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ADDRESS OF EDITORS AND PUBLISHERS

Editorship:

Office Address: Bucharest, Romania, District 6, Postal Code: 060821, 46 G Fabricii Street, Building B, 2nd Floor

Phone number: +4021 316 97 83/85/88/89 - ext. 151

Phone/Fax number: +4021 316 97 93

E-mail: ashues@spiruharet.ro

Website: <http://anale-economice.spiruharet.ro/index.html>

Deputy Chief Editor:

Elena GURGU, Associate Professor Ph.D., Department of Economic Sciences, Spiru Haret University, Bucharest, Romania

Office address: 46 G Fabricii Street, Building B, 2nd floor, Room 23, District 6, Bucharest, Romania

Office Phone: +4021316.97.85/88/89 - int. 152

VPN: +04021.455.10411, Fax: +4021316.97.93

E-mail: elenagurgu@yahoo.com, maei_elenagurgu@spiruharet.ro; se_egurgu@spiruharet.ro; elenagurgu@profesor.spiruharet.ro

ResearcherID: E-8516-2014

Publons: <https://publons.com/a/1437881>

ORCID: <https://orcid.org/0000-0001-6964-8516>

SSRN: <http://ssrn.com/author=1307203>

ResearchGate: https://www.researchgate.net/profile/Elena_Gurgu

LinkedIn: <https://www.linkedin.com/in/elena-gurgu-5099b494/>

Webmaster Editor:

Rocsana B. MANEA ȚONIȘ, Lecturer Ph.D., Department of Economic Sciences, Spiru Haret University, Bucharest, Romania

ScopusID: 56271728900

ResearchGate: https://www.researchgate.net/profile/Rocsana_Bucea-Manea-Tonis

ORCID: 0000-0003-2708-1325

E-mail: rocsanamanea.mk@spiruharet.ro

Phone: (0040 21) 316.91.15

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COVERAGE

The areas covered by *Annals of Spiru Haret University. Economic Series* include topics related to Economic Sciences, such as: marketing, management, finance, banking, accounting, audit, international economic relations, trade, business, tourism, administrative data processing, politic economy, commercial law, cybernetics, environmental economics, statistics, ethics in economics, insurance, advocacy & lobby, economic philosophy, econometrics etc.

Each issue has a specific topic that is a subtopic of major journal coverage.

FREQUENCY

The frequency of the journal *Annals of Spiru Haret University. Economic Series* is quarterly.

JOURNAL HISTORY

The journal *Annals of Spiru Haret University. Economic Series* was founded in 2000 at the initiative of two professors from Spiru Haret University: professor Ph.D. Gheorghe Zaman – also corresponding member of the Romanian Academy and professor Ph.D. Constantin Mecu – one of the University's founders and vice-rector.

Between 2004-2010, the journal is headed by professor Ph.D. Constantin Mecu, as editor-in-chief, and associate professor Ph.D. Aurelian A. Bondrea, as deputy editor, both of them vice-rectors of the university.

In 2011, associate professor Ph.D. Aurelian A. Bondrea, rector of the university, takes over the presidency as editor-in-chief and leads the journal until present.

The *Annals of Spiru Haret University. Economic Series* was issued annually, once a year, starting 2000, until 2009.

Since 2010, the *Annals* have a new format, with a four-annual issuance exclusively in English, with both redaction and review conditions comparable to the most rigorous international requirements.

In 2007, *Annals of Spiru Haret University. Economic Series* obtained the B+ quotation from The National Council of Research in Higher Education in Romania, becoming a publication of real scientific interest.

Starting 2009, the review is indexed in REPEC, SSRN and Google Scholar and beginning with 2016 our Journal is under a process of rebranding, the new team trying to rethink the journal indexing strategy in international databases, suggesting a greater external visibility.

Along the years, in the journal pages, the members of the teaching personnel – professors, associate professors, lecturers and teaching assistants – active in six economics faculties and distinct specialty departments, as well as in the Central Scientific Research Institute, functioning within Spiru Haret University, present the results of their scientific research. The journal also hosts many studies of professors, researchers or Ph.D. students from other universities and research institutes all over the world.

The subject of the publication firstly reflects the concern for the modernization of teaching economic science in University: marketing, management, finance, banking, accounting, audit, international economic relations, trade, business, tourism, administrative data processing, politic economy, commercial law, cybernetics, environmental economics, statistics, ethics in economics, insurance, advocacy & lobby, economic philosophy, econometrics etc.

In the published materials, there are analyzed theoretical and practical issues of edification and consolidation of the Romanian market economy, as well as the fundamental directions of the technical and scientific progress, the actual state and ways of its promotion in the Romanian economy, the issue of developing the new world economy, the directions of globalization and contemporaneous economic integration and Romania's participation to these processes. Also, there are hosted articles that refer to different aspects of economic phenomena from all over the world.

The editing team and the scientific advisors are Romanian intellectual personalities – members of the Academy, professors, and specialists in different fields of the practical economic and social activities. In scientific committee have been engaged as reviewers different professors and personalities in economic field coming from economics and academic institutions in our country, such

as Academy of Economic Studies Bucharest, West University from Timisoara, The National Scientific Research Institute for Labour and Social Protection Bucharest, The Romanian Court of Auditors, The Body of Expert and Licensed Accountants of Romania – CECCAR, Institute of National Economy and The Economic and Legal Sciences Department from Romanian Academy, etc. Among them, we also find members of the academia, professors and researchers from other countries of the world: Australia, Azerbaijan, Bosnia & Herzegovina, Bulgaria, France, Germany, Greece, Iceland, India, Indonesia, Italy, Lithuania, North Ireland, Norway, Poland, Republic of Macedonia, Republic of Serbia, Russia, Slovenia, The Netherlands, Turkey, Ukraine, United Kingdom, etc.

As a response to the public interest, the publication is sent to the libraries in Bucharest and Romania, as well as to other universities and economic faculties abroad.

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FOREWORD

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2019 begins with worrying prospects regarding certain realities of the world economy.

The International Monetary Fund (IMF) announced at the end of January 2019 that it revised downwards the forecasts for world economic developments over the period 2019-2020, given the persistence of trade tensions and rising political risks, AFP reported.

As for the second downgrade of estimates announced by the IMF in the last three months of 2018, the international financial institution warns that a slowdown over the expectations of the Chinese economy and a possible Brexit without a deal are the main risks to its estimates, adding that they could aggravate turmoil on financial markets.

If in October 2018, in the World Economic Outlook, the IMF forecasted that in 2019 the world economy will grow by 3.7%, in the update published in January 2019 at the World Economic Forum in Davos, the IMF announced that it is counting on a 3.5% advance in 2019. The International Monetary Fund (IMF) has also revised downwards estimates of world economic developments in 2020 to 3.6%, 0.1 percentage points below the estimates in October 2018.

Even if it has maintained the estimates for the first two economic powers of the world, the US and China, and moreover has revised its estimates for Japan, the IMF is more pessimistic when it comes to the eurozone, where it relies on an increase of 1.6% in 2019, compared with 1.9% expected in October 2018.

In Europe, the forecasts for growth of the German economy have been revised downwards, for which the IMF is now currently projected to advance by 1.3%, 0.6 percentage points less than in October 2018, and the forecasts for Italy, revised 0.4 percentage points down to an advance of 0.6%, and France, 0.1 percentage points up to 1.5%. As far as Europe's first economic power is concerned, the IMF expects weaker industrial production in the automotive sector, while for Italy the revision comes amid a weaker domestic demand combined with an increase in borrowing costs, and in the case of France, due to the negative impact of the yellow jacket protests lasting for several months.



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The concentration of wealth has been further accentuated in 2018, so that 25 billionaires of the world now have as much money as the poorest half of mankind, *France 24* writes.

Oxfam NGO also concludes that the global economy's trend is negatively influenced by the wealth growth of multi-billionaires in the world, and this NGO calls on the United States to raise taxes for the rich. "The gap that rises between the rich and the poor affects the fight against poverty, hurts the economy and fuels the anger in the world," said Winnie Byanyima, executive director of Oxfam International, cited in the press release. Governments "must ensure that businesses and the richest pay their share of tax," she added, when Oxfam's annual report on global inequalities was published before the World Economic Forum in Davos. According to Oxfam, who estimates that the richest people hide \$ 7,600 billion in some countries such as Brazil or the United Kingdom, "10% of the poorest are now paying higher taxes in proportion to their income than the richest ones."

The BBC also brings to the public's attention International Monetary Fund (IMF)'s warning regarding decrease of China's economic growth, which, coupled with the lack of a Brexit agreement, could affect even worse the financial markets and, therefore, the global economic growth. According to *La Libre Belgique*, China's economic growth has the lowest rhythm in the past 28 years, on the year-end, marked by efforts to pay debt, trade conflicts, and downward domestic demand. China's Gross Domestic Product (GDP) growth was +6.6% in 2018, the National Bureau of Statistics (NBS) said. This is above the 6.5% target set by the government and confirms the average forecasts of analysts interviewed by AFP. Although still under review, the growth figure is being carefully pursued, given China's share of the world economy. According to analysts, the economic downturn is strongly related to Beijing's measures, in particular to reduce colossal indebtedness that hampers credit and infrastructure spending. "The main engines of the current slowdown in China are internal. This should remain the situation in the short term, as consumer co-financing has weakened and companies have reduced their capital expenditures," Capital Economics analysts said.

Analysts from Nomura say that, in their opinion, growth will worsen in the first quarter of 2019, despite Beijing's increasingly aggressive stimulus and aggressive measures, and will fall below 6.0 percent in the first half of 2019, on the whole of 2019, anticipating a 6.0%. And this will happen all the more so as an essential component of the Chinese wealth – trade – suffers because of a decreasing external demand and the Chinese-American conflict. "Chinese exports are expected to

decline in the coming quarters, with world demand continuing to moderate, even if the risk of a slowdown generated by a new escalation of the trade war is decreasing,” Capital Economics said. This war broke the confidence of the financial markets, even if it did not seem to have penalized the Chinese economy until the end of 2018. In December 2018, Chinese exports, denominated in dollars, fell by 4.4%.

Many economists, however, anticipate a continuation of world economic slowdown, at least in the first half of 2019. “Growth will remain under pressure in the coming months. The goal of the decision makers will be to stop the slowdown rather than try to create a significant recovery,” economists at Oxford Economics commented, according to which growth would reach the lowest level in the second quarter. “Officials have strengthened their political support in response to the slowdown in global dynamics. But with the lowest credit growth rate in the last 10 years, the economy will not stabilize before mid-year,” analysts at Capital Economics said in a note.

Very close to these trends, and helping to better understand the economic factors that influence the world economy, there is also the topic of our journal articles. Their topics are quite varied, starting with forms of tertiary education and ending up with problems related to the development of marketing in tourism industry.

In the first article of this issue, called **Tertiary Education – One of the Major Europe 2020 Objectives**, the authors *Daliana Ecaterina Tașcovici* and *Carolina Platon* speak about the changes that the Romanian system of learning suffers. Under these circumstances of social, political, economic and cultural changes and challenges, the pre-university and university systems of learning have to cover several forms and situations, namely those high school graduates without the baccalaureate diploma. The case study under analysis revealed some unexpected pieces of information referring to the young undergraduates’ vulnerabilities and degree of information and implication in their own future.

The study entitled **Improving Tax Administration through Technology Innovation in Nigeria. A Study of Federal Inland Revenue Service** by *Gbadegesin Babatunde Adeyeye* investigates the impact of technology innovation on tax administration in Nigeria. Primary Data were collected through the use of structured questionnaire administered on 219 staffers of Federal Inland Revenue Service (FIRS) to elicit their responses. Descriptive statistics, Analysis of Variance (ANOVA) and Regression Model were used for the data analysis. The R value depicts that the use of information technology accounted for (76.3%) improvement in

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tax administration in Nigeria. The results strongly support the TPB in predicting the intention of users to adopt electronic tax-filing systems. The results also demonstrate the significant effect that computer self-efficacy has on behavioural intention through perceived ease of use, perceived usefulness, and perceived risk of use. Based on the findings of this study, implications for electronic tax filing are discussed. Finally, conclusion and recommendations were made based on the findings of the study.

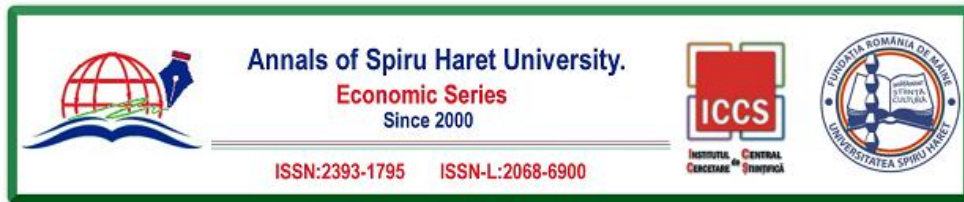
Cordelia Onyinyechi Omodero, in her article called **Revenue Distribution from Federation Account and Money Supply: Evidence from Nigeria**, said that money supply in every economy is very vital for economic growth and stability. However, the role of revenue distribution in ensuring the success of monetary policies revolving around money supply in Nigeria cannot be over-estimated. The study examines the impact of revenue distribution to the three tiers of government on money supply (MSS) in Nigeria. Time series data used for the study estimation span from 1981-2016 and were obtained from CBN statistical bulletin, 2016 edition and World Bank website. The specific purpose of the study is to establish the extent to which revenue allocation to federal, state, local governments and derivation allowance to the mineral producing states affect money circulating in the Nigerian economy. Ordinary least square method (OLS) was employed with the aid of SPSS version 20 to test the impact of revenue distribution on money supply. The findings reveal that revenue allocation to federal government has a significant positive impact on money supply. Allocation to local government councils has insignificant positive impact on money supply. On the contrary, allocation to states and the derivation allowance to Niger Delta States exert significant negative influence on MSS in Nigeria. The study concludes that revenue allocation to states and derivation allowance contribute to inflation in the country and recommends stringent monetary policies that will determine the percentage of allocated revenue usage by all tiers of government in a particular period to avoid too much money in circulation.

Inside the fourth paper of the journal entitled **Approaches to Staff Behaviour from the Perspective of Operations Management**, the author *Raluca Crețoiu* is talking about the operational management or operations management, as an area of activity that is particularly important for the successful implementation of business activities and not only. From the point of view of the connections that can be established between this concept and the one regarding the staff management, the author note the direct influence that the degree of motivation in the work, the commitment and the connection to the specific values of a certain organizational culture have on the performance of the subsidiary activities of the operations

management. Effective operations management implies not only the optimal use of the organization's resources, but also the engagement of staff through a behaviour whose specific features emphasize responsibility, teamwork, transparency, and commitment to assigned tasks. This article highlights the need for the staff to be connected as well as possible to the organization's values and objectives. The efficient management of operations within it is closely connected to the level of harmonization between the values and objectives, on the one hand, and the interests and motivation of the employees, on the other hand.

In their article called **The Opinions and Preferences of the European Buyers on the Furniture and Furniture Accessories Market**, the authors *B. G. Petrache (Lang)*, *C. M. Ismană-Ilișan*, *R. Crețoiu* aim to analyse the preferences and opinions of European furniture buyers in the context of Germany, Italy, Poland, France and Austria being among the top 10 world furniture manufacturers, accounting for over 19% of the world production and 60% of the European one. The authors have developed this research given that the furniture industry is an important sector in the economy, employing about one million people at the level of the European Union, in 130,000 companies in the field. The furniture segment is also well represented in the field of innovation also, accounting for 12% of the applications for design registration in the European Union Intellectual Property Office (EUIPO). This also reflects on the production of furniture, currently 2/3 of the world's leading peak production coming from Europe. The research is of a quantitative nature, the technique adopted is the interview, and the research tool is the questionnaire. The purpose of the research is to identify the way and the level at which European consumers' value furniture accessories in the general context of furniture quality assessment in conjunction with the need for accessory information.

The last article of this issue is talking about **The Development of Marketing in Tourism Industry**, the author *Bogdan Sofronov*, is telling us that the purpose of his paper is to show how marketing is developing and changing the tourism industry in the world. Tourism marketing is the business discipline of attracting visitors to a specific location. Hotels, cities, states, consumer attractions, convention centres and other sites and locations associated with consumer and business travel, all apply basic marketing strategies to specific techniques designed to increase visits. In the tourism industry, marketing includes determining the unique selling benefit or benefits one area has over its competition. A destination might offer people looking to combine business and pleasure ease of travel to and from the area, ample convention halls and hotels, interesting nightlife, and activities for adult partners



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and children. The tourism marketing uses a wide variety of communications strategies and techniques to promote areas and destinations. A convention centre might purchase advertisements in trade magazines for meeting planners and send direct mail materials to corporations that hold events. They might place ads in tennis or golf magazines to attract those consumers. The tourism destinations build websites and place ads in consumer publications read by their target customers. The chambers of commerce are involved in promoting their areas generally and the businesses within their areas specifically. This often includes offering potential visitors packets filled with brochures, discount coupons and other materials.

As we have seen, all the articles are interesting and deserve to be appropriated by those who are interested in understanding the specific issues of the economy.

If you liked our articles please visit our website. If you want to write an article in our journal, we are waiting you to expose your ideas in new studies published by us.

Finally, hoping that you found interesting Issue 1/2019, I strongly invite you to address your comments and suggestions at ashues@spiruharet.ro and, of course, to submit your own paper via our online submission system, using the following link: <http://anale.spiruharet.ro/index.php/economics/login>.

Research is the breath of the future. Let's shape the world together!

**Associate Professor Elena GURGU, Ph.D.
Deputy Chief Editor**

ACADEMIA PAPERS

TERTIARY EDUCATION – ONE OF THE MAJOR EUROPE 2020 OBJECTIVES

Daliana Ecaterina TAȘCOVICI¹, Carolina PLATON²

¹ *Spiru Haret University, Faculty of Economic Sciences, no. 223, Traian str., Campulung, 115100, Romania, Tel.: +40742439416, Email: tascovici.daliana@spiruharet.ro*

² *State University, Chișinău, Moldova Republic, Email: carolina.celenti@gmail.com*

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Abstract

The present paper speaks about the changes the Romanian system of learning suffers. Under these circumstances of social, political, economic and cultural changes and challenges, the pre-university and university systems of learning have to cover several forms and situations, namely those high school graduates without the baccalaureate diploma. The case study under analysis revealed some unexpected pieces of information referring to the young undergraduates' vulnerabilities and degree of information and implication in their own future.

Keywords: *Romanian system of learning; tertiary education; school abandon*

JEL Classification: I20; I25

Introduction

For the 2015-2020 period, Romania established the national strategy referring to the tertiary education development. In order to reach its goal, as this strategy become operational, analyses, elaborations and evaluations are proposed for the relevant politics and initiatives.

This strategy is connected and subordinated to the national strategy for competitiveness 2015-2020. It wants to identify the needs as concern the competences



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for a smooth and gradually passing towards a knowledge-based economy, a high level of demand and, by default, high qualified jobs. Of course, the tertiary education is only one component of the system of learning and it cannot administrate by itself the present reality, dominated by competitiveness and challenges. Thus, the specialists agree that the main element of the strategy is the improving of the human resources. These, in their turn, can face competitiveness long-term.

As we mentioned above, the strategy referring to tertiary education proposes actions and objectives complementary to the strategy of research and development for the system of education. The tertiary education is promoted as a vector of the economic growth based on knowledge and high qualification. Romania has to surpass the present period characterized by cheap labour force; this tactics attracted jobs, indeed, for the internal market. The global situation at present imposes the improvement of the efficiency in the production process and products quality. The internal force labour, comprising employees, graduates of the tertiary education, possessors of necessary abilities and aptitudes, contributes to achieving these aims.

Literature Review

The specialists who wrote about this subject stressed the importance of the tertiary educational institutions as mandated by legislation to produce high level skilled and knowledgeable human resources that are required for the economic growth of the country [Naris, & Ukpere, 2012]; or they analyzed the labour emigration, the labour market in Romania and noticed they are not capable of absorbing the restructured unemployment surpluses on the background of the jobs offer diminution and of the changes in the structure of the labour demand [Gheorghiuță, 2015]; others uttered that by building a strong and high-quality education system, the economies of a country will provide further growth and development in the future. Education and training are seen as key investments when it comes to the formation of human capital. Over time, they will secure the acquisition of a better job, which will result in the realization of higher income of these individuals. They are considered crucial when it comes to the impact and degree of national economies. A higher level of education of the workforce will accelerate economic prosperity [Ilić, et al., 2017]; other mention the vision of the updated Employment Strategy 2013-2020 as being defined as: ensure conditions and opportunities for improving the quality of the workforce and increasing employment in the economy of smart, sustainable and inclusive growth to raise living standards

and promote social inclusion [Terziev, & Arabska, 2015]. Australian authors speak about challenges and opportunities in the introduction of a tertiary education program, but only as a case study [Harvey, & Walsh, 2018]. Other topics of interest in this field try to answer the question: how can we contribute to the subversion of gender normalcy in Physical Education and Sport Tertiary Education [Devis-Devis, et al., 2018]. More sensitive aspects concern social justice in a tertiary education context [Gair, & Baglow, 2018]. A promotional brochure for prospective students is the feature that raises interest for Australian specialists in tertiary education [Riccardo, 2018]; digital media framework in tertiary science education preoccupies other specialists in the field [Reyna, & Meier, 2018], as well as teachers' perceptions [Isiyaku, et al., 2018].

As we can see above, the field is wide and the specialists' preoccupations and interest are very diverse and cover a lot of aspects. In our country, major contributions to this domain are expected to be revealed.

Theoretical Background – Objectives of Europe 2020

The Govern Strategy for reaching the objectives of Europe 2020 consists of measures referring to the educational system. We mention some of them:

- 75% of the population between the age of 20 and 64 has to be occupied;
- The percentage of the pupils abandoning school early has to be under 10%;
- At least 40% of the population between the age of 30 and 34 has to graduate the tertiary education;
- At least 15% of the population between the age of 25 and 64 has to participate at long life learning;
- The European objective establishes 26.7% of the population between the age of 30 and 34 graduate the tertiary education up to 2020 [<https://www.edu.ro>].

Among the roles and benefits of the tertiary education are:

- the stimulus of the economic growth;
- contributes to the productivity growth;
- promotes the social cohesion.

In order to improve the participation to the tertiary education, one proposes the following:

- the establishing of a clear route from the secondary professional education and other type of education to the tertiary education;



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- the exemption from the rate of tax, depending on the merits and a scholarship program based on necessities;
- the implementation of a credit program for education;
- the encouraging of the students attraction from under-represented groups and non-traditional groups, including the adults;
- the increasing of the information transparency program and guidance referring to opportunities and educational results in order for the students to be informed when choosing the educational route and also the reduction of the school abandon.

Research

Our present study is a pilot one and aims at presenting the perception of the learning subjects – teachers and pupils – on this new form of education: the tertiary education. The concept is fairly new, as mentioned, but there have past almost six years since its implementation. Despite the national strategy as concerns the tertiary education, people are not informed about it, do not know much about its specific features, components and benefits. Our study comprises a small number of respondents, it has not the pretention of a representative analysis, but it reflects, nevertheless, the present situation, as we observed it in formal and non-formal meetings and discussions with teachers and pupils in the pre-university system of learning. The study is part of an ample research we develop this year: the following steps propose the analysis of the tertiary education as a national strategy for competitiveness, as mentioned by the Romanian authorities.

Taking into account the above-mentioned aspects and drawbacks, we have identified from the conjunction of the system of education with the realities of the economics and social realities we were evolve in, and we have elaborated a questionnaire – *The questionnaire recording the perception of the non-university tertiary education*; this was applied to both teachers and high school undergraduates in their final form; the respondents attend schools, high school or colleges, that is pre-university institutions of education in Campulung town. The questionnaires comprise nine questions with small differences between the questions for teachers and the questions for pupils.

The questionnaires addressed to the teachers revealed the following aspects: from 32 questionnaires, we validated 31. All the respondents have between 15 and

25 years of teaching experience, and are, in a great majority females, as those predominate in schools: 60%.

The results of the questionnaire addressed to the pupils reveal the following data: from 43 answers, we validated 41, this is 95%. The pupils attend mathematics-informatics or philology profile; they are between 17 and 18 years old; their marks are high, above 8.50, and there are 54% female and 46% male.

At the question: *How well is the concept of tertiary education to you?* – all of the teachers, that is 100%, answered: *insufficiently*, on a scale of five categories of response: very well, well, sufficient, insufficient, not at all. This response reveals the first big problem this concept is face with: it was not presented enough; not even the teachers know sufficiently about it. This response is in accordance to that offered by the pupils: 93% of them do not know about this form of education. This concept has appeared in the educational policies of Romania since 2015. The pupils do not know much about it, thus they could not choose this education route. The partial conclusion we can draw is that the tertiary education was not promoted enough.

The next question – *Do you know the specific features of this form of education?* – is connected to the previous one and received only negative answers: all of the pupils said they do not know the specific of the tertiary education. The pupils' answer is in accordance with that of the teachers: the entire latter category said they consider this form of education not to be well known.

The question no. seven – *Are you interested in attending a tertiary program in case of passing the baccalaureate exam?* – offers the respondents a minimum documentation about the tertiary education and its features; thus, the responses met the following values: 83% are not interested and 17% are. We have to mention that the respondents attend good theoretical high-schools, with baccalaureate promotion rate bigger than 90% and annual study grades over 8.50; under these circumstances, it is clear that they have already decided their future professional career.

The eighth question – *Are you interested in attending a tertiary program in case of not passing the baccalaureate exam?* – received the following options: 22% would not attend this type of courses and 78% would be interested in.

The above presented results are better seen in the figure below, fig. 1:

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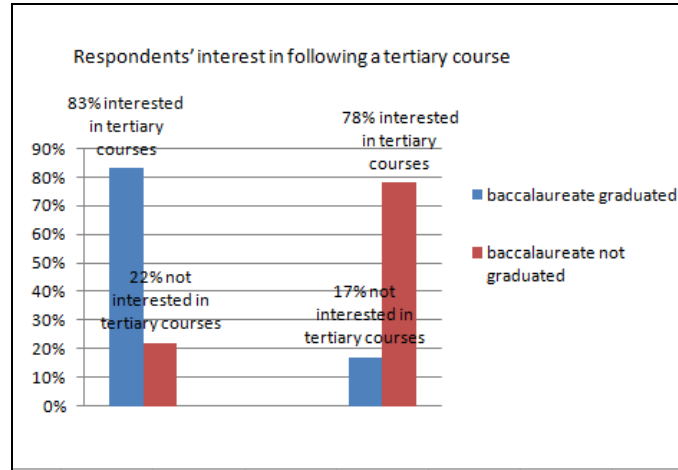


Fig. 1. Respondents' interest in following a tertiary course

The ninth question is: *Do you consider that a tertiary course in the information technology specialisation, organized by Spiru Haret University, would be useful?*; a great percentage of 98% answered affirmatively and only 2% answered negatively.

The last question: *Would you recommend this course to your colleagues and acquaintances?* also shows the opening for this type of course and for the actions and educational programmes offered by *Spiru Haret* University: 95% answered *yes* and only 5% *no*.

In their turns, teachers recognize almost in 100% of the cases that they are not well informed about this type of education; that they did not promote this type of education to their pupils, as a consequence; that they are interested to find out more information about this type of educational route and that they would promote the course the *Spiru Haret* University would organize.

Conclusions

The sustainable future begins today with the most efficient long-term investment, which is the investment in education, in human resource. People have



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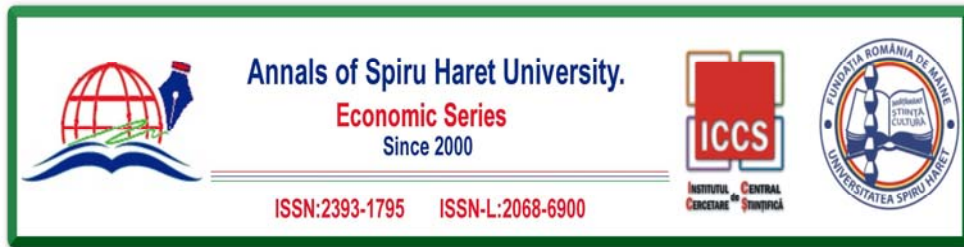
to be prepared to build and sustain their future by themselves. The keys for the economic development are: knowledge, abilities and skills.

The natural and human capital are to be put together to lead to efficiency. We also note the lack of accurate information for young people, their vulnerability and their involvement; under these conditions, they are not able to make the best choice for their future profession.

In order to stimulate as well as possible the potential of the young baccalaureate graduated pupils, it is necessary that, at the level of the educational policies, the creativity of the educators and specialists be stimulated, so as the most required specialties on the labour market to be delivered.

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IMPROVING TAX ADMINISTRATION THROUGH TECHNOLOGY INNOVATION IN NIGERIA (A STUDY OF FEDERAL INLAND REVENUE SERVICE)

Gbadegesin Babatunde ADEYEYE¹

¹ *Department of Accounting, University of Lagos, Akoka, Lagos, Nigeria*
Email: gadeyeye@unilag.edu.ng

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Abstract

This study investigates the impact of technology innovation on tax administration in Nigeria. Primary Data were collected through the use of structured questionnaire administered on 219 staffers of Federal Inland Revenue Service (FIRS) to elicit their responses. Descriptive statistics, Analysis of Variance (ANOVA) and Regression Model were used for the data analysis. The R value depicts that the use of information technology accounted for (76.3%) improvement in tax administration in Nigeria. The results strongly support the TPB in predicting the intention of users to adopt electronic tax-filing systems. The results also demonstrate the significant effect that computer self-efficacy has on behavioural intention through perceived ease of use, perceived usefulness, and perceived risk of use. Based on the findings of this study, implications for electronic tax filing are discussed. Finally, conclusion and recommendations were made based on the findings of the study.

Keywords: *tax administration; technology innovation; FIRS; TPB; Nigeria*

JEL Classification: H21



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1. Introduction

1.1. Background to the Study

The extent of development attainable by any nation is a function of its revenue generation power for the provision of infrastructure [Ogbonna & Appah, 2012]. Basically, in Nigeria, government's sources of revenue to perform the functions of the state are derived from both tax and non-tax revenue sources [Omolehinwa & Naiyeju, 2011]. However, Ogbonna and Appah (2012) posited that there is the need for a well-structured tax system for a country to attain the requisite infrastructural feature. Nzotta (2007) opined that taxes constitute key sources of revenue to the federation account shared by the federal, state and local governments.

Taxation is a major source of government revenue all over the world [Adeyeye, 2013; Ogbonna & Appah, 2012]. Anyanfo (1996) stated that taxes are imposed to regulate the production of certain goods and services, protection of infant industries, control business and curb inflation, and to reduce income inequalities amongst others. It has also been stated that tax is a compulsory levy imposed on a subject or upon his property by the government to provide security, social amenities and create conditions for the economic well-being of the society [Appah, 2004; Adeyeye, 2013]. Tosun & Abizadeh (2005) opined that taxes are used as proxy for fiscal policy and outlined five possible mechanisms by which taxes can affect economic growth. First, taxes can inhibit investment rate through such taxes as corporate and personal income, capital gain taxes. Second, taxes can slow down growth in labour supply by disposing labour leisure choice in favour of leisure. Third, tax policy can affect productivity growth through its discouraging effect on research and development expenditures. Fourth, taxes can lead to a flow of resources to other sectors that may have lower productivity. Finally, high taxes on labour supply can distort the efficient use of human capital high tax burdens even though they have high social productivity.

The history of taxation in Nigeria dates back to the pre-colonial era during which there were different systems of taxation existing in the forms of compulsory services, contribution of goods, money, labour and the likes, among the various kingdoms and ethnic groups and tribes controlled by the Emirs, Obas, Baales and the elders council in the Igbo land, in order to sustain the Monarch and also for community development [Institutes of Chartered Accountants of Nigeria (ICAN), 2010].

However, unlike the developed nations of the world such as the United States of America and the United Kingdom, non-tax revenue from the sale of crude oil has

constituted the major source of revenue to finance government operations in Nigeria. The non-oil revenue generated between 2004 and 2013 accounted for only 14%, 14%, 11%, 21%, 17%, 34%, 26%, 20%, 25% and 30% respectively of the total Federation Account consolidated revenue [CBN Annual Report, 2013].

Tax laws are enacted to impose taxes. The tax laws in operation in Nigeria include the Companies Income Tax Act (Cap. C21, LFN 2004), which imposes tax on the incomes of companies other than corporation soles and companies engaged in petroleum operations (upstream operations); the Petroleum Profits Tax Act (Cap. P13, LFN 2004), which imposes tax on the profits of companies engaged in petroleum operations; Education Tax Act (Cap. E4, LFN 2004), which imposes education tax on the assessable profits of companies registered in Nigeria; Personal Income Tax Act (Cap. P8, LFN 2004 as amended by Personal Income Tax (Amendment) Act, 2011), which imposes tax on incomes of individuals and corporation soles; Value Added Tax Act (Cap. VI, LFN 2004), which imposes tax on the supply and consumption of goods and services (except those specifically exempted or zero rated), made by incorporated companies and other business organisations; Stamp Duties Act (Cap. S8 LFN 2004); and Capital Gains Tax Act (Cap. C1 LFN 2004), which imposes tax on capital gains arising from the disposal of chargeable assets [Institute of Chartered Accountants of Nigeria, 2009].

The default of tax laws by the taxpayer constitutes non-compliance which is a serious challenge facing income tax administration and hinders tax revenue performance in Nigeria, as it is in some other developing countries of the world [Alabede, Ariffin & Idris, 2011]. Hence, the vision of all revenue authorities is to promote compliance within the provisions of the tax laws and to ensure responsible enforcement by the revenue authorities so as to maximised tax revenue, thereby contributing to the economic development of the country [Nel, 2004]. The main issue faced by all tax authorities is that it has never been easy to persuade all taxpayers to comply with the regulations of a tax system regardless of time and place [Berhane, 2011]. A tax administration that encourages voluntary compliance resolutely and legally enforces compliance, treats the taxpayer as partner, rewards pro-tax behaviour and operates in an environment of accountability is a preferred tax system [Edemodé, 2009]. Throughout the years, the tax administrators have been constantly concerned about developing new ways of improving institutional performance by increasing the effectiveness of tax control and providing taxpayer services that may allow them to better comply with their tax obligations [Nelson,



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2002]. One of those ways by which this is done in Nigeria is the use of technology innovation for tax administration. According to Fu, Farn, and Chao (2006), the tax authorities considered electronic tax filing to be an opportunity to re-engineer tax process, making it easier, faster, and error free.

In any nation, the traditional and most widespread method of submitting income tax returns for tax authorities has been manual [OECD, 2011].

The Federal Inland Revenue Services recently launched Integrated Tax Administration System (ITAS). The ITAS has about nine modules, amongst which is project Joint Tax Board Tax Identification Number (JTB-TIN). It also involves the deployment of the Standard Integrated Government Tax Administration Solution (SIGTAS) and hardware infrastructure including support service for FIRS. This platform will enable the taxpayer file annual return and make payment online from their comfort zone without delay. The SIGTAS solution is expected to integrate some existing FIRS Enterprise Resource Planning (ERP) Production System applications like SAP (HR) for Human Capital Management Systems including: Online Appraisal, Leave, Payroll and Personnel Administration to mention just four. SAP (FICO) i.e., Finance & Control/Material Management for Finance & Accounts Systems including: Invoicing, Treasury Operations and Central Pay Offices (CPO), and SAP Self Service (ESS/MSS) Portal for Employee and Manager respectively.

1.2. Statement of the Problem

Tax administration in Nigeria has been plagued with problems, most of which can be attributed to the lack of or inadequate application of Information Technology in tax administration. This is why Odusola (2006) stated that the system in Nigeria is lopsided.

In Nigeria, tax authorities have not fully embraced the use of Information Technology to increase tax revenue and for record keeping. BECANS Business Environment Report (2007) argued that taxpayer's records in the database of tax authorities are manually compiled. Manual compilation involves the use of files/folders for data storage. When records are stored in this manner over a long period of time, retrieval of such records can prove to be very difficult. Records stored in this manner can be very unreliable as these records are easily prone to manipulations. Furthermore, the records are exposed to danger of fire and flood. Method of tax return filing can be seen as another problem in tax administration in Nigeria. In practice, taxpayers are compelled to visit tax offices in order to file returns.

Taxpayers may not be required to visit the income tax office for tax compliance-related matters if there is efficient and effective Information Technology System (ITS) in place. This will enable taxpayers to meet their normal tax obligations in a convenient manner without visiting Income Tax Office. The above identified problem is what this study is set out to address.

1.3. Aim and Objectives of the Study

This study aimed at investigating the impact of technology innovation on tax administration in Nigeria. The following objectives are set to be achieved in line with the aim of the study:

- i) determine the extent to which the use of information technology improves effective tax administration in Nigeria;
- ii) ascertain how the use of information technology reduces inefficiency in tax administration in Nigeria;
- iii) examine the perceived risk of use of information technology in tax administration in Nigeria;
- iv) examine the extent to which information technology is accepted in the administration of tax in Nigeria.

1.4. Research Questions

The following research questions are suggested to guide the study:

- i. How does the use of information technology improve effective tax administration in Nigeria?
- ii. In what way does the use of information technology reduce inefficiency in tax administration in Nigeria?
- iii. To what extent is the perceived risk of usage affecting the use of Information technology in tax administration in Nigeria?
- iv. To what extent has information technology been accepted in the administration of tax in Nigeria?

1.5. Research Hypotheses

Based on the objectives of the study, the following research hypotheses stated in null form were formulated to answer the above research questions:

H₀₁: The use of information technology does not improve tax administration in Nigeria.



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H₀₂: The use of information technology does not reduce inefficiency in tax administration in Nigeria.

H₀₃: Perceived risk of use does not affect the use of information technology in tax administration in Nigeria.

H₀₄: The application of information technology has not been accepted in the administration of tax in Nigeria.

It is hoped that this work will form a major catalyst to stimulate the initiation of a proper legislative process that will regulate tax administration in Nigeria, particularly the Federal Inland Revenue Service. Furthermore, effective implementation of information technology in tax administration will be of immense benefit to tax authorities, taxpayers, students and researchers in tax administration and the country at large. With e-filing, taxpayers may spend less time and money preparing, printing, and mailing paper returns, as well as less resources following up on the status of their filings, payments, and refunds. This means that the tax administration becomes less intrusive in the business environment. This study focuses on the effect of information technology on the efficiency of tax administration in Nigeria. The scope of the study is limited to the activities of the Federal Inland Revenue Service as it is the body that is responsible for tax administration of the federal government in Nigeria.

This paper is arranged into five sections. Section one is the introduction as discussed above, Section two discusses some relevant literature in tax administration, the methodology used for the study is discussed in chapter three, analysis of data and presentation of results are discussed in chapter four while summary, conclusion, contribution to knowledge and recommendations are treated in chapter five.

2. *Literature Review*

2.1. **Conceptual Framework**

This section introduces the conceptual framework of taxation, the nature and scope of taxes in Nigeria. It presents the principles of taxation as equality and fairness, certainty, convenience, economy, simplicity, productivity, flexibility and diversity.

Tax and Taxation

A number of authors have defined tax in various ways, however, the most striking element of the numerous definitions is that it is a “compulsory levy” that is imposed on the income, profits, property, wealth and consumption of goods and



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services of citizens of a country (whether corporate entities or individuals) by the government of such country to enable government obtain the required revenue to provide basic amenities like road, school, and security for the well-being of the citizens [Soyode & Kajola, 2006].

However, on the other hand, taxation may be broadly defined as the process or machinery by which communities or groups of persons are made to contribute in some agreed quantum and method for the purpose of the administration and development of the society [Ogundele, 1999]. From the various attempts to define tax, it can be concluded that taxation involves the pooling of economic resources from the taxpayers to the government for the purpose of achieving the objectives of the state.

Nature and Scope of Taxes

The main purpose of taxation and its product, tax, is to raise revenue to defray government expenditure and for the government to secure the lives and properties of the citizens against any external aggression or internal insurgencies within its jurisdiction [Adeyeye, 2013]. Nzotta (2007) posited that three important issues must be understood for taxation to play its required functions for the government in the society. First, a tax is a compulsory contribution made by the citizens to the government and this contribution is for general common use. Secondly, there is a presumption that the contribution to the public revenue made by the taxpayer may not be equivalent to the benefits received. Finally, a tax is not imposed on a citizen by the government because it has rendered specific services to him or his family. Thus, it is evident that a good tax administration plays many roles in the process of economic development of any country which Nigeria is not an exception [Appah, 2010]. A system of tax incentives and penalties may be designed to influence the efficiency of resource utilization; the distribution of the tax burdens plays a large part in promoting an equitable distribution of the fruit of economic development; the tax treatment of investment from abroad may affect the volume of capital inflow and rate of reinvestment of earnings there from; and the pattern of taxation on imports relative to that of domestic producers affect the foreign trade balance.

Nzotta (2007) noted that taxes generally have allocation, distributional and stabilization functions. The allocation function of taxes entails the determination of the pattern of production, the goods that should be produced, who produces them, the relationship between the private and public sectors and the point of social



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balance between the two sectors. The distribution function of taxes relates to the manner in which the effective demand over economic goods is divided among individuals in the society. According to Anyanfo (1996), the principles of taxation mean the application of appropriate modality in the development and assessment of the tax structure. Such principles are essentially an application of some concepts derived from welfare economists. In order to achieve the broader objectives of social justice, the tax system of a country should be based on sound principles. A number of authors have highlighted the principles of taxation as equity and fairness, certainty, convenience, economy, simplicity, productivity, flexibility and diversity [National Tax Policy, 2016].

The Nigerian Tax System

Tax reform became necessary in Nigeria because of the nature of Nigerian tax structure. The dependence on oil revenue by all tiers of government in Nigeria has made it imperative for federal government to reform the existing tax laws. According to Alli (2009), the objectives of tax reforms in Nigeria include: to bridge the gap between the National Development needs and the funding of the needs; to ensure taxation, as a fiscal policy instrument, to achieve improved service delivery to the public; to improve on the level of tax derivable from non-oil activities; to ensure efforts at constantly reviewing the tax laws to reduce/manage tax evasion and avoidance; and to improve the tax administration to make it more responsive, reliable, skilful and taxpayers friendly; to reduce the complexity of the tax system both for the tax administrator and the taxpayer; to increase the confidence of the public on the tax system, thereby provoking voluntary compliance and to achieve other fiscal objectives. The Nigerian tax reform has experienced series of reforms since 1904 to date.

Overview of the Recent Tax Reforms in Nigeria

The tax reform of 2004 under the chairmanship of Ifueko Omoigui-Okauru marked a milestone improvement in tax administration in Nigeria. The achievements and progress made is one that has not been surpassed in the history of tax administration in Nigeria. The tax reforms of 2004 constitute an integral part of the National Economic Empowerment and Development Strategies (NEEDS).

The tax reform of 2004 was the outcome of recommendations made by the Study Group Report of 2002 and the Working Group Report of 2003 which



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reviewed the work of the former. Both groups made wide consultations after which they came out with nine bills that were presented by the federal executive council (FEC) to the national assembly for ratification. These bills are: the federal Inland Revenue Service Act 2004, personal income tax act 2004, petroleum profit tax act 2004, value-added tax act 2004, education tax act 2004, custom excise tariff etc (consolidation) Act 2004, National Sugar Development Act 2004 and National Automotive Council Act 2004.

Essentially, the study group of 2003 recommended that Nigeria needed national tax policy that is principally directed towards national development. Such national policy will constitute a means of attracting foreign direct investment, providing direction and focus on general tax practices, blending various opinions on taxes of different kinds as well as the issues surrounding those opinions, consolidation of several policy documents into a single document for easy reference [FIRS Hand Book, 2012].

On April 7, 2012 the national tax policy document was launched by President Goodluck Jonathan. Summarily, some of the salient provisions of the national tax policy are: the provision of a stable preference point for all stakeholders in the country on which they shall be held accountable, shifting the focus of the tax system from direct to indirect tax that is considered less distortionary, reducing the personal income tax from 25 per cent to 17.5 per cent, and company income tax from 30 to 20 per cent, strategically increasing VAT from 5 to 15 per cent, avoiding internal multiple taxation on income, property, imports, production and turnover by the various tiers of government, reducing and streamlining the number of tax incentives in the Nigeria tax system, collection of taxes only by career administrators that are public servants, thereby prohibiting the use of ad-hoc tax administrators, vesting of the power to impose, reduce, increase, review or cancel any rate of tax on the National Assembly, especially with respect to taxes from the executive, subjecting the Nigeria's tax system to comprehensive reviews every three years pertaining to existing tax legislations.

An essential component of the national tax policy is the introduction of taxpayers identification number (TIN). TIN was made possible by cooperation between the state and federal government. It is a nation-wide electronic base system for the registration and storage of data of tax payers in Nigeria. President Jonathan remarked that TIN by revolutionizing tax administration in Nigeria will expand the country's



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tax base and increased the opportunity for tax generated revenue. He further remarked that TIN will modernize tax administration in Nigeria and ensures it is in keeping with best global practices. Overall, the aim of the national tax policy is to have a nation and people that see taxation as a partnership with the government. It is believed that the partnership between the government and taxpayers will broaden the tax base by bringing into the tax net both the formal sector and the informal sector that has consistently been elusive to tax administrators. Other notable reforms with statutory revenue implications are the education tax which was introduced in the year 1994 through decree No. 7 and the personal income tax act of 14th June, 2011 through Nigeria official Gazette No. 115 volume 98. The PITA deleted sections 3 (1) (b) (ii)-(xii) of the personal income tax act of 2004 which provided employees with free tax allowances. This implies that free tax allowances are no longer practicable. This would have been a desirable and welcome development for state governments since it will broaden their tax base, but with increase in statutory relief allowances under PITA, the prospecting benefits may be defeated. Furthermore, another aspect of tax reform in Nigeria is the restructuring of Federal Inland Revenue Service (FIRS). The restructuring became imperative because of the understanding that the existing structure was ineffective, chaotic and was giving fillip to indiscipline and fraud, and had cause the government to lose huge amount of tax revenue. The intent was to supplant the existing structure with one that allows feedback from bottom to the top and also organized work around team. The first step in restructuring FIRS was to make tax collection a function of ICT. In addition, all the various VAT offices and the area tax offices (ATOs) were lumped together and renamed integrated tax office (ITOs). Furthermore, after wide and due consultation, the management of FIRS concluded that there are seven strategic pillars on which to hinge the tax reform agenda. These strategic flanks were funding/autonomy, capacity building (improve structure and staffing); process re-engineering; auditing oil/gas and large tax payers; tax payer education, strengthen investigation and enforcement, and automate tax collection [FIRS Handbook, 2012].

Essentially, the FIRS was granted autonomy in the year 2007 under the FIRS Act 2007. By this, it became independent in both funding and human resources, being free from civil service bureaucracy. Several other structural changes were made. For instance, new departments were created. Some of the newly created departments were: process operation department (POD); Audit department; Tax



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policy research and development department (TPRD), Regional coordination department, modernization department etc. Each of these departments was assigned specific function, but collaboratively works towards the achievement of the reform agenda. As part of networking, group of departments was lumped together, and headed by directors that report directly to the executive chairman of FIRS.

The Federal Inland Revenue Service (Establishment) Act 2007 established the tax appeal tribunal to resolve disputes arising from the act, as well as the administration of the legislation listed in the first schedule to the act. In June 2007, the Management of Federal Inland Revenue Service introduced the “group system” structure in which roles and functions cascade from the group levels to departmental levels down to unit levels and finally to individual levels. The restructuring that saw the introduction of the group system made away with “Divisions.” Under the current arrangement, groups are headed by Coordinating Directors who report to the Executive Chairman. The groups consist of several departments headed by directors and the departments are comprised of units and sub-units down the line. The five groups that emerged from this are (i) Corporate Development Group (CDG); (ii) Support Services Group (SSG); (iii) Tax Operations Group (TOG); (iv) Compliance and Enforcement Group (CEG); and, (v) Chairman’s Office Group (COG). However, towards realisation of the need to constantly strive for efficiency and higher performance in the drive for delivering continuous and sustainable flow of revenues to government, the management of the service in May 2015 carried out a review of the current organisational structure and consequently approved some changes to the structure. The amended structure is aimed at ensuring that each and every officer of the service is assigned a job schedule with clearly agreed performance criteria which is smart and on which officers will be regularly assessed for performance. The new structure retains the five (5) Group arrangements with an inclusion of the office of Senior Special Assistant (SSA) which will have responsibility for supervision and coordination of all Direct reports to the Executive Chairman. The five (5) groups are now to be known as Domestic Taxes Group (DTG), Compliance Support Group (CSG), Enforcement Support Group (ESG), Modernisation Support Group (MSG), and Support Services Group (SSG).

The modernization Support Group (MSG) will continue to coordinate all modernisation initiatives, alongside the development of information and communication technology to facilitate prompt tax delivery services.



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The Modernisation Support Group of the FIRS

Against the background of the resolve to modernise the FIRS in order to remain relevant and viable in the face of economic realities, the Service adopted a program of reforms along seven strategic flanks. These include: Funding FIRS/Acquiring autonomy; Strengthening investigation/enforcement; Auditing oil, gas and large taxpayers; Providing taxpayer education and services; Re-engineering and automate collections/tax administration system; Building capacity in the areas of structure, staffing and specialization; and, Re-engineering and automating human resource processes, finance and procurement. These were followed by aggressive anti-corruption campaign, revised code of ethics and performance management/result orientation. The overall goal of the strategic flanks was to increase collection on a year-on-year basis by at least 25 percent relative to 2004 level. The development of strategic flanks further necessitated the need to have in place a structure that would drive the projects, programmes and initiatives that would transform the business processes of the Service to reflect modern realities.

The department's primary function is to provide a focused attention on all modernization projects. This has led to monumental changes and proposed initiatives in the operations of the Service, in particular, and tax administration in Nigeria, in general.

Prior Study on Tax Administration and Technological Innovation

Several empirical studies have been conducted on electronic tax filing. Fu *et al.* (2006) carried out the study of taxpayer intentions to accept electronic tax filing. Using the filing of personal income tax in Taiwan as an example of e-government services, the study found that taxpayers tend to concentrate on the usefulness of a tax-filing method and may be fairly pragmatic in developing general attitudes towards using the method. Lee (2008) studies the factors influencing the use of internet banking. In his work, TAM and PBC was adopted theory and found that internet banking is the most profitable e-commerce application over the last decade. Wang (2002) in his study titled the adoption of electronic tax filing system also used TAM as a theoretical framework. He examines the effect of computer self-efficacy on the intention to use an electronic tax-filing system. Using factor analysis based on a sample of 260 users from a telephone interview, he suggested the need to extend TAM in predicting the intention of users to adopt electronic tax filing system.

2.2. Theoretical Framework

This current study is premised on Technology Acceptance Model (TAM) and Theory of Planned Behaviour (TPB). The two theories are well established in the information Technology (IT) arena and appear to be widely accepted [Riemenschneider, et al., 2003; Fu, et al., 2006]. TAM theorizes that an individual's intention towards using a system is jointly determined by perceived usefulness (PU), the user's "subjective probability that using a specific application system will increase his or her job performance" and perceived ease of use (PEOU), "the degree to which the user expects the target system to be free of effort." [Davis, 1989] The effects of external variables (e.g., system design characteristics) on behavioural intention (BI) are mediated by these beliefs. According to Davis, Bagozzi and Warshaw, (1989), PEOU also has a direct effect on PU. In predicting usage, TAM models might be useful within and across organizations for evaluating applications or technologies, or to make comparisons between user groups or applications, as suggested by [Adams, et al., 1992]. However, TAM has limitations in being applied beyond the workplace because its fundamental constructs do not fully reflect the variety of user task environment and constraints.

Paul and John (2003) suggested that TAM is a useful model but has to be integrated into a broader one which would include variables related to both human and social factors which the theory of planned behaviour (TPB) takes into account. TPB incorporates subjective norms (SN) and perceived behaviours control (PBC) as direct determinants of BI [Fu, et al., 2006]. Neither TAM nor TPB have been found to provide consistently superior explanations or predictions of behaviour in the past. A growing body of research has been focused on integrating them to predict usage intention from different viewpoints: Subjective Norms (SN) has been included as an additional predictor of intention for mandatory settings [Venkatech, et al., 2003]. In addition, using TPB as a basic structure, attitude is decomposed by incorporating PU and PEOU. The approach provides several advantages. First, it seems unlikely that belief structures will be consistently related to intention and that the relationships would become clearer and more readily understood. Second, by focusing on specific beliefs, the model becomes more managerially relevant, pointing to specific factors that may influence adoption and usage of new technology in tax administration. This is as explained below.

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Attitude and E-Tax Filing

Several studies have examined the role of attitude on IT usage behaviour. The attitude variable was considered as a mediating variable that influences the BI and is affected by PU and PEOU. However, weak support of the relationship was found between the attitudes toward a specific IS and BI. Kay (1993) suggested that while measuring attitudes toward Information System usage, it is preferable to be more specific about the content of the attitude object. Fu *et al.* (2006) stated that the omission of attitude allows researchers to investigate the influence of PEOU and PU on BI. Thus, the “attitudes” factor is decomposed to simplify the model. Additionally, a link between PEOU and BI is included because empirical studies have found a significant relationship between them [Lu & Gustafson, 1994].

Perceived Behavioural Control (PBC) and E-Tax Filing

The PBC construct refers to an individual’s perceptions of the presence or absence of resources or opportunities necessary for performing an action. It is decomposed into both the internal notion of individual “self-efficacy (SE)” [Bandura, 1977] and to external resource constraints, similar to Triandis’s (1977) facilitating conditions. SE is related to perceived ability. With respect to e-Tax usage, we anticipated that higher levels of SE would lead to higher levels of BI toward e-Tax. The facilitating conditions consist of two sub dimensions: resource factors (RFC), such as computer equipment, and technology issues (TFC), that may restrict usage. The absence of facilitating resources results in barriers to usage which may inhibit usage. Thus, a taxpayer might be unwilling to accept e-Tax if little or no computer equipment is available, and if technical support is low.

Perceived Risk and E-Tax Filing

Studies in consumer behaviour suggest that when engaging in an online transaction process, concerns of inherent risk have surfaced as salient to many potential users [Hoffman, et al., 1999]. However, actual risk is difficult to measure objectively, literature has therefore primarily addressed the notion of perceived risk (PR), defined here as the taxpayer’s perception of the uncertainty and adverse consequence of a desired outcome. Perceived risk of online shopping has been shown to influence attitude towards online purchasing [Heijden, et al., 2001]. Taxpayers may be reluctant to file their tax return electronically if they perceive a lack of security in the process.

Subjective norms and E-Tax filing

Ajzen (1991) described subjective norms as an individual's perception of what significant people around (e.g., family) would think about his or her performance of a particular behaviour. The theory predicts that an individual is tend to be more influenced if perceives that people around him or her think he or she should engaged in the behaviour [Randall & Gibson, 1991]. Past empirical research in various fields showed that subjective norms could influence positively and significantly behavioural intention [see Bobek & Hatfield, 2003; Park & Blenkinsopp, 2009]. Venkatesh and Davis (2000) found that subjective norms had a significant influence on perceived usefulness and behavioural intentions when use of the technology was mandatory. When technology use was voluntary, subjective norms still influenced perceived usefulness but did not have a direct influence on behavioural intentions. Based on these findings in a voluntary context, we propose a similar outcome was expected in the present research that people will tend to use e-filing the more people around them want them to do so.

Compatibility and E-Tax Filing

Also included in our model is compatibility (CMP), which serves as an antecedent of PU. Compatibility, defined as the degree to which the technology fits the potential adopter's previous experience, work practice, and needs, has been identified as an essential factor for innovation adoption [Rogers, 1985]. Considerable number of research has reported in the past the significant effect of CMP on the user technology acceptance decision [Wu, et al., 2007]. A number of authors have explained the significant effect of CMP on attitude [Hung, et al., 2006; Hsu, et al., 2006]. In addition, Chau *et al.*, (2001) found that CMP is a significant factor in determining PU but not PEOU. Individuals who find the use of paperless income tax filing for online services/internet based application to be consistent with their values, existing practices, preferred style and prior experience would prefer to use paperless e-filing system.

The adapted model is shown in Fig. 1.

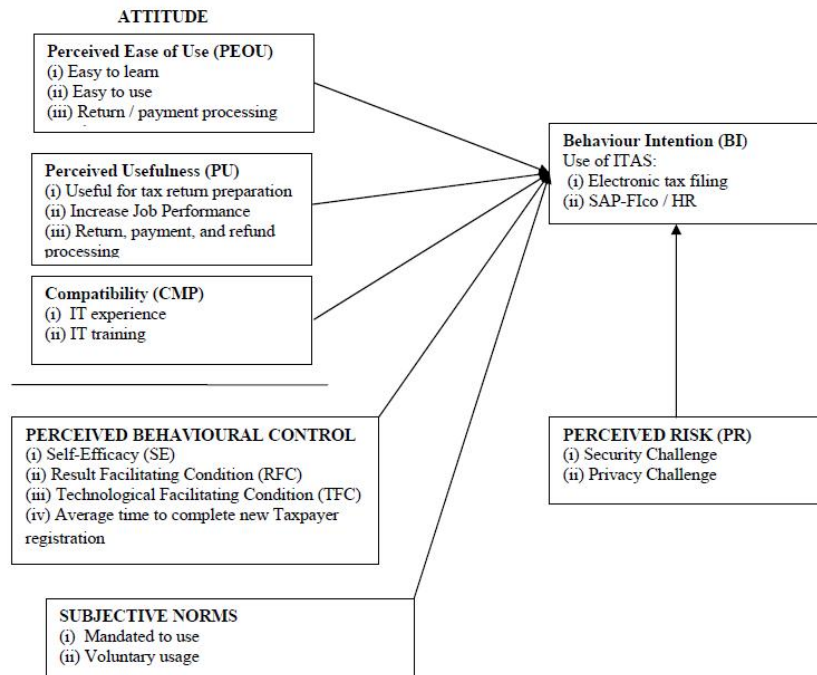


Fig. 1. Theory of Planned Behaviour (TPB) Model

Source: Adapted from Fu, et al. (2006) and modified by the authors (2018)

3. Research Methods

This section describes the research design, the characteristics of the population of the study, the sampling technique used to ensure a representative sample and the instruments of data collection. The study adopted cross sectional survey design for data gathering purpose. This approach enables the researcher to obtain information from a representative sample of the population. The population of this study comprises stakeholders in tax administration in Nigeria. It is made up of tax authorities (staff), the tax consultants, existing and potential taxpayers comprising individuals and corporate entities. For the purpose of this study, the target population



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is 6,500 staff of FIRS, tax consultants registered with FIRS, 770,407 corporate taxpayer and 1,393,590 individual taxpayers filing returns with FIRS. This population is considered to be appropriate because all the subjects of the population are stakeholders in tax administration in Nigeria. This study intends to make a generalization of its findings to all the stakeholders in Tax administration in Nigerian (the population of this study). Since a census (complete evaluation of the entire population) could not be done, the representativeness of the population was assured by using the Cluster sampling technique.

This technique is most appropriate where the concentration of the elements of the target population (in equitable proportion) can be reached within a clearly demarcated area. The areas adopted by this study are FIRS offices in the southwest region with 484 staff who attend to taxpayers and consultants on daily basis. The strength of this cluster is that there is a comprehensive sampling frame from which the sample respondents were scientifically drawn. FIRS offices are classified into Large Tax office (LTO), Medium Tax Office MTO, Micro and Small Tax Office (MSTO), Government Business Tax Office (GBTO). In addition to this classification, FIRS has units and department that contain reasonable number of staff that deal with taxpayer regularly in all regions across the geo political zones in Nigeria. These units/departments are Tax Audit Unit, Debt Management Office (DMO), and Taxpayer Service (TPS). Southwest region has all classes of offices within the classification in FIRS.

The researchers sampled all the offices located in southwest region in order to reduce the possible sample errors with exception of GBTO because they dealt with Ministries Departments and Agencies (MDAs) who are not taxpayer but agent of collection.

To achieve the stated objectives of this study, both primary and secondary sources of data were used. The primary data collection instrument used was a structured questionnaire divided into two sections. The first section contained items to capture the demographic data of the sampled respondents. Section two was designed to collect data on perceive behavioural attitude of staff of Federal Inland Revenue Service staff on various Technology Innovation for Human resources process and tax accounting, to examine the attitude of the taxpayer towards the use of information technology in tax administration and finally to identify the factors that influence the attitude, subjective norms, perceived behavioural control and intention of both taxpayer and staff towards the use of information technology in



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tax administration. In constituting the sample for this study, 219 respondents were drawn from 484 staff in the offices located in Southwest region. 219 copies of questionnaire were administered in various offices during the general VAT gathering exercise carried out by FIRS in October 2017. During this exercise, copies of the questionnaire were distributed to all staff members from states in the South West. This exercise allows the staff to have one on one interaction with taxpayer to hear their view about tax administration. The simple random sampling technique was adopted using the random number table to draw the required respondents among the staff that participated in the exercise.

The construct validity of the research instrument was guaranteed by giving the research instrument to three (3) Senior Lecturers in Departments of Accounting and Business Administration to indicate the extent to which each of the questionnaire items is relevant to the underlying construct it indicates. This was done on a five point scale ranging from 'relevant' to 'not relevant'. Their evaluation was analysed using descriptive statistics. Items with a mean of less than 3.50 were removed while those with mean scores between 3.50 and 4.00 were reframed and those with mean scores above 4.00 were retained. This approach was adapted from the Mukasa (2011) study on tax compliance in Uganda with slight modifications.

Variable Measurement

The variables used in this study were measured by assigning numbers to items or observations. The level of measurement is known to be a function of the rules under which the numbers are assigned [Kothari, 2004]. Tax administration and the use of information technology in Federal Inland Revenue Service (FIRS) were correlated together to ascertain if any connection exists between them to test the Hypothesis one of this study. Tax Administration was measured by various functions in FIRS. The administrative effectiveness was measured by the corresponding amounts of revenue reported in the annual report, turn-around time in tax return processing, finance and accounting process of the FIRS. Use of information technology is the variable relevant to the Hypothesis two of this study. This was measured by asking respondents to indicate the extent to which they agree to the question items on various aspects to the e-filing tax system on a five-point Likert's scale, ranging from Strongly Disagree to Strongly Agree. Based on the various aspects of the use of e-



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filing that has been identified in past literature, these variables are: general degree of performance in income tax filing preparation, speed and time saving, computer knowledge and better management of information stored in electronic data base.

Risk is the variable relevant to the Hypothesis 3 of this study. Risk was measured by security challenges and privacy challenges by asking respondents to indicate the extent to which they agree to the items on various aspects to the tax administration on a five-point Likert's scale, ranging from Strongly Disagree to Strongly Agree. Staff Training, Attitude, Self-Efficiency are the variables relevant to the Hypothesis 4 of this study. These are measured by asking respondents to indicate the extent to which they agree to the question items on various aspects of the tax administration on a five-point Likert's scale, ranging from Strongly Disagree to Strongly Agree.

Regression Analysis was used to establish the relationship between the technology innovation and tax administration of the FIRS. The Analysis of Variance (ANOVA) was used to test three hypotheses on the variables of the TPB and e-filing. The regression analysis was subsequently used to analyse the extent to which each of these variables (attitude, perceived behavioural control, subjective norms and perceived risk) influence the respondents' intention to use electronic tax filing system. SPSS version 20.0 was used for the purpose of analysing the data. A perceived limitation to this study is that only data collected from FIRS staff were used upon which the findings were generalised. It is possible that other State Internal Revenue Service with low tax drive may have contrary opinion if given opportunity to respond to some of the questions. However, the identified limitation is not expected to have adverse effect on the outcome of the study.

4. Data Analysis and Presentation of Results

This section covers the analysis of data and findings from the study. The total copies of questionnaire administered, that is, two hundred and nineteen (219) were appropriately completed and returned because of the approach used in administering the questionnaire.

The demographic characteristics of the respondents (i.e. Tables and explanations of each demographic result) were not included since the attributes were not used in the test of hypotheses.

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Descriptive Statistics and Tests of Hypotheses

This study aimed at investigating the impact of technology innovation on tax administration in Nigeria. The tests were carried out at 0.05 level of significance. The decision to accept or reject the null hypothesis is based on the p-value, the decision rule which states that when the p-value is less than the level of significance, the alternative hypothesis should be accepted but when the p-value is higher than the level of significance, the null hypothesis should be accepted.

NB: Descriptive statistics Tables are not presented in the body of the paper in order to optimise the maximum pages allowed by the Journal. However, in this section, research hypotheses structured in null form are analysed using regression model, analysis of variance (ANOVA) and correlation coefficients. The tests of the hypotheses are presented in the following sub-sections.

Research Question 1: How does the use of information technology improve effective tax administration in Nigeria?

Test of Hypothesis

H₀₁: The use of information technology does not improve tax administration in Nigeria.

Table 1. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.763 ^a	0.581	0.576	0.03844

a. Predictors: (Constant), Automation of Finance & Account related function, Automation of unified communication & enterprise collaboration, implementation of customer service call centre

Source: Field Survey, 2018

From the regression analysis result shown in Table 1, it was found that in the model summary table, the R value is 0.763, R-square is 0.581, adjusted R-square is 0.576 and the standard error of estimate is 0.03844. The large value of R indicates a stronger relationship between the observed and predicted values of the variables. In other words, the R value depicts that the use of information technology accounted for 76.3% improvement in tax administration in Nigeria. This implies that the proportion

of variation in the dependent variable is explained by the regression model. Hence, the value of R-square (58.1%) indicated that the model properly fits the data. More so, the value of adjusted R (57.6%) showed that the value of R-square closely reflected the goodness of fit of the model in the population.

Table 2. ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	68.086	3	22.695	118.066	0.000 ^b
	Residual	49.018	215	0.192		
	Total	117.104	218			

a. Dependent Variable: improve tax administration

b. Predictors: (Constant), Automation of Finance & Account related function, Automation of unified communication & enterprise collaboration, implementation of customer service call centre

Sources: Field Survey, 2018

Furthermore, the analysis of variance table (ANOVA), Table 2, showed regression sum of square value of 68.086 which is higher than the residual sum of square value of 49.081. This implies that the model accounted for most of the variations in the dependent variable. More so, the F calculated value of 118.066 is greater than the tabulated value of 3.90, indicating a significant relationship. In addition, the significant value of P (0.000) is smaller than (0.05) which means that the independent variable (use of information technology) to a high extent accounted for the variations in the dependent variable (tax administration). Hence, we posited that there is significant relationship between the use of information technology and tax administration in Nigeria. Table 3 shows the model coefficient (that is, the intercept and the slope). From Table 3, the results show that automation of finance & account related function (t-value = 6.702, p-value = 0.000) is significant at 5% level. Hence, one additional increase in automation of finance & account related function will bring about 59.7% improvements in tax administration. The result on automation of unified communication and enterprise collaboration (t-value = 5.611, p-value = 0.000) is significant at 5% level. This implies that an increase in automation of unified communication and enterprise collaboration will bring about 44.7% improvements in tax administration. The result also shows that implementation of customer service call centre (t-value = 1.746, p-value = 0.082) is positively

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correlation but not significant at 5% level. This implies that an increase in implementation of customer service call centre will bring about 24.9% improvements in tax administration. These analyses signify that each of the variables has contributed to improved tax administration in Nigeria. Hence, the use of information technology does improve tax administration in Nigeria.

Table 3. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.233	0.066		3.555	0.000
1 Auto. of F&A	0.585	0.020	0.597	6.702	0.000
Auto. of UC&C	0.421	0.075	0.447	5.611	0.000
ICSCC	0.207	0.119	0.249	1.746	0.082

a. Dependent Variable: reduction in workers' productivity

Sources: Field Survey, 2018

Research Question 2: In what way does the use of information technology reduces inefficiency in tax administration in Nigeria?

Test of Hypothesis

H₀₂: The use of information technology does not reduce inefficiency in tax administration in Nigeria. This research hypothesis is analysed thus:

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.960 ^a	0.921	0.920	0.02835

a. Predictors: (Constant), TIN Reg, electronic Tax Filing, VAT Collection, SAP-HR/FICO

Source: Field Survey, 2018

From the regression analysis result shown in Table 4, it was found that R value is (0.960), R square (0.921) adjusted R square (0.920) and the standard error of estimate is (0.02835). The large value of R indicates a stronger relationship between the observed and predicted values of the variables. The R value depicts that the use of information technology reduces inefficiency in tax administration (96.0%). This implies that the proportion of variation in the dependent variable is explained by the regression model. The value of R-square (92.1%) indicated that the model properly fits the data. More so, the value of adjusted R (92.0%) showed that the value of R square closely reflected the goodness of fit of the model in the population.

Table 5. ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	108.747	4	27.187	626.282	0.00
1 Residual	9.290	214	0.043		0 ^b
Total	118.037	218			

a. Dependent Variable: Inefficiency in tax administration

b. Predictors: (Constant), TIN Reg, Internet Tax Filing, VAT Collection, SAP-HR/FICO

Source: Field Survey, 2018

Table 6. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.452	0.087		5.174	0.000
TIN Reg.	0.432	0.050	0.481	5.896	0.000
Internet Tax Filing	0.502	0.042	0.503	5.530	0.008
VAT Collection.	0.813	0.032	0.847	15.768	0.000
SAP-HR/FICO	0.158	0.065	0.196	2.439	0.016

a. Dependent Variable: Inefficiency in tax administration

Source: Authors Computation, 2018



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Table 5 presents the analysis of variance (ANOVA) Table which tests the significance or otherwise the fitted of the model. The F calculated is (626.282), while the F tabulated obtained from the statistical table at 0.05 level of significance is 2.42. Since the F-calculated (626.282) is greater than the table value of F (2.42), the null hypothesis that “The use of information technology does not reduce inefficiency in tax administration in Nigeria” is rejected. It is thereby concluded that the use of information technology will reduce inefficiency in tax administration in Nigeria.

Results obtained from Table 6 reveals that the magnitude of the beta coefficient for Tax Identity Number (TIN) registration is significant at 5% for the total sample. The result implies that for one additional use of TIN registration reduces tax administration inefficiency by 48.1%. Hence FIRS may consider widening the Tax payer Identity Number (TIN) registration to expand the country’s tax base and increased the opportunity for tax generated revenue. It is also found that the result on electronic tax filing is positively correlated with tax administration. The result reveals that an increase in electronic tax filing will bring about 50.3% reductions in tax administration inefficiency. The result on value added tax (VAT) collection shows a positive correlation between business performance and group membership. The magnitude of beta coefficient for VAT collection is statistically significant at 5% for the total sample. The result shows that VAT collection reduces tax administration inefficiency by 84.7%. Finally, Table 6 shows that the magnitude of beta coefficient for SAP-HR/FICO is significant at 5% for the total sample. The result implies that for one additional use of SAP-HR/FICO reduces tax administration inefficiency by 19.6%. Hence FIRS may consider the implementation of SAP-HR/FICO to enable better management of personnel budgets and respond to evolving organizational requirements.

Research Question 3: To what extent is the perceived risk of usage affect the use of Information technology in tax administration in Nigeria?

Test of Hypothesis

H₀₃: Perceived risk of use does not affect the use of information technology in tax administration in Nigeria.

Table 7. Model Summary

Model	R	R-Square	Adjusted R- Square	Std. Error of the Estimate
1	0.959 ^a	0.919	0.918	0.02026

a. Predictors: (Constant), security challenge, privacy challenge

Source: Field Survey, 2018

From the regression analysis result shown in Table 7, it was found that R value is 0.959, R-square equals 0.919, adjusted R-square equals 0.918 and the standard error of estimate is 0.02026. The large value of R indicates a stronger relationship between the observed and predicted values of the variables. The R value depicts that the perceived risk of use affect the use of information technology in tax administration in Nigeria by 95.9%. This implies that the proportion of variation in the dependent variable is explained by the regression model. The value of R-square (91.9%) indicated that the model properly fits the data. More so, the value of adjusted R (91.8%) showed that the value of R-square closely reflected the goodness of fit of the model in the population.

Table 8. ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	108.488	2	54.244	227.007	0.000 ^b
Residual	9.549	216	0.044		
Total	118.037	218			

a. Dependent Variable: Perceived risk of use of information technology

b. Predictors: (Constant), security challenge, privacy challenge

Source: Field Survey, 2018

Table 8 presents the analysis of variance (ANOVA) Table which tests the significance or otherwise the fitted of the model. The F calculated is 227.007, while the F tabulated obtained from a statistical table at 0.05 level of significance is 3.04.

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Since the F-calculated (227.007) is greater than the table value of F (3.04), the null hypothesis which states that “perceived risk of use does not affect the use of information technology in tax administration in Nigeria” is rejected. It is thereby concluded that perceived risk of use does affect the use of information technology in tax administration in Nigeria.

Table 9 shows the model coefficient (that is, the intercept and the slope). From Table 9, the results show that security challenge (t-value = 3.240, p-value = 0.036) is significant at 5% level. That is, one additional increase in security challenge faced by taxpayer will affect the use of information technology in tax administration in Nigeria by 26.1%. The results also show that privacy challenge (t-value = 3.240, p-value = 0.036) is statistically significant at 5% level. This implies that an increase in privacy challenge will affect the use of information technology in tax administration in Nigeria by 70.2%. These analyses signify that each of the variables has affected the use of information technology by taxpayers in Nigeria. Hence, perceived risk of use does affect the use of information technology in tax administration in Nigeria.

Table 9. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.441	0.088		5.007	0.000
1 Security. Challenge	0.247	0.038	0.261	3.240	0.036
Privacy. Challenge	0.666	0.047	0.702	6.297	0.000

a. Dependent Variable: Perceived risk of use of information technology

Source: Field Survey, 2018

Research Question 4: To what extent has information technology been accepted in the administration of tax in Nigeria?

Hypothesis 4 sought to answer research question 4 stated above. In doing this, Pearson correlation is used to explain the relationships that exist among variables, i.e., staff training, attitude, self efficiency and tax administration.

H₀₄: The application of information technology has not been accepted in the administration of tax in Nigeria?

Table 10. Correlations among staff training, attitude, self efficacy and tax administration

		Staff Training	Attitude	Self-Efficacy	Tax Admin.
Staff Training	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	219			
Attitude	Pearson Correlation	0.906**	1		
	Sig. (2-tailed)	0.000			
	N	219	219		
Self-Efficacy	Pearson Correlation	0.897**	0.943**	1	
	Sig. (2-tailed)	0.000	0.000		
	N	219	219	219	
Tax Admin	Pearson Correlation	0.897**	0.894**	0.915**	1
	Sig. (2-tailed)	0.000	0.000	0.000	
	N	219	219	219	219

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

Sources: Field Survey, 2018

A review of Table 10 shows reasonable level of relationships among the acceptability of information technology and tax administration in Nigeria. The correlation values, r , varies between 0.894 and 0.915 ($p = 0.01$) which are within acceptable limit. This implies that staff training and professional development, self-efficacy and attitude of staff, to a large extent, determine the acceptability of application of information technology in tax administration in Nigeria. Hence the null hypothesis is rejected.



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Discussion of Finding

Within the existing framework of tax administration by the Federal Inland Revenue Service (FIRS), tax reforms which include Re-engineering and automating collections/tax administration system; Building capacity in the areas of structure, staffing and specialization; and Re-engineering and automating human resource processes, finance and procurement are used to stimulate tax information technology. These are considered to be element of technology innovation; the effectiveness of these elements in improving tax administration was measured in this study. In addition to this, how the use of information technology could enhance tax administration in Nigeria was subsequently considered. To assess if any significant relationship exists between the variables, a regression model fit was obtained from analysis of the questionnaire. Findings show that there is a significant relationship between the use of information technology and tax administration in Nigeria. This is in agreement with the findings of Sabitova and Khafizova (2015) whose study suggested that tax administration would actively use information technologies to improve its performances.

5. Summary, Conclusion, Contribution to Knowledge and Recommendations

Summary of findings

Tax administration in Nigeria by the Federal Inland Revenue Service (FIRS) hinges on tax reforms which include re-engineering and automated collections/tax administration system; building capacity in the areas of structure, staffing and specialization; and re-engineering and automating human resource processes, finance and procurement. These are used to stimulate tax information technology as they are considered to be element of technology innovation. The effectiveness of these elements in improving tax administration was measured in this study. In addition to this, how the use of information technology could enhance tax administration in Nigeria was subsequently considered. This is in consonance with the studies by a number of authors [Sabitova & Khafizova, 2015; Guillermo, et al., 2013].

Conclusion

The goal of tax authorities is to collect the full amount of taxes and duties payable in accordance with the law. Tax authorities should aim at reducing the tax compliance gap while at the same time minimizing the administrative bottleneck of



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collecting taxes for the government and of paying taxes for taxpayer. This can be done by applying policies to facilitate and stimulate “voluntary compliance”. The comparative analysis of tax business in different countries in terms of tax administration revealed that efforts were focused on the comfort conditions for communication between taxpayers and tax authorities. As part of international tax cooperation, the automated information systems are being developed that ensure tax business, facilitate communication at a quality level and exchange the information between the tax authorities worldwide. This study provides empirical evidence that Information Technology has been accepted and improved tax administration in top industries countries. From the regression analysis result on hypothesis one and two, it was found that the R value is 0.763, R-square is 0.581, adjusted R-square is 0.576 and the standard error of estimate is 0.03844. The large value of R indicates a stronger relationship between the observed and predicted values of the variables. In other words, the R value depicts that the use of information technology accounted for 76.3% improvement in tax administration in Nigeria. This is line with the findings of [Sabitova & Khafizova, 2015] who posited that most of the industrial countries use electronic filing and online services for providing information to the taxpayers.

Contribution to Knowledge

The study was able to combine the Theory of Planned Behaviour (TPB) and Technology Acceptance Model (TAM) to empirically evaluate the acceptability of the technology innovation and behavioural intention towards the use of technology in tax administration.

It appears that no published study has employed both TPB and TAM together to evaluate the behavioural intention of taxpayers towards the use of technology in tax administration with the aim of enhancing greater tax compliance which in turn will have incremental effect on the tax revenue generated by the government to perform its functions.

Recommendations

The following recommendations are made from the findings of this study:

i. Obtaining key stakeholder commitment was the primary challenge for implementation of information technology in tax administration. It is therefore recommended that the commitment of the stakeholder to the use of e-filing is vigorously encouraged;



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ii. This study recommend a phased-approach for implementation, that is, the implementation would be completed for large taxpayers first and rolled out to other offices at a later date because it is likely to be unsuccessful if insufficient time and planning is given to the rollout.

iii. Tax education should be introduced into the syllabi of schools in Nigeria from the primary schools to the tertiary institutions in Nigeria. This will afford the students the opportunity to understand the importance and benefits derivable from tax through taxation;

iv. Tax authorities should partner with stakeholder to create tax awareness for future taxpayers on the need to use information technology in tax processes through aggressive publicity and advertisement in the print and electronic media;

v. Adequate security should be put in place to guarantee the safety of information supplied electronically by taxpayers; and

vi. Finally there should be persistent training and re-training of the staff of tax authorities, organising workshops and seminars for taxpayers on how to use technology in processing and filing their tax returns.

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REVENUE DISTRIBUTION FROM FEDERATION ACCOUNT AND MONEY SUPPLY: EVIDENCE FROM NIGERIA

Cordelia Onyinyechi OMODERO¹

¹*Department of Accounting, Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria, Email: cordeliaomoderoyahoo.com*

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Abstract

Money supply in every economy is very vital for economic growth and stability. However, the role of revenue distribution in ensuring the success of monetary policies revolving around money supply in Nigeria cannot be over-estimated. The study examines the impact of revenue distribution to the three tiers of government on money supply (MSS) in Nigeria. Time series data used for the study estimation span from 1981-2016 and were obtained from CBN statistical bulletin, 2016 edition and World Bank website. The specific purpose of the study is to establish the extent to which revenue allocation to federal, state, local governments and derivation allowance to the mineral producing states affect money circulating in the Nigerian economy. Ordinary least square method (OLS) was employed with the aid of SPSS version 20 to test the impact of revenue distribution on money supply. The findings reveal that revenue allocation to federal government has a significant positive impact on money supply. Allocation to local government councils has insignificant positive impact on money supply. On the contrary, allocation to states and the derivation allowance to Niger Delta States exert significant negative influence on MSS in Nigeria. The study concludes that revenue allocation to states and derivation allowance contribute to inflation in the country and recommends stringent



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monetary policies that will determine the percentage of allocated revenue usage by all tiers of government in a particular period to avoid too much money in circulation.

Keywords: *revenue distribution; allocation; money supply; economic stability; derivation*

JEL Classification: E51, E64

1. Introduction

Revenues that flow into the federation account include crude oil sales which form major part of government revenue. The receipts from crude oil sales are usually in USD, as a result, the Central Bank of Nigeria (CBN) converts them to Naira (local currency) before transferring the fund into the federation account for sharing among the three tiers of government [CBN, 2016], after deduction of derivation allowance given to the mineral producing states. The conversion of crude oil receipts which is eventually released for sharing among the three tiers of government is an occasion for so much money to be circulated in the economy [Omodero & Worlu, 2018]. This economic scenario of the country on a monthly basis is capable of igniting inflation, if the fund is not strictly controlled by the CBN through its monetary policy to avoid excess money supply [CBN, 2016]. Money supply also referred to as money stock is the entire stock of currency and other liquid instruments circulating in a country's economy as of a particular time, which includes safe assets, such as cash, coins, and balances held in checking and savings accounts that business and individuals can use to make payments or hold as short-term investments [Chen, 2018].

Due to the fact that money supply is one of the economic policy tools used by a country's government to manage inflation and stabilize prices of goods and services, therefore, it is pertinent to note that government revenue affects it either positively or negatively [Yakubu et al., 2014]. Economists evaluate the money supply and came up with policies revolving around it through controlling interest rates and increasing or decreasing the amount of money in circulation in an economy. A country's government or central bank collects and records money supply data and publishes them periodically [Chen, 2018]. According to Tau (2017), money supply (which is the money stock) and interest rate are monetary

policy measures determined and monitored by the Central Bank of a nation. The purpose of this monitoring is to achieve economic efficiency which has close relationship with the use of resources in an economy [Rosca, 2017].

For the purpose of this study, money supply will be represented by the broad money (M2) which comprises currency in circulation, deposits with commercial banks, currency outside banks, quasi money and demand deposits which include foreign denominated deposits [CBN, 2006]. Revenue distribution includes fund allocations from the federation account to the federal, states and local governments, as well as derivation allowance to the mineral producing states. These revenues shared among the various levels of government are usually channelled to the economy for productive government economic and social activities that ultimately benefit the entire public.

1.1. Objective of the study

The major aim of this study is to determine the effect of revenue distribution from the federation account on money supply in Nigeria. The specific objectives the study seeks to achieve are:

1. To establish the impact of federation account allocated fund to the federal government on money supply;
2. To examine the influence of federation account allocated fund to the state governments on money supply;
3. To assess the extent to which revenue allocation to local government councils affects money supply;
4. To verify the extent of influence derivation allowance has on money supply in Nigeria.

1.2. Research hypotheses

The following null hypotheses have been formulated in order to pursue the above specific research objectives:

Ho1: Federation account allocated fund to the federal government does not have significant impact on money supply in Nigeria;

Ho2: Federation account allocated funds to states do not exert significant influence on money supply in Nigeria;

Ho3: There is no significant relationship between revenue allocation to local government councils and money supply in Nigeria;

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Ho4: Derivation allowance and money supply in Nigeria do not have significant relationship.

2. Literature Review

2.1. Conceptual Review

2.1.1. Broad Money (M2)

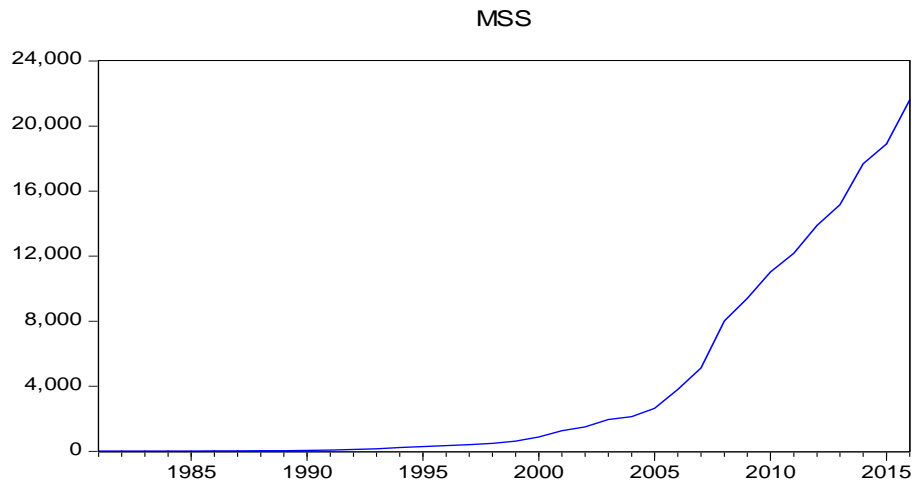


Fig. 1. Trend of MSS in Nigeria (1981-2016)

Source: Data from the Central Bank of Nigeria Statistical Bulletin, 2016

According to CBN (2016), broad money (M2) consists of narrow money plus savings and time deposits, as well as foreign denominated deposits. Narrow money comprises currency in circulation (bank notes and coins) with non-bank public and all bank account balances (demand deposits or current accounts) which can be easily used for a transaction. Therefore, broad money measures the total volume of money supply in the economy. When the amount of broad money is over and above the level of total output in the economy, it gives rise to excess money supply in the economy [CBN, 2016]. It becomes highly imperative to regulate money supply to ensure a stable relationship between money supply and economic activity. In order to maintain an equilibrium and match money supply with productive activities of



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both the public sector and private firms, regulation of money supply is necessary to prevent the devastating effect of inflation on the economy when money supply exceeds economic activities. The figure 1 below shows the broad money supply in Nigeria from 1981-2016. The vertical axis shows the money supply in billions of Naira while the horizontal area depicts the time which is on a yearly basis.

From figure 2 above, the trend of MSS revealed that, in 1980s up to 1990, MSS was not noticeable until 1991, when there was a little trace of it. Nevertheless, there has been a steady increase in MSS as it could be observed in the graph, though the increase and decrease in money supply is purely based on the discretion of the Monetary Policy Authority (CBN) in the country. It is a responsibility they carry out with strict consideration of its inflationary effects on the economy. However, government revenue, to a certain extent, influences the supply of money in the economy.

2.1.2. Derivation Allowance

Derivation allowance is the fund given to the mineral producing states which is deducted from the oil revenue before transferring it into the federation account for sharing among the three tiers of government in Nigeria. In line with S.162 (2) of the 1999 Constitution of the Federal Republic of Nigeria as amended, the derivation allowance is 13% of oil revenue and it is given on a monthly basis. Derivation principle suggests a matching between benefits received from the central pool and the percentage of contribution to the pool by states [Abubakar, 1986; Ashwe, 1986; Okunroumu, 1999]. The idea behind this principle is that the inhabitants of the area where a particular revenue is being generated must have suffered one form of economic and environmental loss or the other as a result of pollution and other health hazards. Such people deserve compensation as a way of enabling them benefit from the revenue from their area [Abubakar, 1986]. The figure 2 below shows derivation allowance to the Niger Delta States from 1981-2016. The vertical axis shows the derivation allowance in billions of Naira while the horizontal area depicts the time which is annually.

The derivation allowance to the Niger Delta States did not take effect until 1994. From 1994 to 1999 it was on the low side, but gradually increased in 2005 and came down again in 2009. The derivation allowance has been dwindling, but rose very high in 2013 and 2014 before the drop in oil prices also affected it and there was a serious decline in 2016.

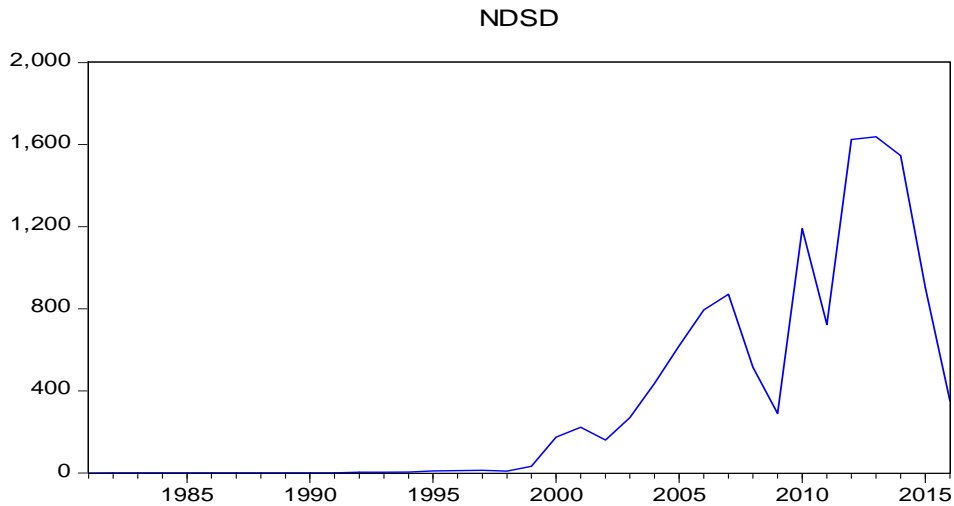


Fig. 2. Trend of NDS in Nigeria (1981-2016)

Source: Data from the Central Bank of Nigeria Statistical Bulletin, 2016

2.1.3. Federation Account

Federation account is a special account into which shall be paid all revenue collected by the government of the Federation, except the proceeds from the PAYE of Armed Forces Personnel, Police Personnel, Foreign Services Officers, Residents of the Federal Capital Territory (FCT) Abuja and other Federal Government Independent Revenue (FGIR) which include: licenses and internal revenue, mining, fees, earnings and sales, rent of government properties, interest and repayment (general and states), reimbursement of Audit fees, revenue from sales of Armed Forces Property, miscellaneous (Federal Republic of Nigeria (FRN) Constitution, 1999). All monies that flow into this account are distributed among the three tiers of government: federal, state and local governments in Nigeria.

The figure 3 below shows the interaction of money supply, allocation to the three tiers of government in Nigeria and derivation allowance to the Niger Delta States from 1981-2016. The vertical axis shows the amount in billions of Naira while the horizontal area depicts the time which is on annual basis.

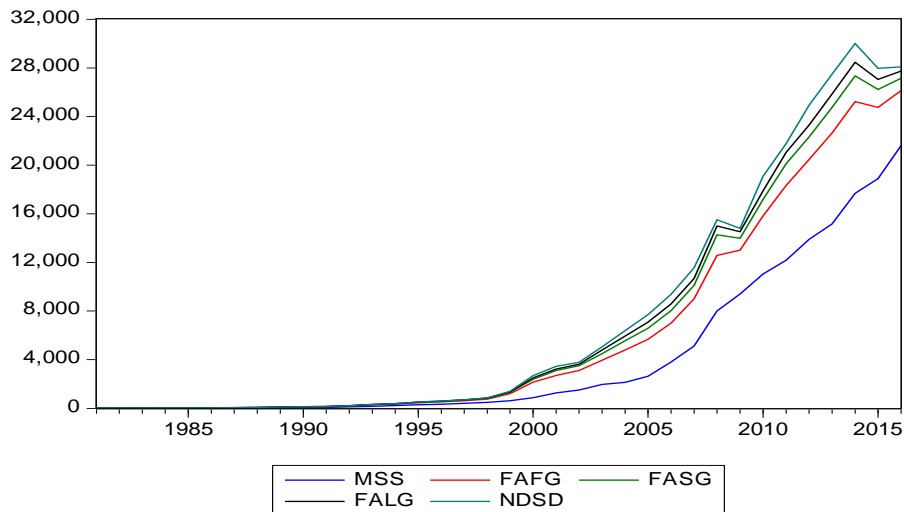


Fig. 3. Trend of MSS, FAFG, FASG, FALG and NDS in Nigeria (1981-2016)

Source: Data from the Central Bank of Nigeria Statistical Bulletin, 2016

From figure 3 above, all the explanatory variables rose from 1999 above the MSS. This is a proof that government revenue directly influences MSS. They rose very high in 2013, but decline in 2014 and picked up again in 2015 and 2016. Although, MSS was on a steady increase.

2.2. Theoretical Framework

Fiscal Federation Theory championed by Musgrave (1959) and Arrow (1974) is the theory underlying this study. Arrow's activities of the public and private sectors (1974) and Musgrave's public finances (1959) provided the structure for the appropriate role of government in the economy. There are three roles expected from the government sector within the framework and they include: the role of government in correcting various forms of market failure, the role of ensuring equitable distribution of income and the role of maintaining stability in the macroeconomy at full employment and stable prices. This study is anchored on the



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role of the government in ensuring equitable distribution of income and maintaining stability in the macroeconomy through stable prices. This could be achieved through adequate support of all monetary policies aimed at maintaining proper relationship between money supply and productive activities (CBN, 2016). Government strong backing of all monetary policies is the tool that will enable the CBN to exercise control over the distributed revenue among the three tiers of government through its well-structured monetary policy. When revenue from the federation is distributed, so much money goes into circulation through government functions and activities, if these activities (which unavoidably involve money supply) are not regulated by the Monetary Authority in the country, there could be inflation which will adversely affect the economy generally.

2.3. Empirical Review

Ogbonna and Ebimobowei (2012) employed a survey research design to investigate the impact of petroleum revenue on the economy of Nigeria for the period spanning from 1970 to 2009. The study was carried out in Nigeria using both primary and secondary data. The secondary data were obtained from the CBN statistical bulletin in line with the dependent variables representing the economy (GDP, per capita income and inflation rate) and the independent variable (Petroleum revenue). The primary data were sourced by using a structured questionnaire administered to 240 respondents which include accountants, financial managers/controllers, management staff and chief executives of major oil and gas industry in Rivers and Bayelsa States. The study adopted descriptive statistics, Pearson product moment correlation coefficient and ordinary least square regression with the aid of statistical package for social sciences for the analysis. The result revealed among others that oil revenue does not significantly affect inflation ($0.412 > 0.05$). The findings also showed a weak relationship ($r = 0.33$) between oil revenue and inflation. Furthermore, the study revealed a strong correlation ($r = 0.839$) between petroleum revenue and GDP. The t-test revealed that petroleum revenue significantly affects GDP (that is $0.000 < 0.05$) at 5% level of significance. Similarly, the findings also indicated a positive relationship ($r = 0.908$) between Per Capita Income (PCI) and the oil revenue. The t-test indicated a significant positive impact of oil revenue on PCI. The study therefore suggested that the Nigerian government should invest major part of the oil revenue on the economy which will help to reduce inflation, as well as improve the value of GDP and Per Capita Income.

Muriithi (2013) examined the relationship between government revenue and economic growth in Kenya. The study was conducted in Kenya in 2013. Descriptive research design was adopted while the time series data from 2003 to 2011 were collected from Central Bank of Kenya (CBK), Kenya National Bureau of Statistics (KNBS) and Ministry of Finance Kenya. The independent variables studied were import duty, excise duty, income tax, Value Added Tax and Non-Tax Revenue, all representing government revenue. The dependent variable used was the economic growth. Both the dependent and independent variable were all expressed in Million of Kenya Shillings. The data were presented in table and graphs and then analysed with the aid of Statistical Package for Social Sciences (SPSS) using Multi-regression analysis. From the results that emerged, economic growth had a strong relationship with the independent variables. The study further revealed a significant negative impact of import and excise duties on the economic growth while income tax, Value Added Tax and non-tax revenue showed a positive and significant impact on the economic growth. The study therefore suggested that policy makers should take keen interest in ensuring that both import and excise duties imposed promote the economic growth in Kenya.

Ayinde, Bello, and Ayinde (2013) evaluated the Nigerian Government revenues and total expenditure using error correction model approach with a secondary data covering a period of 39 years (that is from 1970-2008). The study made use of descriptive research design and multiple regression technique for analysis of data obtained from the CBN statistical bulletin and Nigerian National Bureau of Statistics. Total government expenditure was the dependent variable while the independent variables are: oil revenue, non-oil revenue, federation account and federal government retained revenue. The result showed that all the revenue variables (independent variables) which included the federation account contributed significantly to Nigeria total expenditure. The study suggested more efficient use of revenue to match government spending.

Yakubu, Umar and Aminu (2014) examined the relationship between money supply and government revenue in Nigeria. The study was conducted in 2014 and used Nigeria as a study place. The research employed Autoregressive Distributed Lag (ARDL) co-integration test which is also referred to as bound test. Time series data from 1970 to 2010 were collected from CBN statistical bulletin to test long run relationship, while the short run relationship test used data for 2009 and 2010 only. The variables investigated were total government revenue and money supply. Two

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models were specified, thereby using both variables as dependent and independent variables in two different equations. Results of the error correction model indicated that government revenue had a positive significant impact on the money supply as a macroeconomic indicator in the Nigerian economy, both in the long run ($0.00 < 0.05$) and in the short run ($0.00 < 0.05$).

Alexander (2015) employed least square multiple regression to investigate the relationship between GDP (the dependent variable) and the tax revenue which comprised Direct Taxes, Indirect Taxes and taxes collected by the Customs Division in Ghana. The time series data collected spanned from 1999 to 2014. The GDP deflator was used to get variables in real form and the use of logarithms were made to form the equations. The E-views 7 Statistical Software was employed for the computation of all the variables. The findings revealed a positive relationship between tax revenues and economic development. The test for the individual explanatory variables showed that direct taxes had a negative impact on GDP but not significant. Meanwhile, both the indirect tax and revenue from Custom Division had a significant positive impact on economic development. The study recommended more efforts to be made to ensure tax transparency and information sharing between Ghana and other countries. This will help the Ghana Revenue Authority to prevent tax evasion and avoidance by companies and individual taxpayers whose business operations extend beyond Ghana.

Oti and Odey (2016) evaluated Nigeria's revenue profile and development mesh. The study thoroughly investigated the extent to which the federally collected revenue, oil revenue, non-oil revenue, federation account and federal government retained revenue affect the Nigerian economy. Time series data gathered covered the period of 1980–2014. The statistical tools used for the econometric investigation were Augmented Dickey Fuller (ADF) test, granger causality test, Johansen test and error correction model (ECM). The result showed that total federally collected revenue contributed 0.0009% to the economic growth, oil revenue – 0.003%, non-oil revenue – 7.6%, federation account – 5.59% and federal government retained revenue – 0.016%. The Johansen co-integration test confirmed that a long run dynamic equilibrium relationship exists between economic development and various revenue sources and the granger causality result shows that the various revenue sources granger caused economic development in Nigeria. The study suggested among all that non-oil sectors should be encouraged to avoid over reliance on oil revenue for economic development.

Omodero and Worlu (2018) used pre- and post-effect of CBN interest rates adoption to evaluate the impact of monetary policy on oil revenue in Nigeria. The change from minimum rediscount rate (MRR) to monetary policy rate (MPR) which took effect from December 11, 2006 'till date motivated the study. The findings revealed among others that while MRR was still in use of money supply impacted positively and significantly on oil revenue, but from the adoption MPR which was used to replace MRR, money supply had a significant negative impact on oil revenue. Based on the result, the study concluded that MPR could not be preferred to MRR and suggested a review of baseline interest rate by the Monetary Authority.

2.4. Research Gap

Many studies on government revenue and economic growth have emerged in the past and recent times in diverse ways, although studies on the effect of revenue distribution on money supply have not been common. Scholars like Ogbonna & Ebimobowei (2012), Ayinde *et al.* (2013), Yakubu *et al.* (2014), Oti & Odey (2016) did a similar study but did not consider the effect of revenue allocated to the three tiers of government from the federation allocation (including the derivation allowance) on money supply. Revenue distribution among various level of government is very pivotal in the Nigerian economy as well as its interaction with total money in circulation in the economy. This study has been intended to determine the extent to which revenue allocation to each tier of government affects money supply as an economic indicator. Therefore, the study provides empirical evidence to fill this important gap.

3. Research Method

3.1. Design, Data Collection and Analysis

The study made use of ex-post facto research design because all data employed are already in the public domain and as such cannot be manipulated by the researcher. The data for this research were all secondary form of data and were obtained from the Central Bank of Nigeria (CBN), 2016 edition and the World Bank website. The data on money supply (MSS), federation account allocation to the federal (FAFG), state (FASG) and local (FALG) governments were sourced from the CBN, 2016 edition, while data on derivation allowance to the Niger Delta States were collected from the World Bank website. These data spanned from 1981 to 2016. The choice of this long period of time was to actually determine the effect

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of revenue sharing on money supply which is part of government’s role to ensure price stability through the Monetary Authority in the country.

In order to produce a flawless statistical result and empirical evidence, the study made use of ordinary least square method (OLS) for the regression analysis with the aid of Statistical Package for Social Sciences (SPSS) version 20. Multiple regression analysis was used and t-statistics applied to test individual null hypothesis (Ho) at 5% level of significance. The rejection criterion was that p-value less than 5%, the Ho will be rejected and if otherwise, Ho will be accepted.

3.2. Model Specification

The model comprises money supply (MSS) as the response variable while the explanatory variables include: revenue share of federal (FAFG), state (FASG), local (FALG) and derivation allowance to the Niger Delta States (NDS). Koutsoyiannis’ (1977) model states that economic theory does not specify the practical form of any relationship. This connotes that a functional relationship may be linear, cubic or even in a quadratic form [Arowoshegbe, *et al.*, 2017].

Based on this premise, the model specification for this study is as follows:

$$MSS = f(FAFG, FASG, FALG, NDS) \dots\dots\dots (1)$$

Where:

- MSS = Money Supply (M2)
- FAFG = Federation account allocation to federal government
- FASG = Federation account allocation to state government
- FALG = Federation account allocation to local government councils
- NDS = Niger delta states derivation allowance from the oil revenue

This can be expressed in its explicit form as follows:

$$MSS = \alpha + \beta_1FAFG + \beta_2FASG + \beta_3FALG + \beta_4NDS + \mu_i$$

Where:

- MSS = Money supply (M2)
- α = Determinant of money supply
- FAFG = FAFG (Federation Account Allocation to Federal Government)
- FASG = FASG (Federation Account Allocation to State Governments)
- FALG = FALG (Federation Account Allocation to Local Government Councils)

$\beta_1 - \beta_4 =$ Coefficients of the independent variables
 $\mu_i =$ Normally distributed error term

The A prior expectation is that the fund allocation used by the three tiers of government should be greater than zero implying positive contribution to money supply in Nigeria.

4. *Data Analysis and Interpretation*

Table 1. Model Summary of Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.958 ^a	0.918	0.907	1939.41708	1.443

a. Predictors: (Constant), NDSD, FASG, FAFG, FALG

b. Dependent Variable: MSS

Source: Authors' Computation, 2018, using SPSS Version 20

From table 1 above, the value of R is 95.8% which represents a very strong and positive correlation between revenue allocation and money supply in Nigeria. R-Square of 91.8% indicates the extent to which all the explanatory variables (FAFG, FASG, FALG, and NDSD) explain the variations in the money supply, which implies that only 8.2% is attributable to other factors not accounted for in the model. The Durbin-Watson is 1.443, which means it is within the acceptable limit. Values approaching 0 indicate positive autocorrelation, and values toward 4 indicate negative autocorrelation [Gujarati & Porter, 2009]. However, values under 1 or more than 3 are a definite cause for concern [Durbin & Watson, 1950, 1951; Field, 2009; Gujarati & Porter, 2009]. Therefore, the value of 1.443 as revealed in this study is above 1 and below 3.

The result on table 4.2 shows that the value of F-statistics is 86.459 with the p-value of $0.000 < 0.05$ level of significance. The result indicates that the predictor variables (FAFG, FASG, FALG, and NDSD) jointly and significantly influence the dependent variable (MSS). This is an indication that the model is statistically significant and appropriate for the study.

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Table 2. Anova

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1300803571.730	4	325200892.932	86.459	0.000
	Residual	116601497.228	31	3761338.620		
	Total	1417405068.958	35			

a. Dependent Variable: MSS

b. Predictors: (Constant), NDS, FASG, FAFG, FALG

Source: Authors' Computation, 2018, using SPSS Version 20.

Table 3. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-639.900	445.681		-1.436	0.161
	FAFG	6.707	1.456	2.601	4.607	0.000
	FASG	-19.725	4.598	-2.192	-4.290	0.000
	FALG	15.943	13.281	0.932	1.200	0.239
	NDS	-6.099	1.910	-.481	-3.193	0.003

a. Dependent Variable: MSS

Source: Authors' Computation, 2018, using SPSS Version 20.

From Table 3 above, the regression result is as follows:

$$MSS = (639.900) + 6.707FAFG - 19.725FASG + 15.943FALG - 6.099NDS.$$

From the regression equation on table 3, when FAFG, FASG, FALG and NDS are zero, the MSS will be -639.900. Therefore, a unit increase in FAFG while holding FASG, FALG and NDS constant will on the average increase the MSS by 6.707 in Nigeria. In the same manner, a change in FALG while keeping FAFG, FASG and NDS constant will lead to an increase in MSS by 15.943. A unit increase in FASG while keeping FAFG, FALG and NDS constant will reduce MSS by 19.725 in Nigeria. Similarly, a unit change in NDS while holding constant FAFG, FASG and NDS will lead to a reduction in MSS by 6.099.

4. Hypotheses Testing

The study earlier suggested that FAFG, FASG, FALG and NDSG do not have significant impact on MSS. The null hypotheses H_{01} - H_{04} have been tested using the t-statistics, the results show that: FAFG has a robust significant and positive influence (P-value $0.000 < 0.05$; t-statistics = 4.607) on MSS. Therefore, H_{01} is rejected and the alternative which states otherwise accepted. This result agrees with Yakubu *et al.* (2014) whose study revealed that total government revenue has significant positive impact on money supply. The result further substantiates the findings of Alexander (2015) and Ayinde *et al.* (2013) but disagrees with Muriithi (2015). FASG has a significant negative impact (P-value $0.000 < 0.05$; t-statistics = -4.290) on MSS; H_{02} is established and the alternative which suggests otherwise overruled. FALG has insignificant positive influence (P-value $0.239 > 0.05$; t-statistics = 1.200) on MSS; H_{03} is accepted while the alternative suggestion is declined. NDSG has a significant negative effect (P-value $0.003 < 0.05$; t-statistics = -3.193) on MSS, H_{04} is also proven and the alternative which states otherwise rejected. Therefore, the results of H_{02} - H_{03} are in conflict with Yakubu *et al.* (2014) but agree with Muriithi (2015).

5. Summary of Findings, Conclusion and Recommendations

The purpose of this study is to provide evidence on the effect of revenue distribution from the federation account on money supply using broad money (M2) as proxy for money supply. From the t-statistics on table 3, the results revealed that revenue allocated to the federal government has positive and significant impact on money supply, the local government allocation has insignificant impact on MSS, while the state allocation and derivation allowance exerted negative influence on MSS. These findings have provided concrete evidence that apart from FAFG, allocation to state and Niger Delta States derivation allowance have adverse effect on money supply, though allocation to local governments does not have any impact. By implication, allocation to states and derivation allowance contribute to inflation in the economy due to weak institutional quality such as corruption. Gribincea (2017) submits that, corruption has undermined many countries' political and economic status.

The study therefore makes the following recommendations based on the findings:

- There should be made conscious effort by the central government to ensure equitability and fairness in income distribution. This will provide all levels of



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government the avenue to carry out their share of expenditure responsibilities without financial constraints.

- The government should ensure that it plays its role of maintaining price stability through adequate and strict monetary policies that will keep the rate of money supply and economic activities of both public and private sectors at a balance.
- Government laws and financial regulations governing public sector revenue usage should always align with monetary policies to avoid inflation.
- Monetary policies should include the percentage of allocated fund that all levels of government should not exceed within a particular financial period.
- The usage of derivation allowance should be well regulated and monitored through some stringent monetary policies as deemed necessary to keep the economy in equilibrium.

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APPROACHES TO STAFF BEHAVIOUR FROM THE PERSPECTIVE OF OPERATIONS MANAGEMENT

Raluca CREȚOIU¹

¹ *Spiru Haret University, Faculty of Economic Sciences, Fabricii Street,
no. 46G, Bucharest, 030045, Romania, Tel.: +40212.169.793,
Fax: +40213.169.793, Email: raluca.cretoiu@yahoo.com*

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Abstract

Operational management or operations management, as established in many speciality papers, is an area of activity that is particularly important for the successful implementation of business activities and not only. From the point of view of the connections that can be established between this concept and the one regarding the staff management, we note the direct influence that the degree of motivation in the work, the commitment and the connection to the specific values of a certain organizational culture have on the performance of the subsidiary activities of the operations management. Effective operations management implies not only the optimal use of the organization's resources, but also the engagement of staff through a behaviour whose specific features emphasize responsibility, teamwork, transparency, and commitment to assigned tasks. This article highlights the need for the staff to be connected as well as possible to the organization's values and objectives; the efficient management of operations within it is closely connected to the level of harmonization between the values and objectives, on the one hand, and the interests and motivation of the employees, on the other hand.

Keywords: *operations management; behaviour; staff; organizational culture*



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JEL Classification: M10, M12

Introduction

Operations management interferes with most processes by which an economic agent is integrated with its business environment. This integration effort often involves substantial changes in the way of addressing both the internal and external environment.

From the perspective of the parallels that can be made between the operational management and the processes related to the internal environment, there is a close connection between the successful management of operations and the management of human resources in its integrity.

The degree of motivation and commitment of human resources is essential to ensure the performance of a well-implemented flow of operations. Depending on the echelon they belong to and the decision-making capacity they have access to, employees exercise more or less control over the actual implementation of the operations. Therefore, their proper motivation produces immediate effects on the volume and performance of the implemented operations.

An interesting connection can be established between organizational culture, its specificity and a successful operations management. It is a well-known fact that there are firms, companies whose main characteristic of the organizational culture is represented by a true “cult” of performance, efficiency. These companies have been able to pass on their own staff a whole range of values centred on individual performances and their synergy toward an organization’s performance. In these cases, organizational culture has become a base, a binder, for developing the skills required for a high performance.

Organizational culture, in terms of the possibility of optimizing the management processes, can have a major influence on the performance of the company, thus contributing to the socialization and integration of new employees, to the activity of promoting, within the organization, some values and behavioural techniques, and the birth of the idea of company affiliation.

Over the past 20 years, there has been a growing pressure on businesses to pay more attention to the environmental and resource implications of the products and services they offer and the processes they carry out [Kleindorfer et al].



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Links between human resources management and operations management field

In order to properly emphasize our research goal regarding the influence of staff behaviour over the operations management optimization process we have conducted a systematic literature review on the topic.

Some of the cultural features seem to affect the operational management strategy (ie institutional collectivism and the avoidance of uncertainty), while the differences between the execution and the improvement of the organizational management are explained by a wider range of cultural features. On the other hand, there were found contrasting results identified, which can be explained by the limited analysis of a contextual variables that interact with the national culture [Boscari et al., 2018].

Organizational culture influences and also changes attitudes, beliefs and behaviours. If they correspond to the company's strategy, we can talk about efficiency and performance. Companies need to develop strong, strategically appropriate cultures that aim to change and adapt to the environment [Gănescu, 2008].

Operational management deepens and implements the general management knowledge in the field of processing function or other organizational functions of the industrial unit, with a view to judiciously manage the resources and adapt production to market requirements. Strategic planning will incorporate all the functions of the organization and will enable its long-term adaptation to the environment dynamic both internally and externally [Bondrea et al, 2010]. The operationalization of the management work, within the procession organization, will become essential for the adaptation to the environment, which can be achieved through its establishment at the level of all the functions and activities carried out. Thus, in any unit we can identify [Dobrin & Moldoveanu, 2016]:

- research and development operations management;
- production operations management;
- commercial activities operations management;
- financial-accounting activities operations management;
- staffing operations management.

The strategic management of modern organizations implies promoting a development model that has evolved from the classical model based on top-down hierarchy to the model characterized by the top-down and bottom-up combined hierarchies, which implies a faster response to the challenges of the external environment.[Gherasim, 2010]

Regardless of the organizing method, the personnel activity has two categories of objectives:



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- long-term strategic objectives, that address the organization and planning of the human resources;
- operational objectives of a technical and administrative nature, which take into account the daily management activities of the working groups.

In terms of staff behaviour, operations management investigates new developments around behavioural components – people’s problems – in operations management. While these people’s problems are not new, operations management has not treated them in a serious or consistent manner in the past 10 years. What is new is the emergence of a set of structured study methods and fields that allow researchers to study the issues within the operations management paradigm [Loch & Wu, 2005].

At the same time, operations management is the overall management of the business in order to achieve the highest possible level of performance within an organization. It has the role of transforming materials and workforce into goods and services in a most efficient manner, the result being maximizing the profit of an organization. To get the highest net operating profit possible, the people who form the operations management team strive to balance the costs and revenues.

Operations management represents one of the five important functions of an organization (**operations** – production **function**) and is in direct connection with the other four: R&D, commercial, financial and accounting and staff and is based on attributes such as forecasting, organization, coordination, training and control-evaluation [Ștefănescu, 2007].

The functions of organizing, coordinating and engaging the staff are presented in the operational stage to meet the objectives included in the organization’s forecasts, plans and programs. This stage corresponds to the operations management that deals with the adoption and implementation of the current decisions, most of them being applied in the production activity.

Of the three functions, the training function has the most prominent operational character and aims at involving the organization’s staff in conceiving and implementing the objectives. Thus, we can conclude that staff motivation is the basis of this training function.

All the strategic and operational activities that are part of the implementation of the organization’s objectives by ensuring, maintaining and systematically and efficiently utilizing the human resources at its disposal constitute the staff function within the economic organizations. In the organizational structure of the companies, the staff function is found in specialized staff departments and other compartments

with adequate tasks, which ensure the management of the human resources. As a result, as already mentioned, the staff of the organization represents its human resources.

The ways of influencing the group behaviour resemble those influencing the individual's behaviour, namely [Mancaș & Jorovlea, 2013]:

–Development stage: It is characterized by dependence on other entities: group members behave formally, distantly.

–The storm stage: It takes place during adolescence and demonstrates rebellion: the members get to know each other, after which the fight for positions within the group begins.

–The rule setting stage: Coincides with that of youth and is determined by stressing self-confidence. The behaviour of group members is increasingly focused on achieving tasks, signs of cooperative behaviours and attention towards others appear, rules of social interaction behaviour are established.

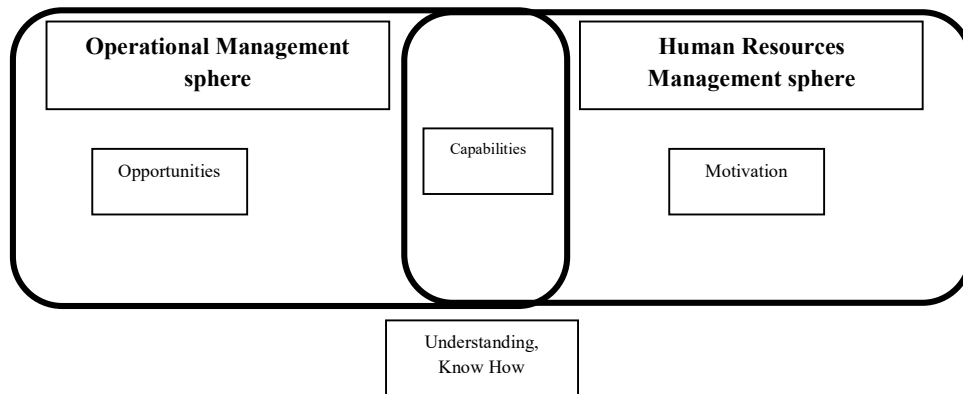


Fig. 1. The relationship between operation management sphere and human resources management sphere

Source: adaptation after Boudreau, J., Hopp, W., McClain, J.O. and Thomas, L.J., 2003. On the interface between operations and human resources management. *Manufacturing & Service Operations Management*, 5(3), pp.179-202.

–Performance, maturity stage: It is dedicated to creative work and performance achievement.



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– The decline stage is associated with pathologies related to the impossibility of growth, to the disappearance of the task or the disintegration of the formation in order to reform it in new circumstances.

From operations management perspective or in modern thinking, people are not recruited and selected to occupy certain positions, they are sought and interested in for what they can provide within the organization.

Intellectual capital is an essential resource for each organization, valuable employees being the promoters of a capital and creativity culture [Gârdan et al, 2018]. Among the current challenges faced by staff departments, we can state: support in maintaining a high standard of employee engagement, keeping employees with superior training and those with outstanding performance, developing an organizational culture that will give the company a competitive advantage, the development of leadership skills to support the company to achieve its business goals and the establishment of a learning environment that meets the employees' development needs through efficient use of technology [Badea & Drăgan, 2018].

Stimulating young employees, involving them in working teams to help them develop new levels of responsibility is also a good way to maintain staff balance within the organization [Pașnicu & Tudose, 2013].

A number of researchers who have studied staff behaviour are looking for solutions to improve results in the technological system. Due to the evolution of the staff's behavioural characteristics, some authors have stated that operations managers will have a higher rate of success in adapting the technology to the staff rather than expecting people to adapt to its specificity.

In order to control the company's operations, managers leave their personal touch on how things are done, finding solutions to the large number of issues faced by the organization.

Therefore, each manager must have psychological knowledge, while psychological knowledge contributes to eliminating the challenges as well as answering to the questions that have arisen. Such challenges mean [Abutalibov & Mammadov, 2010]:

- how to resolve staff conflicts in favour of the company;
- how to resist the psychological influence of partners (collaborators) or competitors;
- the way of accepting the employees and their encouragement to adopt new jobs;
- what kinds of measures can be used if the staff fails to fulfil its responsibilities or fails to fulfil its obligations;
- how to professionally eliminate stress;



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- the best way to resolve conflicts within the company;
- how to motivate and encourage employees.

In a competitive society, the behaviour of the staff seen from the perspective of the operations management is crucial to maintaining a favourable climate in the workplace and, as mentioned above, an important requirement for business success. This is possible thanks to teamwork, through staff motivation and efficient use of communication techniques, all with the goal of constructively managing staff relationships. Moreover, a necessity for the organization is the creation of an overview, people treated equally and a suitable manager. Thus, special attention is given to fresh employees as well to those who need to integrate harmoniously into the work environment and to quickly use their own development potential [Dragomiroiu et al, 2014]. At the same time, an essential aspect is represented by the degree of incorporating a modern training and education system for employees in order to develop new useful competencies. Adult education currently has a multitude of tools that can determine the appropriate evolution of those involved in the “long life learning” [Epuran et al, 2016]. The latest technologies available allow employees to be remotely trained, their easy interaction with a learning environment that simulates reality making thus possible the adaptation in a timely manner to the increased demands of jobs [Andronie, 2014].

In the success or failure of any organization, the staff’s behaviour plays an essential role, and the way in which this organization’s resource is managed is the problem faced by the human resources department that seeks to find the best solution in this respect. Staff’s behaviour at work differs from one person to another, thus resulting a improperly behaviour of the organization’s staff. Both organizational and individual factors contribute to a great extent to this type of behaviour. However, staff’s inappropriate behaviour is a deliberately done action to jeopardize the good work of the organization. Such a behaviour is justified by the fact that the staff is not sufficiently motivated to be able to respond promptly to the requirements of the organization.

The more we maintain a higher level of the labour force, the more the recruitment and training costs will be minimized. Financial rewards are not always enough motivate the staff. In some situations, it may be necessary to motivate staff using other incentives, such as prizes, promotions, actions and staff reductions. It is important for the management and the staff to have effective communication



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techniques, such as e-mail, newsletters or meetings. Communication is particularly important, especially for the purpose of providing feedback to managers, through surveys or even through discussions. It is precisely through these methods of communication that we can find in good time a solution to the difficulties that have arisen, in an alert and efficient manner. Under these circumstances, a constructive and lasting partnership can be created between the manager and the employees to contribute to the success of the organization and to the improvement of the workforce quality.

Staff evaluation is one of the most important components of the staff management system. A decisive factor in the competitiveness of any company is the relevance of studying issues related to staff performance assessment in enterprises from different industries due to the interest in solving the problem of improving staff management, which is increasingly becoming a determining factor in the competitiveness of any company. Each organization strives to keep the best possible records, create conditions for the professional qualification of growth, and at the same time get rid of the inert, low-skilled, unspoken employees. The essence of the problem and the assessment staff must be available and easy to understand for employees as part of the main production and management staff. The ultimate goal should be to use qualified recruiting staff and increase efficiency [Yanchenko & Rosa, 2015].

Both labour outcomes and employee behaviours should be evaluated. The chosen criteria must take into account [Terracciano, 2017]:

– *Organizational Objectives*: Performance evaluation should be organized in accordance with the available information and its usage. Together with the real workload, this will include elements promoted by the organization in human resources policies: creativity, professional development, managerial skills, multiple qualifications, flexibility.

– *Position*: In choosing the tasks to be assessed – those on which the employee has control should be taken.

– *Employee needs*: Facilitating communication between management and employees. Employees are generally interested in promoting opportunities. They may sometimes want to talk about their position or their team, and the inability to address these problems can lead to frustration, dissatisfaction, absenteeism and even resignation.

In operations management, employee stimulation is essential as a factor to ensure the linearity and continuity of motivated productive activities. At the same



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time, stimulating human resources within the company contributes to adding efficiency to the economic and productive process of the unit [Iatagan, Meruță, 2018]. By properly motivating, the intricate value of the human capital within the organization is maintained and even elevated, a thing which can lead to increased competitiveness for the following cycles of activity [Iatagan, 2015].

Conclusion and future directions of research

Organizations have an intense concern about management's involvement in the staff behaviour at work, including about what employees are willing to offer to the organization.

Both the formulation of the staff strategy and policy and the determination of the number of persons needed are indispensable for ensuring an efficient organization of the staffing activity.

The behaviour of the operations staff is closely related to staff's motivation at work, a thing that contributes significantly both to the improvement of production processes and to maintaining a harmony between management and staff.

Nowadays, staff behaviour seen from the perspective of the operations management is responsible for the organization's evolution and, in particular, for the level it manages to reach as a business. This behaviour can be optimized and should be optimized by means of a variety of tools that have as leitmotif increase of the engagement, self-motivation and involvement of staff, especially the operational one. A healthy organization is defined by the ability to react promptly to changes in the business environment and by a perfect balance between the operationalization of efficient management principles and strategic goals and interests. Limitations of the present article are related to the fact that most of the findings and ideas exposed are based mainly on a review of the literature in the field. A quantitative type research applied within different categories of companies can test the relationship between a group of variables that are defining staff behaviour and another group of variables that are defining optimised operations management processes. Testing hypothesis regarding the statistical influence between the two groups of variables over a proper sample of companies can be very helpful in order to understand more deeply the research agenda regarding the link between the above mentioned concepts – human resources management, employee's behaviour, beliefs and commitment and optimisation of operations management within a company.



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Another future research direction can be also a qualitative type research that should be done using a sample of managers from different companies using the in-depth interview technique, research that have as the main goal testing attitudes and perceptions of managers regarding the way in which operations management implementation within a company is depending on the specific employees behaviour, level of commitment and motivation. In addition to other areas of application of a company's management, operations management require specific involvement from apart the staff which technically has to do with the flow of operations itself. Testing managers opinion on this matter could bring new insights regarding the way in which modelling staff behaviour can alter positively results regarding operations management process.

We need to make sure that all progress in operations management theory leads to research that is both scientific and relevant [Walker et al, 2015].

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THE OPINIONS AND PREFERENCES OF THE EUROPEAN BUYERS ON THE FURNITURE AND FURNITURE ACCESSORIES MARKET

Beatrice Georgeta PETRACHE (LANG)¹,
Camelia Maria ISMANĂ-ILIȘAN², Raluca CREȚOIU³

¹ *Transilvania University of Brașov, Inter-disciplinary Doctoral School,
B-dul Eroilor No. 29, Brașov, România, Tel.: +40268.413.000,
Fax: +40268.410.525, Email: b.petrache@simausrom.com*

² *Transilvania University of Brașov, Inter-disciplinary Doctoral School,
B-dul Eroilor No. 29, Brașov, România, Tel.: +40268.413.000,
Fax: +40268.410.525, Email: cismana@yahoo.com*

³ *Spiru Haret University, Faculty of Economic Sciences, Fabricii Street,
No. 46G, Bucharest, 030045, Romania, Tel.: +40212.169.793,
Fax: +40213.169.793, Email: raluca.cretoiu@yahoo.com*

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Abstract

In this article we aim to analyze the preferences and opinions of European furniture buyers in the context of Germany, Italy, Poland, France and Austria being among the top 10 world furniture manufacturers, accounting for over 19% of the world production and 60% of the European one. We have developed this research given that the furniture industry is an important sector in the economy, employing about one million people at the level of the European Union, in 130,000 companies in the field. The furniture segment is also well represented in the field of innovation also, accounting for 12% of the applications for design registration in the European Union Intellectual Property Office (EUIPO). This



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also reflects on the production of furniture, currently 2/3 of the world's leading peak production coming from Europe. The research is of a quantitative nature, the technique adopted is the interview, and the research tool is the questionnaire. The purpose of the research is to identify the way and the level at which European consumers' value furniture accessories in the general context of furniture quality assessment in conjunction with the need for accessory information.

Keywords: *accessories; furniture; European market; furniture industry*

JEL Classification: M31, L68

Introduction

European furniture production has a high level of sophistication and, in the opinion of some specialists, a certain cyclicity, being sensitive to the economic circumstances [CSIL, 2014]. After overcoming with great difficulties the economic crisis that arose 10 years ago, the European furniture industry is in the process of being revived, existing at the EU level a set of 19 measures envisaged with the purpose to promote the quality of furniture, of which five compulsory mechanisms, six optional ones and eight voluntary ecolabels. Although they are aimed at market transparency and consumer awareness of decision-making, these measures are strongly different from one another.

The European furniture sector, in the world market, is advantaged by its renown and its production oriented towards the top segment. Internally, there are significant opportunities for most European countries. A condition for their exploitation is the uniform development of the sector and the avoidance of consolidating a position which is limited to the supply of raw materials, semi-finished products and products for the lower sector. For this, attention needs to be focused as well on research and the development of innovative products.

The quantitative research realized and presented in this article has as references the hypotheses generated by a previous qualitative research and aims at identifying the way and the level at which European consumers value furniture accessories in the general context of the furniture quality assessment in combination with the need for relevant information regarding the accessories.



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Through this quantitative research, we intend to verify the hypotheses resulting from the qualitative research, namely to ascertain whether the opinions expressed by the major European furniture producers and traders are in consonance or, as the case may be, in dissonance with the actual behaviour of the consumers and their attitude in relation to furniture accessories, as they are considered items more or less important within the purchasing decision.

Literature Review

Consumer behaviour is reflecting the way in which different attitudes and opinions can affect the decisional process of customers taking account of particular situations over different markets and product/services types. As regarding furniture products consumption, the factors that are influencing buying decisional process and consumption are both from the individual, psychological layers of the consumers personality and from the external, cultural and economic influence.

Urban type consumers are developing cultural traits that predispose them to consumption models based on performance and self-management of time [Gârdan, et al., 2016].

Consumers have access to different information on a large scale due to the development of new communication technologies. From this respect, in the furniture industry a growing role for communicating the right amount of information have the labels used for products. In a research made on 26 subjects regarding the visual attention and perception on environment, workers respect and customer health, results have been showing that significant differences appear regarding the time spent looking at label areas and the impact in decision and consumption [Pérez-Belis, et al., 2018]

Competition among furniture producers and retailers has tremendously risen in the last years, as well as globally and on European local market. From this point of view, the effort to differentiate and obtain a certain position on the market is crucial for the optimization of the relationship with customers. Techniques of visual merchandising have been employed, consumers being sensible to this technique. For furniture products studies have been showing that eye-catching windows display, temperature, fragrance, lighting and music, room setting display, merchandise display, fixtures, signages, accessories and store front are the factors that influence most the decision of customers and their in store buying behaviour [Mehta & Chugan, 2016; Wan & Toppinen, 2016; Oblak, et al., 2017]. Other studies have



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shown that different elements of visual merchandising are affecting more product categories, like furniture and apparel. Window display affects the buying behaviour for both categories of products, the same with front store design, shelf display and creative combination of colours [Mehta & Chugan, 2016; Jang, et al., 2018].

An important trend on the furniture global market is represented by the development of technologies such as internet of things, big data analytics, cloud computing etc. All these are having implications on the development of new models for e-commerce logistics and supply chain management, offering all kinds of possibilities to consumers and retailers alike [Yu, et al., 2017; Barčić, et al., 2016].

As regarding other factors that are shaping future trends of furniture consumption, we can assess the effort of furniture retailers to improve the environmental sustainability through the adoption of production systems, global international standards and modern innovative practices that are able to conserve required natural resources. [Zutshi, et al., 2016]

The new shape of consumer preferences about materials and new furniture accessories are showing that modern consumers are orienting themselves towards lightweight furniture and the use of lightweight wood-based materials in furniture design. [Knauf, 2015]

Consumers in the field of furniture production and retail are developing otherwise consumption models that are characteristic for the circular economy. The implementation of different business models in this context offers the possibility to the producers to achieve a sustainable development and consumption [Cheng, et al., 2018; Osburg, et al., 2015; Militaru, 2010].

Among business approaches that are optimizing also the consumption and sustainable production of furniture products we can mention life cycle optimization through an optimized transport system and the use of alternatives raw materials during the manufacturing of medium density particleboard [Iritani, et al., 2015; Liker, et al., 2016]. Retailers and furniture producers as well are developing new ways of staff management as qualitative managerial and executive staff is a prerequisite for improving the company competitiveness [Stefanov, 2017; Loučanová, et al., 2018], as an important part of the customer satisfaction being delivered by a modern trained staff.

Modern consumers are developing a behaviour based on the speed of information processing and concern for a sustainable consumption [Ivasciuc & Epuran, 2015; Tescașiu, et al., 2018]. Loyalty and the emotional attachment



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towards brands are built on variables that are concerning the differentiation among competition in terms of staff support, creativity and innovative design [Cătoiu, et al., 2012; Oke, et al., 2016].

Theoretical Background

The quantitative research was conducted by sample type survey, and the questionnaire was used as a tool for data collection [Cătoiu, 2009]. Initially, the study was designed to be carried out on a sample of 500 people, without being representative for the entire population of the European Union given the size of the sample and the chosen sampling method [Harris, 2014]. Due to some difficulties encountered, especially in terms of costs, the vast territory to be covered and the high rate of non-responses in the online environment, 389 questionnaires were actually administered and completed.

The questionnaires were administered directly at the entrance to four large hypermarket stores located as follows: two in Austria (Linz and Vienna), one in Germany (Passau) and another in Switzerland (Lausanne). These stores sell furniture from most European countries. Thus, the researched population is made up of the visitors of the major stores specialized in the sale of furniture, over 18 years of age. The sampling was a non-probabilistic type one [Bernecker, 2013] given that it was not possible to establish a measurement step or other method to give each survey unit the chance to be part of the sample [Malhotra, 2002], but only an estimate of time, respectively an individual every 30 minutes.

The purpose of the research was to identify the way and the level at which European consumers' value furniture accessories in the general context of furniture quality assessment, combined with the need for accessories related information.

The overall objective of the research was to determine consumer's orientation regarding the importance of furniture accessories in furniture valuation and in the decision-making processes of purchasing furniture produced in the European space.

The specific objective of the research was to achieve the profile of the European furniture buyer, having as the central reference element (pivot) the preference for accessories.

The overall hypotheses of the research, as derived from the previous qualitative research, are:

H1. Consumers differentiate furniture produced in Europe by material quality, accessories and design elements;

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H2. European consumers perceive the importance of technology and know-how in furniture manufacturing at a high level;

H3. European consumers prefer to address specialized retail shops rather than directly to furniture manufacturers;

H4. Non-European furniture is increasingly preferred by buyers on the EU market due to the progress in terms of quality and design;

H5. European buyers view accessories as essential elements in the decision to choose and buy furniture;

H6. European buyers use the brand as a risk mitigation method before buying;

H7. European buyers increasingly prefer metallic accessories that make the connection with the natural environment (rust-like, metal-like aspect, made of sandblasted or mat metal) instead of glossy metals;

H8. The presence in the promotional messages for furniture of information and images containing accessories is in line with customer's expectations.

The research questionnaire contained a total of 12 questions, of which eight referred to aspects about the hypotheses presented, the others focusing on certain aspects regarding the purpose of the store visit and the age, the income and the house of each respondent.

The collected data were centralized and sorted into the Excel program, and the analysis and interpretation were performed by similitude and differentiation, depending on the opinions expressed through the answers.

Results and Discussions

The interviewees offered the following answers at the shops' entrance about the purpose for which they came to the store (Fig. 1):

The interviewed consumers differentiate European furniture from the one produced outside the European borders, as such:

– Between 63% and 73% (an average of 70%) of the respondents say that they easily recognize the quality and design elements of the European furniture, between 16% and 19% (an average of 17%) say they recognize only part of the furniture, seeking additional information for a better recognition, and 13% of the respondents do not recognize the European furniture, but they also look for information to identify it.

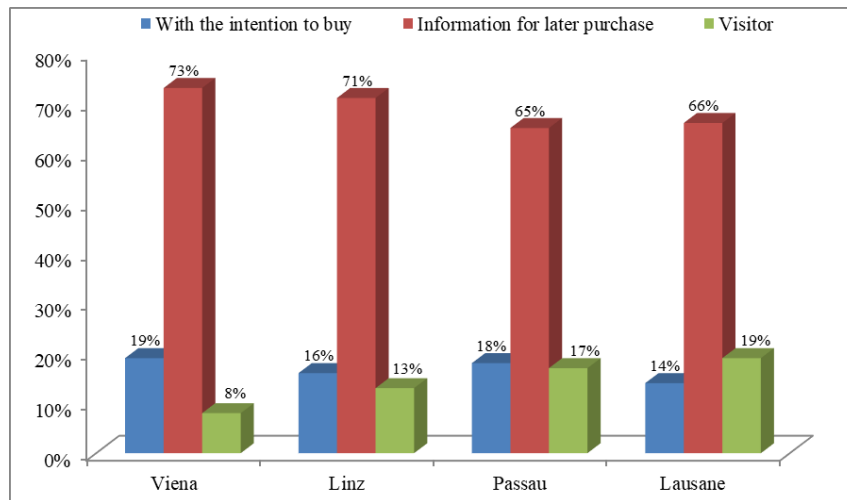


Fig. 1. Distribution of interviewed people according to the purpose declared at the store entrance

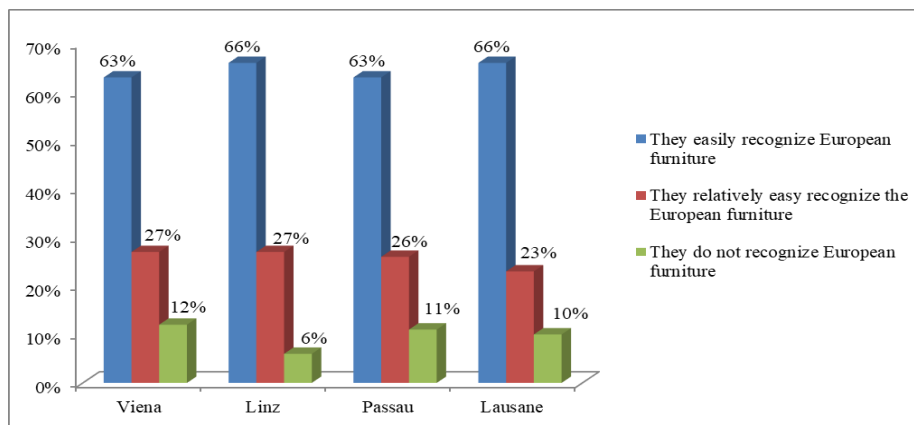


Fig. 2. Distribution of respondents according to the European furniture recognition degree

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Relevant to this research is the fact that – among the respondents who recognize European furniture – between 35% and 47% (an average of 38%) indicate accessories among the elements of quality and design, the other quality reference elements being shown in figure 3.

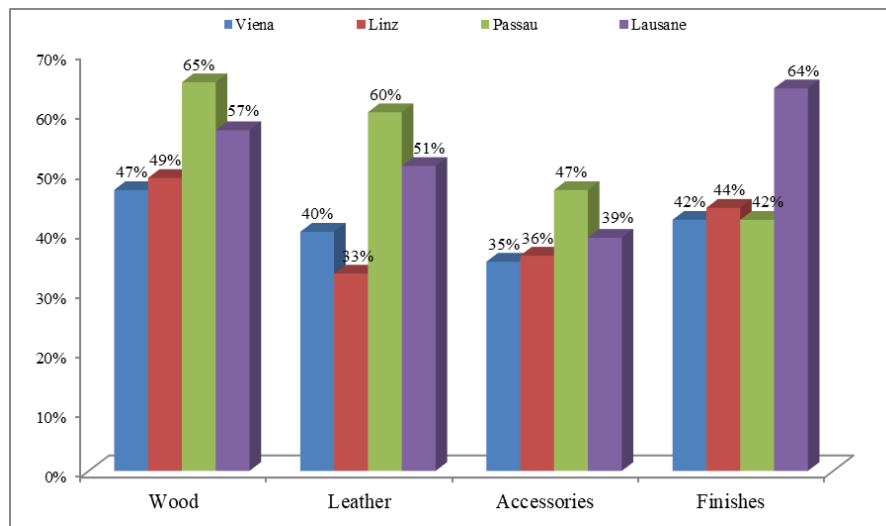


Fig. 3. Distribution of respondents according to their preference for materials, accessories and finishes

The interviewees use as elements of furniture differentiation, apart from the above-mentioned ones, the specific European design (between 73% and 89%), the brand (between 64% and 74%), as well as other non-listed criteria (between 6% and 9%).

This analysis shows that most consumers differentiate furniture made in Europe by quality of materials, accessories and design elements. Accessories hold an important place in the overall furniture evaluation, i.e. about 40% on average, which is a confirmation of the value created by the producers at a level that is superior to their effort resulting from the qualitative research, i.e. about 17%.

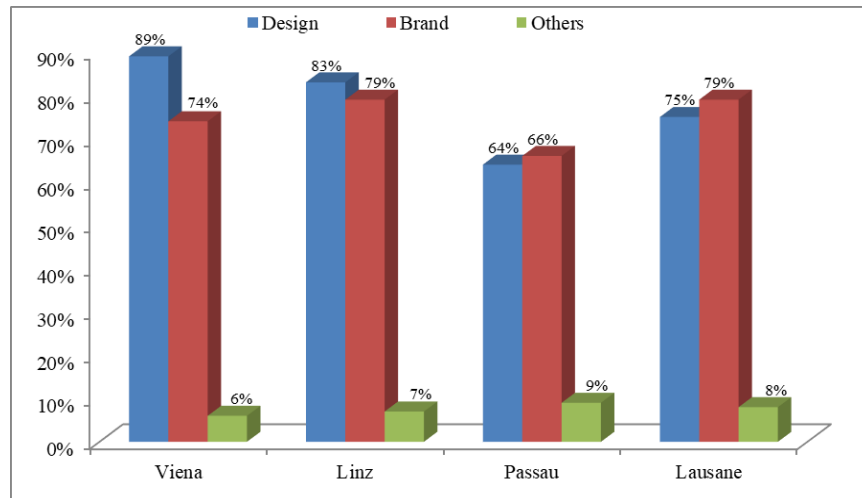


Fig. 4. Distribution of respondents according to the importance given to furniture design and brand

Hence, the H1 general hypothesis, according to which consumers differentiate furniture produced in Europe through quality of materials, accessories and design elements, is accepted. H5 hypothesis, according to which accessories play an important role in the appreciation of the furniture and in the purchasing decision, is accepted as well.

As far as consumer's opinions regarding the elements that make up the value of European furniture are concerned, they are oriented towards know-how and technology, with very small differences, as shown in Figure 5.

It can be noticed that the H2 hypothesis, namely *European consumers perceive the importance of technology and know-how in furniture manufacturing at a high level*, is confirmed and accepted, given that, on average, about 49% of the respondents appreciate the know-how elements and 45% the technology, the other aspects being insignificant.

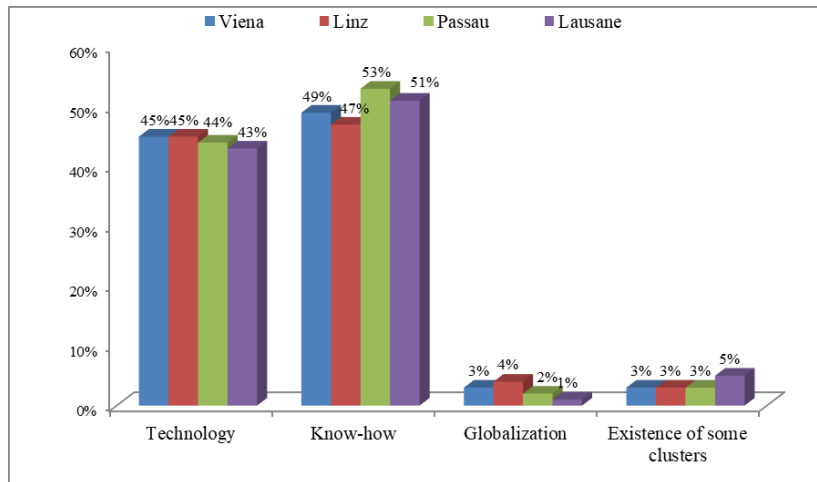


Fig. 5. Distribution of respondents according to their perception regarding the role of technology and know-how elements in furniture manufacturing

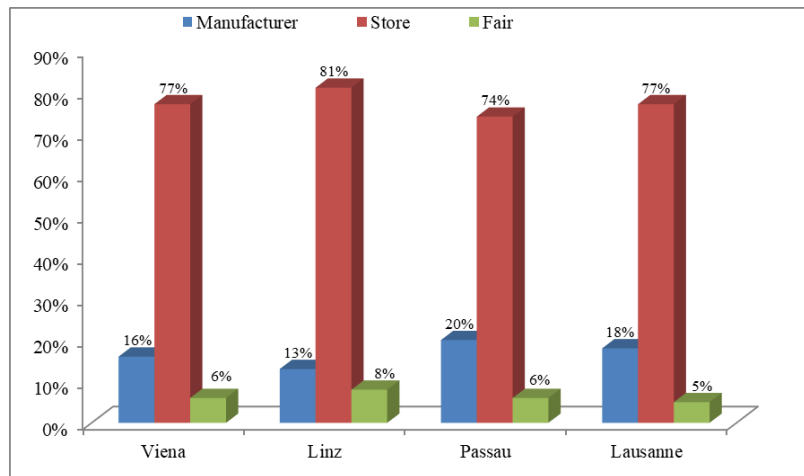


Fig. 6. Distribution of buyers depending on where they prefer to buy furniture from

We also find the existence of the prerequisites for accepting the H6 hypothesis, according to which consumers use the brand as a risk mitigation method before the purchase, in that the brand is mentioned as an important element of positioning the furniture. Respondents preferred places to buy furniture are specialized store, followed by factory store and fairs (Fig. 6).

From this analysis it follows that **the general hypothesis H3, according to which European consumers prefer to address retail specialized stores rather than directly to the furniture manufacturers, is accepted.**

Although managers see the quality of the non-European furniture marketed on the European market as rising, consumers perceive the price as a central element of competitiveness that could determine them to buy such furniture (Fig. 7).

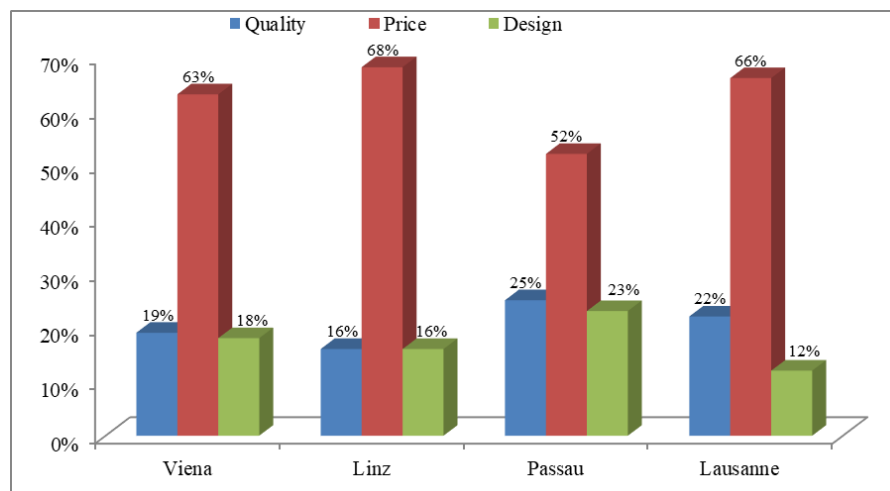


Fig. 7. Perception of the quality, price and design of non-European furniture at the level of furniture buyers

Producers' perception is a technical one, and the quality threat is real, as it results from the qualitative research implemented earlier. In response, consumers' perception has an economic foundation and, as a result, is first directed towards prices that are significantly lower in Asian furniture, at least.

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Synthesizing, we believe that **the H4 hypothesis, *Non-European furniture is increasingly preferred by buyers on the European market due to the progress made in quality and design*, is rejected in terms of the two elements, but it is accepted in terms of price, according to the options expressed by the interviewees.**

From our point of view, which is based on technical assessments, this hypothesis can be accepted, as furniture coming from the Asian countries, especially from China, is of increasing quality, this aspect not being reflected directly proportional into the price, which is why buyers still perceive price as a central element for the competitiveness of the non-European furniture, as it was found in the H3 hypothesis.

Regarding the importance of accessories in the purchasing decision, the answers have the following distribution (Fig. 8.)

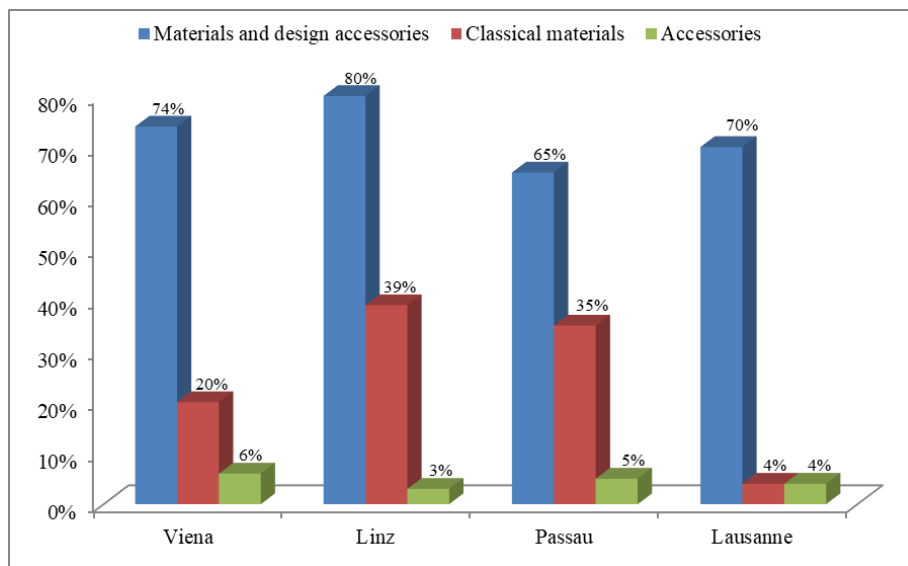


Fig. 8. Distribution of answers regarding the importance of accessories in the purchasing decision

It is found that a significant percentage (74%) associates within the product the three elements, including accessories, in order to make a decision, and the

accessories alone are decisive in the selection process of only 5%. The conclusion that can be drawn from this is that most buyers consider the accessories as important to the idea of product as the so called “basic” materials and the design. **We believe that the H5 hypothesis, according to which *European buyers view accessories as essential elements in the decision to choose and buy furniture, is accepted / confirmed.***

Most respondents stated that the brand is the main element that gives them confidence when they decide to buy furniture. The association between brand and price is natural, the price being second in weight, this fact signifying the relative importance of the price in the purchase decision and not necessarily its use as a risk mitigation method (Fig. 9).

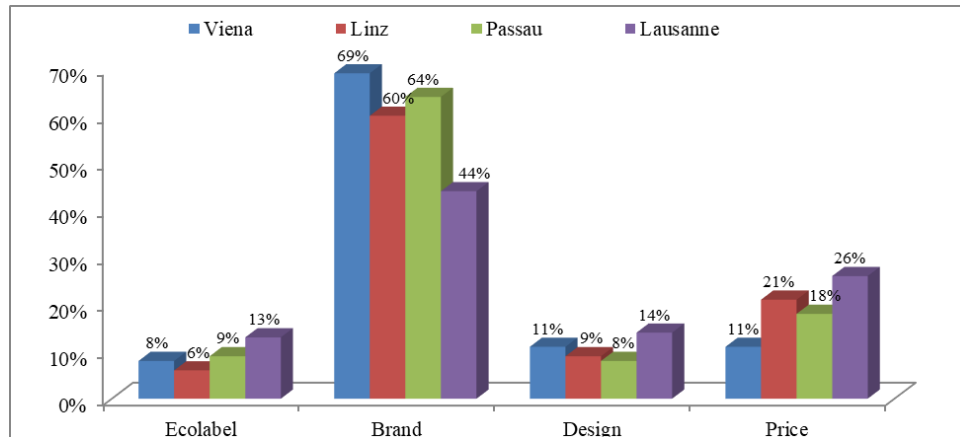


Fig. 9. Distribution of responses regarding the elements used by buyers as risk mitigation elements before buying

It follows that the H6 hypothesis, according to which *Buyers use the brand name as a method and risk mitigation element before the purchase, is accepted.*

Regarding the materials of which they prefer the accessories to be made, the desires of the potential buyers are predominantly oriented towards the mat and the seemingly “rusty” metal (Fig. 10).

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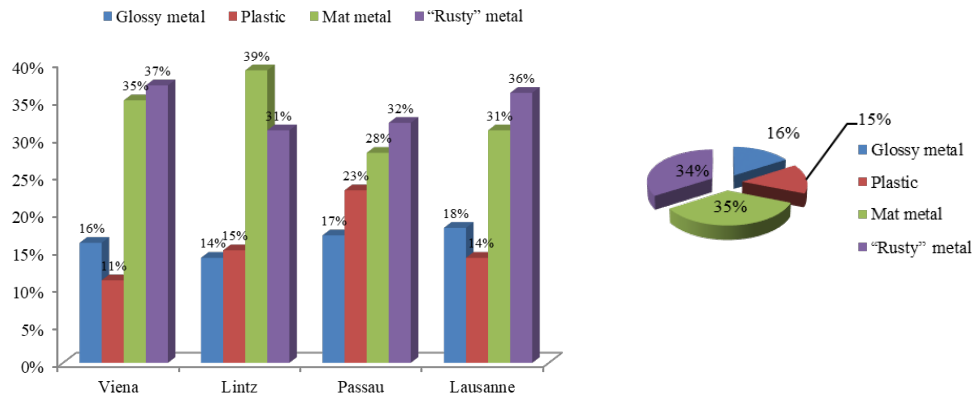


Fig. 10.a. The main materials preferred by buyers for the accessories

Consequently, the H7 hypothesis, according to which *European buyers increasingly prefer metallic accessories that connect with or suggest the idea of originality and naturalness (rust-like, metal-like aspect, made of sandblasted or mat metal) instead of glossy metals*, is accepted.

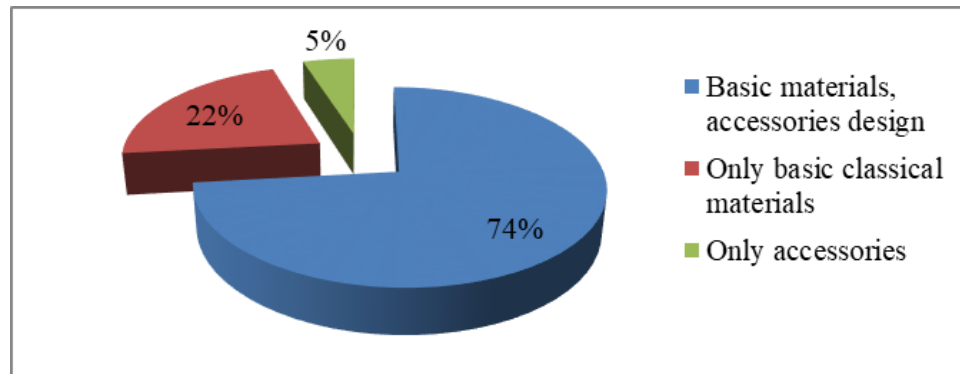


Fig. 10.b. Distribution of responses regarding the availability of accessory information in promotional materials

The presence in the furniture promotional messages of some information and images containing accessories in accordance with customers' expectations is considered in qualitative research as a referential element, detaching itself as a hypothesis for quantitative research. Analyzing the answers expressed, there is a buyers' concern for finding complete and conclusive information about the furniture, including about the accessories.

Thus, it appears that most of the respondents appreciate the furniture accessories together and at the same level with the materials considered classical in the furniture industry (wood, leather, textiles, etc.).

In this context, **the H8 hypothesis, according to which *The presence in the furniture promotional messages of information and images containing accessories is in line with customer expectations, is accepted.***

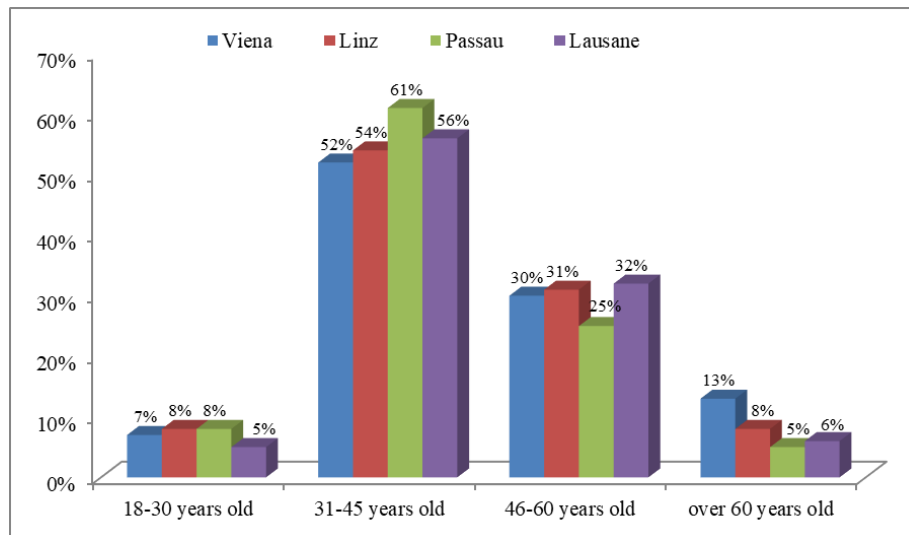


Fig. 11. Distribution of respondents by age

From the overall analysis of the results obtained and their significance, it results that the qualitative research carried out led to a series of plausible hypotheses,

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which were fully confirmed through the quantitative research, which demonstrates that the producers and the big traders know consumers preferences, adapt to those, and sometimes anticipate them.

The distribution of respondents by age can be seen in Fig. 11.

We discover that the largest share of visitors is held by those from the 31-45 years age group, a thing what we consider to be normal, given that concerns about space furnishing are correlated with the age and income available within this category.

From the declared income point of view, we find the following distribution of respondents (Fig. 12):

Visitors with an income between 2,001 and 3,000 euros hold the largest share, followed by those with incomes between 1,001 and 2,000 euros. In terms of housing, over 50% of visitors said they live in a house (Fig. 13).

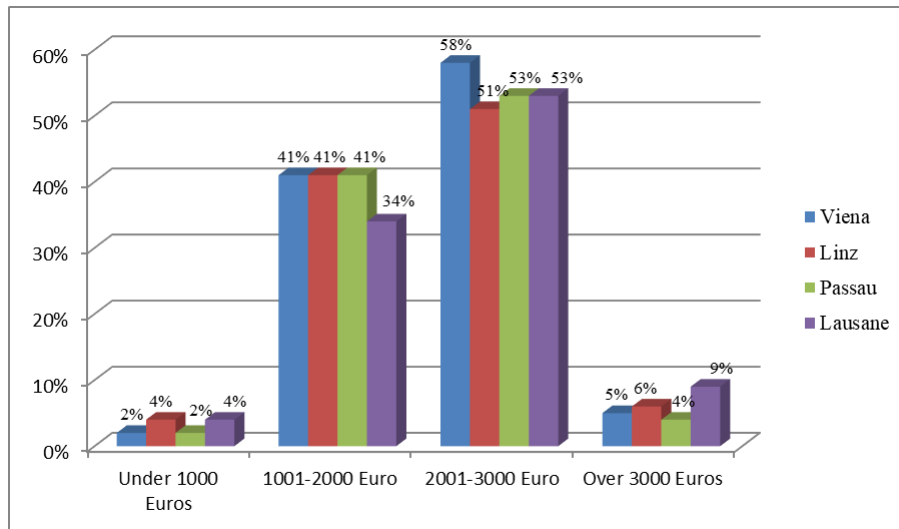


Fig. 12. Distribution of respondents by income

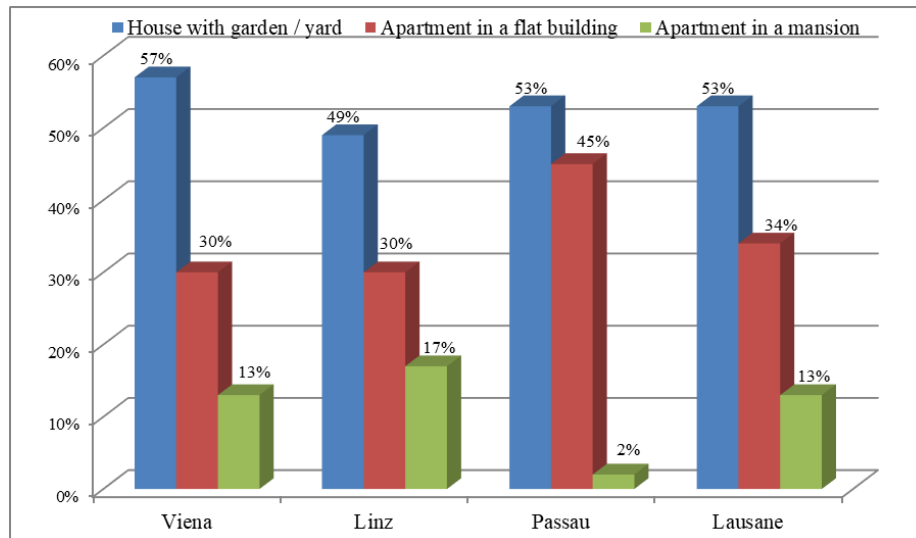


Fig. 13. Distribution of respondents by dwelling

More than 30% of the respondents say they live in an apartment located in a flat building, the rest say they live in apartments located in mansions. This is due to the fact that a large number of visitors came from neighbouring areas, small towns and periurban localities, respectively.

The Profile of the European Furniture Buyer

Based on the distribution of responses from each questionnaire and using the sorting and calculation functions available in Excel, the profile of the European furniture buyer has been developed, with the pivotal preference for accessories, respectively the importance of accessories in the purchasing decisions correlated with the type and appearance of the material from which they are made.

Thus, of the 389 respondents, 38% consider accessories as important quality elements of the furniture and make the decision of purchasing taking into account as well this aspect. They easily recognize European manufactured furniture, they consider the brand an important element in mitigating or even eliminating the pre-



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purchase risk, they recognize and appreciate the role of technology and know-how in European furniture production, they are aware that non-European products are making good progress in terms of quality. Most of these buyers fall into the 46-60 years age group (57%), followed by the 33-45 years age group, with the other categories accounting for almost 10 per cent.

Of the respondents in the 46-60 years age category, 61% have an average monthly income between 2,000 and 3,000 Euros and 11% have an average monthly income over 3,000 Euros. Of the age group of 31-45 years, 42% have an average monthly income between 2,001 and 300 Euros and 23% have a monthly income of more than 300 Euros. Of the respondents who appreciate the accessories and take them into account in the purchase decision, 63% are women and 37% are men, 59% live in a house, 14% live in a flat building, and 27% live in an apartment located in a mansion.

In this context, the profile of the European furniture buyer from the big stores, which appreciates the accessories in the general furniture evaluation, is the following:

- A person aged between 36 and 60, with an average monthly income of more than 2,000 Euros, mainly uses the brand for mitigating perceived risk, is well acquainted with European furniture, has confidence in technology and know-how in the manufacturing process, is not willing to buy non-European furniture just because it is cheaper.
- Seeks information that is consistent with their appreciative approach, that is, information that does not present materials and design in isolation, but which integrates furniture accessories into the whole of the product.

Conclusions

Research shows that furniture accessories acquire valences that harmoniously integrate into the value chain and implicitly into consumer's perception. Over 38% of the interviewed consumers consider the accessories to be as important as the so called "basic" materials, such as wood, leather, textile etc. Equally, accessories are desired and appreciated by consumers as elements that complete the furniture's aesthetics and design. Consumers appreciate European furniture alike in terms of materials and design, as well as technology and know-how. The technological aspects are appreciated at the level of finishes, style and accessories, the latter incorporating increasingly sophisticated and complex technologies. Quantitative research also reveals a number of managerial implications, especially in the

management of the product-market portfolio, by integrating accessories into the overall furniture as a basic element that contributes to the ergonomics, operation and design of the products.

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**DOCTORAL AND POSTDOCTORAL
PAPERS**

THE DEVELOPMENT OF MARKETING IN TOURISM INDUSTRY

Bogdan SOFRONOV¹

¹ *University Politehnica of Bucharest, 313 Splaiul Independenței, Bucharest, 060042, Romania, Email: bogdansofronov@yahoo.com*

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Abstract

The purpose of this paper is to show how marketing in developing and changing the tourism industry in the world.

Tourism marketing is the business discipline of attracting visitors to a specific location. Hotels, cities, states, consumer attractions, convention centres and other sites and locations associated with consumer and business travel, all apply basic marketing strategies to specific techniques designed to increase visits.

In the tourism industry, marketing includes determining the unique selling benefit or benefits one area has over its competition. A destination might offer people looking to combine business and pleasure ease of travel to and from the area, ample convention halls and hotels, interesting nightlife, and activities for adult partners and children.

The tourism marketing uses a wide variety of communications strategies and techniques to promote areas and destinations. A convention centre might purchase advertisements in trade magazines for meeting planners and send direct mail materials to corporations that hold events. They might place ads in tennis or golf magazines to attract those consumers. The tourism destinations build websites and place ads in consumer publications read by their target customers. The chambers of commerce are involved in promoting their areas generally and the businesses within their areas specifically. This often includes offering potential visitors packets filled with brochures, discount coupons and other materials.



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Keywords: *development; marketing; tourism; tourism industry; international tourism*

JEL Classification: Z30, Z32

Introduction

Marketing in the tourism industry is defined as the policy promoted by a tourism enterprise which, by constantly exploring the conditions of the tourism market, both present and future, aims to determine the continuous adaptation of its own offer to these conditions in order to optimally satisfy requirements and the realization, on this basis, of a cost-effective economic activity.

Marketing in tourism requires a good knowledge of the exigencies and trends of the market, the orientation of the supply of tourism products according to the size and structure of the demand, the establishment of a price and pricing strategy, a distribution platform, the use of effective tools for promoting the tourism product, estimating sales opportunities by seasonality.

Marketing in the tourism industry include all the measures by which the management of a tourism company can explore the product-market relationships by organizing and directing on their basis all the economic activities that are considered necessary to evaluate the potential customer and transform it into a actual demand for a particular tourism product, as well as its supply to the costumer in order to achieve the expected profit and other objectives set in the development programs of the tourist units.

The tourist market is made from a network of segments, from certain categories of clients with preferences, desires, needs and own reasons. For this reason, the tourism market can be differentiated by many tourism categories to develop suitable marketing strategies.

Literature Review

My research paper entitled: *The development of marketing in tourism industry*, is written after I've documented on the basis of the following published articles:

1. "The Relationships among Experiential Marketing, Service Innovation, and Customer Satisfaction – A Case Study of Tourism Factories in Taiwan" written by Tsu-Ming Yeh, Shun-Hsing Chen and Tsen-Fei Chen and published in *Journal of Marketing for Sustainable Tourism*.



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2. “The Implementation of the Marketing Communication Mix Using Internet Platforms on Turkish Cypriot Hotels” written by Zead M. Alhawamdeh and published in *International Journal of Business and Management*.

3. “Implementation of Corporate Governance Mechanisms in Tourism” written by Fuad Jabbarov and published in *Annals of Spiru Haret University. Economic Series*.

4. “Developing Inter-Organizational Relationships with Online Travel Agencies (OTAs) and the Hotel Industry” written by Cherry Huang Yin, Edmund Goh and Rob Law and published in *Journal of Travel & Tourism Marketing*.

The Development of Marketing in Tourism Industry

Every marketing effort should begin with a plan, and tourism marketing is no different. The marketing plan is your road map and details the attractions in your area. It forces you to set a budget on your promotional spending. At the end of each tourism season, you can use your marketing plan to set goals and make changes for the next year. [Chron, 2019]

If revenue at one attraction did not meet expectations, perhaps it needs product development – some upgrades to make it more appealing to visitors – or better advertising. [Chron, 2019]

Tourism marketing can be expensive, particularly if you want to attract national or international tourists. Typical funding sources are state tourism agencies and taxes, including hotel taxes. If there are several tourist attractions in a specific county – or across several neighbouring counties –, the entire area can be marketed to potential visitors as an appealing weeklong destination by combining advertising and other marketing activities. Partnerships can provide tourists with a fuller travel experience. [Chron, 2019]

Marketing in the tourism industry has distinct characteristics from other marketing plans. Because tourists are temporary, they are exposed to an area’s goods and services for shorter periods. But tourists are counting on having a good time, so marketers should consider strategies that appeal to the emotions, such as treating kids to a memorable experience. [Chron, 2019]

Tourism-dependent businesses rely on other organizations. One example of leveraging this dependence would be a musical venue offering discount coupons for meals at a nearby restaurant. [Chron, 2019]

Tourism does not only mean travelling to a particular destination but also includes all activities undertaken during the stay. [Gupta & Mirjha, 2016]



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Combining tourism with volunteer opportunities is another tourism marketing strategy that appeals to many tourists. Popular both domestically and abroad, such volunteer tourism can range from repairing schools on American Indian reservations to installing water systems in poor communities. [Chron, 2019]

Promoting sustainable tourism efforts also appeals to environmentally conscious travellers. Sustainable tourism emphasizes a balance on tourist activities and the effect it has on its surroundings, such as the environment. Practices include such things as energy-saving upgrades, environmentally friendly products and signs and even limiting the number of visitors to outdoor areas. [Chron, 2019]

In essence, marketing communications is contemporarily a collective terminology used to refer to all the communications functions applied towards successfully marketing a service or product. [Alhawamdeh, 2019]

Tourism industry can also establish promotion mechanisms for marketing and create more opportunities for development through cooperation with local festive and cultural events, horizontal alliances, and resource integration. [Yeh, et al., 2019]

Modern market trends in the world, in the process of constant volatility of market conditions, supply and demand, contribute to the development of certain mechanisms to counter the recession. [Jabbarov, 2018]

Tourism marketing keeps up with the dynamic evolutions and the demands of tourism industry in relation to the diversity of tourism marketing in modern organizations. [Kasemsap, 2015]

Tourism marketing helps tourism product and service providers promote their businesses, brands and destinations. This type of marketing can be quite expensive, particularly if the aim is to attract national or international tourists. So, forming partnerships lowers marketing costs for individual tourism product-providers. [Novelus, 2019]

Tourism is often a part of the leisure activities. In this sense, marketing in tourism is part of a broader activity, called free-time marketing. [Novelus, 2019]

On that note, we think that marketing in tourism has an important role to connect the tourism product-providers in one integrated network. Our tourism marketing strategies and methods are based on relationships between tourism market-operators and the characteristics of the tourism product itself. [Novelus, 2019]

Promoting the global marketing policy of a tourism company, based on optimal efforts, involves a coherent set of action practices, based on specific programs.

Tourism industry goes hand in hand with Digital Marketing. The new generation of travellers no longer just rely on local agencies to help them decide



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where to go. Gen Z people are getting inspiration online via various channels including Facebook, YouTube, Instagram and many other travel channels. [Nilead, 2019]

There is no doubt that Digital Marketing is used by so many businesses of different industries and has proven its worth in delivering many more leads to them. And of course, more leads mean more business and more business means more profit. The tourism industry is no different and has adapted well on the realm of digital world to increase their brands' awareness and be able to reach more possible customers as much as they could. [Nilead, 2019]

In the advent of today's digital age, the importance of Digital Marketing for businesses has grown and the travel industry did not let this opportunity slip away. By going online, the travel business agencies can now implement different activities to make them known, reach a lot of people all over the world and tell them exclusive offers and post ads that will make every person watching want to head out and start planning for a getaway. Truly, the influence of Digital Marketing transcends borders which allowed the travel sector to entice people from all over the world of the different places they can visit. [Nilead, 2019]

The tourism industry is undeniably one of the first that was affected as the world migrated to digitalization. The competition was all about coming up with the best strategy and utilizing it to make a successful trip and worthwhile experience to all their patrons. The better they do it, the more loyal patrons they can have and the more the profit increases. But of course, Digital Marketing does not only stop in making sure travellers can have the best pre-trip experience, it also covers the in-flight and destination marketing. Digital Marketing is a guide for travellers to get the best of their travel experience. [Nilead, 2019]

A successful Digital Marketing in the Tourism Industry should not just stop in enticing guests to buy travel deals. To create a successful one, you should include the strategy in the three phases of travel so that you can bring your guests back to you and gain their loyalty. Remember, taking good care of your guests is the key to keep them on your side. [Nilead, 2019]

Booking by mobile continues to increase – the customers prefer to self-serve in order to get the information that they need. [TrekBlog, 2019]

Many businesses have enjoyed great successes by investing in Digital Marketing. Whether you are a ticketing office, a hotel reservation company, a booking company for restaurants and bars or a travel package provider, we assure you that you can make

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use of Digital Marketing in a way or two. Whether or not you will be successful, all depends on the way you plan and implement your strategy. An experienced Digital Marketing Agency can certainly help you to properly plan and get things up and running, but in the end everything relies on your effort and commitment into making Digital Marketing work for you. To give you an idea of how some travel and tourism agencies are making use of Digital Marketing. [Nilead, 2019]

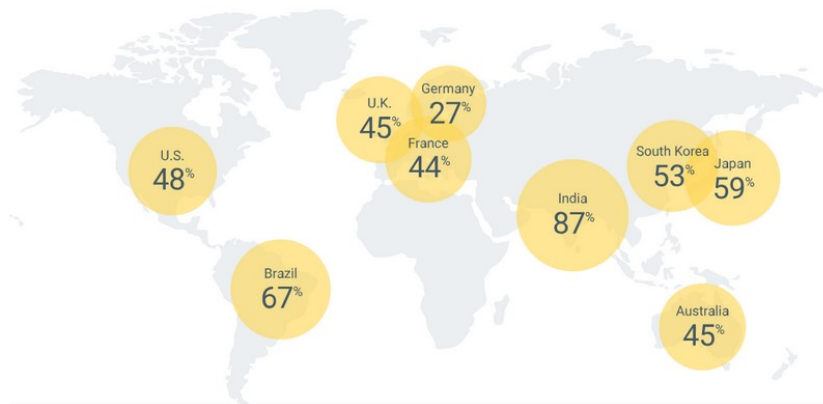


Fig. 1. Booking by Smartphone in 2018

Source: *Travel Statistics to Know about in 2018 and 2019*, accessed February 27, 2019, <https://www.treksoft.com/en/blog/65-travel-tourism-statistics-for-2019>

The Importance of Marketing in Tourism Industry

A solid marketing strategy is crucial in any business and the tourism industry is no different. [WildWeb, 2019]

Tourism is one of the fastest growing industries in the world and is also one of the best ways to boost a country’s economy. With more and more destinations realising this and seeking to attract more tourists, the industry is becoming increasingly competitive. This is why it’s now more important than ever to ensure that your marketing strategy is up to scratch. [WildWeb, 2019]

The reasons why a good marketing strategy is vital to the tourism business are [WildWeb, 2019]:



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– Identify the ideal target market. The first step to developing a successful marketing campaign is identifying who the ideal target market is. Depending on the experience on offer, the customer will vary.

– Attract new customers and develop loyalty. Once the ideal target market has been identified, a strategy to reach these potential customers must be developed. Because customer loyalty is key, a lot of time needs to be devoted to building brand awareness and creating ongoing, interconnected campaigns that both target previous guests, and attract new ones.

– Understand the customer journey. In tourism, the ultimate end goal is the sale of an experience – not a material object. This means that the customer journey to making a purchase is rather different and comes with its own set of challenges. Understanding this journey that the customer takes before going through with a purchase is critical to a successful marketing campaign.

– Stand out from competitors. As the tourism industry becomes more and more competitive, it's important to make sure that your business stands out. Highlighting what is unique or different about the business is one of the best ways to achieve this. A really good marketing strategy is able to communicate these points effectively to the customers in a way that speaks to them.

– Hone in on the most effective tactics. Using research and analytical tools, a marketing strategy allows you to assess which resources are best helping to reach your audience, and then focus on those resources to ensure the best ROI possible. At the end of the day, having a good marketing strategy in place allows you to feel confident in knowing that all your business's marketing needs are being carefully looked after.

Tourism marketing contributes to the growth of local and national economies worldwide. In fact, one-fifth of all global jobs created over the past decade have been within the travel sector. Nearly 10 percent of all jobs are supported by this industry. [Bizfluent, 2019]

The more people visit a city or country, the more money they spend. This helps grow the local economy and attracts investors. New hotels and vacation resorts open their doors, leading to the creation of new jobs. As the local infrastructure and services improve, the number of tourists increases even more. [Bizfluent, 2019]

Many small cities and towns are home to world-class accommodations. Marketers promote these places online and offline to drive brand awareness and



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attract visitors. They also make sure that information on restaurants, hotels and other venues is easily accessible and up-to-date. [Bizfluent, 2019]

Tourism marketing drives business growth. If customers are satisfied with your services, they'll spread the word about your facility, whether it's a local pub or a hotel. This will bring you more clients and give you a competitive edge. [Bizfluent, 2019]

Considering these facts, it's no wonder that travel professionals invest billions in marketing. Digital advertising spending in the U.S. travel industry increased from \$2.4 billion in 2011 to \$8.5 billion in 2018 – and it's expected to reach \$9.8 billion in 2019. [Bizfluent, 2019]

Today, you can easily travel from one place to another and use the internet to research every possible destination. [Bizfluent, 2019]

Tourism would not exist to the extent that it does today if tourists are not able to travel from one destination to another, in a quick and efficient manner. [Camilleri, 2017]

Content marketing is increasingly added to the marketing mix of advertising companies in the tourism industry. [TourismReview, 2019]

Creativity in tourism is a central issue, which is set in particular terms in the current period. In essence, creativity in tourism is often measured by the originality of the tourist products offered, by the correspondence between them and the extremely varied preferences of tourists. As a result of the refining of taste and variety of preferences, functionality, correlated with aesthetics, is the essential condition, a demand for the tourist product.

The tourism industry is distinguished by the vast amount of information and data available to target travel enthusiasts. Recovering this data is easy; the real challenge is to analyze these data and draw relevant conclusions from them. Here is the real potential of deep learning. The more data they analyze, the better they will get. The travel sector needs to adapt to the new standards and include a broad view of the user experience.

Many travel companies often focus only on enhancing their performance with retargeting providers. But retargeting also offers them plenty of creative opportunities to successfully promote their brands.

Table 1. Digital Marketing in Tourism Industry

1.	Hotels which use online marketing	85%
2.	Travel agency which use online marketing	91%
3.	Small tourism business which use online marketing	95%
4.	Travel destinations which use online marketing	86%

Source: personal contribution

Conclusions

In conclusion, marketing in tourism is just a way to describe the experiences that potential customers can expect if they buy the respective product.

The stages in marketing strategy are:

- Identify the market customers.
- Transmit information.
- Determine the most appropriate way to reach those costumers.
- Closing the transaction.
- Develop and implement a post-visit strategy.

Marketing strategies depend largely on budget. Marketing means a lot of money spent on a relative percentage of buyers of the tourist product. A marketing strategy focused on a particular market segment, even if it means a higher cost per person, can bring more buyers.

The complexity of the tourism industry, the specific nature of the tourism business's activity bound to take into account all other tourism-related activities, leads to the need for an appropriate marketing approach.

Regardless of the level at which marketing principles apply, the interests involved in tourism activity must be achieved in the spirit of increased responsibility towards society and the environment.

Planning a trip involves the daily visit of hundreds of pages of travel offers and search times that can reach weeks before the final purchase is made. This translates

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into a multitude of interactions that Digital Marketing needs to harness. The number of client-to-customer digital interactions increases rapidly as offers returned by search engines, booking applications, online travel agencies, and offers sites get closer to their requirements.

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