consumers' purchase decision?

The general objective therefore, was to examine the effects of product attributes and advertising on consumer purchase behaviour of Indomie noodles. Specifically, the study describes the socio-demographic characteristics of consumers; determines the relationship between purchase frequency, advertising media, and advertising; and determines the effects of product attributes and advertising on consumer purchase behaviour.

### **Literature Review and Conceptual Model**

Advertising is an important element of the promotional mix and is a paid and non-personal form of presentation and promotion of ideas, goods or services by an identified sponsor. Most product advertisement messages are either informative,

persuasive or meant to remind consumers of the need for them to sustain the consumption of the advertised product. Producers adopt several advertising media to reach both existing and prospective customers by influencing their perception, awareness, attitudes and ultimately their purchasing behaviour in order to maintain and expand their market and sales volume for their products. But for firms to succeed, they must have an understanding of why prospective consumers behave under certain conditions, and to know product attributes that consumers consider in influencing their purchase behaviour. Adelaar et. al., (2003), reported that attitude-towards-the-advert is the most influencing theory in advertising research which affects the consumer's belief, and in turn influences the consumer to develop a specific attitude towards the good or service. Therefore, the aim of advertising is to create awareness and develop positive attitude towards the product in the mind of the consumers until they eventually purchase the commodity (Goldsmith and Lafferty, 2002).

Consumer behaviour is 'the behaviour that consumers display in searching for, purchasing, using, evaluating, and disposing of products, services, and ideas', (Schiffman and Kanuk, 2007). It is the study of how individuals make decisions to spend their available resources (time, money, effort) on consumption-related items as well as what, why, when, where and how often they purchase and use the purchased product. Blackwell et al. (2006) defined consumer behaviour as those processes and activities in which individuals or groups choose and consume products, experiences, ideas and services.

A number of factors are known to affect consumer purchase behaviour towards a product or service; and they include cultural, social, personal and psychological factors. Although these factors are ordinarily outside the control of the marketers, manufacturers explore several marketing strategies to influence consumers' response to their products offerings. One method by which firms can win the continued patronage of consumers is by building positive perception of their products in the minds of the consumers. An affirmative perception will help consumers to develop positive attitude to the product thereby enhancing their buying behaviour. Therefore, the selection of appropriate advertisement strategies to sustain the trust of consumers is a very important task for companies to maintain competitive advantage in the market place. Also, firms must know the key indicators and features of the products that consumers take into consideration in influencing their purchase behaviour (Dulin, 2016).

The survival of every producing firm depends on its ability to increase sales volume and revenue in order to maximize profit for its stakeholders. And given the intense competition in the instant noodles market in Nigeria, producers are employing different marketing strategies such as product quality, packaging, pricing, distribution



and advertisement to sustain their trust, continued patronage and loyalty for their products. Although, Indomie noodles have used continued quality improvement to gain competitive edge over competitors, their advertising campaign in different media over the years may have been the magic wand that is expanding its customer base among Nigerian households. The manufacturer of Indomie noodles has used a number of persuasive and effective advertisements by highlighting the attributes of the product so that the consumer will develop positive attitude toward the brand, thereby stimulating continued purchase (Farooq et. al., 2015). Also, by targeting the family and using the character of a caring mother in their advertisement, Indomie may have created an emotional bond with consumers that has culminated in repeat purchases of the brand. This is so because consumers are more likely to associate themselves with advertisements of brands that have emotional values and messages that consequently stimulate the intention to purchase (Mehta, 2000; Jalees, 2006).

The impact of advertising on consumer buying behaviour has stimulated great research interest among researchers across the globe due to the role advertising plays in the marketing process. In a study of the effects of advertisements on consumer behaviour of fast moving consumer goods (FMCG) in Pakistan, Awan et al. (2016) using a sample of 231 consumers found that advertisements had statistically significant effects on consumer buying behaviour and broadened consumer choices. Factors such as the need for an advertisement, the pleasure derived by an advertisement, the dominance of an advertisement, and the repetition of an advertisement were very helpful in creating consumers awareness and influencing their ultimate purchasing behaviour. They concluded that the findings of the study will help marketing and advertising companies to promote their products and focus on huge consumer markets of southern Punjab area of Pakistan.

Ayanwale, Alimi and Ayanbimpe (2005) conducted a study on the impact of advertising on consumer brand preference of Bournvita, a leading beverage drink in Nigeria. They surveyed 315 consumers that were randomly selected from three cities of Lagos, Ibadan and Ile-Ife, in the South-West geopolitical zone of Nigeria. The findings revealed that both male and female individuals of different age groups were equally influenced by advertising in their preference for the brand. The major reasons consumers gave for the preference of the brand were its captivating advertising (42.62%) of which TV advertising (71.43%) was most preferred of all the media used in advertising Bournvita. The results implied that advertising and product quality had major influence on consumers' preference for Bournvita which has contributed greatly to its success. The authors recommended that producers should research continuously into quality improvement that will make consumers enjoy good value

for their money. Furthermore, management should develop a more effective advertising campaign that will attract potential consumers while reminder-oriented advertisement is targeted at existing customer, for Bournvita to maintain its competitive edge, and to retain and expand its market share.

In another study of ‘the role of advertising on consumer buying decision in Pakistan’ ul Zia (2016) found advertising to exert significant influence on consumer behaviour. He used a sample of 170 students of the University of Punjab drawn by convenience sampling method, with the aid of questionnaire. The author affirmed that with effective and recurrent advertising of a product, consumers become more responsive, hence the positive relation found between consumer purchase decision and advertising in Pakistan. The paper concluded that since advertisements affect consumers in different ways, and the timing and sequence of the advertisement affect its reliability and affectability, firms and advertising agencies need to consider these in designing programmes that will have the desired impact on consumers so that the company can maintain competitive advantage.

Advertisements play a vital role in changing the perception, attitude and behaviour of consumers towards the products shown in varying advertising media. Sumathi and Begum (2016) found that advertising has a significant influence on consumer purchase behaviour and it satisfies the needs of both the firm and the consumers; and its role in modern market targeting and positioning cannot be over-emphasised if firms must win the trust and continued patronage of their customers. Hence, firms must adopt measures to know how, where and when they should advertise.

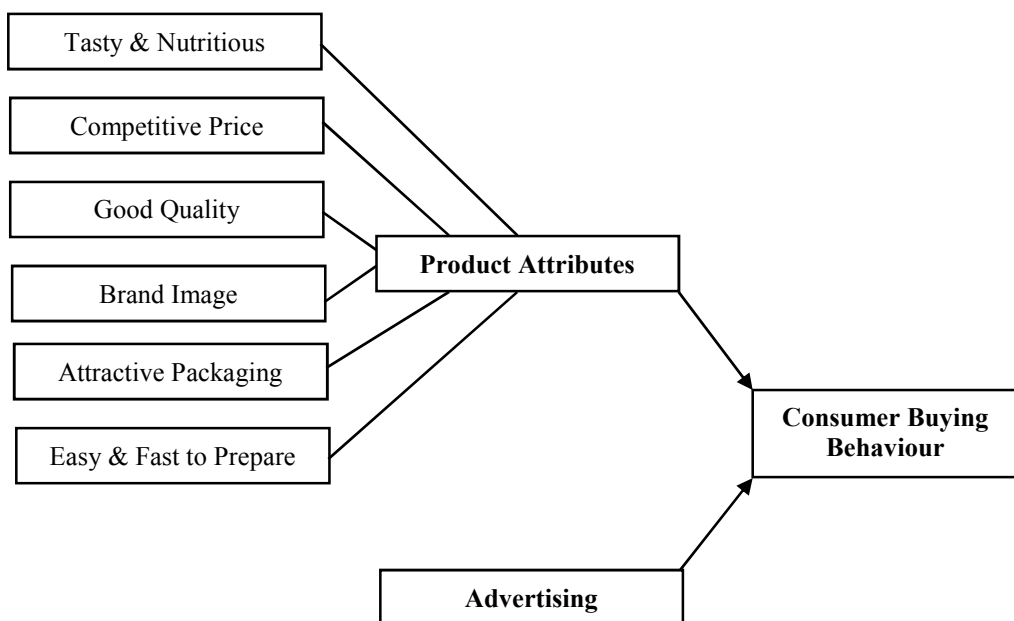
Advertisements and brands significantly affect incremental processes of changing the consumer behaviour in an efficient way to boost business performance. Ahmed et. al., (2017) also found advertisements to have strong positive and significant relationship with brand preferences and consumer buying behaviour. Also, teenagers were more conscious about branded products for the sake of their social status and advertisements play a great role in shaping their buying attitudes. The authors concluded that if advertising campaigns are properly managed, they can stimulate consumers’ propensity to buy the product thereby reinforcing the positive trend between advertising, brand choice and consumer’s buying behaviour.

Dulin (2016) investigated the impact of advertising on consumer buying behaviour in Columbia using a sample of 150 respondents in the city of Tuguegarao. The results indicated that advertising and product feature have important effects on consumer behaviour. Besides, importance of the product advertised, quality of the products, usefulness of the product as well as its price were additional factors that influenced consumer behaviour. The paper also revealed that product quality,

personal satisfaction and economic value were the most critical attributes that affected the purchase decision of consumers. He concluded that emotional appeal and promotional advertising were the most effective advertising techniques that eventually determined consumer behaviour.

### **Conceptual Model and Research Hypothesis**

The conceptual model for the study is modified from previous studies (Abdeen and Saleem, 2011; ur Rehman, et al., 2014; Ahmed, et al, 2017) as well as on author's knowledge (Figure 1).



**Fig. 1. Conceptual Framework**

### ***Research Hypothesis***

The following research hypotheses were stated and tested in the study.

- H<sub>01</sub>: There is no significant relationship between an advertisement and purchase frequency
- H<sub>02</sub>: There is no significant association between advertising media and purchase frequency
- H<sub>03</sub>: Product attributes have no significant effects on consumer behaviour
- H<sub>04</sub>: Advertising has no significant impact on consumer behaviour

## Methodology and Data

### *Research Design and Instrument*

A research design is a detailed description of the plan a researcher follows in order to address the research questions posed by a study with a view to realising the research objectives (Sekaran, 2003). The adoption of a suitable research design is essential because it determines the type of data, sampling method, techniques for data collection, and the time schedule and scope of the study (Hair et. al., 2010). This study employs a combination of descriptive and causal research designs, due its structure, quantitative approach and fairly large samples. It also intended to examine the cause-and-effect relationships between the dependent variable, consumer buying behaviour and the explanatory variables, product attributes and advertising response.

The quantitative nature of this study required the use of a structured questionnaire as the instrument for data collection. The questionnaire is composed of two sections which included the demographic characteristics of consumers of Indomie noodles, product attributes and consumer behaviour. While section A addressed the socio-demographic features of respondents, section B contained six (6) statements that measured attributes of the product; six (6) statements which measured advertising response of consumers, and 11 statements that measured consumer buying behaviour. Operationalization of the constructs was based on the researchers' knowledge and information from relevant literature (Table 2). Consumers were asked to tick their responses to the construct statements as objectively as possible. A 4-point Likert-type scale was used to assess the items which were, strongly disagree (1), disagree (2), agree (3), and strongly agrees (4).

### *Sample Size and Data Collection*

The sample size for the study was determined based on the equation developed by Cochran (1984) for large population with unknown variance.

$$n_0 = \frac{Z^2 pq}{e^2} \quad (1)$$

Where  $n_0$  = sample size

$Z = 1.96$ ; the area under the normal curve corresponding to 95% confidence level

$p$  = unknown variance in a large population assumed to be 0.5

$q = 1-p$ , is the estimated proportion of an attribute that is absent in the population

$e$  = the level of precision at 5%

Table 2

**Measurement of Constructs**

Description of construct statements	N	Mean	Std. Devia tion	Skewness
<b>Advertising</b>				
Indomie advertisement is appealing/ interesting to me.	389	2.96	1.053	-0.645
I pay attention to Indomie advertisement message.	389	2.90	1.046	-0.439
Indomie advertisement is important for me as a consumer.	389	2.84	0.986	-0.313
Indomie advertisement provides useful information to me about its products	389	2.85	0.953	-0.214
My preference of Indomie noodles is stimulated by their repeated advertisement.	389	2.87	1.001	-0.303
Indomie advertisement has influence on me.	389	2.86	1.072	-0.417
<b>Product attributes</b>				
Indomie noodles have attractive packaging design	389	2.40	0.656	-0.518
Indomie noodles have a strong brand image in the noodles market	389	2.53	0.619	0.139
Indomie noodles have good quality	389	2.50	0.599	-0.527
Indomie noodles are tasty and nutritious	389	2.39	0.670	-0.437
Indomie noodles have competitive prices	389	2.33	0.704	-0.398
Indomie noodles are easy and fast to prepare	389	2.42	0.636	-0.571
<b>Consumer behaviour</b>				
Indomie noodles advertisements provide useful information about its products	389	3.06	0.846	-0.421
The quality and price of Indomie noodles advertised affect my buying decision	389	2.95	0.785	0.017
Advertisements influence my purchasing decision about Indomie	389	2.86	0.783	0.114
Indomie noodles advertisements which include celebrities are more persuasive to me	389	2.91	0.786	-0.023
Indomie advertisements inform me of new flavours that exist and persuade me to buy the products	389	2.86	1.015	-0.458

Packaging encourages me to purchase Indomie noodles	389	2.98	0.934	-0.487
I am not interested in checking other noodles because of Indomie noodles advertisements.	389	2.93	0.996	-0.464
Because of their advertisements I consider purchasing other varieties of Indomie noodles	389	2.95	0.891	-0.312
Indomie noodles are actually as tasty and fresh as advertised	389	2.95	1.055	-0.540
Advertisements influence the quantity of Indomie noodles I purchase	389	2.77	1.031	-0.225
The combination of aggressive advertisement and quality make me buy Indomie noodles regularly	389	2.81	0.988	-0.331

**Source:** Author's computation.

Based on equation (1);

$$n_0 = \frac{1.96^2 x(0.5)(0.5)}{(0.05)^2}$$

$$n_0 = \frac{0.9604}{0.0025} = 384.19 \approx 384$$

Thus, the sample for the study included 384 respondents.

Data for the study were obtained as primary data with the research instrument that was administered to consumers across different socio-economic classes, in Delta State, Nigeria. Multi-stage sampling procedure, involving simple random and quota sampling techniques were used to draw a sample of 420 consumers from six (6) major urban centres (Asaba, Kwale, Warri, Ozoro, Ughelli, Effurun) in the three senatorial districts of the State. The first stage was the random selection of two urban centres from each zone, while at the second stage seventy (70) Indomie consumers were selected from the six (6) towns, using quota sampling technique, to give a total sample size of 420 respondents for the study. However, 31 copies of questionnaire retrieved were discarded due to non-response and inadequate information, while 389 that were appropriately filled were used for statistical analysis. The survey was conducted between 20th February and 30th June, 2017.

### **Data Analysis**

Primary data collected from consumers were analysed using descriptive and inferential statistics. The descriptive statistics such as tables, ratios, percentages, means, median, and standard deviations were used to describe the socio-economic

characteristics of Indomie noodles consumers; while correlation and regression analyses were used to determine the nature and degree of association between purchase frequency, advertising media and advertising, as well as the impact of product attributes and advertising on consumer buying behaviour.

## **Results and Discussion**

### ***Reliability and Validity of the Data***

Reliability and validity analyses were conducted to ensure that the scales adopted in the study actually measured the intended attributes. The Cronbach's Alpha which is the most cited measure of reliability for a multi-item scale with an acceptable cut-off point greater than 0.70 (Hair et. al., 2010), was used to measure the internal consistency of the instrument. The Cronbach's alpha values for the three constructs ranged from 0.813 to 0.855 with an overall value of 0.80 (Table 3). Since all the constructs had Cronbach's alpha coefficient values above the cut-off point of 0.70, thus, the measurement scale had adequate internal consistency.

*Table 3*

**Cronbach's Coefficient Alpha Values for variables**

<b>Construct</b>	<b>Cronbach's Alpha</b>
Product attributes	0.855
Advertising	0.813
Consumer behaviour	0.821
<b>Research Instrument</b>	<b>0.80</b>

*Source: Author's computation.*

Validity is the degree to which a variable actually measures what it intended to measure (Sekaran, 2003). The measuring instrument for this study satisfied both content and construct validity as there was significant ( $p < 0.05$ ) correlation between each item of advertising scale and the overall advertising response score; items of product attributes and overall product attribute score; and between each item of consumer behaviour scale and overall consumer behaviour score (Table 4). The results indicated convergent, and thus construct validity, implying that the items used in the measurement scale for the variables actually measured what they were intended to measure.

Table 4

**Convergent Validity of Measurement Instrument**

Construct		Consba	Consbb	Consbc	Consbd	Consbe	Consbf	Consbg	Consbh	Consbi	Consbj	Consbk
<b>Consumer Behaviour</b>	Pearson Correlation	0.293**	0.114*	0.128*	0.268**	0.410**	0.319**	0.367**	0.298**	0.338**	0.267**	0.308**
	Sig. (2-tailed)	0.000	0.025	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	389	389	389	389	389	389	389	389	389	389	389
		Adverta	Advertb	Advertc	Advertd	Adverte	Advertf					
<b>Advertising</b>	Pearson Correlation	0.398**	0.347**	0.356**	0.316**	0.353**	0.409**					
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000					
	N	389	389	389	389	389	389					
		Packaging Design	Fast/easy to prepare	Competitive price	Tasty & Nutritious	High quality	Brand image					
<b>Product Attribute</b>	Pearson Correlation	0.681**	0.786**	0.802**	0.787**	0.723**	0.805**					
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000					
	N	389	389	389	389	389	389					

\*\* Correlation is significant at the 0.01 level (2-tailed).; \* Correlation is significant at the 0.05 level (2-tailed)

**Source:** Author's computation.



### ***Socio-economic Characteristics of Indomie Noodles Consumers***

The results of the decriptive analysis of the socio-economic characteristics of the respondents indicated that majority of indomie noodles consumers were female (58.6%), while the remaining 41.4% were male (Table 5). Also, majority of the consumers are aged between 18 to 41 years (73%) with an average age of 36 years. The findings further revealed that Indomie consumers had a high level of educational status, as 61% of them acquired tertiary educational certificates. Household size, the number of persons per consumer household ranged from 1 to 10 with an average size of 5 persons per household, as a large proportion of the respondents (57.8 %) live in homes with 5 – 6 persons. The occupation of respondents showed that public and private employees made up 55.8% of all sampled respondents. Television advertising was the major source of information for Indomie consumers, as 35.7% of them relied on this source followed by radio broadcast (24.2%) and outdoor billboard (18%) advertisements. The combination of these three media provided relevant product information to 77.9 % of all consumers. Income distribution of respondents ranged between of N,= 7,500.00 – N,= 112,560.00, with a mean monthly income of N,= 48,858.30. Indomie noodles is relatively cheap compared to some other instant food products, therefore consumers of diverse income groups are able to purchase the product.

*Table 5*

#### **Socio-economic Characteristics of Respondents (n=389)**

<b>Parameter</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Mean (Mode)</b>
<b>Sex</b>			
Male	161	41.4	
Female	228	58.6	(female)
<b>Age</b>			
18 – 25	70	18.0	
26 – 33	114	29.3	
34 – 41	100	25.7	36
42 – 49	55	14.1	
50 – 57	40	10.3	
58 – 65	10	2.6	
<b>Marital status</b>			
Married	174	44.7	(married)
Single	155	39.8	
Divorced	45	11.6	

Widowed	15	3.9	
<b>Educational status</b>			
Primary school (1)	46	11.8	
Secondary school (2)	105	27.0	
Polytechnic/NCE (3)	87	22.4	
HND/First Degree (4)	109	28.0	(HND/First Degree)
Masters/Ph.D (5)	42	10.8	
<b>Number of persons /household</b>			
1 – 2	31	8.0	
3 – 4	115	29.6	
5 – 6	225	57.8	5 persons
7 – 8	13	3.3	
9 – 10	5	1.3	
<b>Occupation of consumers</b>			
Student	39	10.0	
Trader	90	23.1	
Civil Servant	115	29.6	(Civil servant)
Private Sector Employed	102	26.2	
Self Employed	43	11.1	
<b>Consumer source of information</b>			
Newspaper/Magazine	59	15.2	
Radio broadcasts	94	24.2	
Outdoor billboard	70	18.0	
Television	139	35.7	(television)
Sales promotion	27	6.9	
<b>Average Monthly Income(N,= †)</b>			
7,500 – 22,500	54	13.9	
22,501 – 37,501	70	18.0	
37,502 – 52,502	96	24.7	N <sub>s</sub> = 48,858.30
52,503 – 67,503	98	25.2	
67,504 – 82,504	44	11.3	
82,505 – 97,505	16	4.1	
97,506 – 112,506	11	2.8	

†N<sub>s</sub>= 370.00 =1 US Dollar in June, 2017.

*Source:* Author's computation.

### ***Correlation Analysis Results***

The results of the Pearson correlation analysis on the associations between purchase frequency and advertising media; and purchase frequency and advertising are shown in Table 6. The frequency of purchase of Indomie noodles showed a strong, positive and significant ( $r = 0.642$ ,  $p < 0.01$ ) relationship with advertising media, which are sources of information to consumers about the product. The r-squared value implied that advertising media explained 41 % of the variation in purchase frequency. The result therefore rejects the null hypothesis ( $H_{01}$ ) and concludes that there is indeed a significant relationship between purchase frequency and advertising media employed by marketers. Advertising had a weak and positive association, though significant ( $r = 0.29$ ,  $p < 0.01$ ) with purchasing frequency, thereby leading to the rejection of the null hypothesis ( $H_{02}$ ). However, the variable was only able to explain 8.4% of the variation in purchase frequency. The findings are similar to those of Malik et. al., (2014), Habib, Hossain and Oma (2015) in Muscat, Oman; ul Zia (2016) and Awan et. al., (2016) in Pakistan, where advertisement exposure and advertising had positive and significant association with consumer behaviour. Thus, we can infer that the more buyers are exposed to intensive advertising by marketers, the more they are likely to develop positive attitudes towards the products.

*Table 6*

#### **Pearson Correlation Coefficients between Purchase Frequency and, Advertising Media and Advertising**

Variable		Purchase Frequency	R-Square
Advertising Media	Pearson Correlation	0.642**	0.41
	Sig. (2-tailed)	0.00	
	N	389	
Advertising	Pearson Correlation	0.29**	0.084
	Sig. (2-tailed)	0.00	
	N	0389	

**\*\* Correlation is significant at the 0.01 level (2-tailed).**

**Source:** Author's computation.

### ***Multiple Regression Analysis***

The results of the multiple regression analysis of packaging design, easy and fast to prepare, brand image, competitive price, high quality, tasty and nutritious and advertising on consumer behaviour are presented in Table 7, Table 8, and Table 9. The adjusted R-squared value of 0.74 indicated that all the independent variables jointly explained 74% of the variance in consumer behaviour. The Durbin-Watson (D.W.) statistic of 1.70 showed the absence of autocorrelation among the variables (Ndubisi and Koo, 2006). The regression model has a good fit and is highly significant ( $F_{(7, 381)} = 161.951, p < 0.01$ ) and all the explanatory variables have positive and significant effects on consumer purchase behaviour. Furthermore, there was no problem of multicollinearity among the variables as the least tolerance value was 0.479, while the maximum value of variance inflation factor (VIF) was 2.09, far less than the acceptable threshold of 10 (Hair et al, 2010). The relative contribution of the predictors is shown by the magnitude of the standardized beta coefficients. The product attributes ‘brand image’, ‘high quality’ and ‘easy and fast to prepare’ are the most important predictors respectively of consumer purchase decision of indomie noodles in Delta State, Nigeria. The implication of the findings are that a unit increase in brand image and product quality will cause a 0.34% and 0.22% increase in consumer purchase behaviour. The findings further showed that as the manufacturer continues to advertise the product repeatedly using different media, the patronage of existing customers is sustained while they try to influence the perception and attitude of prospective consumers. This may have accounted for the positive impact of advertising on consumer purchase behaviour found in this study. This result is in consonance with the report of ul Zia (2016) in Pakistan where advertising was found to impact positively on consumer purchase decision.

*Table 7*

### **Model Summary<sup>b</sup> of Multiple Regression Analysis**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.865 <sup>a</sup>	0.748	0.744	0.24179	0.748	161.951	7	381	0.000	1.703

a. Predictors: (Constant), BRAND IMAGE, ADVERTISING, HIGH QUALITY, PACKAGING DESIGN, TASTY&NUTRITIOUS, EASY TO PREPARE, COMPETITIVE PRICE

b. Dependent Variable: Consumer Behaviour

**Source:** Author's computation.

Table 8

**Analysis of Variance (ANOVA<sup>b</sup>)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.276	7	9.468	161.951	0.000 <sup>a</sup>
	Residual	22.274	381	.058		
	Total	88.550	388			

a. Predictors: (Constant), BRAND IMAGE, ADVERTISING, HIGH QUALITY, PACKAGING DESIGN, TASTY&NUTRITIOUS, EASY TO PREPARE, COMPETITIVE PRICE

b. Dependent Variable: Consumer Behaviour

*Source: Author's computation.*

Table 9

**Coefficients<sup>a</sup> Analysis**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.917	0.069		13.214	0.000		
	ADVERTISING	0.062	0.017	0.097	3.644	0.000	0.933	1.072
	PACKAGING DESIGN	0.040	0.022	0.055	1.792	0.074	0.696	1.436
	BRAND IMAGE	0.258	0.028	0.335	9.388	0.000	0.519	1.928
	COMPETITIVE PRICE	0.107	0.030	0.135	3.631	0.000	0.479	2.087
	TASTY & NUTRITIOUS	0.106	0.025	0.148	4.212	0.000	0.532	1.878
	EASY TO PREPARE	0.111	0.022	0.164	5.125	0.000	0.648	1.543
	HIGH QUALITY	0.166	0.028	0.220	5.971	0.000	0.485	2.062

a. Dependent Variable: Consumer Behaviour

*Source: Author's computation.*

All the product attributes showed positive and significant impact on consumer behaviour. This is so because advertising alone will not stimulate consumer continued purchase, unless the attributes of the product are desirable to buyers. These findings imply that the higher the perceived quality of Indomie, the more consumers are likely to buy and use the product. In fact, the result indicated that ‘brand image’, ‘high quality’ and ‘easy and fast to prepare’ are the most important attributes that exerted the greatest impact on the buying decisions of consumers. Apart from these, the product is tasty and nutritious, competitively priced and the manufacturer has constantly improved on their packaging design which buyers found very attractive. Although a number of alternative products are available on the market, there is no doubt that the improved taste of different variants of Indomie must have made it the number one choice among consumers. These results are consistent with those of Oghojafor, Ladipo and Rahim (2012) in a study of ‘the influence of product attributes on consumer purchase decision in the food and beverages industry in Lagos, Nigeria. Similar findings were also reported by Riaz (2015) and ur Rehman, et al. (2014) in Pakistan.

### **Conclusion**

The paper examined the impact of advertisements and the critical attributes of Indomie instant noodles on the buying behaviour of consumers in Delta State Nigeria. Advertising media and advertising were found to have a positive and significant association with frequency of purchase of the product, with advertising exerting very strong impact. Of the six important attributes of the product, brand image, quality and ease of preparation, were the dominant predictors of consumer purchase behaviour. Although advertising had significant effect, the magnitude of its impact was low compared to the product attributes. Consumers do not buy products on the basis of the advertisements alone, unless the products being advertised meet the consumers’ evaluation in terms of desirable attributes of the specified product.

The results of the study present some managerial implications. The positive link between advertising media and purchase frequency underscores the need for producers to choose an effective media vehicle to advertise their products, as television was the most predominant media for information on Indomie consumption. The findings also lend support to the need for manufacturers to develop products with desirable attributes for the consumer, because product attributes are a major determining factor for consumers’ brand choice when making buying decisions. The cross-sectional nature of the data used in the study posed some limitations to the generalizability of the findings. This is so because historical data of the buying

behaviour of the respondents over a period of four months is not an adequate basis upon which to make generalisation about the population. Therefore, future studies should use a combination of cross-sectional and longitudinal survey methods to obtain more robust data upon which inferences on consumer buying behaviour of instant food products can be based.

### References

1. Abideen, Z. U., and Saleem, S. (2011) Effective advertising and its influence on consumer buying behaviour. *European Journal of Business and Management*. 3(3). p. 55 –65.
2. Adelaar, T. et al. (2003). Effects of Media Formats on Emotions and Impulse Buying Behavior. *Journal of Information Technology*. 18. p. 247–266.
3. Ahmed, S. et al. (2017) Does advertisement influence the consumer's brand preferences and consumer's buying behaviour? *Journal for Studies in Management and Planning*. 3(1). p. 1–7.
4. Awan, A. G. (2016) Effects of advertisement on consumer's buying behaviour with references to FMCGs in southern Punjab-Pakistan. *Journal of Marketing and Consumer Research*. 19. p. 22 –30.
5. Ayanwale, A. B., Alimi, T. and Ayanbimipe, M. A. (2005). The Influence of Advertising on Consumer Brand Preference. *Journal of Social Science*, 10 (1). p. 9-16.
6. Blackwell, R. D., Miniard, P. W. and Engel, J. F. (2006) *Consumer Behaviour* 10th Edition, New Jersey: South-Western Thomson Press.
7. Cochran, W. G. (1984). *Sampling Techniques*, 3rd Edition., New York: John Wiley and Sons, Inc.
8. Dulin, G. C. (2016) The impact of advertising on consumer buying behaviour. *International Journal of Advanced Research in Management and Social Sciences*. 5 (6). p. 257 – 268.
9. Farooq, Q., et al. (2015) Impact of comic factor in TV ads on buying behaviour of university students. *International Letters of Social and Humanistic Sciences*. 8 (1). p. 12-20.
10. Goldsmith, R. E. and Lafferty, B. A. (2002) Consumer response to websites and their influence on advertising effectiveness. *Journal of Electronic Networking Application and Policy*. 12 (4). p. 318-328.
11. Habib, A. Hossain, S. and Oma, T. (2015). Impact of advertisement on consumer choice: a case of SME and consumers. *Singaporean Journal of Business Economics, and Management Studies*. 4 (5). p. 1 – 15.

12. Hair, J.F. et al. (2010) *Multivariate Data Analysis*, 7<sup>th</sup> edition. Upper Saddle River, N.J.; Pearson Prentice Hall.
13. Jalees, T. (2006) Brand Personification of Mobilink, UPhone, Telenor, and Warid. *Journal of Research Market Forces*, 2 (2). p. 50-76.
14. Jit, P. (2013) A study on brand loyalty of consumers towards instant food products in Patiala district. *Radix International Journal of Economics and Business Management*. 2 (10). p. 1–14.
15. Latif, A., Saleem, S. and Abideen, Z. U. (2011) Influence of Role Model on Pakistani Urban Teenager's Purchase Behaviour. *European Journal of Economics, Finance and Administrative Sciences*. 31. p. 7-16.
16. Malik, M. E., et al. (2014) The impact of advertisement and consumer perception on consumer buying behaviour. *International Review of Social Sciences and Humanities*. 6 (2). p. 55 – 64.
17. Mehta, A. (2000) Advertising Attitudes and Advertising Effectiveness. *Journal of Advertising Research*. 40 (3). p. 67-72.
18. Ndubisi, N. O. and KOO, J. (2006) Family Structure and Joint Purchase Decisions: Two Products Analysis. *Management Research News*. 29 (1/2). p. 53-64.
19. Ogbojafor, B. A., Ladipo P. K. A. and Rahim, A. G. (2012). The influence of product attributes on consumer purchase decision in the Nigerian food and beverages industry: A study of Lagos metropolis. *American Journal of Business and Management*. 1 (4). p. 196 –201.
20. Orji, M. G. et al. (2017) Impact of personality factors on consumer buying behaviour towards textile materials in South Eastern Nigeria. *International Journal of Business and Economics Research*. 6 (1). p. 7 –18
21. Riaz, H. A. (2015) Impact of brand image on consumer buying behaviour in clothing sector: A comparative study between males and females of Central Punjab (Lahore) and Southern Punjab (Multan). *Kuwait Chapter of Arabian Journal of Business and Management Review*. 4 (9). p. 24 – 35.
22. Schiffman, L. G. and Kanuk, L. L. (2007) *Consumer Behaviour*, 9th ed. Upper Saddle River, N.J.: Pearson Prentice Hall.
23. Sekaran, U. (2003) *Research Methods for Business; a Skill Building Approach*. New York; John Wiley and Sons.
24. Shah, N. A. and Jetwat, J. H. (2012) Study of consumers' preferences and its affecting factors towards selection of various noodles of branded companies in Ahmedabad city. *Elk Asia Pacific Journal of Marketing and Retail Management*. 3 (4). p. 1 –7.



25. Sumathi and BEGUM, M. (2016) Impact of advertisements on consumer behaviour of cosmetic products; A study in Mangalore. *International Journal of Scientific Research and Modern Education*. 1 (1). p. 874 – 879.
26. Ul Zia, N. (2016) The role of advertising on consumer buying decision in Pakistan. *Singaporean Journal of Business Economics, and Management Studies*. 5 (4). p. 39-47.
27. Ur Rehman, F. et al. (2014) How advertising affects the buying behaviour of consumers in rural areas: A case of Pakistan. *Academic Research International*. 5(4). p. 405 – 412.
28. World Instant Noodles Association. (2007) Global Demand for Instant Noodles. 2017. Available from: <https://instantnoodles.org/en/noodles/market.html> [Accessed 11/07/2017]



## LEGAL REGIME OF THE RECTOR AS A GOVERNANCE BODY OF THE HIGHER EDUCATION INSTITUTION

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### Abstract

### Keywords:

Higher education, universities, Rector, university governance bodies, powers and acts of the Rector.

The paper explores a topical aspect of the specifics of the legal regime of the Rector as a sole governance authority of the higher education institution. The regulatory framework is comprehensively analysed in its different aspects, related to the specifics of the constitution of this authority and the occurrence of rights, respectively the employment relationship of the elected person with the university, the competence, the documents issued by the Rector and the rules of appeal. On the basis of the analysis carried out conclusions and recommendations are made.

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## Introduction

Bulgaria is proud of its history and traditions in the field of education. In Bulgaria's more recent history the development of higher education started after the Liberation and the adoption of the first laws in this are (Dimitrova, 2016) a. The current period of development of higher education stems from the democratic changes in Bulgaria after 1989. This stage has impacted not only the country's political and economic life, but also the sphere of education. Especially pertinent is the research into the matter in the period after Bulgaria's accession to the European Union (EU) and the discovery of new dimensions in the sphere of higher education, stemming from our full-right membership and from the framework of European education. Bulgarian universities are equal-right players on the educational services market. This process has its

legal regulators, but is also influenced by market mechanisms, including free competition. Hence the interest of the authors in the governance bodies of universities and, more particularly, the figure of the Rector. It is called upon these bodies within Bulgaria's autonomous universities, complying with the European and national legal framework, to carry out the reforms in the sphere of higher education in accordance with the needs of the present times.

**The aim of this paper** is to do an up-to-date research of the Rector as a sole governance authority of the higher education institution. The legal framework is analysed comprehensively in all its different aspects, related to the specifics of the establishment of the authority and the occurrence of the powers, respectively the employment relationship of the elected person with the university, the competences and acts of the Rector. Conclusions are drawn and recommendations are made on this basis. **The subject of study** is the national legal framework, regulating higher education in Bulgaria and, more specifically, the legal regime of the Rector as a governance body of the higher education institution. In pursuance of their aim, the authors have set to themselves **the following goals:** 1) to formulate the requirements and specifics in the establishment of the Rector as a governance authority of the higher education institution; 2) to research the employment relations and the social insurance aspects occurring after the election of the Rector; 3) to classify the types of powers of the Rector and to clarify their nature in the general process of governance of the higher education institution; 4) to study the different documents issued by the Rector and their legal nature; 5) to make generalisations and recommendations of a theoretical and practical nature.

**The methodology of the research includes:** 1) a comprehensive analysis of the legal regime of the Rector as a university governance body in a comparative legal and contemporary aspect and 2) research into the legal framework and doctrinal research – a theoretical review, systematization and classification. The paper explores primarily the current national legal framework, i.e. the contemporary period in the development of higher education, a retrospective analysis, as well as comparative legal analogies in some cases to clarify a specific goal of the study which is not claimed to be exhaustive.

### **1. Establishment of the Rector as a governance authority of the higher education institution. Employment relations and social security aspects occurring after the election of the Rector**

Wide-ranging discussions have been held in the last few years relating to the quality of higher education in Bulgaria, its competitiveness in comparison with the European education and the increasing number of universities in the country. The discussions cover also a change in the special legal acts, regulating the public relations in the area of higher education, namely the Higher Education Act (HEA, promulgated in the State Gazette issue 112/1995) and the Act for the Development of the Academic Staff in the Republic of Bulgaria (ADASRP, promulgated in the State Gazette issue 38/2010) (Andreeva, Ignatova, 2013). In the HEA the governance structure is developed in accordance with the 'academic self-governance' system as part of the 'academic autonomy' (Dimitrova, 2016). Two basic models are applied in the international practice: the American and the German models. Their specifics is related to the possibility for the representatives of the state to be involved directly in the management of the respective university, including the establishment of the different bodies, i.e. to what extent they are elective or appointable. The main difference between the two models concerns the establishment of the supreme authority which determines the parameters of the activity and elects the discussing/directing committee and the operative management.

In Bulgaria the election of Rector follows a mixed system whereby a body is elected, after which it is appointed. The sources, regulating the Rector election procedure, are hierarchically arranged and cover acts with different legal force. For the needs of the analysis these sources are introduced interpretatively and in analogy, bound to the election as grounds for the occurrence of the employment relationship and are in accordance with the specifics of the respective office being a sole governance body in the sphere of higher education. Therefore, we could present the following pyramidal structure of the acts, regulating the election procedure: 1) Constitution; 2) Special law – the HEA; 3) General framework – Chapter Five, Section Three of the Labour Code (LC, promulgated in the State Gazette, issue 26/1986), which, pursuant to art.88 LC is applied subsidiarily as far as the special HEA does not provide otherwise; 4) The Rules of Procedure of the respective university.

The election as grounds for the occurrence of individual employment relationships has appealed to many authors from a doctrinal point of view (Milovanov, 1976, p. 135) (Sredkova, 2011, pp. 86-92) (Vasilev, 1997, pp. 161-168), however, in practice it is not among the priority and most common grounds such as is the employment

contract under the Labour Code (Andreeva, et al., 2017, pp. 17-18, 23-45) (Андреева, 2016). It is applied in cases where the legislator deemed that, with a view of the significance of the respective office, it is necessary **to evaluate the professional qualities and the trust in the person to take the office** (Mrachov, 2012, p. 279). The second goal which is achieved through the election is equally important, namely, to apply the democratic principle. This is especially significant in the election of the governance position of the Rector both in view of the important powers granted by the law and considering the trust that the person needs to inspire in the academic community of the respective university to be able to protect its interests in accordance with the common will of the electors. In their unity, these two goals, achieved through the implementation of the Rector election procedure, are in harmony with the autonomy of higher education institutions. This provides a guarantee for meeting the democratic requirements and guidelines for the development of the Bulgarian higher education in line with the European one. To fulfil its purpose of being an adequate and real regulator of public relations, the legal framework must comply with a number of formal requirements. First, it needs to be in line with the hierarchical structure of the legal framework and correspondingly, to exclude texts whereby an act with a lesser legal force contradicts a major one (Bachvarova, et al., 2010). Secondly, there shouldn't be internal contradictions between different provisions of the respective law. On a national level these requirements are complied with and there are no direct controversies between the provisions regulating the election of the governing bodies of higher education institutions. Considering the granted academic autonomy and the respective possibility for universities to adopt internal rules of procedure for their activities, cases of violations of the requirement of legality of some universities' regulations are not rare (Dimitrova, 2017). The most common violations are related to setting out provisions of substantive nature, imposing additional requirements for or bans on candidacy, which prove to be limiting or discriminational. For example, a ban for the candidacy of a person who would reach retirement age during their mandate or introducing a requirement for occupying the academic position of "Professor" in order to be able to occupy a certain management position. Such additional requirements, introduced by an act of the lowest degree in the hierarchy of sources, are inadmissible. The extended interpretation of academic autonomy is dangerous and contradicts the spirit of the law.

An election does not always give rise to the occurrence of an employment relationship (for example, the election of a chairman of the students' council). In the hypothesis under consideration, however, the election of Rector gives rise to an individual employment relationship since this is what the law stipulates and, in addition, the

Rector is permanently appointed, he/she is on the university's payroll and entails a salary for the executed powers. From an employment-law perspective the election represents a complex actual composition. Its specific elements depend on the respective individual employment relationship. In the hypothesis of election of Rector the applicable legal regulations are contained in the general legal act – Chapter Four, Section Three of the Labour Code and in Chapter Four of the special HEA. Priority in the application is given to the special regulations, while the general regulations are used in the absence of an explicit special regulation and with a view of complementing the matter. A number of conclusions can be drawn in this regard, concerning the requirements and rules for carrying out the Rector election procedure.

As grounds for the occurrence of individual employment relation, the election sets certain professional requirements for the candidate, set out in art.31, para.1 HEA. The provision sets cumulatively two requirements to the candidate for the Rector's office: to possess a doctoral degree within the meaning of art.48, para.1 HEA and to be employed under a labour contract by the respective university pursuant to §4e, item 1 of the additional provisions of HEA. A "labour contract" is an employment contract entered into pursuant to art.67, para.1, item 1 of the Labour Code, while for the academic position "assistant" a "labour contract" is also an employment contract, entered into pursuant to art.67, para.1, item 2 LC. A few conclusions can be drawn on the basis of the analysis of this legal provision: 1) The legislator introduces equal requirements for the persons, holding offices at universities: Rector, Dean and Director of a subsidiary or college and 2) There are no additional requirements, related to age, minimum length of service at the university or occupying the academic positions of Associate Professor or Professor. These liberal provisions in the national legislation have been the subject of initiatives for legislative changes during different periods in the recent Bulgarian history, however they have not met the legislator's support until now.

HEA does not set any other requirements for holding Rector elections apart from the ones specified above and the regulations of the general statutory instrument, the Labour Code, are applied, namely that the position has to be vacant or to be about to be vacated – art. 83 LC. This is supplemented and supported by the provision of art.24, para.4 HEA - „The powers of the Rector of the respective university are terminated together with the mandate of the General Meeting that elected the Rector. The outgoing Rector fulfills his/her functions until the election of the new Rector, for a period not longer than two months“. The requirements for the elective body, carrying out the election of the Rector, are not set out in the special law. It can be concluded from the practice and from the doctrinal experience that in this case the General Meeting is the elective body, representing a set of individuals, assembled in a collec-

tive authority in accordance with the requirements of art.27, para.1 HEA, entrusted by the law with the right and obligation to hold the election (art.29, para.1, item 4 HEA). HEA does not contain any provisions stipulating the number of candidates for the Rector's office. Art.84, para.4 LC applies in this case, providing for an unlimited number of candidates both in terms of the maximum and of the minimum number thereof, i.e. it is possible to hold elections even if there is only one candidate. The election is carried out with a secret ballot and a vote is held separately for each candidate. The majority required for election is defined by the special HEA: art.28, para.3 HEA provides for a simple majority for realizing the election of Rector.

Employment relations occur at the moment of announcing the candidate elected. The will of the elective body determines the person to occupy the position. In the specific hypothesis of art. 29, para. 2.2 the Higher Education Act provides that the chairperson of the General Meeting enters into an additional agreement to the labour contract with the elected Rector pursuant to art.119 and art.107 LC. The general statutory instrument stipulates also the moment of occurrence of employment relations (art.86, para.3 LC) – this is namely the moment the candidate is announced to be elected. The timeframe for taking office is different from that of the employment contract – the legislator determines a term of two weeks for taking up office, which can be extended up to three months in the presence of valid reasons. New elections are held in case the elected candidate does not occupy the position within the timeframe provided or in case none of the candidates receives the necessary majority vote. The elective employment relation is always limited by a term, which term is generally provided for in art.24, para.2 HEA for all governance bodies of the higher education institution: General Meeting, academic council and Rector, which are elected for a four-year term. The mandate of the governance bodies of a higher education institution is not suspended in case partial elections are held, or in case the institution undergoes transformation. The mandates of the additionally elected members are terminated upon expiry of the mandate of the governance body. The powers of the Rector of a higher education institution are suspended upon expiry of the mandate of the General Meeting that elected him/her. The outgoing Rector fulfills his/her functions until the election of a new Rector, but not in excess of two months. An outgoing Rector can be elected for the same position for a new term, however this shall be deemed occurrence of new employment relationship.

Any disputes arising from the election are referred to court only with regard to the legality of the election, i.e. the rules and conditions for holding the election. Any of the candidates is legally entitled to initiate the proceedings on the one hand and so is the employer, on the other. The defendant is the election body whose actions are challenged. The employment relations with the Rector occur as a result of the above

complex factual composition. As regards the social security aspect no differences are found from the general social security regime. Namely, the general order of occurrence and creation of social security status is followed, as well as social security provision as per categories and types of secured social risks, typical for the persons under art. 4, para. 1, item 1 of the Social Security Code (SSC, promulgated in the State Gazette, issue 110/1999), workers or employees respectively, irrespective of the nature of their work, the method of remuneration and the source of financing, being mandatorily insured for general illness and maternity, disability due to general illness, old age and death, work-related accident and occupational illness, and unemployment (Sredkova, 2012, p. 217 и сл.). In all cases the moment of occurrence of the social security provision is the day when the persons start their work activities for which the respective social security contributions have been made and continues until termination of the social security contributions, being suspended during periods that are not considered insured period of service irrespective of the fact that the activity under art.4 or art.4a, para.1 has not been terminated (Andreeva, Yolova, 2014, p. 195).

## 2. Classification of the types of powers

Given its constitution as a sole management and representative body, the Rector is entitled to a wide-spanning legal system of powers and competence on basic areas of development, management and representation of the higher education institution. Legally regulated by the provisions of art.32 HEA, the said powers and competence are characterized by two main peculiarities. On the one hand, they have been provided for in a general law and they have been further detailed in an internal normative act, i.e. the university's Rules of Procedure. On the other hand, the Rector's powers are situated within the Rector's interactions and the relationships with the other governance and control bodies of the education institution. Systematically, the competence and powers of the body can be classified under the following basic levels:

**Representative functions:** they are exercised exclusively in the sphere of relations that are external to the institution at the level where the Rector represents the higher education institution in a public environment. Given the institution's social status and commitment, the Rector has representative powers in the university's interaction with other local and state authorities, public organisations, private and legal entities, partners under contracts and cooperation memorandums, as well as in the Rectors Council as an authority for expressing the common interests of higher education institutions before the state authorities.

**Constitutional functions:** they refer to the possibility of establishing or initiating the procedure of creating main and auxiliary bodies of the institution. The Rector



has the discretion to elect and appoint other bodies of the higher education institution, in particular, assistant Rector, who might not be a member of the academic council. The Rector is also entitled to select persons for vacant elective positions to temporarily fill the positions for a period of three months, having also the initiative to propose five of the members of the Board of Trustees, respectively to put forward to the Academic Council the candidatures of one or more deputy Rectors.

**Governance functions:** prevailing and discretionary functions that are regulated in a manner allowing for their expansion within the academic autonomy and in implementing the decisions of the General Meeting of the higher education institution. With regard to this function is also the competence delegated to the Rector to decide definitively, i.e. operatively, fully and using his sole discretion all issues concerning the enrolment, dismissal and transfer of students, doctoral students and postgraduates. It is also among the Rector's powers to prepare and propose for adoption by the academic council the university's annual statement, respectively, a report on the financial and material indicators and results, specifying the manner of functioning of the evaluation system and maintaining the quality of the education at the higher education institution. In this area the Rector's competence in preparing a mandate programme in the beginning of his/her mandate, setting out the main and most important aspects of the university's management and development, is of crucial importance. The said mandate programme is to be adopted by the Academic Council, while at the end of the mandate a report on the whole period of governance is presented at the General Meeting. As was already mentioned, corresponding to the level of operative management entrusted to the Rector is his/her powers to fulfill other functions, arising from the law and the decisions of the Academic Council or the General Meeting, exercising an undivided and management approach for a correct implementation and execution.

**Functions related to personnel management:** these functions include the Rector's competence to enter into and terminate employment contracts with university faculty and employees, respectively additional agreements under art.119 and art.107 LC with the elected Dean and Director of a subsidiary or college. In a general form as per the Labour Code, the Rector enjoys a corresponding power related to procedures for implementing disciplinary action.

**Initiatives related to the summoning of meetings:** the Rector has the initiative to require from the chairs of the General Meeting, the Academic Council and the Board of Trustees, to summon a meeting of the respective body. However, if necessary the Rector is entitled to summon directly the management bodies of the main units and subsidiaries of the higher education institution himself/herself.

As was already mentioned, the Rector's competence has to be construed also in view of the Rector's relations with the other management bodies depending on the level of inter-relation, management operability, mutual and functional relevance and

complementing the volume of delegated rights. Therefore, in view of the fact that the Rector is by law a member of the Academic Council and its chair, there is a systematic approach **and inter-relation between the Rector's powers and the competence of the Academic Council** (art.30 HEA) in its capacity as a management body of the higher education institution's educational and scientific activities. The latter can be summarized in two main directions: 1) **At the level of the mandate programme and budget:** being prepared by the Rector, the same, as was already mentioned, is adopted and controlled by the Academic Council, the latter being the authority, adopting and controlling the implementation of the budget of the higher education institution, respectively, the report on the result of the activities and the annual financial statement of the higher education institution, 2) **At the level of staff management:** the Academic Council is the body electing the deputy Rectors on the Rector's proposal and determining the overall staffing policy of the higher education institution, respectively the job descriptions and the rules of attesting the academic staff with regard to and in the implementation of the requirements applicable to the employment contracts entered into and terminated by the Rector; 3) **At the level of educational policies:** in an operative and executional aspect and in the context of the general vision for the educational policy adopted by the Academic Council, the corresponding duties of the Rector concern the final settlement of all internal academic, scientific and educational issues, concerning the enrolment, education and overall development of the individual educational process of students, postgraduate students and PhD students.

**Functions related to the direct implementation of the decisions of the Council** – the Rector is the body, causing directly and indirectly the implementation of the decisions of the Academic Council.

**Concerning the Rector's representative functions:** the Academic Council is the competent authority to decide on the association with national and foreign organisations, respectively national and foreign higher education institutions for the purpose of holding and carrying out joint training, respectively educational activities or educational franchise. In the implementation of the above functions, respectively, the activities related to the execution of contracts and memorandums, the higher education institution is represented by the Rector.

**At the level of inter-relation of the Rector's competence with the General Meeting (art.27, 28 and 29 HEA),** in its capacity as main management and collective authority of the higher education institution, it has to be established that this inter-relation has two main aspects: 1) **Election, establishment and control:** the election of the Rector is within the powers of the General Meeting and the chairperson of the GM enters into an additional agreement to the labour agreement of the elected

person pursuant to art.119 and art.107 LC. On the other hand, the GM has to be convened at least once a year by its chairperson but also by decision of the academic council or by a quarter of the university's payroll staff or by the request of, respectively, on the initiative of the Rector; 2) **Operative management functions:** The General Meeting regularly discusses and adopts the annual report on the activities of the higher education institution, presented by the Rector, as well as his/her final report at the end of his/her mandate for the whole period in office as per the main aspects of the activities carried out, the realised goals and the general educational, scientific and financial results achieved. On his/her part, as was already discussed, the Rector may fulfill functions stemming from or, respectively, delegated by decisions of the General Meeting, resulting in expanding the scope of his/her competences and powers.

Summarising and classifying the Rector's powers, **two conclusions** can be drawn. **On the one hand**, there is a steady legal systematics and inter-relations in the competence of the main governance bodies in a way, ensuring mutual influence and control in order to achieve adequate management operability, accountability and legality. **On the other hand**, it is a positive legal approach to create a normative and admissible basis in the formulation of the Rector's powers to allow for the latter's extension by volume as a reflection of the academic autonomy, the individual vision for the development of the institution and the necessity for management independence within the assigned mandate.

### 3. Rector's acts and procedures for challenging them

The Rector is a sole governance authority of the higher education institution, and in accordance with this function the principle of unity of command is applied. **A typical administrative act of sole governance authorities is the Order.** Its essence as a governance act has been studied in the legal doctrine (Staynov, et al., 1957, p. 88 и сл.). This is an act creating direct legal consequences for its addressee/s. The term 'order' is used to describe certain imperative orders directed from a management body to citizens, organisations or subordinate employees. Not all orders, however, have the character of an individual administrative act, corresponding to the definition under art.21 of the Administrative Procedure Code (APC, promulgated in the State Gazette, issue 30/2006). Often the term "order" is used for acts regulating the official status of subordinates who are in service at the authority that issued the act (e.g. orders for authorizing paid leave, business trips, etc.).

In view of the specifics of the management of a higher education institution, the Rector issues orders with a different subject matter and, respectively, a different legal nature. Not all orders fall within the category of individual administrative acts. Respec-

tively, not all orders can be appealed in court or administratively, although the general provision of art. 38 HEA concerning the court appeal of acts of the governance bodies of universities under the Administrative Procedure Code. Accounting for the specifics and in view of the correct determination of the nature and adequate control mechanism, **a classification of the Rector's orders using the criterion of the legal nature of the respective act** has been made. Two main types of orders have been differentiated, namely: 1) individual administrative acts and 2) interoffice acts (note 2).

**Rector's orders representing individual administrative acts.** The definition of individual administrative act is provided in art. 21 APC. The individualization and specificity of this act is manifested in two aspects: on the one hand, in terms of the envisaged legal consequences and, on the other, in terms of its addressee (Dermendzhiev, et al., 2010, pp. 155-159). Along with these specific features of the individual administrative act, differentiating it from the general and normative administrative acts, it has to have the distinctive features characteristic of the general term 'administrative act': it has a public law nature, it is a final document, completing the administrative procedure and it has an outward direction of legal consequences (Petrov, 2017, p. 77). We have to add one more characteristic, namely the unilateral legal consequences for the addressees and compulsory execution of the act, if necessary (Lazarov, 2000, p. 70 и сл.) (Andreeva, Yolova, 2016). It is seen from the definition and common characteristics of the administrative acts that the procedure related to their issuance represents a legal activity of administrative nature. A peculiarity of the Rector's orders is that the Rector is not a state authority of the executive power. However, the possibility of issuing individual administrative acts by authorities which are not within the system of state governance, has been explicitly regulated. It has been underlined in the literature (Kostov, Hrusanov, 2011, p. 109) that the provision of art. 21, para 1 APC includes also all other subjects possessing administrative powers, empowered explicitly by law for the purpose. The special laws, granting administrative powers to a non-administrative authority – the Rector in order to issue individual administrative acts, are the HEA, ADASRB, etc.

In view of the practical orientation of this classification a few specific examples of individual administrative acts of the Rector can be provided – orders for: 1) granting (refusal to grant) a scholarship pursuant to Ordinance No. 90 dated May 26, 2000 on the conditions and procedure for granting scholarships to students, PhD students and postgraduate students from state-owned higher education institutions and scientific organisations (promulgated in the State Gazette, issue 44/2000); 2) accommodation (refusal to accommodate) in student hostels pursuant to the Ordinance on the use

of student hostels and canteens (OUSHC – State Gazette, issue 86/2008); 3) imposing sanctions pursuant to art. 36 OUSHC for systematic or gross violation of the internal order, for sub-leasing the residential unit at the hostel, for failure to pay the due rent or deposit for a period exceeding one month or for failure to reimburse the damage caused; 4) suspension of a student, PhD student or postgraduate student of the university for a particular period of time pursuant to art. 74, para. 2 HEA; 5) enrolment / disenrolment (refusal to enrol/disenrol) a PhD student pursuant to ADASRB and the Regulations for its application, etc.

There are two ways of challenging individual administrative acts: 1) administratively in front of the immediately superior administrative authority (art.81, para.1 APC) and 2) in court, before the respective administrative court as per the rule of the subject matter and local jurisdiction (art.145, art.132 and art. 133 APC).

**Rector's orders representing interoffice acts.** Art.2, para.2, item 3 APC gives a legal definition of interoffice acts. These are acts whereby rights or obligations are created for bodies or organisations subordinated to the authority that issued the act. Interoffice acts addressed to subjects that are directly under the authority issuing the act are also defined as administrative acts between the organisation's head and his/her subordinate units and employees (Dermendzhiev, et al., 2010, p. 152). The Rector's interoffice orders are administrative acts with internal effect, directed to the academic staff and employees of the higher education institution. On the other hand, orders representing individual administrative acts, have an external effect and concern legal entities outside the subordination of the authority that issued them. The addressees of the Rector's orders from the category of the individual administrative acts are usually students or PhD students, i.e. users of the educational service provided by the higher education institution and with regard to whom such act has an external effect and could impact their rights, freedoms or legal interests. Apart from the "external impact" criterion, individual administrative acts differ from the interoffice acts because of the presence of employment relationship between the author of the act and its addressee (Balabanov, 1989). Addressees of the orders from the interoffice Rector's acts category are the academic staff and employees, i.e. individuals who are in an employment relationship with the higher education institution, represented by the Rector. The interoffice acts category includes, for example, Rector's orders for: 1) authorizing paid leave for the academic staff and employees in accordance with the Rules of Procedure of the university and the Labour Code; 2) posting of the academic staff pursuant to the Ordinance on business trips in the country (State Gazette, issue 11/1987) and the internal regulations of the university; 3) determining the composition of working groups and committees pursuant to the Rules of Procedure of the uni-

versity. The main practical differentiation between administrative acts (individual, general or normative) and the interoffice acts is that the former are subject to court administrative control, while the latter are not (Petrov, 2017, p. 84). Since the provisions of the APC are not applied to acts creating rights or obligations for bodies or organisations subordinated to the authority that issued the act, unless the act affects rights, freedoms or legal interests of individuals or legal entities (art.2, para. 2 APC). Therefore, the Rector's orders from the interoffice acts category are excluded from the scope of the APC and their challenging in court and administrative proceedings is inadmissible. Therefore, they could possibly be challenged alternatively through mediation. In accordance with art.3, para.1 of the Mediation Act (MA, promulgated in the State Gazette, issue 110/2004), administrative disputes could also be subject to mediation. Mediation has been studied as a means of settling and preventing administrative disputes. It has been argued argumentatively that the filed application of MA includes all kinds of administrative disputes, not only such related to consumer rights (Marev, 2016, pp. 146-147). Unfortunately, the quoted author points out that as regards administrative disputes there are no specific provisions in the APC or in the special laws. This makes the mediation procedure hard to apply in the case of administrative acts.

Based on the above analysis of the acts issued by the Rector and the rules for challenging them, the following **generalizations and conclusions** can be made. **Firstly**, the basic classification of the Rector's acts using the legal nature criterion results in two main types: individual administrative acts and interoffice acts. **Secondly**, this classification has considerable practical significance, since the former acts can be disputed under the APC, while the latter cannot be disputed in this way. This is important for the addressees of such acts in case they seek protection against possibly unlawful orders by the Rector.

### **Conclusion**

Based on the analysis made in the different interrelated legal aspects, a number of conclusions and generalizations can be made. **Firstly**, in the constitution of the Rector a combination of the general and special labour law applicable to the legal grounds 'election' is observed, however refracted through the specifics of the area of education and academic autonomy. The laconic provisions are noticeable, not setting requirements to candidates, which could be the focus of future legislative changes to ensure the good governance of higher education institutions. **Secondly**, the following positive aspects of the law can be mentioned as regards the Rector's powers. A stable legal system regulating the authority's competence has been legally established in direct inter-connectedness with the competence of the main governance bodies in a way

ensuring mutual checks and balances in order to achieve adequate management operability, accountability and legality. A normative and admissible basis for extending the Rector's competence has been created as an adequate reflection of the necessary academic autonomy, the individual vision for the development of the institution and the necessity for management independence within the assigned mandate. **Thirdly**, the classification of the Rector's orders in accordance with their legal nature is of great practical significance, since it shows what the procedure of disputing the different kinds of acts is. The possibility to dispute Rector's acts is a safeguard of the principle of lawfulness in the sphere of higher education.

### End Notes

- <sup>1</sup> For example, entering into contracts for joint studies and for implementing joint educational programmes with foreign higher education institutions, for setting up facilities abroad, including subsidiaries of the higher education institutions abroad, as well as contracts for joint scientific, research, creative, project, innovation, etc. activities with foreign higher education institutions and organisations, acknowledged under the laws of the respective country, and membership in international organisations.
- <sup>2</sup> In view of the quite varied subject matter of the Rector's orders, their classification using the criterion of subject matter would be inappropriate.

### References

1. Andreeva, A. (2016) Istoricheskoto razvitiye na trudoviya dogovor v natsionalnoto trudovo zakonodatelstvo - vaznikvane i periodizatsiya. Izvestiya na Sayuza na uchenite - Varna. Seriya "Humanitarni nauki" (1), pp. 33-37.
2. Andreeva, A., Ignatova, I. (2013) Zakon za razvitiye na akademichniya sastav v Republika Balgariya (ADASRB) - deystvie i problematika. Izvestiya na Sayuza na uchenite - Varna. Seriya "Humanitarni nauki" (1), pp. 43-46.
3. Andreeva, A., Yolova, G. (2014) Trudovo i osiguritelno pravo. Varna: Nauka i ikonomika, IU-Varna.
4. Andreeva, A., Yolova, G. (2016) Osnovi na publichnoto pravo. Varna: Nauka i ikonomika, IU-Varna.
5. Andreeva, A., Yolova, G., Rachev, R. (2017) Aktualni pravni aspekti na trudovite dogovori i svarzanite s tyah pravni instituti. Varna: Nauka i ikonomika, IU-Varna.
6. Balabanova, H. (1989) Kam vaprosa za otgranichavane na vatreshnoslužebnite aktove ot drugi pravni aktove vav vedomstvata. Nauchni trudove na Visshiya iko-nomicheskii institut Karl Marks (t. 3), pp. 201-236.

7. Bachvarova, M., Rachev, R., Andreeva, A., Yolova, G., Dimitrova, D. (2010) Osnovi na pravoto. Varna: Nauka i ikonomika.
8. Vasilev, A. (1997). Trudovo pravo. Burgas: BSU.
9. Dermendzhiev, I., Kostov, D., Hrusanov, D. (2010) Administrativno pravo na Republika Balgariya. Obshta chast. Sofiya: Sibi.
10. Dimitrova, D. (2016) Istoricheski traditsii i tendentsii za razvitie na akademichnata avtonomiya. Izvestiya na Sayuza na uchenite - Varna. Seriya "Humanitarni nauki" (1), pp. 63-69.
11. Dimitrova, D. (2016) Praven rezhim na visshite uchilishta ot Osvobozhdenieto do dnes. Izvestiya na IU-Varna (2), pp. 226-238.
12. Dimitrova, D. (2017) Formi i granitsi na akademichnata avtonomiya. VIII Mezhdunarodna nauchna konferentsiya "Ikonomikata v promenyashtiya se svyat - natsionalni, regionalni i globalni izmereniya" (IPS-2017), Tom 1, pp. 407-417.
13. Kostov, D., Hrusanov, D. (2011) Administrativen protses na Republika Balgariya. Sofiya: Sibi.
14. Lazarov, K. (2000) Administrativno pravo. Sofiya: Feneya.
15. Marev, M. (2016) Izvansadebni sposobi za razreshavane na administrativni spорове. Sofiya: Siela.
16. Milovanov, K. (1976) Trudovo pravootnoshenie vaz osnova na izbor. Sofiya: BAN.
17. Mrachkov, V. (2012) Trudovo pravo. Sofiya: Sibi.
18. Petrov, V. (2017) Obshtiyat administrativen akt. Sofiya: Siela.
19. Sredkova, K. (2011) Trudovo pravo. Dyal I. Individualното trudovo pravo. Sofiya: Sv. Kl. Ohridski.
20. Sredkova, K. (2012) Osiguritelno pravo. Sofiya: Sibi.
21. Staynov, P., Angelov, A., Spasov, B. (1957) Naimenovaniya i upotreba na aktovete na darzhavno upravlenie v Narodna republika Balgariya. Sofiya: Nauka i izksutvo.



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The files of the manuscripts should not include the name, degree and academic position of the author (authors). Information about the authors (name, surname, family name; degree and academic position; current occupation, address of the institution and e-mail address) should be sent in a separate file.

*Bulgarian authors* submit their papers in Bulgarian and English aiming at publishing the papers both in the Bulgarian and English version of the magazine (on print and online). *Foreign authors* submit their papers in English.

For sending and publishing their papers authors do not pay fees and are not paid.

## **Review process**

The manuscripts received in the “Izvestiya” magazine go through the following review process:

- Each received article is to be initially assessed by the editorial board. The editors check on the compliance of the manuscript with the objectives and scope of the magazine and the rest of the set requirements.
- If the manuscript meets the requirements of the first stage, it is sent to two independent reviewers. The magazine applies the principle of double-blind review.
- After receiving the feedback reports from the two reviewers, the editorial board decides whether to accept or reject the manuscript. To do this there needs to be unanimous opinion from both reviewers. If their opinions are extremely opposite, the editor-in-chief can require another expert opinion from a third reviewer.
- A manuscript can be accepted without any remarks or with minimal correction. This does not require another check from a reviewer.
- A manuscript can be accepted with a recommendation for substantial correction. This requires for reviewers to confirm again the truthfulness and relevance of their corrections, after that the editor-in-chief makes the decision for publishing the article.
- The manuscript can be returned to its author for substantial rewriting and a second review process.
- In case the manuscript is rejected, its author cannot send it again.

## Structure of the manuscript

*Requirements about the structure of the manuscript:*

- ✓ **Title** – clearly and precisely stated, relatively short.
- ✓ **Abstract** – it must resemble a summary and include the objectives of the research, methodology and results;
- ✓ **Key words** – precise and sufficient, not more than five.
- ✓ **Introduction** – it should state the objectives of the research and the relevance of the scientific problem; it should review the condition of the issue and review references; it should also give the theoretical framework of the research, lead to research questions and hypotheses.
- ✓ **Methodology and data** – the methods used should be correct and include also appropriate references on similar, already published methods. The data shown must come from reliable sources.
- ✓ **Results and outcomes (conclusions)** – the results should be presented clearly and elaborated correctly; they must show a better way of using the data. Conclusions must be significant, valid and supported by proofs.
- ✓ **Bibliographic sources (references).**

## Formatting:

*The papers suggested for publishing must meet the following technical requirements:*

- ✓ Manuscripts typed in Word for Windows, font - Times New Roman, font size – 14 pt, line spacing – 1.5 lines.
- ✓ Size of tables and charts – not larger than A4. The numeration of tables and charts should be consecutive in the wording of the paper. The use of colour charts, graphs and pictures are not accepted. All tables, figures, charts and images should be editable.
- ✓ Margins in cm: top – 2.5, bottom – 2.5, left – 2.5, right – 2.5.
- ✓ The title should be typed in caps, without abbreviations (font - Times New Roman, font size - 14 pt, line spacing - 1.5 lines, Bold – Center).
- ✓ At the right top corner above the title it is typed EconLit index in JEL (Journal of Economic Literature) classification system.
- ✓ After the title articles must include an abstract (10-12 lines) and up to 5 key words. The abstract and the key words should be written in Bulgarian and English (for articles in Bulgarian) and only in English for the articles submitted in English.

- ✓ Listing the used sources and citations is done in compliance with the Harvard short reference system (See examples of description and citation). The Quoted sources of a scientific research paper should be at least 20 and transliteration is obligatory. Footnotes are not recommended, except when necessary. If so-called “notes” need to be used, they should be indexed with Arabic numerals and are explained at the end of the article, before the references.
- ✓ The papers should be written without any handwriting and crossing out words, in good Bulgarian and, respectively, English.

After the article is received, it is edited language- and style-wise. As for the Language the editor makes insignificant corrections since it is supposed that the papers are written in good Bulgarian and English. The articles in English can be returned for another check by the author. Authors confirm the suggestions for changes in style or mark what they disagree with.

#### **Acceptable size of manuscripts:**

- for articles – from 16 to 20 pages ;
- for micro articles, reviews and abstracts of dissertation papers - up to 10 pages.

Articles submitted for publishing must be original and not published before or in the process of reviewing and preparation for publishing in other publishing houses. Editors have the right to make insignificant editing corrections on the manuscript. After an article is accepted, authors must declare an agreement and give the publishing house the exceptional right for publishing. Authors can use the article or part of it in their future work without permission from the publishing house, but this would require citing the original article.

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